



The background image shows a wide-angle view of the Qatar University campus. In the foreground, there is a paved plaza with a circular garden bed containing green plants. Behind the garden, there are two wooden benches. In the middle ground, a large, modern building with a distinctive architectural style featuring many circular windows is visible. The building is surrounded by green trees and landscaping. In the background, the city skyline of Doha is visible under a clear blue sky with a few birds flying. The sun is shining brightly in the upper right corner, creating a lens flare effect.

# **Undergraduate Student Catalog**

## **2021-2022**



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## A MESSAGE FROM THE PRESIDENT

Welcome to Qatar University! It gives me great pleasure to introduce this document, which shows the programs available for students. This catalog provides useful information that will guide you, as you chart your course of study.

The central pillars of Qatar University's mission are highlighted through this document, namely the provision of high-quality education and the pursuit of an active role in the development of Qatari society. The courses described here have been designed, reviewed and assessed to meet the highest educational standards, with a strong focus on the knowledge and skill-based learning that is needed for a graduate to be competitive in today's labor market and in graduate education pursuits. The many of the academic programs have attained independent external accreditation from internationally recognized associations, to cater to the needs of the country's ambitious development course. Over 60 specializations from ten colleges provide a rich array of relevant, useful and interesting choices. Furthermore, Qatar University boasts a diverse community of faculty and students from the region and beyond, all working together in an atmosphere of tolerance, respect, professionalism and common purpose.

University life offers much more than an education and a path towards a degree, there are a rich variety of activities, student life programs, services, all of which I hope you will take advantage of. The academic and student life team works together to support you and to give you, the student, a comprehensive and well-rounded experience at QU as a first step in the process of life-long learning and growth.

I hope you will benefit from this catalog and learn all about the University, its programs and services, which are designed to serve you as a student.

We are all here to help on your journey and I wish you a rich and rewarding experience ahead.

**Hassan Rashid Al-Derham**

President, Qatar University



## UNIVERSITY LEADERSHIP

### Board of Regents

The Board of Regents is the highest level of authority at Qatar University, overseeing all its policies and operations. The Board is responsible for approving the university's annual budget and any major changes in university policy, degree programs and other administrative and logistic arrangements.

### Board Members

#### **HH Sheikh Abdullah Bin Hamad Al-Thani**

Deputy Emir

Chairman of Board of Regents

#### **HE Sheikh Dr. Abdullah Bin Ali Al-Thani**

Vice Chairman of Board of Regents

#### **HE Sheikh Faisal Bin Qassim Al-Thani**

Chairman of Qatari Businessmen Association

Member

#### **HE Dr. Mohammed bin Abdul Wahid Al-Hammadi**

Minister of Education and Higher Education

Member

#### **HE Dr. Issa Saad Al-Nuaimi**

Attorney – General

Member

#### **HE Mr. Ali Ahmed Al-Kuwari**

Minister of Commerce and Industry

Member

#### **HE Dr. Hanan Al-Kuwari**

Minister of Public Health

Member

#### **HE Dr. Saleh bin Mohammad Al-Nabet**

President of Development Planning and Statistics

Member

#### **HE Dr. Hessa Sultan Al-Jaber**

Member

**HE Dr. Ibrahim Ibrahim**

Member

**Mr. Faisal Mohammed Al-Suwaidi**

Member

**Dr. Hassan Rashid Al-Derham**

President, Qatar University

Member

**Dr. Ibrahim Abdulla Al-Ansari**

Secretary General of the Board of Regents

## President

### **Dr. Hassan Rashid Al-Derham**

Qatar University's 6th President, Dr. Hassan Rashid Al-Derham is known for playing a major role in advancing research activity at both university and national levels.

Dr. Hassan Al-Derham assumed the position of President on 15 June 2015. He was previously Vice-President for Research from 2007, during which he guided QU to its current position as leader of research excellence in the GCC region, which was enhanced by its continuous success in winning the largest percentage of grants in the National Priorities Research Program (NPRP) and Undergraduate Research Experience Program (UREP) under the Qatar National Research Fund (QNRF).

He also served in several earlier roles at QU, including Associate VP for Research and Head of Civil Engineering at the College of Engineering.

He holds a PhD and Post-Graduate Diploma in Construction Project Management from University of Glamorgan (currently University of South Wales) UK, which followed obtaining a Master's Degree in Civil Engineering from Georgia Tech, USA. His undergraduate is in Architectural Engineering from North Carolina Agriculture and Technical State University, USA.

During his term as VP for Research, Dr. Hassan Al-Derham successfully developed and implemented the organization's research policies, procedures and priorities, as well as an ambitious research road map fielding strategic national priorities.

Additionally, under his leadership, several research centers were initiated including the Gas Processing Center, Qatar Road Safety Studies Center, Qatar Mobility Innovations Center, KINDI Lab for Computing Research, Laboratory Animal Research Center and the Biomedical Research Center. He also led the inauguration of the Research Complex.

Dr. Al-Derham's research interests include construction productivity, project optimization, legal contracts and procurement. In 2009, along with his research team, he won Best Paper of the Year in ASCE Journal of Construction Engineering and Management. He is also a member of several professional international societies and organizations.

## Vice Presidents

### **Dr. Khalid Al-Khater**

Vice President for Administration & Finance

Dr. Al-Khater is responsible for the general supervision of QU's administrative and financial affairs. He received his Bachelor degree in Accounting from Qatar University, his MBA in Accounting from Saint Louis University and a Doctor of Philosophy in Accounting from Dundee University. He previously served as the Acting Dean of College of Business and Economics from 2003 to 2005, as the Director of the MBA program from 2003 to 2005 and as the Vice Dean from 2000 to 2005. He is currently the Dean of Academic Affairs at Ahmed bin Mohamed Military College. He received the State Incentive Award in 2012 in the field of accounting. He has participated in many committees at Qatar University.

Dr. Al-Khater's research focuses on accounting development in Qatar, he conducts seminars and workshops on a variety of accounting topics and education. He is an active member in some professional accounting associations such as the Qatari Public Accounting Association, American Accounting Association, Scientific Accounting Association and the GCC Accounting & Auditing Organization.

### **Dr. Omar Al-Ansari**

Vice President for Academic Affairs

Dr. Omar Al-Ansari was admitted to the College of Engineering at Qatar University and obtained his BS in Civil Engineering in 1990. He was appointed as Teaching Assistant at the Department of Civil Engineering and was granted the state scholarship to pursue his graduate education in the USA. He successfully gained his Master and PhD degrees in Civil Engineering from University of Texas at Austin in 1993 and 1999. Upon his return to Qatar University, he was appointed as Assistant Professor at the Department of Civil Engineering, Qatar University. Dr. Al-Ansari held a number of administrative positions after his return from the USA to re-join Qatar University. From 2001-2003 he was coordinator of the College of Engineering Foundation year. In 2003 he was appointed as Dean for Students Affairs, a sector that he lead as Associate Vice President from 2004-2007. In 2007 he was appointed as Vice President for Student Affairs, a position that he served until 2015, in this capacity he was responsible for the general supervision of all student initiatives at Qatar University, including admission, registration and academic records, student advising, student life, campus activities, student academic support and related student services.

Having been an active member of the university reform and long serving member of the University Executive Management Committee in addition to other strategic and standing university committees and a leading number of Qatar University strategic initiatives during the last 16 years, he was appointed in 2017 as Vice President for Academic Affairs. During his new position, Dr. Al-Ansari is responsible for the administration and upholding of the colleges, departments, academic programs, college research centers, academic units, Office of Faculty Instructional Development and libraries. He leads and oversees the implementation of the University Teaching and Learning Strategy and works closely and collaborates with other VPs to ensure achievement of the University's vision, mission, strategic goals and key performance indicators.

**Dr. Eiman Mustafawi**

Vice President for Student Affairs

The VP for Student Affairs is responsible for the general supervision of Student Affairs Sector at Qatar University, including the functions of admission, registration, student life and services, campus activities, and student development and success.

Dr. Eiman Mustafawi is an Associate Professor at the Department of English Literature and Linguistics, College of Arts and Sciences. She joined Qatar University as an Assistant Professor of Linguistics and Phonology after obtaining her PhD from University of Ottawa in Canada in 2006. She assumed a number of administrative roles from 2007-2016, including the role of the Associate Dean for Academic Affairs (2009-2011) and the Dean of the College of Arts and Sciences (2011-2016). During her deanship, she launched many academic programs, including Bachelor, Master and PhD programs, 3 research centers and led many initiatives and projects, including those leading to enhancing the quality of procedures and performances. She has been a visiting scholar at the Centre for Islamic Studies at Cambridge University during 2016-2017. Dr Mustafawi has numerous publications in theoretical and clinical linguistics, in addition to sociolinguistics and language policies in Qatar.

**Professor Mariam Al-Ali Al-Maadeed**

Vice President for Research &amp; Graduate Studies

Prof. Mariam Al-Ali Al-Maadeed was the Director of the Center for Advanced Materials at Qatar University (QU) and Founder of the master's program in Materials Science and Technology at QU. She received a doctorate in physics (Materials Science) from the University of Alexandria, Egypt in 2001, and joined the Department of Physics at QU in the same year. Prof. Al-Maadeed has much experience and international recognition in the field of polymers and characterization, as well as in the field of nanocomposites technologies, and nanotechnology expertise. She has more than 120 research papers in international journals and conferences, in addition to a series of book chapters, books and patents. Prof. Al-Maadeed has received many research grants, and is the lead principal investigator in several projects with a number of universities and institutions around the globe and with national and international companies. She is an active member of distinguished associations in the field of science and administration.

Prof. Al-Maadeed has taught several courses at the graduate and postgraduate level in addition to supervising many graduate dissertations at Qatar University and other international universities. Prof. Al-Maadeed gave many consultations and presented several workshops for a variety of organizations throughout industries, the ministries and society. She chaired several conferences, was invited as keynote speaker to several international conferences and was member of several committees in the country and abroad. She has also worked as a reviewer for many scientific journals and conferences.

Among the awards received by Prof. Al-Maadeed are the State Prize in Physics in 2010, Plastic Excellence Award from the Gulf Petrochemicals and Chemicals Association in 2014, and Leadership Excellence Award for Women from the Conference and Exhibition of Engineering for the Middle East in 2015. She is also a leading member of the Albairaq team, having won the World Innovation Summit for Education Award (WISE) in 2015.



**Dr. Khalid Mohamed Al-Khanji**

Chief Strategy and Development Officer

Dr Al-Khanji held the position of Vice President for Student Affairs at Qatar University from 5 October 2015 until his appointment as officer of Strategy and Development. He held the position of Vice President for Student Affairs at Hamad Bin Khalifa University in 2012 where he monitored and oversaw student affairs administration, including recruitment, admissions and registration, student housing as well as certain aspects of student life. He held the position of senior consultant in the Corporate Development Bureau of Aljazeera Network, and before that, was the Director of the Student Counselling Center at Qatar University where he worked as an Assistant Professor at the Department of Psychological Sciences.

Dr Al-Khanji received his Bachelor Degree in Education from Qatar University, masters in Counseling and Human Resource Development from University of Colorado at Denver, PhD in Counseling Psychology from Temple University, and an MBA from London Business School.

He has extensive experience in higher education, student affairs, strategy development and management, corporate and organizational development, human resource development coaching, training and counseling.

**Dr. Asma AlThani**

Vice President for Medicine and Health

Dr Asmaa Al-Thani is Professor of Virology at the Biomedical Sciences Department in the College of Health Sciences with a joint appointment to the Biomedical Research Center (BRC), Qatar University and Adjunct Professor of Microbiology and Immunology at Weill Cornell Medical College in Qatar. In addition to her academic roles, Prof. Al-Thani holds the portfolio of Vice President for Medical and Health Sciences, QU Health, Qatar University. The portfolio follows a record of accomplishment in establishing the academic and research infrastructure for biomedical sciences at Qatar University, including her roles as the Founding Dean of the College of Health Sciences (2016) and the Founding Director of the BRC (2014). Professor Al-Thani's contribution to the national landscape of biomedical research includes her roles as Vice Chairperson of the Qatar Biobank Board, Chairperson of the National Qatar Genome Committee and establishing National Reference laboratory-Covid19 Unit. Professor Al-Thani is an active researchers and widely published author in her field of expertise, with over 100 published papers in peer-reviewed international journals and around 32 internal and external research grants. She is a reviewer for several scientific journals and conferences and is a member of the American society for Microbiology. Her accomplishments have been recognized with a number of awards, including the Astrolabi Award from WCMC-Q (2020), the State Encouraging Award in the Medical Sciences and Nursing (2017), the Sheikh Hummaid Bin Rashid Award for Culture and Sciences (2006), Al-Jasra Cultural Club –Qatar (2008), Qatar University Outstanding Faculty Service Award (2012), the College of Arts and Sciences Research Award (2012), and the Arab Paediatric Medical Research Award (2015).

**DIRECTORY**

Offices	Number	Email
Qatar University Main Line	44033333	info@qu.edu.qa
SESRI Call Centre	44033030	sesri@qu.edu.qa
Talabati Services	44035555	talabati.support@qu.edu.qa
Facilities Call Center	44033636	FGSCC@qu.edu.qa
Student Call Center	44034444	studenthelp@qu.edu.qa
Academic Planning and Quality Assurance Office	44036312	APQA@qu.edu.qa
Admissions Department	44033737	admissiondir@qu.edu.qa
Admission Section	44033733 / 3741	admission@qu.edu.qa
Graduate Admission Section	44033750	graduate@qu.edu.qa
Recruitment & Orientation Section	44033751 / 2752	studentrecruitment@qu.edu.qa
Scholarships Section	44033747 / 3748	scholarships@qu.edu.qa
Transfers Section	44033744 / 3745	transfer@qu.edu.qa
Alumni Relations Section	44033059 / 3071	alumni@qu.edu.qa
AVP for Facilities & Information Technology	44033107	avpadmin@qu.edu.qa
AVP for Faculty Affairs	44036300	
AVP for Student Life & Services	44037900	avpstudentlife@qu.edu.qa
AVP for Admissions and Enrollment Management	44035902	avpaem@qu.edu.qa
AVP for Student Success and Development office	44033882	avp.ssd@qu.edu.qa
Academic Advising Center	44033875	caar@qu.edu.qa
Career Services Center	44033883	careerservices@qu.edu.qa

Student Learning Support Center	44033870	learningcenter@qu.edu.qa
Student Counseling Center	44033755	studentcounseling@qu.edu.qa
Inclusion and Special Needs Support Center	44035106 / 3854	specialneeds@qu.edu.qa
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Department of Chemistry & Earth Sciences	44034650	headdepchemistry@qu.edu.qa
Department of English Literature and Linguistics	44034917	malghadeer@qu.edu.qa
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Department of Social Sciences	44034750	headdeptsocsci@qu.edu.qa
Sports Science Program	44034971	sportscience@qu.edu.qa
College of Business & Economics	44035000	bus-econ@qu.edu.qa

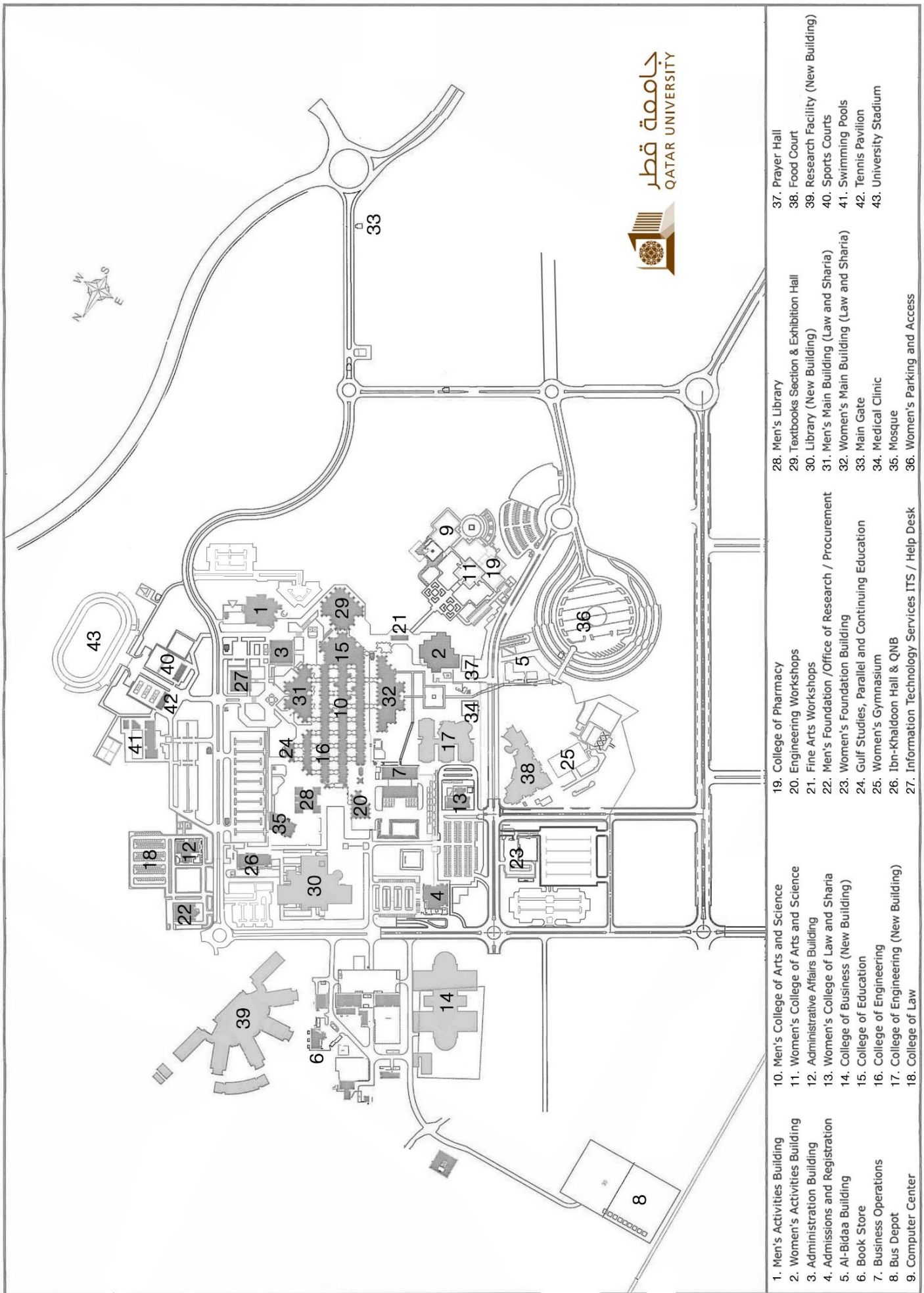
Department of Accounting and Information Systems	44035051	accounting@qu.edu.qa
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Department of Management and Marketing	44035033 / 5034	manmark@qu.edu.qa
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College of Engineering	44034100 / 4104	dean-eng@qu.edu.qa
Department of Architecture and Urban Planning	44034340	architecture-urban@qu.edu.qa
Department of Chemical Engineering	44034130	che@qu.edu.qa
Department of Civil Engineering	44034170	civil@qu.edu.qa
Department of Computer Science and Engineering	44034240	cs@qu.edu.qa
Department of Electrical Engineering	44034200	electrical@qu.edu.qa
Department of Mechanical Engineering	44034300	mecheng@qu.edu.qa
College of Law	44035252	law@qu.edu.qa
College of Pharmacy	44035550	pharmacy@qu.edu.qa
College of Sharia & Islamic Studies	44034400	shariadean@qu.edu.qa
Department of Islamic Culture and Dawa	44034450	
Department of Islamic Studies	44034470	islamicstudies@qu.edu.qa
College of Medicine	44037800	medicine@qu.edu.qa
Environmental Studies Center	44033939	esc@qu.edu.qa
Enrollment Services One Stop Section	44037979	onestop@qu.edu.qa
External Relations Department	44033050	ccer@qu.edu.qa
Faculty Senate	44034018	fs22@qu.edu.qa
Finance Department	44033111	finance@qu.edu.qa

Fire Emergency	44033999	
Food & Catering Services	44033865	foodservices@qu.edu.qa
Gas Processing Center	44034370	gpc@qu.edu.qa
Health Clinic	44033285	hhashad@qu.edu.qa
Health Emergency	44035050	hhashad@qu.edu.qa
Housing Department	44033160	housing@qu.edu.qa
Human Resources Department	44033240	hroffice@qu.edu.qa
Human Resources Helpdesk	44033366	hrdesk@qu.edu.qa
Continuing Education Office	44033925	continuingeducation@qu.edu.qa
Core Curriculum Program	44034043 / 4044	quccprogram@qu.edu.qa
Center for Excellence in Teaching and Learning	44034030	cetl@qu.edu.qa
Foundation Program	44035324	foundation@qu.edu.qa
Honors Program	44034990	quhonors@qu.edu.qa
Library	44034050	library@qu.edu.qa
Information Technology Services	44033400	helpdesk@qu.edu.qa
Internal Audit Department	44033097	internal-audit@qu.edu.qa
ITS - Helpdesk	44033456	helpdesk@qu.edu.qa
Legal Office	44033010	general.counsel@qu.edu.qa
Materials Technology Unit	44033988	
Office of Academic Research	44033919	olfat@qu.edu.qa
Office of Quality Management	44033913	oqm@qu.edu.qa
Scholarships & Partnerships Office	44034009 / 3156 / 4010	quscholarships@qu.edu.qa
President's Office	44033000	president@qu.edu.qa



Procurement Department	44033222	procurement@qu.edu.qa
Registration Department	44033777	registrationdir@qu.edu.qa
Records and Archiving Section	44033796 / 3775	records@qu.edu.qa
Registration Section	44033740 / 3789	registrations@qu.edu.qa
Schedules Section	44033791 / 3785	schedules@qu.edu.qa
Security Emergency	44036999	
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Aquatic Center	44033830	Aquatic@qu.edu.qa
Sports and Recreational Female Section	44033828	sports@qu.edu.qa
Student & Campus Activities Section	44037933	
Student Organizations	44037944	studentorganizations@qu.edu.qa
Student Exchange	44037956	annualevents@qu.edu.qa
Events and Campus Activities	44037933	studentexchange@qu.edu.qa
Volunteerism & Community Services Section	44033811	Volunteerteam@qu.edu.qa
Student Helpdesk Section	44034444	studenthelp@qu.edu.qa
Parents Program Unit	44033768 / 5967	parents@qu.edu.qa
Student Services Department	44033838	studentservices@qu.edu.qa
International Students Section	44033868 / 3869	internationalstudents@qu.edu.qa
Primary Services Section	44033862 / 3790	primaryservices@qu.edu.qa
Student Fund and Financial Aid Section	44035972 / 5963	studentfund@qu.edu.qa
Textbooks Section	44033840 / 3849	textbooks@qu.edu.qa
Student Helpdesk Section	44034444	studenthelp@qu.edu.qa

Parents Program Unit	44033768 / 5967	parents@qu.edu.qa
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Vice President and Chief Financial Officer	44033100	vpadmin@qu.edu.qa
Vice President for Institutional Planning & Development	44033670	vpipd@qu.edu.qa
Vice President for Research	44033900	vpr@qu.edu.qa
Vice President for Students Affairs	44033700	vpstudents@qu.edu.qa





## UNIVERSITY TERMINOLOGY

### **Academic Advisor**

Faculty member/administrator assigned to counsel students on academic matters. The student is called the “advisee.”

### **Academic Calendar**

Annual listing of all official dates and deadlines for the academic year.

### **Academic Dismissal**

The involuntary removal of a student from the University for unsatisfactory academic achievement.

### **Academic Load**

Total credits for which a student is registered in a given semester or term.

### **Academic Probation**

Status of any undergraduate student who has completed a minimum of 25 undergraduate credit hours with less than a 2.00 cumulative GPA. The academic standing of a diploma student who has a cumulative GPA of less than 2.50. The academic standing of a graduate student achieving less than a 3.00 cumulative GPA.

### **Academic Record**

Records directly related to the education of a student and maintained by the Registration Department.

### **Academic Standing**

Determined by academic regulations governing good standing, probation and dismissal.

### **Academic Warning**

An official notification to students who failed to achieve in any particular semester a term GPA equal to at least the minimum cumulative GPA requirement for "Good Standing" or whose additional failure in a particular course will result in academic dismissal.

### **Academic Year**

The period beginning with the first day of class of a fall semester and those, which follow, up to, but excluding, the first day of class of the fall semester of the following year.

### **Add and Drop**

A period of time at the beginning of each semester/term when students can adjust schedules by dropping or adding courses or changing sections of a course.

### **Admission**

Formal acceptance as a student.



**Admission Terminated**

Refers to a student status that is applied to students who do not register in a class for the semester of their admission and did not receive a deferral. The status is applicable to all levels and is entered after the end of the Drop/Add period and before the admission file is transferred to the Records Section.

**Advisory Hold**

An advisory hold consists of a mechanism that prevents students from registering in classes or receiving a university service. Students should meet with their advisor to remove the advisory hold.

**Alumni**

Those who have graduated from Qatar University.

**Audit a Course**

Permission to attend and participate in a course without receiving academic credit.

**Bachelor's Degree**

A four-year minimum undergraduate degree.

**Catalog Year**

A student's catalog year denotes which specific set of graduation requirements will apply to that student. Unless altered, a student's catalog year is the year when the student was admitted to study at QU.

**Common Examinations**

Examinations for courses with multiple sections scheduled at a common time at the request of the college/department.

**Concentration**

A focused component of a major that creates a curriculum emphasis within the major.

**Core Curriculum Requirements**

Requirements common to all undergraduate students designed to provide both breadth and specialization in their academic degree programs.

**Co-requisite**

A course required to be taken simultaneously with another course.

**Course**

A unit of study that may utilize lecture, discussion, laboratory, seminar, independent study, internship or other similar teaching formats to facilitate learning for a student.

**Course Schedule**

A list of courses offered during a semester that specifies the days, hours, locations of classes and the names of the instructors.

### **Credit Hour**

The equivalent of a 50-minute lecture or two to three hours of laboratory per week for one regular semester.

### **Curriculum**

A structured set of learning objectives built in a specified set of courses.

### **Degree Audit**

Methodical examination and reviewing of students' compliance with their degree requirements.

### **Department**

An academic entity that typically offers undergraduate and/or graduate degree programs. A Department is headed by a Head of Department and is usually housed within a College. A Department may or may not include Programs, Centers, Institutes, and/or Units.

### **Directed Study**

An investigation under faculty supervision beyond what is offered in existing courses. Directed study may include, but is not limited to graduation, research or capstone projects.

### **Disciplinary Probation**

A formal notice affecting the non-academic status of the student resulting from unsatisfactory conduct.

### **Dismissal**

The involuntary removal of a student from the university for unacceptable conduct or unsatisfactory academic achievement.

### **Elective Course**

Courses in a package of which a specified number should be selected from as options. Such courses are offered for a Major, Minor or Concentration.

### **Extracurricular**

Enrichment and leadership development activities that are part of student life but are not part of the academic program, such as student activities, athletics and music.

### **Fee**

Charges for services; does not include course tuition.

### **First Year Student**

A student admitted to QU who either has never attended a university or who has earned less than 24 credit hours at another university.

**Foundation Absence Suspension**

Students enrolled in the Foundation Program offered at Qatar University who are absent for more than two semesters of enrollment are placed under the “Foundation Absence Suspension” status.

**Foundation Academic Suspension**

Students enrolled in the Foundation Program offered at Qatar University for four regular semesters excluding the period spent on approved leave of absence and who do not fulfill the program requirements are placed under the "Foundation Academic Suspension" status. Students placed under this status are considered as inactive students.

**Foundation Program Courses**

Pre-undergraduate remedial courses numbered 099 and below. Students may be waived out of these courses by placement tests. Foundation courses do not count in the credits earned toward a degree, but they do count in the Foundation Program grade point average.

**Full-Time Student**

An undergraduate student who is registered for 12 or more credit hours in a given semester.

**Good Standing**

The academic standing of an undergraduate student who earned less than 25 GPA hours or achieved a minimum cumulative GPA of 2.0 if s/he completed 25 GPA hours or more.

**GPA**

Grade point average of the grades of QU courses within a specific level of study.

**GPA Hours**

Represents the total number of credit hours used in calculating the student cumulative GPA.

**Grade Points**

Numerical value associated with each grade.

**Graduate Student**

This includes students enrolled at the Master level, PharmD level, Diploma level and PhD level.

**Hold**

A mechanism preventing a student from either registering in classes or receiving a university service. More common hold types include admission holds, department holds, advisor holds, and tuition holds. The student should see the department that placed the hold for resolution.

**Honors Course**

Course designated to "Honors Program" students of QU.

**ID Card**

University student identification card providing and controlling access to university facilities and services.

### **Incomplete**

A temporary grade that a student may request from the instructor if he/she attends but fails to complete all the course requirements.

### **Leave of Absence**

A process by which an undergraduate degree seeking student who is not registered in any course requests official permission to leave the university for a specific period of time. A student cannot leave the university for more than four consecutive semesters unless in extenuating circumstances when approved by the Vice President for Student Affairs. Students granted approval for a leave of absence are considered as active students and may return to the university and register in courses in the semester of their expected return. The period spent by students on approved leave of absence is not to be counted towards the maximum number of years of enrollment in the university.

### **Long Absence**

An undergraduate degree seeking student with an unapproved absence from the university of more than four consecutive regular semesters will, by the end of the add and drop period of their fifth regular semester of absence, be placed under the "Long Absence" status. Students with an approved leave of absence who fail to return to the university in their semester of expected return and who exceeds four consecutive regular semesters of absence will also be placed under the "Long Absence" status. Students placed under the "Long Absence" status are considered as inactive students.

### **Major**

A curriculum component of an academic program intended to provide in-depth study in a discipline or a professional field of study.

### **Minor**

A curriculum component of an academic program intended to provide a limited depth and/or breadth study in a discipline or a professional field of study.

### **Non-degree Student**

Designation used for students who are admitted to QU and who are enrolled in courses but are not pursuing a degree program.

### **No Show**

An active undergraduate degree seeking student who, by the end of the add/drop period of a regular semester, does not register in any course when the student was expected to register in courses in that semester is placed under the "No Show" status. No Show students are considered as active students as long as their absence from the university does not exceed four consecutive regular semesters.

### **Petition**

A written request seeking a waiver of, or an exception to, a university regulation, policy or deadline.

**Placement Test**

A proficiency examination given to determine a student's ability in a subject area. Placement test scores determine whether the corresponding preparatory course will be waived.

**Prerequisite**

A course required to be completed before a certain course may be taken.

**Readmission**

A process by which applicants who were previously admitted to Qatar University and who enrolled in at least one semester at the university request returning and readmission to Qatar University.

**Re-enrollment**

A student who withdrew from QU without approval may seek re-enrollment through the Registration Department.

**Registration**

The process of enrolling in classes.

**Regular Student**

A degree-seeking student.

**Request for Reinstatement**

A mechanism allowing undergraduate students dismissed for academic deficiency to apply for reinstatement after completing a minimum suspension period of 1 regular semester.

**Required Courses**

Courses must be completed within a Major, Concentration or Minor.

**Second Degree Student**

A student who has completed an undergraduate degree and who is admitted to QU to pursue an undergraduate degree in a different major.

**Semester**

Either of the two (Fall and Spring) 16-week periods of instruction followed by an examination period into which the academic year is divided. A summer session is decided and offered on an annual basis.

**Student Classification**

QU students are classified as either regular degree-seeking or visiting/non-degree students.

**Student Schedule**



A listing of the courses a student is taking in a given semester that specifies the days, hours, locations of classes and the names of the instructors.

### **Study Away**

A QU student who is taking courses at another university during a regular semester.

### **Transcript**

The official result of the student's academic achievement.

### **Transfer Credit**

Credit from coursework completed at another institution that is accepted at QU and which may or may not be applicable toward a specific QU degree.

### **Transfer Student**

A student who previously attended another university and has been admitted to QU after satisfying the QU transfer admission requirements. Credits completed at the student's prior university may or may not be transferable to QU.

### **Tuition and Fee Charges**

Amount of tuition and required fees covering a full academic year most frequently charged to students. These values represent what a typical student would be charged and may not be the same for all students at an institution.

### **Undergraduate Student**

A student enrolled in a four- or five-year bachelor's degree program, an associate degree program, or a vocational or technical program below the baccalaureate level.

### **Visiting Student**

A student from another accredited institution who plans to graduate from that institution and who is admitted to QU for a limited period.

### **Warning, Disciplinary**

An official notification that the student's behavior violates the Student Integrity Code.

### **Withdrawal from a Course**

After the regular drop/add period, students may withdraw from one or more courses before the withdrawal deadline for the semester, provided that the total number of credit hours carried does not fall below the minimum credit hour requirement of the program.

### **Withdrawal from the Semester**

A process by which an undergraduate student who registered in courses in a semester requests, before a set deadline specified and published by the Office of the Vice President for Student Affairs, official permission to withdraw from all registered courses for the semester. Students granted approval to withdraw from a semester are considered as active students and may return to the university and register in courses in the following semester.

**Withdrawal from the University**

A process by which an undergraduate student requests official permission to suspend enrollment and depart permanently from the University without the immediate expectation to return. Students granted approval to withdraw from the university are considered as “inactive students”.

## DISCLAIMER

The Undergraduate Catalog is intended to reflect current academic policies, procedures, degree offerings, course descriptions, and other information pertinent to undergraduate study at Qatar University. Please note that this catalog identifies only the minimum University requirements and individual programs may prescribe additional requirements. Students should consult with their respective college and/or program director for a comprehensive listing of major/programmatic requirements.

As it is not possible in a publication of this size to include all of the rules, policies and other information that pertain to students and Qatar University, more current or complete information may be obtained from the appropriate college, academic department or administrative office.

The QU Undergraduate Catalog contains the most accurate and recent information available for students of the university. However, due to potential issues in publication, readers are cautioned on the following:

1. Errors of typographical or editorial nature, or technological compatibility issues may be present due to the publication process and the University assumes no responsibility for such errors.
2. There is an inevitable delay between the time new policies are approved and their appearance in the publication.
3. Degree seeking students are held to the provisions of the catalog in effect at the time of their first semester of enrollment. Students who re-enroll, will be subject to the new terms and conditions in their first semester back.
4. The University reserves the right to change any provisions of this catalog at any time, including, but not limited to, course offerings, degree requirements, fees and calendar listings, as required by the University or the State of Qatar.

The Undergraduate catalog is made available in printable format and online at [www.qu.edu.qa/students/catalog.php](http://www.qu.edu.qa/students/catalog.php). In the event that information in the online catalog differs from that of the printable form, please refer to the online catalog as the governing document for the current academic year.

The content of this catalog is for internal use only. However, since it may become accessible to others outside the University, QU reserves all rights to the contents of this document. For further information, please visit the following website <http://www.qu.edu.qa>.



## CHAPTER 1 - ABOUT THE UNIVERSITY

Since its inception in 1973, Qatar University (QU) has served as Qatar's prominent national institution of higher education and is positioned as a beacon of academic and research excellence in the region. Serving over 23,000 students, the organization provides a teaching and learning environment enhanced by top-rate faculty, facilities, resources and student-driven services that enhance academic performance and produce quality outcomes. In order to ensure students reach their full potential, they are presented with many unique opportunities and challenges. These include participation in Qatar's top national competitions for grants, international conferences, exclusive study abroad and student exchange programs, and research positions. A diverse student body at QU comprises over 80 nationalities, the majority of which are Qatari nationals. Women make up approximately 77% of the student population.

The university is comprised of 10 colleges, the College of Arts and Sciences (CAS), College of Business and Economics (CBE), College of Education (CED), College of Engineering (CENG), College of Health Sciences (CHS), College of Law (LAWC), College of Medicine (CMED) College of Pharmacy (CPH), College of Sharia and Islamic Studies (CSIS) and the latest College of Dental Medicine. The 10 Colleges offer 48 specializations at the undergraduate level – the widest range of academic programs in the State of Qatar.

QU continues to respond to the needs of the labor market for specialist professionals and supports national aspirations towards a knowledge-based economy by offering 41 graduate programs: 28 Masters, 4 Diplomas, 1 PharmD, and 8 PhDs, with fields relevant to current and emerging issues in Qatar and the Gulf.

Research is an integral part of the academic environment at QU and is bolstered by the state-of-the-art Research Complex, and 17 research centers of excellence. It is further enhanced by over 400 collaborative projects in over 130 countries.

QU has committed considerable resources to upgrading its classroom and campus infrastructure with modern technology such as Lecture Capture, Blackboard, Cisco WebEx, special needs assistive technology, advanced research labs, environmentally friendly buildings and well-equipped library facilities. These resources positively impact both teaching approaches and student's enjoyment of learning.

QU has an alumni body of over 45,000 graduates and boasts a vibrant Alumni Association comprising 15 chapters. Among the university's distinguished alumni is Her Highness Sheikha Moza Bint Nasser, as well as many other leaders in business, industry, government, academia and civil society. QU's fifth President, Professor Sheikha Abdulla Al-Misnad, is also a graduate.

### Vision

Qatar University shall be a model national university in the region, recognized for high-quality education and research and for being a leader of economic and social development.



## **Mission**

Qatar University is the national institution of higher education in Qatar. It provides high quality undergraduate and graduate programs that prepare competent graduates, destined to shape the future of Qatar. The university community has a diverse and committed faculty who teach and conduct research that address relevant local and regional challenges, advance knowledge, and contribute actively to the needs and aspirations of society.

## **History**

The University originally began as the College of Education in 1973, instituted by an Emiri decree as the first national higher education institution to be established in the State of Qatar. The country's burgeoning economic growth saw a push toward education reform to provide post-secondary education opportunities for Qatari citizens. Consequently, the goal was to build a workforce of competent and skilled graduates in line with the needs of the labor market and adhering to the principles of Qatar National Vision 2030, the National Development Strategy, National Health Strategy and the National Research Strategy.

Intrinsic to QU's position as an institution of academic and research excellence, best practice and international standard, is its adherence to preserving the language, history and cultural traditions of Qatar and the Islamic world.

## **QU Reform**

In 2003 Qatar University embarked on a comprehensive reform project, with a focus on three main goals: autonomy, academic reform and administrative and financial reform. The objective was to modernize its academic programs, and upgrade and decentralize its administrative processes and procedures with a central objective towards overall efficiency and creating an edifying and motivating academic experience for its students.

The project was led by HH Sheikh Tamim Bin Hamad Al-Thani, who at the time was Heir Apparent, then QU President Prof Sheikha Abdulla Al-Misnad and the Office of Institutional Planning and Development (OIPD). Reform efforts resulted in the establishment of a Board of Regents that essentially guides QU's policies and operations.

The Reform Plan was the precursor to QU's comprehensive Strategic Plan 2009-2013, which highlighted a priority focus on promoting quality education, research, community service and institutional efficiency. The Strategic Plan 2013-2016 enumerated four areas of focus: nurture student experience, optimize institutional effectiveness, build international recognition and recognize scholarly excellence.

In December 2017, Qatar University developed a strategic plan for the years 2018-2022 indicating set values to achieve its objectives, excellence, academic freedom, integrity, diversity and social responsibility, to achieve its mission as the national institution of higher education in Qatar.

Qatar University is positioning itself to transform into a proactive institution which leads higher education in Qatar by strategically harnessing the capabilities of other providers, while addressing the developmental needs of the nation as it moves towards a more knowledge-based economy.

The strategy aims to enhance Qatari nationals' access to pursue higher education in general, with increased focus on STEM areas, ensuring that the programs meet the needs of the current and future labor market.

An important aspect of the reform exercise was QU's strengthened commitment to its students. With the implementation of a number of initiatives and strategies such as a reformulated Foundation Program, amended policies on student academic probation and retention and a self-study to gauge student's first-year campus experience, QU strengthens its investment in student engagement, motivation and success.

This also includes a refocused Student Learning Support Center, the award-winning Center for Academic Advising and Retention, Student Complaint System, peer tutoring, teacher-student mentoring and counseling services. They form part of the organization's growth strategy which puts each student's interests at the heart of its plans by actively supporting the improvement of their learning skills and so advancing their competitiveness as students and later as graduates in the labor market.

Student participation in the life of the campus comes in the form of the Qatar University Student Representative Board (QUSRB), which was established to serve and act in the interest of the students and the QU community.

### **Academic System**

The academic system is based on the US semester system of two periods of study in Fall and Spring, and course work measured in credit hours. The academic year is comprised of 16 weeks of study in addition to a summer session. Credit hours are established depending on the scope of the course.

The normal duration of study at QU may vary according to each program's requirements. However, the length of study may not exceed eight years from the date of enrollment at the undergraduate level and four years from the date of enrollment at the graduate level. This excludes the period spent in the Foundation Program.

A degree is awarded to each student who has fulfilled all the academic requirements of his/her program with a minimum cumulative GPA of 2.00 on a 4-point scale. Graduation ceremonies are held annually.

### **Language of Instruction**

Starting in Spring 2012, several changes on language provision at QU came into effect. Students joining Arabic-taught programs are exempt from Foundation Program requirements and additional degree programs are being offered in Arabic, including International Affairs and Business & Economics.

Arabic remains the official language of administrative communication at the organization.

The University strives to provide as many course hours as possible, based on the capacity within the different disciplines. Admission to all QU programs continues to be based on student competitiveness and program capacity. It is, however, compulsory that students enroll in core curriculum courses. Further information about the core curriculum can be found on QU website.

The university continues to uphold its responsibility to promote the Arabic language, history, culture and traditions through the programs offered by the College of Sharia & Islamic Studies, the Arabic Language department in College of Arts & Sciences, and at celebratory events such as Arabic Language Day and Cultural Village.



Additionally, QU extends this role through its Arabic for Non-Native Speakers (ANNS) program, in which students from around the world participate in an intensive, year-long Arabic language course, in tandem with visits to cultural and historical sites in Qatar. The program offers beginner, intermediate and advanced levels, focusing on language functions and communicative skills of speaking, reading, writing and listening comprehension.

## Research

The institution considers research a priority area to develop and expand for the benefit of its students, faculty, the university as a whole and the Qatari community in general. This is evidenced by the incorporation of research in every aspect of the academic experience -- a fact reflected in its research funding, which amounted to USD 200 million in 2011-2012 and increased by over QR 114.1 million in 2019-2020.

The institution's commitment to promoting a culture of research is also emphasized through its annual Qatar University Research Forum (QURF) and the introduction of a research complex and several specialized research centers of excellence. The, now 17 centers, focus on a wide range of research areas, such as the environment, marine conservation, data collection and statistical analysis, road and traffic safety, materials processing, mobility innovations, laboratory management and safety and educator development.

Initiatives such as a ground-breaking biofuel project, a desalination plant, and water reuse study are among the research projects at QU that are geared towards addressing issues present in rapidly expanding countries, such as Qatar.

QU continues to be top winner in the award cycles of the National Priorities Research Program (NPRP) and Undergraduate Research Experience Program (UREP) which fall under the Qatar National Research Fund (QNRF). In the 11th NPRP cycle, 36 proposals were awarded out of 141 proposal and that represent 26% of total proposals. The 36 proposals cover the areas of basic research, experimental development and applied research. The awarded grants include 16 proposals from the College of Engineering, four proposals from the College of Arts and Sciences and the Center for Advanced Materials, three proposals from the College of Law, two proposals from the Center for Environmental Sciences, a proposal from the College of Business and Economics, College of Education, College of Medicine, Biomedical Research Center, Core Curriculum Program, and Social and Economic Survey Research Institute and Central Laboratories Unit

In addition, Qatar University awarded nearly QR 2.8 million to 37 proposals in the 24<sup>th</sup> UREP cycle. These grant proposals cover various fields, such as: natural sciences, engineering and technology, medical and health sciences, social sciences and humanities. 37 of the 97 proposals were awarded with grants, that is 38.1% of the total proposals were awarded.

The institution has also parlayed its research priorities into partnerships with government, business, industry and civil society organizations. This has included the establishment of chair positions in various research areas and agreements and MOUs that advance research collaboration opportunities for students and faculty.

## Students

Qatar University prides itself on the quality of its students and alumni. It started with 150 students in 1973, and grew to a total of 22,461 approximately in the academic year 2019-2020. The University is committed to ensuring that campus life is an enriching environment for encouraging volunteerism, civic responsibility and leadership.

QU students actively participate in a wide range of national events and community service activities such as the Qatar Career Fair, planning and execution of Eid charity projects, organization of the National Day parade at QU, as well as many academic societies and clubs. A number of student events and extracurricular activities, such as the Cultural Village, Sponsorship and Internship Day, as well as Clubs Day, have become staples on the academic calendar.

The annual Study Abroad Fair organized by the Scholarships & Partnerships Office is a way in which the organization has encouraged students to pursue further studies at prestigious international universities.

In line with the organization's commitment to Qatarization, the Office facilitates national student's needs and aspirations in pursuing Masters and PhD studies at top tier universities around the world, so building a cadre of distinguished scholars to join QU's ranks after graduation and contribute their expertise to the organization's teaching and learning environment.

During the academic year 2019-2020, QU awarded internal student grants totaling over 4 million Qatari Riyals. The grants create a positive competitive environment, encouraging students to engage and excel in projects of academic and social import, and advance the institution's reputation for talented studentship.

QU also supports exchange visits with foreign universities, and study and training trips abroad for its students to gain exposure and perspective on an international level.

## Faculty

QU recruits qualified professionals and experts in their respective fields to ensure a continuum of academic excellence throughout the colleges, thereby guaranteeing the value and quality of the student experience. The faculty framework at QU includes (by qualification) Professor, Associate Professor and Assistant Professor. These positions are supported by lecturers and teaching assistants. Visiting professors also bring added expertise to the teaching/learning experience.

In addition, experts appointed to chair positions at QU facilitate graduate research and training activities in conjunction with industry companies to provide students with hands-on experience at field sites and workplace environments.

## Community service

Community service is another priority area at QU. Like research, it forms part of the learning environment, and enhances student's academic and extra-curricular life at the university.

The provision of optimum community service is an intrinsic part of the organization's Strategic Plan and is closely aligned with the goals outlined in Qatar National Vision 2030 and the National Development Strategy (2011-16). It is also detailed in the requirements of SACS, the accrediting body from whom QU is currently seeking institutional accreditation.

The wide range of community service activities offered by QU at the institution, college, department, student and faculty level include national capacity building, alumni engagement, professional development training, health and wellness campaigns, high school outreach programs, environmental conservation, library facilities, consultancy support services and research and collaboration.

### **Accreditation**

Qatar University regards international accreditation as a crucial step in achieving its goal as an institution of quality and excellence. With this in mind, the organization has embarked on a long-term project of achieving international accreditation status for its colleges, programs and courses. It has been successful in gaining accreditation from leading international accrediting bodies.

### **Academic Programs**

QU continues responds to the needs of the society and supports the national aspirations towards a knowledge-based economy by offering 49 undergraduate programs at the 10 Colleges as detailed below.

#### **College of Arts and Sciences**

- Bachelor of Arts in Arabic Language, (Male and Female)
- Bachelor of Arts in English Literature and Linguistics, (Female)
- Bachelor of Arts in History, (Male and Female)
- Bachelor of Arts in International Affairs, (Male and Female)
- Bachelor of Arts in Mass Communication, (Male and Female)
- Bachelor of Arts in Policy, Planning, and Development, (Male and Female)
- Bachelor of Arts in Psychology, (Female)
- Bachelor of Arts in Social Work, (Male and Female)
- Bachelor of Arts in Sociology, (Female)
- Bachelor of Arts in Geography, (Male and Female)
- Bachelor of Science in Biological Sciences, (Female)
- Bachelor of Science in Chemistry, (Male and Female)
- Bachelor of Science in Environmental Science, (Male and Female)
- Bachelor of Science in Statistics, (Male and Female)
- Bachelor of Science in Mathematics, (Male and Female)
- Bachelor of Science in Physics, (Female)
- Bachelor of Science in Sport Science [Temporary Deactivated], (Male and Female)

### **College of Business and Economics**

- Bachelor of Business Administration in Accounting, (Male and Female)
- Bachelor of Business Administration in Management Information Systems, (Male and Female)
- Bachelor of Business Administration in Finance, (Male and Female)
- Bachelor of Business Administration in Economics, (Male and Female)
- Bachelor of Business Administration in Management, (Male and Female)
- Bachelor of Business Administration in Marketing, (Male and Female)

### **College of Education**

- Bachelor of Education in Primary Education, (Female)
- Bachelor of Education in Secondary Education in Education, (Male and Female)
- Bachelor of Education in Physical Education (Elementary and Secondary), (Male and Female)
- Bachelor of Education in Special Education, (Male and Female)
- Bachelor of Education in Arts Education, (Male and Female)

### **College of Sharia and Islamic Studies**

- Bachelor in Islamic Studies, (Male and Female)
- Bachelor in Fiqh and Usul, (Male and Female)
- Bachelor in Creed and Dawa, (Male and Female)
- Bachelor in Quran and Sunnah, (Male and Female)

### **College of Pharmacy**

- Bachelor of Science in Pharmacy, (Male and Female)

### **College of Medicine**

- Medical Doctor (MD), (Male and Female)

### **College of Health Sciences**

- Bachelor of Science in Biomedical Sciences, (Female)
- Bachelor of Science in Human Nutrition, (Female)
- Bachelor of Science in Public Health, (Female)
- Bachelor of Science in Physical Therapy, (Female)

### **College of Law**

- Bachelor of Law, (Male and Female)

### **College of Engineering**

- Bachelor of Architecture, (Female)

- Bachelor of Science in Chemical Engineering, (Male and Female)
- Bachelor of Science in Civil Engineering, (Male)
- Bachelor of Science in Computer Engineering, (Male and Female)
- Bachelor of Science in Computer Science, (Male and Female)
- Bachelor of Science in Electrical Engineering, (Male and Female)
- Bachelor of Science in Industrial and Systems Engineering, (Female)
- Bachelor of Science in Mechanical Engineering, (Male)
- Bachelor of Science in Mechatronics Engineering (Female)

### **College of Dental Medicine**

- Doctor of Dental Medicine (DDM), (Male and Female)





## CHAPTER 2 - CAMPUS SERVICES

### THE CAMPUS

Qatar University (QU) is situated on the northern edge of Doha, approximately 16 kilometers from the center of the city. In addition to the main campus, the University has an experimental farm located 65 km north of Doha. QU's main campus is built on a total area of approximately 8 square kilometers, with architecture that integrates distinction and modernism with the ideals of traditional Qatari design. Students are readily provided with a wide range of services offered on campus to enrich their academic and social experiences, both during the day and after class hours.

### INFORMATION TECHNOLOGY

Information Technology Services is committed to the provision of the best infrastructure, applications, and services to faculty, students and staff of Qatar University. All QU students, faculty and staff are given secure access to the following university services:

- **myQU:** myQU is the university's web portal, a web-based tool that provides centralized access to email, calendars, administrative services and classroom tools, and information through a single username and password. To access myQU, users can direct their web browser to <http://my.qu.edu.qa> and log in with their QU credentials.
- **myBanner:** Banner is an effective information system providing students, faculty and staff with online access to course registration, add and drop services, class schedules, grade viewing, and online tuition payment.
- **Email:** The University provides all students, faculty and staff with a university email account. This account can be accessed via standard email clients as well as through the myQU portal. The QU email account is the official form of communication between QU and its students and employees.
- **Blackboard:** The Blackboard Learning System is a course management system that provides students with course materials, discussion boards, virtual chats, online assessment and a dedicated academic resource center. Students can log in to Blackboard using their QU credentials at: [mybb.qu.edu.qa](http://mybb.qu.edu.qa)
- **Wireless Network:** The campus wireless network is the largest wireless network at any campus in Qatar and allows students, faculty, and staff to connect to the internet from any location on campus
- **Help Desk:** The IT Services Helpdesk assists students, faculty and staff with questions related to laptop and desktop computing, QU licensed software/applications installation, remote access issues, connecting to the QU network, password and login information, email, viruses and spy-ware, among many other issues.
- **Lecture Capture System:** To enhance the university teaching and learning experience, many classrooms are equipped with a Lecture Capture system that is integrated with the Blackboard system. Captured lectures are available to the students and faculty as a streaming media file via Blackboard after each class. Lectures are posted permanently, so students can refer back to a particular lecture at any time during their tenure at QU.
- **BYOD:** Students, faculty and staff can use "Bring Your Own Device" services at QU. Users can register and connect up to four different wireless devices to the QU Wi-Fi system.

#### IT Helpdesk contact information:

Phone: (+974) 4403-3456

Email: [helpdesk@qu.edu.qa](mailto:helpdesk@qu.edu.qa)



Website: <http://its.qu.edu.qa/>

Operating Hours:

Sunday – Wednesday; 7:30 am – 7:30 pm

Saturday; 8:00 am – 3:00 pm

## **FACILITIES AND RESOURCES**

### **Athletics**

Qatar University provides students, faculty, staff and the Qatari community with a wealth of athletic and recreational facilities to enrich their academic experience. Equipment, play courts and coaching are available for many popular pastimes. QU supports several sports facilities including the stadium, the aquatic complex which offers a variety of cardiovascular machines, free weights, and weight machines and a women's sports facility that hosts a wide range of games and activities, and contains a gymnasium.

All facilities are open weekdays from 8:00 am to 10:00 pm. For further information, please contact the Sports and Recreational Section at [sports@qu.edu.qa](mailto:sports@qu.edu.qa) or 4403-3800.

### **Banking**

Students and employees are offered convenient access to banking services through two local bank branch offices and several ATM machines in key locations on campus. Qatar National Bank (QNB) and Al-Rayyan Bank both offer a full range of services, and their campus branches are open weekdays from 8:00 am to 1:00 pm.

### **Self-Service Photocopying Centers**

Service Name: Self-Service Photocopying Centers

Self-service photocopying machines provides access for all QU-registered students. This service enables the students to send print jobs from their own computer to the self-service photocopying machines around the campus, and the charges will be on their Banner account. For more information, please visit us at: <http://www.qu.edu.qa/students/services/auxiliary-services>

### **Student Campus ID Card**

The official identification card for enrolled students at Qatar University. The campus card is mandatory for all students and facilitates their access to a full range of facilities and services across campus. For more information, please visit us at: <http://www.qu.edu.qa/students/services/auxiliary-services>

### **Stationary Store**

The stationary store sells a wide range of stationery, classroom supplies, study and research tools, painting and technical materials. Please note, the Stationary Store also provides lamination, binding and scanning services. Students, faculty and staff are all welcome. For more information, please visit us at: <http://www.qu.edu.qa/students/services/auxiliary-services>

### **Pharmacy vending machine**

Provides variety of over the counter items. For more information, please visit us at: <http://www.qu.edu.qa/students/services/auxiliary-services>

### Internet Lounges

Internet Lounges are available in the Men's and Women's Student Activities Buildings. For more information, please visit us at: <http://www.qu.edu.qa/students/services/auxiliary-services>

### Textbooks

University textbook section provides faculty members and students with textbooks and eBooks designed to support their course curricula. As part of a University-wide initiative to boost learning skill acquisition and enhance research, QU provides a subsidy that equals 50% of the total price for textbooks and eBooks costing over QR 50. For more information, please see:

[http://www.qu.edu.qa/sites/en\\_US/students/services/textbooks](http://www.qu.edu.qa/sites/en_US/students/services/textbooks)

### Food Services

Qatar University offers extensive dining facilities across its campus, with services catering to a large variety of tastes and preferences. Female Section has Food court which has 27 cafeterias including new buildings and colleges, and 2 mini-markets. The male section has 24 cafeterias, including new buildings and colleges. There are international cafes and restaurants such as: Papa John's, Starbucks, Coffee Bean, Tim Hortons

**Main office:** Food Court, Mezzanine Floor, Office #2

**Phone:** (+974) 4403-3636

**Email:** [foodservices@qu.edu.qa](mailto:foodservices@qu.edu.qa)

**Twitter:** @QUFSS

**Working hours (Food Services Section):** Sunday – Thursday, 7:30am – 2:30pm

### Computer Labs

A large number of academic computer laboratories are available throughout campus for student research and assignments. Students should contact academic departments directly for specific information regarding individual college computer labs and resources.

### Mosque

The University mosque serves not only as a religious and spiritual center, but a striking visual landmark at the edge of the campus, and a beautiful reminder of the country's traditions and heritage. Although the women's campus does not have a central mosque or prayer facility, prayer rooms are available in many of the buildings. These rooms are appropriately furnished for prayer services and reserved for women.

### Post Office

The Mail and Archiving section in Qatar University offers a variety of services to help students and faculty members' needs, whether it be express mails, parcels or global mails, these services are offered through Qpost office which is located in Qatar University Main Library.

### RESEARCH UNITS, CENTERS AND INSTITUTES

Qatar University has a number of research centers and units which are highly active, both for university academia, and as respected research and consultation providers for Qatar and the scientific community at large.

### **Center of Advanced Materials (CAM)**

The Center for Advanced Materials (CAM) was established in 2002. The CAM is dedicated to provide unique excellence in the field of material technologies. The Center offers knowledgeable assistance to local oil, gas and processing industries as well as the learning community in Qatar. The mission of the Center is to enhance and support interdisciplinary research on materials science and engineering by conducting applied research projects and provide knowledge and experience that meet the needs of industry and society.

The center has been established as a multi-disciplinary research and resource center, bringing together state-of-the-art instrumentation, facilities and expert personnel. CAM is the hub of materials science and engineering research activities in Qatar, with the goal to develop a knowledge base in design, synthesis and characterization, as well as intelligent processing of advanced materials.

Driven by the needs of potential technological applications, CAM concentrates on applied research in the areas of nanotechnology, composites, corrosion, construction materials and life cycle assessment. The center also implements an integrated graduate training program that emphasizes both materials synthesis and characterization technique covering a broad spectrum of materials and experimental probes. Furthermore, CAM offers community services as well as professional training courses to industry, for which details and applications are available at the center's website: <http://www.qu.edu.qa/offices/research/CAM/index.php>

### **Environmental Studies Center (ESC)**

The Environmental Science Center (ESC) was first established in 1980. Qatar has a rich marine cultural heritage and a bio-diverse environment. The mission of the ESC is to understand and protect this precious natural resource for the benefit of the Qatari people. The ESC, as the premier environmental science research center in Qatar will utilize state-of-the-art resources to conduct cutting-edge research in Marine Science (including physical & chemical oceanography, and marine biology); Atmospheric Science; and Earth & Terrestrial Sciences.

The ESC conducts many aspects of environmental analysis on the important natural flora and fauna of the region. The Center is often contracted by government or private agencies outside QU for consultation and potential impact assessment of industrial development. The center utilizes a large range of technical equipment, including a modern ocean vessel for conducting experiments and gathering data.

### **Gas Processing Center (GPC)**

The Gas Processing Center (GPC) was established in 2007. It is conceived to conduct research and development in areas pertinent to the consortium members and to provide pilot plants for scalable trials of numerous processes. The mission of the Center is to address the problems, and challenges facing gas industries in Qatar and the region. GPC provides professional services and expertise and engage in a multidisciplinary research with practical application to fulfill the needs of industry, academia and community at large.

The GPC supports a large industrial consortium of national and multi-national companies and addresses the problems, challenges, and opportunities facing the state of Qatar's gas processing industry. The center conducts research and development in areas pertinent to the consortium members' needs and directs its resources towards two areas; asset management/process optimization, and sustainable development. The GPC offers an extensive training program and engages with the broader community through its annual GASNA competition.

### **KINDI Center for Computing Research (KINDI)**

The KINDI Center facilitates and supports Computer and Information Science and Engineering research at Qatar University (QU). KINDI is an acronym for Knowledge Intelligence, Networked Data and Interdisciplinary research, which are the focus research themes of the center. The Center mission is to serve Qatar and Qatar University community by promoting quality research programs in the vital area of computer and information sciences and engineering. KINDI is a framework to foster collaborative and multidisciplinary research, leverage existing local and international partnerships and provide supportive infrastructure.

The KINDI Center facilitates and supports computer and information science and engineering research at Qatar University by fostering quality research programs to tackle relevant issues, while engaging the QU critical mass of researchers and students and leveraging existing local and international partnerships. KINDI conducts world-class research while serving the QU community, as well as Qatari society. The name KINDI is an acronym for Knowledge Intelligence, Networked Data and Interdisciplinary Research, which are the broad themes of the center. KINDI is also the name of a renowned Muslim Scientist (Abu Yusuf Ya'qub ibn Ishaq Al-Kindi) who was a physician and a pioneer in the area of cryptography; signifying the two KINDI areas of strength in bio/health informatics and cyber security.

### **Laboratory Animal Research Center**

The center is the first and only of its kind in Qatar. It is a state-of-the-art research center with specific pathogen free (SPF)-based laboratories for laboratory animals, high-quality diagnostic laboratories and internationally accredited laboratories for research in obesity, and cardiovascular diseases. Since its inception, the Center has adopted modern technology and international standards to provide quality husbandry and veterinary care for experimental animals. The valuable animal resources are used to study biological processes, research the causes of diseases and to test new treatments for the benefit of human and animal health. LARC supports the leading role of Qatar University in education and scientific research. The Center offers unique opportunities for researchers, faculty and students to use in their research endeavors. In addition, LARC provides theoretical and practical training in the humane use and care of laboratory animals. Moreover, the Center provides a summer training program for students interested in research using live animal models. LARC provides technical advice, scientific expertise and advanced workshops on the use of laboratory animals in the field of biomedical research. All processes and procedures are in accordance with institutional, local, and international standards regulating the use of laboratory animals in scientific experiments

### **Central Laboratory Unit (CLU)**

The CLU provides analytical and technical support and consultancy to serve research activities and testing needs. The unit also works to optimize and upgrade the practical performance of technical staff and students, as well as to provide hands-on experience on using the analytical instruments for university members.

### **Biomedical Research Center**

The Biomedical Research Center (BRC) was established in September 2014. The Center is a culmination for the successful biomedical program that was established since 1984. The Biomedical program was the first of its kind outside United States and was an important addition to support College of Pharmacy and the new established Faculty of Medicine at the university.

The Center mission is to provide excellent research support for biomedical researchers within QU and Qatar through state-of-the-art facilities and highly competent personnel and foster collaborative research that advances the scientific inquiry and improves human health.

### **Qatar Transportation and Traffic Safety Center**

Road traffic accidents have major societal, health, environmental and economic impacts on Qatar's economy. The expected increase in population and special events that occur in Qatar on regular basis have prompted the College of Engineering, Qatar University to establish a Road Safety Studies Center.

The mission of the center is to create and disseminate knowledge related to road safety and accidents prevention by conducting studies, research and analysis and evaluation of road accidents in order to identify the root causes of accidents and critical factors that have a major effect on accidents reduction.

### **Social and Economic Survey Research Institute (SESRI)**

Reporting directly to the Office of the President, SESRI was established in 2008 with a mandate to conduct high quality survey research on issues related to the development and welfare of Qatari society in the social, economic, and cultural areas. With a sophisticated Survey Operations Unit and an experienced staff of researchers and research assistants, SESRI conducts national and regional studies utilizing best practices in survey research. It provides faculty and interested students with a platform to collaborate on diverse projects with topics ranging from education and values to gender, health and labor migration.

Students wishing to pursue research at the university are encouraged to visit and learn more about the centers, and work with their instructors to develop projects that suit their goals. QU offers a number of grants and funding resources, in addition to being a leading presence in obtaining external grants and recognition from organizations such as NPRP and UREP. Additional information is available on the QU website at: <http://sesri.qu.edu.qa/research/sesri/>

### **Center for Entrepreneurship**

The Center for Entrepreneurship (CFE) was established in September 2013 as a Qatar University's initiative to support entrepreneurship at the university and community at large. CFE is working to link the academic life with business reality through training, incubation, research and consultation. CFE's services are tailored to Qatar University students, alumni, staff and also extend to the private sector, business communities, associations and government agencies. CFE's services include delivering training programs to create awareness about the importance of entrepreneurship and to develop individuals' skills to become potential entrepreneurs. CFE's mission is to support students and the QU community to develop business ideas and transform them into viable start-ups. CFE is excited to help and invites you to visit to learn how we can serve you better.

### **Center for Law & Development**

The Centre for Law & Development is the gateway to the achievement of law-related objectives of the Qatar National Vision. The Centre conducts legal research and capacity building activities for the identified national development needs of Qatar. It is an interdisciplinary law and policy research centre covering fields essential to achieving Qatar's sustainable model for economic and environmental progress as well as human development. It is the connection between academia, government and the private sector for law and policy in Qatar.



### **Ibn Khaldon Center for Humanities & Social Sciences**

Ibn Khaldon Centre for Humanities and Social Sciences is a Research Centre established in May 2018 by Qatar University. Its vision is to play a pioneering role in the Arab and Islamic world towards re-examining the theoretical orientations of the Social Sciences and the Humanities, with a view to becoming the sought platform and intellectual space for researchers and scientific initiatives in the region and beyond.

The Centre's research agenda spans a range of substantive areas of importance, including the Social Sciences, the Humanities, Area Studies, and Security and Strategic Studies. Its core mission and mandate is to bridge the gap between the theoretical studies and actual needs of Muslim-Arab societies in collaboration with leading institutions and researchers (locally, regionally and internationally) who share the Center's intellectual concerns.

### **Qatar University Young Scientist Club**

QUYSC is a normal expansion of the existing highly successful project-based research and modular STEM education carried out by Al-Bairaq, which was established in 2010 by Prof. Noora Jabor Al-thani under the full-fledged support of Qatar University. The new center act as the main hub for the students to practice scientific activities besides facilitating access of high school students to STEM fields of education at QU. It will work closely with other existing outreach and short-term promotional activities carried out by various departments and colleges at QU to complement their mission and to offer maximum support.

### **Center of Continuing Education (CCE)**

The Center of Continuing Education (CCE) at Qatar University supports the individual developmental needs of its community members. QU with its organization partners in Qatari society support the community's needs, institutions and individuals, and are continuously working towards the advancement of their scientific and technical capabilities.

The Center of Continuing Education identifies and meets the training needs of the public through specialized training programs, in addition to preparedness programs for professional and international certification, enabling the greater community to benefit from the expertise, experience and resources available at the university. The programs and training courses are offered in both Arabic and English, depending on the nature and context of the respective course. Moreover, CCE offers five different language programs: General English, Business English, Arabic, French, Spanish, and Turkish, Chinese and Japanese.

As a leading provider of non-academic programs in Qatar, CCE collaborated with more than 30 organizations in Qatar and has provided more than 4000 training hours to more than 2000 participants in over 150 courses, including nine internationally-accredited professional certification programs during the academic year 2018-2019.

Since its inception, CCE has collaborated with QU academic departments to provide bespoke continuing education courses and training workshops. These training programs have gained the recognition of the community as reflected by the growing demand for more course offerings.

For more information on these programs and how to apply, please visit the Center of Continuing Education Website: [www.qu.edu.qa/offices/cce/](http://www.qu.edu.qa/offices/cce/) or call 44033925 – Hotline 66546333

### **THE CENTER FOR EXCELLENCE IN TEACHING AND LEARNING**

The Center for Excellence in Teaching and Learning (CETL) promotes research-based pedagogies and classroom-tested teaching techniques to enhance student engagement, learning, and success. The Center emphasizes professional development of faculty at each stage of their careers and across the entire academic spectrum by

offering workshops and seminars in various instructional areas. This partnership with the faculty members aims to improve the students' learning experience and create conditions that help produce highly engaged learners. The CETL provides an academic orientation program for newly joined faculty members in order to ease their transition into the university and ensure assimilation into the exiting culture of pedagogical excellence at Qatar University. Furthermore, the CETL is committed to faculty's continuous development by offering peer observation services. The Center aspires to be a conduit for implementing the University's Teaching and Learning Strategy, Student Experience Strategy, and the Digital Transformation Initiative.

<http://www.qu.edu.qa/offices/cetl>

## **QATAR UNIVERSITY LIBRARY**

Qatar University maintains a robust library system to meet the needs of students, faculty, employees and the Qatari community as a whole. The library seeks academic excellence, as well as the preservation and expansion of Arab and Qatari culture. The new Library building was inaugurated in October 2012 and was designed to meet the QU community's ever-growing needs in supporting the university's continual expansion, the addition of several new majors, and the increase in student enrollment. The Library is located in the newly developed part of campus and has five floors designed to hold a maximum capacity of 1 million books. The ground and first floors are designed for the women library and the second floor designed for the men library.

Qatar University Library contains a large number of specialized resources of print, electronic and databases in both Arabic and English languages. In addition, the Library is subscribed to a number of academic periodicals, books and other electronic resources. These resources are accessible through the Library website, whether on-campus or off-campus.

The university faculty, staff and students are able to borrow, reserve, and request resources from other libraries through both the interlibrary loan and document delivery services. Photocopying and computing services are available including other services related to the search and access of information. The Library offers different services as the Ask a Librarian, and it is a live chat service to answer the users questions and inquires.

The Library working hours are from 7:30 am to 10:00 pm during weekdays, and from 8:00 am to 3:00 pm on Saturdays and is closed on Fridays.

Additional information about the library and provided services are available on: <http://library.qu.edu.qa>

## **STUDENT HOUSING**

Students attending Qatar University are eligible to apply for student housing. The University provides a safe and hospitable environment for students to support their academic success and enjoy their experience away from home.

The new Student Housing is comprised of two buildings for male and female students. The buildings extend over 135,000 sqm. Each building can accommodate 450 students and includes four blocks, each with four floors. Each floor has 336 rooms for students. The rooms are equipped with private bathrooms, in addition to having a room for laundry, kitchen, and a living room. The common area of each building consists of two floors and a basement, administrative offices, the main dining hall, the main kitchen, storage rooms, a meeting room, a prayer room, a study hall, a gym and a TV room.



## **CAMPUS PARKING**

Many parking lots are available for vehicles of faculty, staff, students and visitors, including areas designated specifically for students or employees. The university has prepared for the expansion of campus by adding more parking spaces, and reducing walking distances to the premises wherever possible.

## **HEALTH AND SAFETY SECTION**

Health and Safety Section committed to implement QU's Health and Safety Policy as follows:

- Provide a safe and healthy work environment for all QU employees, students, visitors, and contractors;
- Adopt the best Health and Safety standards and procedures for protecting the employees, students, visitors, and contractors across QU's campus ;
- Integrate Risks and Opportunities management into all QU's operations and activities; and
- Encourage and support transparent communication that allowing effective participation and consultation of QU community members in all issues related to health and safety.

The section can be contacted through the email : Health and Safety Section [hss@qu.edu.qa](mailto:hss@qu.edu.qa) or the phone Numbers: (+974) 4403-3699/3999

## **TRANSPORTATION**

Qatar University provides the following transportation services:

- Transportation for female students to and from the university.
- Transportation between the student residences and the university for men and women
- Transportation for scientific and educational trips organized by various university departments.
- Campus Express: This is a free shuttle bus service that safely transports students around campus.
- issue car permit sticker

For additional information, please visit the Transportation Services website at:

<http://www.qu.edu.qa/offices/FacilitiesGeneralServices/General-Services/Transportation>







## CHAPTER 3 - STUDENT SUPPORT AND SERVICES

### COMMUNITY ENGAGEMENT AND SERVICE LEARNING

Qatar University fosters collaboration with the community by investing student and academic resources toward the enrichment of life in our local, national, and global societies. Our goals include developing new courses and projects in which community-based partnerships are central to learning outcomes; enhancing existing courses and projects by integrating community engagement into the experience; and creating new initiatives that bring multiple disciplines together to work on shared community-based projects that promote positive social engagement. These courses and projects allow students to put theory into practice and understand the complexities of practical problem-solving in real-world situations. Through their participation, students are prepared to be effective civic leaders and engaged members of the community.

### STUDENT ACTIVITIES

The Student Activities Department aims to promote and enhance QU's mission by creating an environment for students to test new ideas, develop leadership skills, engage in the learning process, and build community. Through co-curricular opportunities and experiences such as student clubs and organizations, events, sports, recreation, cross-cultural education, community engagement and leadership development, students gain invaluable skills and experiential knowledge that they will continue to develop during their time on campus and beyond as future leaders and stewards of Qatar. Engage with us at: [studentactivities@qu.edu.qa](mailto:studentactivities@qu.edu.qa)

### STUDENT LIFE

#### Campus Events and Programs

Students are encouraged to develop their personal and academic potentials and skills by participating in a wide range of student events, activities and programs sponsored by the QU, which combine culture, learning and entertainment. Such events include: National Day celebrations, Cultural Village, Student clubs and organizations forum, the annual Qatari Youth Forum in addition to a wide range of other extra-curricular opportunities (conferences, exhibitions, festivals) announced on campus throughout the year .

If you are looking for an opportunity to enrich your university life and invest your free time, participate with us in campus events and activities by contacting us via e-mail [sce@qu.edu.qa](mailto:sce@qu.edu.qa) or by joining one of the events committees that are announced on campus Or on social media.

#### Sport Affairs

The Sports Affairs Department is committed to promote and develop the physical, personal, health and social capabilities of the students and the beneficiaries. In addition, it contributes to increase of the member of the affiliates among the university's community, through sports, health and recreational programs and the foundation of sports teams. By developing the values of learning and communication in term of quality and teamwork as well as through the Qatar University Sport Teams trainings with the participation in local and international championships. Moreover, the Sports affairs Department provide the physical and fitness programs and the physiotherapy services, for Males and Female besides the opportunity for the beneficiaries of the university affiliates to use sports facilities. As well as, Providing the opportunity to the university affiliates beneficiaries to use the sports facilities, which contain four well-equipped sports facilities, including the sports and events

complex that contains the highest-level equipment in the fitness halls, the gymnasium, tennis and squash courts, the indoor running track, in addition to the indoor sports courts and the physiotherapy unit. which includes the physiotherapy rooms, saunas, Jacuzzis, meeting rooms and equipped lectures. The ability to host a large number of sports and indoor sports and entertainment events in the sports and events complex, the sports stadium that contains a running track, strong games, a grass soccer field, and outdoor playgrounds for basketball, volleyball and Handball and ground tennis, the water sports complex, which includes the Olympic diving and swimming pool, the educational swimming pool for children, and the girls gymnasium, which has gyms for fitness training and various sports fields and has the advantage of being an indoor covered hall. All sports facilities are available for use by the university affiliates and beneficiaries. All long the year, through a daily and annual entry subscriptions for all university employees and the public for a small fees managed by the Sports Facilities Department. For More information or inquiries, please contact: sports @ qu.edu.qa

### **The Student Clubs and Organization**

The Student Clubs and Organizations section contributes to learning, development, and retention by providing opportunities for involvement, leadership, and empowerment through a wide variety of clubs, organizations and programs. These experiences encourage QU campus student success and advance an inclusive and equitable community. We are committed to encouraging and helping QU students become involved in campus life through a variety of programs, clubs or organizations. Through any combination of these activities, QU students can learn representative group procedures, expand inclusion and respect for fellow human beings, develop and maintain concern for vital issues, gain an appreciation of the artistic and cultural aspects of life, and participate in cultural, learning and recreational activities. Getting involved in campus life is a great way to meet people, make lifelong friends and contacts, enrich the total educational experience, and make Qatar University seem more personal.

To contact Student Clubs and Organizations Section: studentorganizations@qu.edu.qa

### **Arts and Culture Section**

Culture and Arts programs play a vital role in nation building and in promoting, preserving and protecting national identity. The department's programs also seek to build bridges between diverse cultures and promote civil and humanitarian dialogue through its various cultural-creative forms. In support of this conviction, Qatar University established the Arts and Culture Section affiliated to the University's Student Activities Department in 2019 . The purpose of establishing this section is to activate the role of Arts and Culture within Qatar University Campus, by offering various programs, activities, workshops and cultural-artistic events, aimed at empowering students' capabilities and developing their creative talents under the umbrella of culture. The department also aims to strengthen the national identity by highlighting its main components in community development . The Department of Arts and Culture seeks to enable communication and active interaction in QU community. In addition to the Section's role in discovering and nurturing student talents. The Department of Arts and Culture provides opportunities for all male and female students to participate and learn outside the academic classroom; in order to enable creative cultural and artistic expressions .

Art and Culture Section Main Objectives :

- Discovering and nurturing student talents by providing artistic, literary, social and musical expressions outside the academic classroom .

- Promoting cultural diversity by offering various programs, artistic and cultural platforms, and workshops that aim to highlight, develop and nurture creativity .
- Empowering creative youth capabilities in cultural and artistic matters and activating their role in the cultural movement at the local, regional and global levels .

### **Sports and Recreation**

QU offers students, alumni, faculty, and staff a wide range of opportunities for competitive and recreational sports. Throughout the year, students are given the opportunity to compete against other QU teams, teams of other universities, or the community.

These programs are designed to promote a team-oriented atmosphere and leadership opportunities for all participants. The University also provides instructional classes in swimming, first aid and similar classes that interest students. Additionally, certified workshops and training sessions in a variety of fields are frequently available.

Members of the QU community have access to three well-equipped sports facilities, including an aquatic complex and stadium for men, and indoor sports complex for women. The aquatic complex includes a diving pool, an Olympic size pool, and a children's/training pool. A variety of sports can be played in the outdoor courts, including tennis, volleyball, and basketball. In addition, a year football field and athletic track also are available for student use. A well-equipped gymnasium has a large capacity for indoor sports and recreation events and opportunities.

Table tennis, billiards, chess and other recreational games are available in the Student Activities Buildings. Daily passes and yearly membership are available to the QU community and the public at nominal fees. For more information or any inquiries please contact [sports@qu.edu.qa](mailto:sports@qu.edu.qa).

### **Global Education and Student Exchange Programs**

Qatar University students have the privilege to enroll in many different Student Abroad Programs and trips that enable them to visit, discover the world, and learn about different cultures. The Student Activities Department, represented by the Global Education and Student Exchange office, organizes a facilitated set of international and student exchange programs opportunities, including:

- Study abroad: Qatar University provides the opportunity to study courses at international universities, as visiting student, earned hours are transferred according to the policies regulating that at Qatar University.
- Language programs: The University, in cooperation with international institutions, organizes courses to teach various foreign languages.
- Conference and academic research In which Qatar University students are represented annually either by participation or by presenting their scientific research in various regional and international forums.
- Cultural, educational, and entertainment trips: University students visit the most important educational institutions, tourist attractions, historical sites, and museums. As well as witnessing several accompanying scientific and cultural activities. In return, visits are organized and coordinated for interested international students in visiting Qatar University and getting acquainted with the Qatari culture and heritage .
- International competitions and tournaments: Students are encouraged to participate and compete internationally to gain experience and win titles. The Student Activities Department works toward providing the necessary logistical, organizational, and administrative support for them.

- Internship and field training: Students travel's to works for a specific period in one of the governmental or international public institutions/organizations in the area of their specialization to gain practical experience and conveying them to professional standards from a global perspective. Accumulate working hours are considered either voluntary for the sake of gaining working experiences or counted academically by having their credits transferred to their records at QU, according to University policy.
- International social service: Organize voluntary international student trips to practice in social service work and deal with human social problems within the framework of international values with the aim of improving the quality of life and facing human problems in cooperation with the accredited international humanitarian organization.
- Summer Camps and Camps: Camps and camps that offer a set of developmental programs that improve academic, scientific, cultural, social, and various interactive skills through a set of accompanying recreational and sports activities that help develop their language skills, self-independent, linguistically skills, as well as expanding their network and gaining them new friends.
- As for the sports field, Qatar University provides university students with the opportunity to join sports teams and represent the official in local, regional, and international tournaments.

For inquiries, please contact [GESE@qu.edu.qa](mailto:GESE@qu.edu.qa)

### **Learning Support Services**

The Student Learning Support Center (SLSC) provides comprehensive academic support services to undergraduate and Foundation Program students at QU. The SLSC has a nurturing environment where students can seek assistance with academic coursework, writing and language assignments, transitioning to college life, and many other academic aspects. SLSC services include: online learning support services, peer tutoring, the English Writing Lab, the Arabic Writing Lab, the Math Lab, the Language Lab, the Academic Success Lab, along with study skills and wide-ranging workshops and programs. The SLSC's Supplemental Instruction (SI) program supports students in courses with historically high failure rates. Students striving to improve their academic performance may also seek individual academic coaching services from the professional staff at the Center. All SLSC programs and services are designed to help students become independent and successful learners by improving study skills and self-confidence, increasing knowledge of course material, encouraging a positive attitude toward education, and preparing students for lifelong learning.

In response to the requirements of transition to distance learning mode, The SLSC offers its synchronous learning support sessions and workshops via WebEx and Microsoft Teams platforms. In addition, SLSC offers comprehensive learning support services and various resources on Blackboard platform available around the clock for students at their own convenience.

The SLSC Section of Academic Support houses two labs: The Math Lab, and the Academic Success Lab. The Math Lab offers individual tutoring, group review sessions for mathematics and statistics courses and a variety of related resources. The Academic Success Lab provides additional support for students enrolled in core curriculum courses and the historically difficult science courses, as well as for students who need assistance to develop effective study skills.

The SLSC Section of Writing and Language Support houses the Arabic Writing Lab, the English Writing Lab, and the Language Lab. The main goal of both writing labs is to help students become better writers by providing tutoring sessions, workshops and intensive programs that focus on enhancing their writing skills. Students also

receive assistance with every stage of the writing process through one-on-one sessions. The Language Lab, on the other hand, helps students develop grammar, listening, reading, and speaking skills in both Arabic and English languages. The section also provides exam revision sessions for the courses that we support along with IELTS exam preparation services.

The SLSC is located in the Faculty Building and the Women's Activities Building, and all services are free of charge to QU students. For additional information on learning support services at QU, visit the Student Learning Support Center website: <http://www.qu.edu.qa/students/support-and-development/student-learning-support>

or **contact us through:**

Phone: (+974) 4403-3870

Email: [learningcenter@qu.edu.qa](mailto:learningcenter@qu.edu.qa)

### **Career Development Services**

The Career Development Center provides counseling, training and professional development services and helps to prepare students to engage and compete for the best career opportunities. It specializes in providing QU students with part-time jobs within campus through the section of student employment, during their study at QU. Additionally, the Center provides students with sponsorship and internship opportunities, as well as full-time job opportunities for QU graduates. The Center also provides QU Students and graduates with numerous career-related resources, programs, and activities. For additional information, visit the Career Development Center website at: <http://www.qu.edu.qa/students/success-and-development/career-development>

For more information or any inquiries:

- Telephone: 44033883
- E-mail: [CDC@qu.edu.qa](mailto:CDC@qu.edu.qa)
- Social media accounts: QUCDC

### **The Student Counseling Services**

The Student Counseling Center, SCC, provides QU community with a variety of counseling and psychological services. The aim of the center is to promote well-being and self-development of QU students, and to help them adjust to the demands of university life. These services include intervention as well as prevention services. The intervention services includes individual counseling, psychological support, and clinical intervention as well as medication management that help students overcome difficulties that affect their success.

The prevention services ensures mental health awareness programs are in place and promote students resilience. The Student Counselling Center works to empower students to face their difficulties, whether it is academic difficulties related to exam anxiety, stress, panic, or if its psychological difficulties e.g. clinical depression and anxiety. Students actively participate in various training workshops which enriches wellbeing and self-growth; It help students maximize their inner potential, and attain clear vision about the future through providing practical tools on: effective communication skills, stress management, self-esteem, Motivational Interviewing, and dealing with change, stress, anxiety and anger.

Furthermore, The SCC has two visiting psychiatrists from Hamad Psychiatric Hospital, who visits the campus twice a week for students who need to be assessed, and to be provided with clinical intervention and follow ups with their prescribed psychotropic medication.



Confidentiality is vital in the Student Counseling Center; students' information taken during counseling sessions is not part of the student academic record, and will be not exchanged with other parties unless the student signs a release of information form.

Students may book their appointments online through Appointment Manager, or in person. For additional information regarding the services provided by the Student Counseling Center, please visit the Center's website at: <http://www.qu.edu.qa/students/success-and-development/counseling>.

### **Enrollment Services One-Stop Section**

Enrollment Services One-Stop provides QU applicants, students and graduates with a single point of reference for general enrollment-related inquiries and services.

The Enrollment Services One-Stop may be reached by:

- Email: [onestop@qu.edu.qa](mailto:onestop@qu.edu.qa)
- Telephone: 4403-7979
- Visit Enrollment Services One-Stop in person on the Ground Floor of the Admissions and Registration Building

### **Student Call Center**

The Student Call Center is a reference for all general inquiries. Communication between the section and students is done through the Student Call Center, and the official accounts of Qatar University on social media (Twitter). The Student Call Center receives calls from prospective, current or graduate students, parents, and any external stakeholders, and provides them with answers on issues related to all services offered by the University, and direct them to the related departments as necessary.

The Student Call Center is available during university working hours: weekdays from 8:00 am to 2:30 pm.

- Email : [studenthelp@qu.edu.qa](mailto:studenthelp@qu.edu.qa)
- Phone : 4403-4444.

For more information, please see: <http://www.qu.edu.qa/students/services/student-call-center>

### **International Students**

The International Students Section provides support services designed to assist international students with any academic, personal, financial and immigration-related questions or issues, and presents students with an opportunity to become involved in the QU community. Currently, our international students come from around 70 countries.

The International Students Section is responsible for the welfare of the students whose residency permit is sponsored by Qatar University, and assists international students to secure their entry visa, residency permit, and exit permit; issue annual airline tickets for eligible scholarship students; issues formal sponsorship letters, and coordinate accommodation with the QU Housing Department.

The International Students Section also oversees admission to the Arabic for Non-Native Speakers Program. For additional information, please visit their website at: <http://www.qu.edu.qa/students/services/is/index/php>.

### **New Student Orientation**

New Student Orientation is a full-day event designed to assist new Foundation Program and undergraduate students to become familiar with the exciting and challenging opportunities that Qatar University offers.

Throughout the orientation day activities, students will be organized into smaller college groupings, allowing them to become familiar with their academic program and to better connect with their academic advisors, college peers, and ultimately, with Qatar University.

Attendance at the New Student Orientation is mandatory for all new Foundation Program and undergraduate students. Students who fail to attend their assigned orientation day may not be able to attend Qatar University and will need to re-apply for admission in a future semester. For more information, please visit the New Student Orientation website at:

<http://www.qu.edu.qa/students/admission/undergraduate/new-student-orientation>

### **Inclusion and Special Needs Support Center**

In accordance with the Qatari laws regarding persons with special needs and the academic policies of Qatar University, the Inclusion and Special Needs Support Center (ISNSC) welcomes students with physical impairments, visual impairments, hearing impairments, learning disabilities, speech difficulties, psychological disorders, brain and nerve injuries, attention-deficit / hyperactivity disorder, autism, chronic diseases, and temporary injuries. The ISNSC provides range of services to approximately 470 students with special needs that includes providing note takers in classes, scribes and special arrangements for exams. In addition, the center provides workshop about the rights and issues related to students with special needs. Also, The center provides assistive technology solutions that suit different disabilities and provides appropriate training for students. The ISNSC also provides alternative format materials to ensure equal access to course materials . In addition, the center ensures all University buildings and facilities are physically accessible and works on maintaining digital accessibility to all University websites. Finally, The center provides Universal Design for learning (UDL) services and updates the ISNSC website with the latest studies, translations, videos and resources in this field.

For additional information on services offered by the center, please visit:

<http://www.qu.edu.qa/ar/students/success-and-development/special-needs>

### **Contact us through:**

Female Activities Building (C05) Office No. 229

Phone: (+974) 4403 7946 /7972

Male Activities Building (B02) Office No. 221

Phone: (+974) 4403 5106 /3854

Email: [specialneeds@qu.edu.qa](mailto:specialneeds@qu.edu.qa)





## CHAPTER 4 - ADMISSION

### ADMISSION TO QATAR UNIVERSITY

Applications from candidates who satisfy QU's minimum admission requirements are considered for admission. The minimum admission requirements are based on a number of academic qualifications that will ensure students success during their course of study. In addition to these qualifications, admission takes into consideration the capacity of each college and program, as well as the needs of the local community. Students are admitted to QU for the semester of their application on a competitive basis.

### HIGH SCHOOL REQUIREMENTS

In general, QU may admit students who have completed a minimum of 12 years of formal education and who have graduated from various secondary school programs of study, according to the requirements indicated below. It is important to note that the high school requirements mentioned in this section may change according to the competitiveness of the applicant pool and the available capacity in each college. Additionally, each college may have different high school requirements and colleges do reserve the right to stipulate additional requirements to the admission minimums listed below before the applicant is considered for admission

### QATARI SECONDARY SCHOOL CERTIFICATE

#### 1. General Secondary Schools

The 12th grade final high school percentage is used when considering applicants from General Secondary Schools. The High School track will be taken into considerations when applying to QU. For more information please visit College Requirements.

#### 2. Independent Schools

Effective from the 2009/2010 academic year, graduates from independent schools are considered for admission according to Qatar Senior School Certificates (QSSC) on the basis of the total result for the final year of high school. Students who obtain their independent certificate prior to the 2009/2010 academic year will be considered on the basis of the table of score equivalency in the respective academic year.

### PRIVATE AND INTERNATIONAL SCHOOL CERTIFICATES

Applicants from the following educational systems must satisfy the admission requirements. Additional high school equivalency information is available from the Admissions Department.

#### 1. Grade Point Average (GPA) System

- Awarded a High School Diploma in a General Studies Curriculum with a minimum cumulative GPA of 2.00 on a 4.00 scale ("C") and satisfies the minimum high school percentage requirement during the final year of high school.
- Passed at least six different subjects including at least one science (biology, physics, chemistry), one mathematics (algebra, trigonometry, geometry), and one English Language course during the Junior or Senior year.
- For Science Track certification, 2 Science subjects and 1 Mathematics subject with minimum grade of 2.00 (or C equivalent) are required.



## 2. British Secondary School Certificates

A student who has sat for one of the British Secondary School Examinations must have fulfilled the following requirements:

- Passed at least five IGCSE (O Level) subjects with a minimum grade of “D”.
- Passed a minimum of two subjects at the Advanced (A) or (AS) level, or a combination of (A) and (AS) -level subjects with a minimum grade of “D”.
- For Science Track certification, 2 Science subjects and 1 Mathematics subject with minimum grade of 2.00 (or C equivalent) are required.

## 3. International Baccalaureate (IB) Certificate

- Completion of the full IB Diploma with at least 2 subjects at the HL and the other 4 subjects at SL level.
- The student should have attained a total grade point score of 24 out 42, excluding grades for Theory of Knowledge (TOK) and Extended Essay.
- As the official results for this school system will be released after QU has announced admission decisions, applicants may submit predicted grades by the submission deadline. Applicants who submit predicted high school grades (pdf) will be considered for Provisional Admission.
- For Science Track certification, student must score a minimum Grade of 4 in Math and two Science subjects (2 of these 3 subjects must be at the HL) and a minimum Grade of 3 in the other three subjects.

## 4. KSA School System

In order to be considered for admission to Qatar University, applicants from the Kingdom of Saudi Arabia must complete High School and pass the National Exam for Assessment in Higher Education, achieving the minimum grade percentage required by their major/program of choice. For male students starting from 1422/1423 (2002/2003), for female students starting from 1430 (2009).

## 5. Other School System

Admission Section will review and evaluate each certificate and decide the track:

- In case the high school transcript indicates student’s track (Arts/Science), the indicated track will be considered.
- In case the high school transcript does not indicate student’s track, applicant must complete at least two Science courses (Biology, Physics, Chemistry) and one Mathematics course to be eligible for Science track.

## EARLY CONDITIONAL ADMISSION

Early conditional admission is provisional admission for all Qatari citizens or applicants following the Qatari parent rule or Qatari Travel document holders or wife’s of Qatari Husband who met requirement for early conditional admission either who have already completed secondary school education or who are currently enrolled in grade 12. regardless of their high school system. The students will be placed into their first college preference.

### Admission Requirements for Students who are still in high school

1. Applicant should be Qatari citizen, following Qatari parent rule or Qatari Travel document holders or wives of Qatari Husband.

2. The applicant should submit all required documents.
3. Applicant should meet admission requirements in 11th grade and in the first semester of 12th grade

### **Admission Requirements for Students who graduated from high school**

1. Applicant should be Qatari citizen, following Qatari parent rule or Qatari Travel document holders or wives of Qatari Husband.
  2. The applicant should submit all required documents.
  3. Applicant should meet the admission requirements of 12th grade.
- \* College of Medicine and College of Dental Medicine are not available for early conditional admission

### **Early Conditional Admission Checklist**

1. Complete the Online Admissions Application with an e-payment of QR 200.
2. Submit the following admission documents by the Early Conditional application deadlines:

### **For Students who are still in high school:**

- Students have to upload passport size photograph and Photocopy of the applicant's valid Qatar ID card (Non-Qatari applicants must also upload a copy of their passport) through the online admission application by the admission deadline .
- Applicants with Qatari parents must upload a copy of the applicant's parent Qatari ID card and a copy of the Birth certificate and Non Qatari female students married to Qatari Nationals must also upload a copy of the marriage contract and a copy of the ID card of the husband (An electronic link will be sent to applicants to upload required documents for Qatari parents and Qatari Husband)

### **Qatari Secondary School Certificate**

For students from Qatari Government schools for the academic year 2020-2021, they do not have to submit their high school transcript; QU will receive their 11th year results and first semester of the 12th year results from the Ministry of Education and Higher Education.

### **Private and International School Certificates**

- For British system and International Baccalaureate (IB) Schools, Applicants may submit predicted grades using QU form in addition to original and official result certificates along with copies to check if it matches the original documents to Qatar University before the deadline.
- For students from other Private and International Schools, they have to submit a Copy of the 11th year transcript and Copy of the first semester of the 12th year transcript to Qatar University before the deadline.

### **For Students who graduated from high school:**

1. Students have to upload passport size photograph and Photocopy of the applicant's valid Qatar ID card (Non-Qatari applicants must also upload a copy of their passport) through the online admission application by the admission deadline .
2. Applicants with Qatari parents must upload a copy of the applicant's parent Qatar ID card and a copy of the Birth certificate and Non Qatari female students married to Qatari Nationals must also upload a copy of the



marriage contract and a copy of the ID card of the husband ( ! an electronic link will be sent to applicants to upload required documents for Qatari parents and Qatari Husband).

### 3. High school transcript:

- For students from Qatari Government and independent schools graduated starting from 2016 onwards, they do not have to submit their high school transcript; QU will receive their results from the Ministry of Education and Higher Education.
- Students from Private and International high schools, also students from Qatari Government and independent schools graduated in 2015 and earlier, have to submit original, final, official, and certified high school transcript along with copies to check if it matches the original documents, and attend in person to Qatar University before the deadline

## Important Notes

Applicants who graduated from high school and submitted their final official transcript will receive a final decision, while applicants who still in high school are required to satisfy all admission requirements and submit all other required admission documents including Final, official and certified high school transcript by submission deadline. Early conditional admission is provisional admission pending successful completion of the final year of high school with minimum of at least 85% high school percentage (and 95% for college of Medicine and Dental Medicine applicants).

All applicants who do not satisfy the minimum requirements for “Early Conditional Admission” mentioned above will still be considered for regular admission upon submission of their final and official high school results and according to Admission criteria.

## Provisional Admission

As official results for the British Secondary School system (IGCSE, AS, and A-Level results) and the International Baccalaureate (IB) system will be released after QU has announced admission decisions, in-progress applicants from these two school systems will be considered for Provisional Admission based on predicted grades. The Provisional Admission process allows applicants from the British Secondary School and the International Baccalaureate systems to be considered for admission based on anticipated results of coursework that is currently in progress. Students granted Provisional Admission must still satisfy QU’s admission requirements in order to gain formal admission to QU. Provisional Admission is limited to applicants from the British and International Baccalaureate school systems only.

### Provisional Admission Process

1. Applicants from the British Secondary School and the International Baccalaureate systems must submit all application requirements by the admission application deadline and must submit their predicted grades by the submission deadline
2. Predicted grades must be reported and attested by the applicant’s high school using the appropriate QU provided form:
  - Predicted IGCSE, AS, and A-Level Grades for Provisional Admission form  
[http://www.qu.edu.qa/static\\_file/qu/students/documents/predicted-grades-for-provisional-admission-igcse-as-and-a-level.pdf](http://www.qu.edu.qa/static_file/qu/students/documents/predicted-grades-for-provisional-admission-igcse-as-and-a-level.pdf)

- Predicted International Baccalaureate Grades for Provisional Admission form  
[http://www.qu.edu.qa/static\\_file/qu/students/documents/predicted-grades-for-provisional-admission-international-baccalaureate.pdf](http://www.qu.edu.qa/static_file/qu/students/documents/predicted-grades-for-provisional-admission-international-baccalaureate.pdf)
3. Applicants from the British Secondary School system may satisfy the minimum admission requirements through submission of official results for all completed IGCSE, A/S and A-Level results and anticipated final grades for the examinations. All in-progress International Baccalaureate (IB) applicants will be considered for admission on their anticipated results.
  4. Using predicted grades, the Admissions Department will determine whether the applicant has satisfied Qatar University's minimum admission requirements. Applicants with predicted grades are considered for admission in competition with all other applicants and applicants receiving Provisional Admission are informed at the same time as all other admits.
  5. Applicants receiving Provisional Admission will be informed of the conditions of their provisional admission – essentially, their admission is based on anticipated grades, is conditional, and is not final until official results are submitted.
  6. Provisional admits are required to submit their final and official transcripts. Provisional admits whose final results qualify them for admission to QU but are not sufficiently strong for admission into their college, will be contacted by the Admissions Department to change their college. Provisional admits whose final results fail to satisfy QU's minimum high school requirements will have their admission rescinded. Failure to provide official results by the deadline will result in the Provisional Admission being rescinded.
  7. Graduates from other high school systems that issue final and official high school results after the submission deadline cannot be considered for admission at that semester and will be requested to apply for the coming admission.

### HIGH SCHOOL PERCENTAGE EXCEPTION

Applicants who do not satisfy the initial high school percentage requirements listed above may still apply to the college of their choice by completing 12 years of formal education and satisfying the minimum competency requirements based on the college they apply to as follows:

#### Applicants to the Colleges of Arts, Business and Economics, Education, Law, and Sharia:

Competency	Requirement
Mathematics Competency	<ul style="list-style-type: none"> <li>• A minimum score of 24 in ACT Math <b><u>OR</u></b></li> <li>• A minimum score of 550 in SAT (General Math Component-Old version) <b><u>OR</u></b></li> <li>• A minimum score of 570 in SAT (General Math component-New version)</li> </ul>

#### Applicants to the Colleges of Engineering, Pharmacy, Sciences, Medicine, Dental Medicine, and Health Sciences:

Competency	Requirement
English Competency	<ul style="list-style-type: none"> <li>• A minimum score of 5.5 in IELTS OR</li> <li>• A minimum score of 61 in TOEFL iBT</li> </ul>

Mathematics Competency	<ul style="list-style-type: none"> <li>• A minimum score of 24 in ACT Math <b><u>OR</u></b></li> <li>• A minimum score of 550 in SAT (General Math Component-Old version) <b><u>OR</u></b></li> <li>• A minimum score of 570 in SAT (General Math component-New version)</li> </ul>
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The dean of the college will consider such requests against the quality and depth of the applicant pool, the available capacity within the applicant's intended major, and high school subject grades.

## TRANSCRIPT REQUIREMENTS

Qatar University requires that all transcripts submitted in support of an admission application be final, official and authenticated according to the following sets of standards:

### High School

All applicants must complete a minimum of 12 years of high school.

#### For Qatar Government and Independent High Schools Located in Qatar

All applicants who attended a government or independent high school located in the State of Qatar must ensure that the following transcript requirements are met:

1. The transcript must be final.
2. The transcript must be official.
3. The transcript must be stamped and signed by an appropriate high school official.

#### For Private Private High Schools Located in Qatar

All applicants who attended a private high school located in the State of Qatar must ensure that the following transcript requirements are met:

1. The Transcript must be final.
2. The transcript must be official.
3. The transcript must be stamped and signed by an appropriate high school official.
4. The transcript must be certified by the Ministry of Education and Higher Education for Private Schools.

#### For High Schools Located Outside of Qatar

All applicants who have attended a high school outside of Qatar, must ensure that the following transcript requirements are met:

1. The transcript must be final.
2. The transcript must be official
3. An Arabic or English translation of the final transcript must accompany the transcript if it is issued in a language other than Arabic or English.
4. The transcript must be certified by either the Ministry of Education or the Ministry of Foreign Affairs for the country in which the high school is located.
5. The Transcript must be certified by either the Qatari Embassy in that country or the embassy of that country located in Doha.

## University

### For Universities Located in Qatar

All applicants who have attended a university within the State of Qatar and wish to transfer to Qatar university must ensure that the following transcript requirements are met:

1. The transcript must be final
2. The transcript must be official
3. The transcript must be stamped and signed by an appropriate university official.
4. The university must be recognized by the Qatar Ministry of Education (no Ministry stamps required from universities known to be recognized).

### For Universities Located outside of Qatar

1. The transcript must be final
2. The transcript must be official
3. An Arabic or English translation of the final transcript must accompany the transcript if it is issued in a language other than Arabic or English.
4. If the university is accredited by an international accrediting association (accreditation recognition must be listed on the official transcript), no further attestation is required.
5. If the university is not accredited internationally, the transcript must be certified by the Ministry of Higher Education or the Ministry of Foreign Affairs in which the university is located. The transcript must also be certified by either: The Qatari Embassy in that country; or embassy of that country located in Doha.

## UNDERGRADUATE APPLICATION CATEGORIES

Applicants are offered undergraduate admission to Qatar University under one of the following six categories:

### 1. High School Applicants

All applicants who have never attended a university or who have not earned at least 24 credit hours at a university and who are applying to Qatar University as either Foundation Program or Undergraduate applicants are classified as First Year applicants and are required to submit the following:

- Complete Online Admissions Application with an e-payment of QR 200 (non-refundable)
- Students have to upload passport size photograph and Photocopy of the applicant's valid Qatar ID card (Non-Qatari applicants must also upload a copy of their passport) through the online admission application by the admission deadline .
- High school transcript:
  - For students from Qatari Government and independent schools graduated starting from 2016 onwards, they do not have to submit their high school transcript; QU will receive their results from the Ministry of Education and Higher Education.
  - Students from Private and International high schools, also students from Qatari Government and independent schools graduated in 2015 and earlier, have to submit original, final, official, and certified high school transcript along with copies to check if it matches the original documents, and attend in person to Qatar University before the deadline

- Applicants with Qatari parents must upload a copy of the applicant's parent Qatar ID card and a copy of the Birth certificate and Non Qatari female students married to Qatari Nationals must also upload a copy of the marriage contract and a copy of the ID card of the husband ( ! an electronic link will be sent to applicants to upload required documents for Qatari parents and Qatari Husband)
- Due to the current circumstance, you do not have to submit the medical health certificate at this time. You will be requested to submit it at a later time.
- Official test score reports for applicants to Colleges that require Foundation Program ( if available) to be submitted to the Qatar University Testing Center in order to be exempted from the Foundation Program.
- International students who do not hold a valid State of Qatar residence permit (excluding GCC citizens) are not eligible for QU admission consideration. It is crucial that international student who is interested to enroll at QU to have a valid Qatari residence permit. Qatar University Scholarships and International Admissions Section assists students to get a student visa (Qatar Residence Permit). Those interested students should Apply Online for the student visa and upload the Required Documents during the same timeline of QU admission. Applicants who fail to satisfy the requirements for a student visa will not be considered for Qatar University admission.

## **2. Readmission Applicants**

Applicants seeking readmission are required to apply to their intended college of study by filling the QU online admission application and submit the following admission requirements by admission deadlines.

### **Eligible applicants for readmission to Qatar University**

1. Previously admitted students who officially withdrew from the university. (students placed under the “withdrawal from university” status).
2. Previously admitted students who were absent from the university for more than four consecutive regular semesters without prior approval (students placed under the “Long Absence” status).
3. Previously admitted students enrolled in the Foundation Program who were absent from the university for more than two consecutive regular semesters (students placed under the “Foundation Absence Suspension” status).
4. Previously admitted students enrolled in the Foundation Program who did not complete the program requirements within four regular semesters of enrollment (students placed under the “Foundation Academic Suspension” status).
5. Previously admitted students who academically dismissed from the university. (students placed under the “Academic dismissal” status).

### **Required Documents**

1. Submit an Online Admissions Application with an e-payment of QR 200 (non-refundable)
2. Students have to upload passport size photograph and Photocopy of the applicant's valid Qatar ID card (Non-Qatari applicants must also upload a copy of their passport) through the online admission application by the admission deadline.
3. high school or University transcript:

- For students from Qatari Government and independent schools graduated starting from 2016 onwards, they do not have to submit their high school transcript; QU will receive their results from the Ministry of Education and Higher Education.
  - Students from Private and International high schools, also students from Qatari Government and independent schools graduated in 2015 and earlier, have to submit original, final, official, and certified high school transcript along with copies to check if it matches the original documents, and attend in person to Qatar University before the deadline
  - University Students have to submit original, final, official, and certified University transcript along with copies to check if it matches the original documents, and attend in person to Qatar University before the deadline. (Applicants who have been admitted to a university for a future semester and who wish to take classes at QU before enrolling at that university are required to provide a copy of their admission letter in lieu of an official university transcript).
4. Non-Qatari applicants with Qatari parents must upload a copy of the applicant's parent Qatar ID card and a copy of the Birth certificate and Non Qatari female students married to Qatari Nationals must also upload a copy of the marriage contract and a copy of the ID card of the husband ( ! an electronic link will be sent to applicants to upload required documents for Qatari parents and Qatari Husband)
  5. Due to the current circumstance, you do not have to submit the medical health certificate at this time. You will be requested to submit it at a later time.
  6. Official test score reports for applicants to Colleges that require Foundation Program ( if available) to be submitted to the Qatar University Testing Center in order to be exempted from the Foundation Program.
  7. International students who do not hold a valid State of Qatar residence permit (excluding GCC citizens) are not eligible for QU admission consideration. It is crucial that international student who is interested to enroll at QU to have a valid Qatari residence permit. Qatar University Scholarships and International Admissions Section assists students to get a student visa (Qatar Residence Permit). Those interested students should Apply Online for the student visa and upload the Required Documents during the same timeline of QU admission. Applicants who fail to satisfy the requirements for a student visa will not be considered for Qatar University admission.

### **Academically Dismissed Students**

Students who are academically dismissed from Qatar University may seek re-admission by applying as a First Year (with new High School certificate) or as a transfer applicant satisfying QU's transfer admission requirements. Courses and grades earned prior to the student's academic dismissal will remain on the QU transcript but the student's attempted hours, earned hours, and cumulative grade point average will start fresh upon re-admission. Re-admitted students may be considered for possible transfer credit according to QU's transfer credit rules.

### **3. Transfer from College of the North Atlantic – Qatar**

Under a special articulation agreement, students who have completed an advanced diploma degree from the College of the North Atlantic - Qatar (CNA-Q) are eligible to seek transfer admission to a select number of Qatar University degree programs.

### **Transfer to Qatar University Requirements**



1. To be considered for admission to Qatar University under this articulation agreement, applicants must have earned a minimum cumulative GPA of 3.00 in any of the following CNA-Q advanced diploma degree programs:
  - Business Management (Accounting)
  - Business Management (Human Resource Management)
  - Business Management (Marketing)
  - Electrical Engineering Technology “power and controls”
  - Mechanical Engineering Technology
  - Instrumentation Engineering Technology
  - Telecommunication Engineering Technology
  - Internet Applications Developer
  - Programmer Analyst (Business)
  - Computer Support Specialist
2. Applicants must submit all required documents by the admission deadline.

### **Required Documents**

To be considered for admission to Qatar University under the articulation agreement, applicants must submit:

1. Submit an Online Admissions Application with an e-payment of QR 200 (non-refundable).
2. Students have to upload passport size photograph and Photocopy of the applicant's valid Qatar ID card (Non-Qatari applicants must also upload a copy of their passport) through the online admission application by the admission deadline.
3. Students have to submit original, final, official, and certified University transcript along with copies to check if it matches the original documents, and attend in person to Qatar University before the deadline.
4. Applicants with Qatari parents must upload a copy of the applicant's parent Qatar ID card and a copy of the Birth certificate and Non Qatari female students married to Qatari Nationals must also upload a copy of the marriage contract and a copy of the ID card of the husband ( ! an electronic link will be sent to applicants to upload required documents for Qatari parents and Qatari Husband)
5. Due to the current circumstance, you do not have to submit the medical health certificate at this time. You will be requested to submit it at a later time.
6. Official test score reports for applicants to Colleges that require Foundation Program (if available) to be submitted to the Qatar University Testing Center in order to be exempted from the Foundation Program.
7. International students who do not hold a valid State of Qatar residence permit (excluding GCC citizens) are not eligible for QU admission consideration. It is crucial that international student who is interested to enroll at QU to have a valid Qatari residence permit. Qatar University International Student Section assists students to get a student visa (Qatar Residence Permit). Those interested students should Apply Online for the student visa and upload the Required Documents during the same timeline of QU admission. Applicants who fail to satisfy the requirements for a student visa will not be considered for Qatar University admission.

### **Transfer of Credit Criteria**

Transfer credit may be considered for evaluation after passing the following criteria:

- Applicant has submitted the following required documents for transfer credit:
  1. Final, official and certified university transcript.

2. Detailed course syllabus stamped from the registrar's office or the department offering the course in the student's university (syllabus sample)  
[http://www.qu.edu.qa/static\\_file/qu/students/documents/admission-transfer-applicants-course-syllabus-en.pdf](http://www.qu.edu.qa/static_file/qu/students/documents/admission-transfer-applicants-course-syllabus-en.pdf)

- A minimum grade of C is needed for any credit hours submitted for transfer credit evaluation, and must have been completed within the last five years.
- A maximum of 50% of required credit hours for the submitted program may be considered for transfer credit evaluation; the colleges will individually determine the exact number of credit hours that may be transferred and applied towards their specific degree programs.
- Grades and quality points earned in courses accepted for transfer will not be included in the grade point average to be maintained at Qatar University, but the credits will count toward the total number required for graduation.

#### **4. Transfer from the Community College of Qatar**

Students who are currently studying or who have completed a diploma from Community College of Qatar (CCQ), and passed Qatar University requirements and conditions are considered transfer applicants and may apply for transfer admission to Qatar University. Transfer applicants may apply for either Fall or Spring semesters.

#### **Transfer Requirements for Graduates from CCQ**

1. Successfully completed either an Associate in Arts (AA) or Associate in Science (AS) degree from CCQ.
2. Have completed a minimum of 60 credit hours of undergraduate coursework from CCQ with a minimum cumulative GPA of 2.50/4.00.
3. Only CCQ graduates with an AS degree are eligible for Science-based majors at Qatar University.
4. Submitted required documents before admission deadline.

#### **Transfer Requirements for Non-Graduates from CCQ**

1. Successfully completed either an Associate in Arts (AA) or Associate in Science (AS) degree from CCQ.
2. Have completed a minimum of 60 credit hours of undergraduate coursework from CCQ with a minimum cumulative GPA of 2.50/4.00.
3. Only CCQ graduates with an AS degree are eligible for Science-based majors at Qatar University.
4. Submitted required documents before admission deadline.

#### **Required Documents**

1. Submit an Online Admissions Application with an e-payment of QR 200 (non-refundable)
2. Students have to upload passport size photograph and Photocopy of the applicant's valid Qatar ID card (Non-Qatari applicants must also upload a copy of their passport) through the online admission application by the admission deadline.
3. Submit a copy of the Official and certified CCQ transcript to Qatar University before the deadline. through CCQ Transcript Uploading Form.
4. Applicants with Qatari parents must upload a copy of the applicant's parent Qatar ID card and a copy of the Birth certificate and Non Qatari female students married to Qatari Nationals must also upload a copy of the

marriage contract and a copy of the ID card of the husband ( ! an electronic link will be sent to applicants to upload required documents for Qatari parents and Qatari Husband)

5. Due to the current circumstance, you do not have to submit the medical health certificate at this time. You will be requested to submit it at a later time.
6. Official test score reports for applicants to Colleges that require Foundation Program (if available) to be submitted to the Qatar University Testing Center in order to be exempted from the Foundation Program.

### **Transfer of Credit Criteria**

Transfer credit may be considered for transfer credit evaluation if it passes the following criteria:

- A minimum grade of C is needed for any credit hours submitted for transfer credit evaluation, and must have been completed within the last five years.
- Submitted with official and certified CCQ transcript
- A maximum of 50% of required credit hours for submitted program may be considered for transfer credit evaluation; the colleges will individually determine the exact number of credit hours that may be transferred and applied towards their specific degree programs.
- Grades and quality points earned in courses accepted for transfer will not be included in the grade point average to be maintained at Qatar University, but the credits will count toward the total number required for graduation.

### **5. Transfer from Other Universities**

All applicants who are currently attending or have previously attended another university and passed Qatar University's requirements and conditions are considered transfer applicants and may apply for transfer admission to Qatar University. Transfer credit may only be considered if the applicant is admitted as a Transfer student. Transfer applicants may apply for either Fall or Spring semesters and are eligible for undergraduate admission only.

### **Transfer to Qatar University Requirements**

1. Earned a General Secondary School Certificate or its equivalent.
2. Have completed a minimum of 24 credit hours AND attended a minimum of two semesters (Fall and Spring) of undergraduate coursework with a minimum cumulative GPA of 2.50 out of 4.00 at a university accredited by an international accrediting association or by the Ministry of Higher Education or equivalent authority in that country.
3. Satisfy Qatar University's English competency requirements by satisfying either of the following:
  - Submit official English test score reports taken within the last two years.
  - Completed a minimum of 24 credit hours and two semesters at an institution of higher education where English was the medium of instruction. Official statement proving this must be submitted at the time of application in order for exemption to be considered. Applicants who do not satisfy these competency requirements are not eligible for Foundation Program admission.
4. Met Qatar University's Mathematics competency requirements. Applicants who do not satisfy these competency requirements are not eligible for Foundation Program admission.

5. Applicants who were subject to disciplinary action or non-academic dismissal at a prior university/college may not apply or enroll as a transfer student.
6. Submitted required documents before the admission deadline.

### Required Documents

1. Submit an Online Admissions Application with an e-payment of QR 200 (non-refundable)
2. Students have to upload passport size photograph and Photocopy of the applicant's valid Qatar ID card (Non-Qatari applicants must also upload a copy of their passport) through the online admission application by the admission deadline.
3. Students have to submit original, final, official, and certified University transcript along with copies to check if it matches the original documents, and attend in person to Qatar University before the deadline
4. Applicants with Qatari parents must upload a copy of the applicant's parent Qatar ID card and a copy of the Birth certificate and Non Qatari female students married to Qatari Nationals must also upload a copy of the marriage contract and a copy of the ID card of the husband ( ! an electronic link will be sent to applicants to upload required documents for Qatari parents and Qatari Husband)
5. Due to the current circumstance, you do not have to submit the medical health certificate at this time. You will be requested to submit it at a later time.
6. Official test score reports for applicants to Colleges that require Foundation Program (if available) to be submitted to the Qatar University Testing Center in order to be exempted from the Foundation Program.
7. International students who do not hold a valid State of Qatar residence permit (excluding GCC citizens) are not eligible for QU admission consideration. It is crucial that international student who is interested to enroll at QU to have a valid Qatari residence permit. Qatar University Scholarships and International Admissions Section assists students to get a student visa (Qatar Residence Permit). Those interested students should Apply Online for the student visa and upload the Required Documents during the same timeline of QU admission. Applicants who fail to satisfy the requirements for a student visa will not be considered for Qatar University admission.

### Transfer of Credit Criteria

Transfer credit may be considered for evaluation after passing the following criteria:

- Applicant has submitted the following required documents for transfer credits:
  1. Final, official and certified University transcript
  2. Detailed course syllabus stamped from the Registrar's office or the department offering the course in the student's university
- A minimum grade of C is needed for any credit hours submitted for transfer credit evaluation, and must have been completed within the last five years.
- A maximum of 50% of required credit hours for the submitted program may be considered for transfer credit evaluation; the colleges will individually determine the exact number of credit hours that may be transferred and applied towards their specific degree programs.
- Grades and quality points earned in courses accepted for transfer will not be included in the grade point average to be maintained at Qatar University, but the credits will count toward the total number required for graduation.

## 6. Visiting Applicants

Applicants who plan to earn a degree from another institution and wish to take courses at Qatar University in the fall, spring and/or summer semesters should apply as visiting applicants and will be evaluated for admission on a case-by-case basis. Visiting students may register in a maximum of 48 credit hours or 4 semesters of course work at Qatar University, whichever comes first. Visiting students may be enrolled as full-time students.

Students who are already attending another university and who wish to take courses at Qatar University are welcome to do so as a visiting student. Visiting applicants are required to submit the following: All visiting applicants are required to submit the following:

### Required Documents

All visiting applicants are required to submit the following documents to the Admissions Department:

1. Submit an Online Admissions Application with an e-payment of QR 200 (non-refundable)
2. Students have to upload passport size photograph and Photocopy of the applicant's valid Qatar ID card (Non-Qatari applicants must also upload a copy of their passport) through the online admission application by the admission deadline.
3. Students have to submit original, final, official, and certified University transcript along with copies to check if it matches the original documents, and attend in person to Qatar University before the deadline. (Applicants who have been admitted to a university for a future semester and who wish to take classes at QU before enrolling at that university are required to provide a copy of their admission letter in lieu of an official university transcript).
4. Non-Qatari applicants with Qatari parents must upload a copy of the applicant's parent Qatar ID card and a copy of the Birth certificate and Non Qatari female students married to Qatari Nationals must also upload a copy of the marriage contract and a copy of the ID card of the husband ( ! an electronic link will be sent to applicants to upload required documents for Qatari parents and Qatari Husband)
5. Due to the current circumstance, you do not have to submit the medical health certificate at this time. You will be requested to submit it at a later time.
6. International students who do not hold a valid State of Qatar residence permit (excluding GCC citizens) are not eligible for QU admission consideration. It is crucial that international student who is interested to enroll at QU to have a valid Qatari residence permit. Qatar University Scholarships and International Admissions Section assists students to get a student visa (Qatar Residence Permit). Those interested students should Apply Online for the student visa and upload the Required Documents during the same timeline of QU admission. Applicants who fail to satisfy the requirements for a student visa will not be considered for Qatar University admission.

### Visiting Students Who Want to Transfer to QU

Visiting students may be eligible to apply for transfer admission to Qatar University. To be considered for transfer admission to Qatar University, applicants must satisfy the following requirements:

1. Have completed a minimum of 24 credit hours of undergraduate coursework with a minimum cumulative GPA of 2.50 out of 4.00 from a university accredited by an international accrediting association or by the Ministry of Higher Education or equivalent authority in that country.
2. Have completed a minimum of 24 credit hours of undergraduate coursework in residence at Qatar University with a minimum cumulative GPA of 2.00 out of 4.00.



3. Met Qatar University's English and Mathematics competency requirements as required by the respective college.
4. Satisfy all QU undergraduate transfer admission requirements for the semester of intended admission and must submit all appropriate application materials and supporting documents to the Admissions Department by the admission deadline.

Visiting students, who are granted transfer admission to Qatar University and who satisfy the following guidelines, may be eligible for transfer credit consideration towards a QU degree:

1. A maximum of 36 undergraduate credit hours earned at Qatar University in courses passed with a grade of "D" or higher may be applied.
2. In addition to applying their QU credit, visiting students granted transfer admission to QU may also seek to transfer undergraduate course credit from prior universities to their Qatar University degree. All transfer of credit regulations apply.

## **7. Non-Degree Students**

Qatar University may offer non-degree admission to a limited number of individuals who may enroll in undergraduate credit courses at QU but who are not considered pursuing an undergraduate degree program. Non-degree students may register in a maximum of 48 credit hours or 4 semesters of course work at Qatar University, whichever comes first. Non-degree students may be enrolled as either full-time or part-time students.

The following minimum admission requirements are necessary in order to be considered for admission to Qatar University as a Non-Degree student:

1. Have earned an undergraduate degree with a minimum cumulative GPA of 2.00 from a university accredited by an international accrediting association or by the Ministry of Higher Education in that country.
2. Satisfy all QU undergraduate admission requirements for the semester of intended admission and must submit all appropriate application materials and supporting documents to the Admissions Department by the admission deadline.

### **Non-Degree Students Who Want to Earn a Second Bachelor's Degree**

Non-degree students may apply coursework taken in non-degree status towards a second bachelor's degree. Non-degree students may apply a maximum of 48 undergraduate credit hours earned at Qatar University in courses passed with a grade of "D" or higher toward a second bachelor's degree. All second bachelor's degree admission requirements apply.

## **Required Documents**

Students who are already attending another university and who wish to take courses at Qatar University are welcome to do so as a visiting student. Visiting applicants are required to submit the following:

1. Submit an Online Admissions Application with an e-payment of QR 200 (non-refundable)
2. Students have to upload passport size photograph and Photocopy of the applicant's valid Qatar ID card (Non-Qatari applicants must also upload a copy of their passport) through the online admission application by the admission deadline.
3. Students have to submit original, final, official, and certified University transcript along with copies to check if it matches the original documents, and attend in person to Qatar University before the deadline.

4. Non-Qatari applicants with Qatari parents must upload a copy of the applicant's parent Qatar ID card and a copy of the Birth certificate and Non Qatari female students married to Qatari Nationals must also upload a copy of the marriage contract and a copy of the ID card of the husband ( ! an electronic link will be sent to applicants to upload required documents for Qatari parents and Qatari Husband)
5. Due to the current circumstance, you do not have to submit the medical health certificate at this time. You will be requested to submit it at a later time.
6. International students who do not hold a valid State of Qatar residence permit (excluding GCC citizens) are not eligible for QU admission consideration. It is crucial that international student who is interested to enroll at QU to have a valid Qatari residence permit. Qatar University Scholarships and International Admissions Section assists students to get a student visa (Qatar Residence Permit). Those interested students should Apply Online for the student visa and upload the Required Documents during the same timeline of QU admission. Applicants who fail to satisfy the requirements for a student visa will not be considered for Qatar University admission.

## **8. Second Bachelor's Degree**

A student who has previously earned a bachelor's degree and wishes to pursue further undergraduate work in a different major, may apply for admission to a second bachelor's degree at Qatar University.

All applicants seeking a second bachelor's degree who meet the following minimum criteria will be considered for admission to Qatar University:

1. Earned bachelor's degree with a minimum cumulative GPA of 2.00/4.00 from a university accredited by an international accrediting association or by the Ministry of Higher Education or equivalent authority in that country.
2. Met Qatar University's English competency requirements by satisfying either of the following:
  - Submit official English test score reports taken within the last two years.
    - Earned a previous undergraduate degree from an institution of higher education in a program where English was the primary medium of instruction. Official statement proving this must be submitted at the time of application in order for exemption to be considered.

Applicants who do not satisfy these competency requirements are not eligible for Foundation Program admission.

3. Met Qatar University's mathematics competency requirements. Applicants who do not satisfy these competency requirements are not eligible for Foundation Program admission.
4. Pursue a different major than was earned in the first bachelor's degree.

The Qatar University cumulative Grade Point Average (GPA) and earned credit hours will be assessed continuously through the student's period of study at the Undergraduate level. Qatar University will assess appropriate tuition and associated fees for all students taking any coursework after the completion of the first degree.

## **Required Documents**

All applicants who are not considered pursuing an undergraduate degree may apply for Second Degree admission to Qatar University by submitting the following :

1. Submit an Online Admissions Application with an e-payment of QR 200 (non-refundable)

2. Students have to upload passport size photograph and Photocopy of the applicant's valid Qatar ID card (Non-Qatari applicants must also upload a copy of their passport) through the online admission application by the admission deadline.
3. University transcript:
  1. For Qatar University graduates, they do not have to submit their University transcript.
  2. For Students from other universities: Students have to submit original, final, official, and certified University transcript along with copies to check if it matches the original documents, and attend in person to Qatar University before the deadline
4. Applicants with Qatari parents must upload a copy of the applicant's parent Qatar ID card and a copy of the Birth certificate and Non Qatari female students married to Qatari Nationals must also upload a copy of the marriage contract and a copy of the ID card of the husband ( ! an electronic link will be sent to applicants to upload required documents for Qatari parents and Qatari Husband)
5. Due to the current circumstance, you do not have to submit the medical health certificate at this time. You will be requested to submit it at a later time.
6. Official test score reports for applicants to Colleges that require Foundation Program (if available) to be submitted to the Qatar University Testing Center in order to be exempted from the Foundation Program.
7. International students who do not hold a valid State of Qatar residence permit (excluding GCC citizens) are not eligible for QU admission consideration. It is crucial that international student who is interested to enroll at QU to have a valid Qatari residence permit. Qatar University Scholarships and International Admissions Section assists students to get a student visa (Qatar Residence Permit). Those interested students should Apply Online for the student visa and upload the Required Documents during the same timeline of QU admission. Applicants who fail to satisfy the requirements for a student visa will not be considered for Qatar University admission.

## **9. CCQ Cross Registration Program**

The Cross-Registration program provides you with the opportunity to enroll at both Qatar University and Community College of Qatar (CCQ) at once and take courses that are required to earn an AA, AS or Baccalaureate degree in CCQ.

### **Required Documents**

1. Submit an Online Admissions Application with an e-payment of QR 200 (non-refundable)
2. Students have to upload passport size photograph and Photocopy of the applicant's valid Qatar ID card (Non-Qatari applicants must also upload a copy of their passport) through the online admission application by the admission deadline.
3. Submit a copy of the Official and certified CCQ transcript to Qatar University before the deadline. through CCQ Transcript Uploading Form (Applicants who have been admitted to a CCQ for a future semester and who wish to take classes at QU before enrolling at CCQ are required to provide a copy of their admission letter in lieu of an official university transcript).
4. Approval Form CCQ (please contact the community college to complete the approval process).
5. Applicants with Qatari parents must upload a copy of the applicant's parent Qatar ID card and a copy of the Birth certificate and Non Qatari female students married to Qatari Nationals must also upload a copy of the

marriage contract and a copy of the ID card of the husband ( ! an electronic link will be sent to applicants to upload required documents for Qatari parents and Qatari Husband)

## **ADMISSION DATES AND DEADLINES**

Admission into the incoming class is both extremely competitive and limited. Therefore, applicants are strongly encouraged to submit their admissions application and all required documentation as early as possible. Qatar University will not accept applications after the published application deadline. A comprehensive listing of admission application deadlines can be found on the Qatar University website at: [www.qu.edu.qa](http://www.qu.edu.qa).

Qatar University offers three terms within the Summer semester and welcomes visiting students. Visiting applicants should consult the QU website for application deadlines and dates for each of the three summer terms.

## **STUDENT CLASSIFICATION**

Students are classified according to the following categories:

### **1. Regular Degree-Seeking Students**

Regular students are those admitted to an academic program at QU that leads to a degree.

Regular full-time students are expected to maintain a minimum load of 12 credit hours per semester.

### **2. Visiting and Non-Degree Students**

Visiting and non-degree students are not classified as regular degree-seeking, as their admission status does not allow them to earn a degree from QU. Visiting and non-degree students may register in a maximum load of 18 credit hours per semester. Visiting and non-degree students are held to the same academic and Student Code of Conduct standards as all other degree-seeking students at Qatar University. All University coursework is applied to the academic record of the student, and remains on the transcript. If a visiting or non-degree student is dismissed from the University, this dismissal is permanent, and the student is not eligible to return to Qatar University at any point in the future.

## **NEW STUDENT ORIENTATION**

The New Student Orientation is a two-day event which aims to introduce new Foundation Program and undergraduate students to the programs, support services and extracurricular activities provided by Qatar University.

Throughout the orientation activities, students are pre-assigned to smaller groups, allowing them to become familiar with their peers in their academic programs, student mentors, and college faculty. Students will also meet their academic advisors and receive instructions and advice regarding their registration options.

Attendance at the New Student Orientation is mandatory for all new Foundation Program and undergraduate students. Students who fail to attend their assigned orientation days will not be able to register their courses or attend classes and will need to re-apply for admission.

## **COMPETENCY REQUIREMENTS**

All students are expected to possess minimum basic skills in order to be eligible for enrollment in their desired academic programs. In order to be considered for undergraduate admission to Qatar University, only applicants

applying to the following colleges must demonstrate proficiency in English and Mathematics, by satisfying the following minimum competency requirements as set by the University or pass the Foundation Program:

1. College of Arts and Sciences (Science track only)
2. College of Education (Secondary Education with concentrations in Mathematics and Sciences only)
3. College of Engineering
4. College of Medicine
5. College of Pharmacy
6. College of Health Science

### 1. English Competency

Tests	Minimum Score for Exemption
Test of English as a Foreign Language (TOEFL iBT)	61
International English Language Testing System (IELTS)	5.5
ACCUPLACER ESL	Aggregate Score = 400 ESL Reading Skills =100 ESL Language in Use=100

**Note:** International Students (students from outside Qatar) who enroll in the Foundation Program are required to complete the Foundation Program in 2 semesters. If the student did not pass the Foundation Program in 2 semesters, the student should withdraw from the university, cancel the residence permit and leave the State of Qatar. Qatar University would encourage the international students who are applying to the student visa to satisfy the requirements of the Foundation Program before enrolling to the university.

### 2. Mathematics Competency

Standardized Test	Full Score for Exemption
Scholastic Aptitude Test SAT (General Math component – Old version)	550 or higher
Scholastic Aptitude Test SAT (General Math component – New version)	570 or higher
American College Test (ACT)	24 or higher
Math Placement Test	235 or higher

- QU Testing Center reserves the right to verify any standardized test scores and re-test students.
- QU Testing Center will re-test students submitting TOEFL paper-based test scores to the Foundation Program.
- A test score is no longer valid if it is older than the validity period from the start of the first day of the class. Students with scores older than the validity period should retake the test.



- Applicants who fail to satisfy the minimum English and Mathematics competencies identified above will be considered for admission to the Foundation Program and will be placed in their relevant levels based on their ACCUPLACER English and QU PLACER Math test scores.
- Foundation Program students are required to pass English and Math courses with a grade of 70% or higher in order to be enrolled in their Undergraduate college program.

Please be aware that Qatar University mandates that all applicants to Colleges that have Foundation Program requirements must complete the ACCUPLACER English test and QU Placer Math test before they can register for classes. For additional information on these placement tests, please visit the Qatar University Testing Center website, or contact by email or call (+974 ) 4403-5522.

### **TERMINATION OF ADMISSION**

Students admitted to Qatar University who are not registered in classes by the end of the Drop/Add period for the semester of their admission are considered terminated students, resulting in their admission being revoked and their admission file destroyed. Terminated students who wish to attend Qatar University in a future semester will need to re-apply for admission.





## CHAPTER 5 - TUITION, FINANCIAL AID, AND ACADEMIC SCHOLARSHIPS

### TUITION FEES

#### Foundation Program and Undergraduate Students

Tuition fees at QU are based on the academic major (e.g. science, business, engineering, etc...) of the course in which the student is registered. The fee payable for a given course will be the same for all students registered in the course, irrespective of their major area of study, and according to the schedules shown in this section. Qatari students are exempted from tuition fees unless explicitly expressed under certain conditions. Tuition-exempted students are required to pay tuition fees for all courses they repeat beyond 12 credit hours. Tuition fees are due prior to the first day of classes.

**For all Undergraduate and Foundation Program students admitted starting from Fall 2015 and onward**

Course Major	Tuition Fees per credit hour in QR
Art	800
Education	800
Law	800
Sharia and Islamic Studies	800
Business and Economics	900
Foundation Program	900
Sciences	900
Health Sciences	900
Engineering	1000
Pharmacy	1000
Arabic for Non-Native Speaker Program	1000
Dental Medicine	Cost Per Year
Medicine	Cost Per Year

#### College of Medicine and Dental Medicine Tuition Fees Per Academic Semester

Academic Year	Tuition Fees per Unit (QR)	Tuition Fees per Academic Semester			Total (QR)
		Fall	Spring	Summer	
First Year	Tuition fees will depend on the courses registered by the student in different colleges.				
Second Year	1,000	30,000	27,000	3,000	60,000

Third Year	1,000	31,000	26,000	3,000	60,000
Fourth Year	(1,000) Academic Courses Level (2,000) Clinical Level	30,000	54,000	6,000	90,000
Fifth Year	2,000	56,000	56,000	8,000	120,000
Sixth Year	2,000	60,000	60,000	--	120,000

**For all Undergraduate and Foundation Program students admitted starting from Fall 2009 till Spring 2015**

Course Major	Tuition Fees Per Credit Hour
Arts	400
Business and Economics	500
Education	400
Engineering	600
Foundation Program	500
Law	400
Pharmacy	600
Science	500
Sharia and Islamic Studies	400

**For all Undergraduate and Foundation Program students admitted prior to Fall 2009**

Course Major	Tuition Fees Per Credit Hour
Arts	400
Business and Economics	500
Education	400
Engineering	600
Foundation Program	500
Law	400

Pharmacy	500
Science	500
Sharia and Islamic Studies	400

Tuition fees for Qatari students registered on a part-time basis are reduced by QR 100 per credit hour from the amount shown in the table.

### Students enrolled in the Arabic for Non-Native Speakers Program

Tuition fees for students enrolled in the Arabic for Non-Native Speakers Program are QR 1000 per credit hour.

### Tuition Exemption

Qatari and tuition-exempted students are relieved from Foundation Program and Undergraduate tuition fees unless explicitly expressed under certain conditions. Qatari and exempted students who do not complete their bachelor's degree requirements by the following credit hour limits will be assessed tuition fees for all additional credit hours taken until graduation:

Student Category	Credit Hour Limit
Undergraduate students	Graduation with a maximum of one major and one minor + 12 credit hours.
Students who changed their major and/or minor after being admitted at the undergraduate level	Minimum credit hours required for graduation in the declared major and minor (if any) + 12 credit hours.
Transfer students	Credit hours remaining (beyond the transferred credit) for one major and one minor (if any) + 12 credit hours.

### Tuition Fees Refund Policy

Students (irrespective of their major) who drop one or more courses, or withdraw from the semester after the add/drop period, are subjected to the penalties shown in the following table:

Semester	Time of Drop or Withdrawal after End of Add/Drop Period	Penalty
Fall or Spring Semester	Up to 2 weeks	20%
	After 2 weeks and up to 4 weeks	50%
	After 4 weeks and up to 8 weeks	75%
	After 8 weeks	100%
Summer 1, Summer 3 & Winter Semester	After 2 days	20%
	After 1 week and 2 days	50%



Summer 2 Semester	After 2 days	20%
	After 2 weeks and 2 days	50%

- If a full week falls within an official holiday, it is not counted in the weeks shown in the above table.
- Penalties shown in the above table apply to both tuition-paying and tuition- exempted students.

## OTHER UNIVERSITY FEES

### Transcript

Students may obtain an official copy of their QU transcript from the Registration Department through myQU portal subjected to 25 QR fees.

### To whom it may concern

Students may obtain an official copy of their status from the Registration Department through myQU portal subjected to 15 QR fees.

### Lockers

University lockers are available at a rate of QR 25 per semester for each locker; no refund is available.

### Campus Card

Student ID card first issue is free of charges and the student is obligated to pay 50 QR. For replacement in the event that card is damaged or lost.

### University Housing

Students living in the student accommodation facilities provided by the University are charged QR 800 per month for room and board, as well as transportation to and from the university. This is a non-refundable charge.

### University Transport

Transportation provided from home to university is available at a rate of QR 700 per semester for female students. This is a non-refundable charge.

### Financial Aid

Qatar University provides a variety of financial aid options to students. These programs are available to students whose financial situation may prevent them from continuing their university education. For additional information regarding financial aid, please contact the Student Financial Aid Section by Email at [studentfund@qu.edu.qa](mailto:studentfund@qu.edu.qa) or visit their website at: <http://www.qu.edu.qa/students/services/financial-aid>

### University Textbooks Section

University Textbooks Section is here to support and improve the research and learning skills of students at QU through the provision of a variety of textbooks and eBooks for QU students and instructors. QU also provides a subsidy equaling 50% of the total price for books that are assigned to the student and costs over 50 QR. Where

the period of textbooks distribution is announced before each semester for students and faculty members. For more information, please see: <http://www.qu.edu.qa/students/services/textbooks>

## **SCHOLARSHIPS**

Qatar University offers numerous scholarships to attract and support academically qualified students. Although scholarships are granted on a competitive basis. All scholarships cover tuition fees; however, some scholarships may also include one or more of the following:

- Textbooks
- Accommodation in university housing.
- Annual ticket to the home country for non-resident students in Qatar.

### **Scholarship Types**

The following competitive and non-competitive academic scholarships are offered by Qatar University:

#### **1. Non-Competitive Scholarships**

##### **GCC States Scholarships (Embassies)**

These scholarships are awarded to GCC nationals who earn their Qatari secondary certificate or equivalent from a country other than the State of Qatar and should be nominated through their embassies. Recipients of these scholarships are exempted from tuition fees and receive free accommodation from the University.

##### **GCC Qatari Certificate Scholarships**

These scholarships are awarded to GCC nationals who earn their high school certificate from the State of Qatar. Recipients of these scholarships are exempted from tuition fees and there are no other benefits.

##### **Children of QU Employees Scholarships**

These scholarships are granted to children of QU employees. The University offers a maximum of scholarships to children of the employee at one time. Recipients of these scholarships are exempted from tuition fees and there are no other benefits.

#### **2. Competitive Scholarships**

##### **Qatar University Scholarship**

These scholarships are available for Non-Qatari students than those of the GCC. These competitive academic scholarships are awarded to the highest performing applicants. They are divided into two categories; internal and external scholarship, with the only difference between the two categories being the type of provided benefits, as illustrated below:

- Internal scholarship: Recipients of these scholarships are exempted from tuition and book fees only.
- External scholarship: Recipients of these scholarships are exempted from tuition and book fees, receive free accommodation from the University, and receive a student visa under QU sponsorship.

##### **H.H. Emir Scholarship for Academic Excellence Scholarships**

These scholarships are awarded on a competitive basis to 25 male and 25 female high school graduates resident in Qatar. Recipients of these scholarships are exempted from tuitions and book fees only.

### **Outstanding Performance Scholarships**

These competitive scholarships are awarded to the highest achieving students enrolled at QU who have shown outstanding academic performance in their coursework at QU. Recipients of these scholarships are exempted from tuition fees. No other benefits are granted.

## **3. Other Scholarships**

### **Short Arabic Language (in Arabic for Non-Native Speakers)**

Granted to students enrolled in the Arabic for Non-Native Speakers program.

### **Conditions to Maintain QU Scholarships**

#### **Maximum Duration**

All scholarships include a maximum award period based on the program graduation requirements in addition to the Foundation Program (maximum period of one year). The maximum duration does not include summer courses.

#### **The following additional conditions apply to these three scholarship categories**

- Qatar University Scholarship
- Academic Excellence Scholarship
- Outstanding Performance Scholarship

### **Foundation Program**

1. Complete the Foundation Program in a maximum of 2 semesters (one year).
2. If the student did not complete the Foundation Program in 2 semesters:
  - a) Internal Scholarships for Residents of the State of Qatar: The scholarship will be suspended. The student may continue studying at Qatar University but is responsible for his/her tuition and fees. The student will be re-activated upon completion of the Foundation Program or transferring to colleges without Foundation Program requirements.
  - b) External Scholarships for International Students: The scholarship will be terminated. In cases where Qatar University is the student's sponsor, the student's study visa and residency will be canceled, and the student will be repatriated to his/her home country.

### **Undergraduate Students**

After completing the Foundation Program, the following conditions must be fulfilled:

1. Must satisfy the maximum duration condition illustrated above.
2. Must register and pass 12 credit hours in each regular semester. (In extreme cases only, such as, incomplete grade, expected to graduate, health reason, etc. the student can apply for Exception Application through "Self-

Services Banner” to exclude him from Credit Hour Scholarship Warning; after a decision made by the academic advisor, the section will review the application and respond with the approval or rejection decision)

3. Must maintain a minimum cumulative GPA of 2.50 out of 4.00 for Qatar University scholarships, H.H. the Emir of Qatar’s Scholarships for Academic Excellence, and Outstanding Performance Scholarships.
4. If the student does not fulfill either of the 2 conditions above (2&3), the student will receive a Scholarship Warning.
5. If a student receives 2 Scholarship Warnings (from the same type) or exceeds the maximum duration condition:
  - Internal Scholarships for Residents of the State of Qatar: The scholarship will be suspended. The student may continue studying at Qatar University but is responsible for his/her tuition and fees.
  - External Scholarships for International Students: The scholarship will be terminated. In cases where Qatar University is the student’s sponsor, the student’s study visa and residency will be canceled, and the student will be expatriated to his/her home country. However, this student can continue his study in QU and remain under QU residency sponsorship as a paying student only when the student fulfill the International students’ policies to bear all expenses.
6. After the student’s scholarship has been canceled, the student will not be eligible to receive that scholarship again, regardless of whether the situation is amended.
7. The conditions of the scholarships must be upheld in the same term in which the scholarship was awarded (mainly, *registering for and passing* classes), otherwise, the scholarship will be canceled in that term and the student will be informed by QU email.

For additional information regarding academic scholarships, please contact the Scholarships and International Admissions Section by email at [scholarships@qu.edu.qa](mailto:scholarships@qu.edu.qa) or visit their website at: <http://www.qu.edu.qa/students/admission/scholarships>







## CHAPTER 6 - ACADEMIC INTEGRITY

Universities are unique communities committed to creating and transmitting knowledge. They depend on the freedom of individuals to explore ideas and advance their capabilities. Such freedom, in turn, depends on the good will and responsible behavior of all members of the community, who must treat each other with tolerance and respect. They must allow each other to develop to the full range of their capabilities and take full advantage of the institutions' resources.

Qatar University aims at providing all students at QU with clear standards of behavior. Thus a balanced code of conduct was created. By registering as a student, all students acknowledge their awareness and knowledge of the University Code of Conduct and its procedures. Moreover, they understand the consequences of the violation of these standards; violations may be of an academic or non-academic nature.

Students attending an off-campus event as representatives of the University (such as conferences, or athletic events or club activities, Athletic events, etc.) are subject to this code.

QU expects its students to adopt and abide by the highest standards of conduct in their interaction with professors, peers, staff members and the wider University community. Moreover, QU expects its students to act maturely and responsibly in their relationships with others. Every student is expected to assume the obligations and responsibilities required from them for being members of the QU community. As such, a student is expected not to engage in behaviors that compromise their integrity, as well as the integrity of QU. While the University encourages its students to express themselves freely, this freedom is forfeited when it infringes on the rights of others.

### STUDENTS RIGHTS AND RESPONSIBILITIES

The student code of conduct was aligned with the educational mission of Qatar University and emphasizes the rights and duties of its students. The list of such rights and duties are not limited to the below but highlights the main ones.

#### Student Rights

QU recognizes the rights of its students to include:

- Access to the academic and non-academic opportunities available to them at the University, provided such opportunities fall within the standards and/or requirements adopted by the University.
- Freedom of thought and expression, in alliance with applicable policies, rules and laws adopted by the University.
- Equal opportunities regardless of race, color, gender, religion, ethnicity, age or disability.
- Confidentiality of university records. University records are disclosed to authorized persons and entities.
- A fair university judicial process whenever applicable.

#### Student Responsibilities

On the other side, QU students should:

- Contribute to maintaining a safe and orderly university educational environment.
- Show respect to other individuals at QU; Faculty, students, staff and visitors.
- Be familiar with and abide by all students' bylaws, policies and procedures.
- Work to the best of their ability in all academic pursuits.

- Behave responsibly.
- Pursue knowledge.
- Dress appropriately and according to the University rules and regulations.
- Accept responsibility for their actions.

For more information, you can check the code of conduct at the following link on Qatar University's website:  
<http://www.qu.edu.qa/students/code-of-conduct>

## **CONFIDENTIALITY OF STUDENT RECORDS**

All students' records and associated financial records are considered confidential. Student university records are established and maintained for administrative purposes. Access to these records is limited to the student and designated university officials as stated below. Access to these records by other individuals requires the student's explicit written consent, with the exception of the student's parents or his/her legal guardian.

University officials who have legitimate educational interest can have copies of students' records if the needed information is integral element of the work. A "university official" includes faculty, staff, a member of the board of Regents, third parties acting on behalf of the university, and individuals, including students, serving on university committees. The decision, as to whether a legitimate educational interest exists or not, will be made by the custodian of the records on a case-by-case basis. Should contractual agreements between the student and external agencies sponsoring him/her require the release of these records to such agencies, the student must sign a release form/ or write a release letter to that effect once he/she is admitted to the University.

A student working at QU is considered an employee of the University and, as such, is sometimes required to handle confidential materials. Therefore, he/she is not permitted to divulge (disclose) any confidential information, and is required to sign a statement of confidentiality prior to working at the University.

## **JURISDICTION**

All charges involving any violation of the University Code of Conduct will be transferred to the Vice President for Student Affairs (VPSA) for documentation purposes and for determination of the appropriate action to be taken in consultation with concerned parties when the need arises.

## **CHAPTER ONE: DEFINITION**

### **Article (1)**

In applying the provisions of these bylaws, the following terms shall denote the meanings indicated next to each of them:

- The University: Qatar University.
- The Board: University Board of Regents.
- The President: President of Qatar University.
- The concerned VP: Vice President of Qatar University for Student Affairs.
- The concerned Dean: Dean of the College where the violation occurred.
- The Student: Any student, whether enrolled at or attending Qatar University, including any visiting student or enrolled student at any other university.
- The Concerned Authority: The President or the concerned VP, as appropriate.

- The Concerned Director: The Director of the Department or the Head of the Department where the violation occurred.
- The Concerned Director: The Director of the Department or the Head of the Department where the violation occurred.
- The Student Housing Disciplinary Committee: The concerned committee to consider and investigate violations that occur within students' housing.
- The Disciplinary Office: The specialized administrative unit in the Vice President's Office for Student Affairs, tasked with communicating with concerned persons and following up on violations.
- Assignments: Academic assignments and quizzes that are not considered mid-term or final exams.
- Departments Concerned with Implementation: Designated Departments by the concerned VP.
- University Campus: The University's land, facilities, educational facilities, halls, laboratories, libraries, parks, play courts, student housing, and others.
- University Bylaws, Policies and Decisions: Bylaws, policies and decisions issued by the University.
- Extra-curricular Student Programs: The programs, activities and experiences that the University offers to students outside the classroom according to specific criteria and outcomes to develop and promote specific aptitudes of the student.

## CHAPTER TWO: STUDENT CODE OF CONDUCT

### Article (2)

Qatar University students are subject to the rules of the code of conduct and disciplinary procedures outlined below.

### Article (3)

The student must comply with the provisions of applicable laws, bylaws, decisions and the established regulations, and in particular should fulfill the following expectations:

1. To attend lectures, seminars, exams and all forms of Educational and academic prerequisites in accordance with the applicable bylaws and established regulations.
2. To preserve the order of the University Campus.
3. To collaborate with Qatar University affiliates and its visitors on campus, and to treat them with respect.
4. To preserve the University's reputation.
5. To respect the rights of others including students, faculty members, staff, and others.
6. To dress appropriately in the University's Campus and accordance with traditions, customs and University' rules.
7. To safeguard the University's properties and to comply with the bylaws and instructions with relevance to their usage.
8. To behave responsibly in order to protect his own security, health and safety, as well as the others' security, health and safety.
9. To comply with the University security personnel's instructions.

**Article (4)**

Academic violations are breaches of the provisions of laws, bylaws, policies, decisions, established regulations, University traditions and customs, and include, but not limited to, the following:

1. Submission of a work previously submitted for another course.
2. Cheating, attempting to cheat, assisting or participating in any cheating act during the performance of the assignments.
3. Submission of a research or an assignment undertaken by other students or other persons.
4. Intentionally disrupting classes, or its order, and attempting to do so.
5. Cheating, attempting to cheat, assisting or participating in any cheating act during mid-term exams.
6. Falsifying or forging any information, figures, or quotes.
7. Cheating, attempting to cheat, assisting, or participating in any act of cheating during final exams.
8. Disrupting of the examination order or its environment.
9. Incidents where other person fraudulently attends an exam or any academic activity or assignment in place of another student.
10. Violating intellectual property rights of others, whether by means of photocopying or undocumented quoting..
11. Forging any documents and information submitted to the University.
12. Possession of mobile phones or electronic devices without disclosure of such information to the responsible proctor, regardless of whether or not such possession was intended.

**Article (5)**

Non-academic violations are breaches of the provisions of laws, bylaws, policies, decisions, established regulations, or University traditions and customs, and include, but not limited to, the following:

1. Organizing an event at the University without a prior approval of the concerned authority.
2. Engaging in any activity that violate the laws, bylaws, policies, and University decisions.
3. Collecting donations on campus or from University members, without a prior written approval of the concerned authorities at the University.
4. Establishing or joining organizations, clubs, or associations that carry out activities on campus without a prior written approval from the concerned authority.
5. Disrupting order on campus.
6. Non-compliance with the policies, laws, procedures, decisions, and instructions of clubs, student organizations, trips, activities, events, and extra-curricular programs organized on or off campus.
7. Impairing the University's reputation.
8. Disrupting or attempting to disrupt any events or extra-curricular programs organized in whole or in part by the University, whether in or off campus, or organized within the University by third parties.
9. Using the University facilities or exploiting its resources, without a prior approval of the concerned authority at the University or doing so for a purpose other than the authorized purpose.
10. Issuing flyers, newspapers, magazines, or posters, or circulating them on campus, without a prior written approval from the concerned authorities at the University.
11. Carrying in, holding, or manufacturing any weapons, sharp objects, explosive or flammable materials on campus.
12. Possessing, using, carrying, or disseminating any intoxicating or narcotic substances on campus.
13. Stealing, destroying or distorting any of the University's properties, or harming its members or visitors.

14. Forging any of the documents or information submitted to the University or usage of such documents.
15. Violating University procedures and instructions with relevance to student housing.
16. Dressing inappropriately or by contrast to the University traditions and customs.
17. Non-compliance with traffic rules on campus.
18. Non-compliance with the instructions of the security personnel on campus while performing their duties, or refuse to provide proof of identity whenever requested.
19. Providing others with University documents and identities in order to use them illegally.
20. The unjustified presence of male students in the designated areas for female students, or vice versa.
21. Smoking in unauthorized places.
22. Providing or disclosing any incorrect data or information with relevance to the university affairs on any media outlet or via any media outlet.
23. Defaming the University or any of its members on social media or by any other means.
24. Displaying pictures, video clips, or audio recordings of any of the University's members on social media or any other electronic means, without taking their consent to do so.
25. Acts that are inconsistent with honor, dignity and ethics, or violate good conduct and behavior inside or outside the University.
26. Any abuse, humiliation, or physical, verbal or psychological abuse committed by the student against any of the University members, visitors, or any other personnel on the university campus.

#### **Article (6)**

Any student who violates the requirements of the provisions of these bylaws or other instructions issued by the University shall be disciplined, without prejudice to civil and criminal responsibility when appropriate.

### **CHAPTER THREE: DISCIPLINARY ACTIONS AND THEIR ISSUING AUTHORITIES**

#### **Article (7)**

Disciplinary sanctions that may be inflicted upon the student, in case of committing any of the academic violations, include the following:

1. Repetition of the work in which the violation occurred, or the performance of any other alternative work as determined by the course instructor.
2. Drafting an article discussing the negative impact of the violation on the University experience.
3. Excluding the results of the assignment or examination in which the violation occurred.
4. Verbal warning.
5. Excluding the results of some or all of the assignments related to the course.
6. Written warning.
7. Compulsorily withdrawal from the course.
8. Failing the course in which the violation occurred.
9. Dismissal from the University for a period not exceeding one semester.
10. Failing all courses registered in the semester during which the violation occurred.
11. Dismissal from the University for more than one semester, and no more than four semesters.
12. Suspension of awarding the academic degree for a period not exceeding two semesters.
13. Expulsion from the University.



14. Annulling or revoking of the academic degree.

#### **Article (8)**

Students of graduate studies shall be subject to expulsion from the University in cases of cheating or attempting to cheat as specified in Article (4) unless a court ordered expungement of his criminal conviction.

#### **Article (9)**

Disciplinary sanctions that may be inflicted on the student, in case of committing any of the non-academic violations, include:

1. Drafting an article discussing the negative impact of the violation on the University experience.
2. Repetition of the work in which the violation occurred, or the performance of any alternative work as determined by the supervisor of the extracurricular program in which the violation occurred.
3. Excluding the grades result of the assignment or examination in which the violation occurred, and excluding it from the extracurricular record.
4. Verbal warning.
5. Canceling the award of the extracurricular record or revoking it from the student.
6. Temporary suspension from participating in one or more of student activities.
7. Temporary suspension of a scholarship.
8. Written warning.
9. Temporary or permanent exclusion from the student employment program.
10. Exclusion from permanent or temporary student housing, or cancellation of his residency in the housing facility and vacating such facility in cases he uses it.
11. Dismissal from the University for a period no less than the remainder of the semester and not exceeding one semester.
12. Dismissal from the University for more than one semester, and no more than four semesters.
13. Suspension of awarding the academic degree for a period not exceeding two semesters.
14. Expulsion from the University.

#### **Article (10)**

Without prejudice to the provisions of Article (9) of these bylaws, if a student damages, or causes a loss of any university property, he must pay for the damaged or the lost property.

#### **Article (11)**

A faculty member may exclude any student from the classroom if the student disrupts the order or normal operation of the lecture.

#### **Article (12)**

The supervisor of the extracurricular program may exclude any student from the training room or the area where the extracurricular program takes place if the student disrupts the order or the normal operation of the program.

#### **Article (13)**

In the event of repetition of violations to these bylaws, the university could harshen the sanctions in a manner that is commensurate with the nature of the violation. The competent authority to impose disciplinary sanctions for repeated violations is the concerned VP.

**Article (14)**

It is permissible, upon the approval of the concerned VP, to notify the college or the complaining body, and the guardian of the student of the violation committed and the inflicted sanction.

**Article (15)**

The president, upon the recommendation of the concerned VP, may reconsider the expulsion decision.

**Article (16)**

The competent authority to consider academic violations varies according to the following: The course instructor may consider academic violations in clauses (1) to (3) of Article (4) of these bylaws and take the appropriate action. The dean of the college may consider academic violations that fall within the powers of the course instructor in addition to clauses (4) to (6) and take the appropriate action in coordination with the Student Affairs Committee of the relevant college. The President of the University and the concerned VP may consider academic violations in all clauses of Article (4) of these bylaws.

**Article (17)**

The competent authority to impose disciplinary sanctions for academic violations varies according to the following:

1. The course instructor may impose any of the sanctions stipulated in clauses (1) to (3) of Article (7) of these bylaws.
2. The concerned dean may impose any of the sanctions stipulated in clauses (1) to (6) of Article (7) of these bylaws based on the recommendations of the Student Affairs Committee at the College.
3. The concerned VP may order the closure of the case or impose any of the sanctions stipulated in clauses (1) to (11) of Article (7) of these bylaws upon the recommendation of the Disciplinary Committee.
4. The president may order the closure of the case or impose any of the sanctions stipulated in clauses (1) to (14) of Article (7) of these bylaws based on the recommendations of the concerned VP.

**Article (18)**

The competent authority to impose disciplinary sanctions for non-academic violations varies according to the following:

1. The supervisor of the extracurricular program may impose any of the sanctions stipulated in clauses (1) to (4) of Article (9) of these bylaws.
2. The concerned VP may order closure of the case or impose any of the sanctions stipulated in clauses (1) to (12) of Article (9) of these bylaws based on the recommendation of the Disciplinary Committee.
3. The president may order closure of the case or impose any of the sanctions stipulated in clauses (1) to (14) of Article (9) of these bylaws based on the recommendations of the concerned VP.

**Article (19)**

The student may appeal the decision by filing a grievance against the decision within 10 working days from his notification before a grievance committee that shall be formed and mandated upon a decision by the president. The committee shall decide upon the grievance within a period not exceeding ten working days from the day of its submission during the fall and spring semesters. If the student does not file a grievance within the designated period, the decision shall be final.

## CHAPTER FOUR: THE DISCIPLINE COMMITTEE

### Article (20)

The Disciplinary Committee is tasked with investigating cases referred to it by the concerned VP, and recommending the appropriate disciplinary sanctions.

### Article (21)

The Disciplinary Committee consists of five members, two of whom shall be faculty members at the University and one from Student Affairs section; the committee shall have a secretary who records minutes of its meetings but does not have the right to vote. Members of the Committee and the secretary are appointed upon a decision issued by the president based on a proposal provided by the concerned VP.

### Article (22)

Meetings of the Disciplinary Committee are not valid unless attended by at least three members. The Committee issues its recommendations by a majority of votes. In the event of a tie vote, the chairperson side opinion shall prevail. In the event of absence or expulsion of any of the committee's members or its chairperson, the Committee shall notify the concerned VP within 3 working days; and shall be chaired in such event by the faculty member whose appointment with QU is the oldest.

### Article (23)

Membership of the Disciplinary Committee is two years renewable for one or more identical periods.

### Article (24)

Sessions of the Committee are confidential. The Committee issues its recommendations after investigating the violation.

### Article (25)

When the accused student is summoned, he must attend all investigating procedures and hearings to which is called.

### Article (26)

The Committee may hold the student accountable in absentia and inflict upon him the appropriate sanction in cases of failure to obey to summons, without an acceptable excuse, despite notifying the student in writing by e-mail.

### Article (27)

The Committee may cross-examine the student and review all the documents it deems necessary for the investigation, even if they are confidential.

### Article (28)

The recommendations of the Committee shall be justified and signed by the Committee Chairperson as well as the members, and then sent to the concerned VP for endorsement.

## CHAPTER FIVE: THE DISCIPLINE COMMITTEE

### Article (29)

- If a student commits an academic violation, the faculty member shall document the violation in the designated form and shall include all relevant details to the case.
- In the event where a violation occurs in the exam room, the assigned proctor shall document the violation in the designated form and shall include all relevant details to the case, and then send it to the instructor of the course.
- The instructor of the course shall bring the matter to the attention of the Head of the Department within three working days of the incident, and notifying him with all measures taken. If the faculty decides to impose a disciplinary sanction according to the powers entrusted to him, all relevant documents to the case shall be referred to the Dean's office and kept in the student's file.
- The Head of the Department shall refer the accused student to the Dean of the college within three working days from the date of submission of the violation to him.

#### **Article (30)**

- The concerned Dean refers the case to the Student Affairs Committee in the college to conduct an investigation on the accusations attributed to the student, and then the committee has to present a report describing the outcomes of the investigation to the Dean.
- The concerned dean may recommend the appropriate Sanction after reviewing the report of the Student Affairs Committee in the college, provided that this sanction falls within the powers entrusted to him in Article (14). However, if the sanction does not fall within his scope of powers, he must refer the report to the concerned VP within five working days from the date of the receipt of the report.
- If the concerned Dean recommends a disciplinary sanction in accordance with the powers entrusted to him, all documents related to the case shall be referred to the concerned VP. The concerned VP may approve the recommendation of the dean or refer the report to the University Disciplinary Committee.

#### **Article (31)**

- If a student commits a non-academic violation, the supervising employee shall document the violation in the designated form and shall include all relevant details to the case.
- The supervising employee shall bring the matter to the concerned manager within three working days of the incident, and notifying him with all measures taken. If the concerned employee recommends a disciplinary sanction, according to the powers entrusted to him, all relevant documents to the case shall be referred to the office of the concerned manager to take the necessary action for the approval of the recommendations, and then submit everything to the concerned VP.
- The concerned manager shall refer the student, to whom the violation is attributed, to the VP for Student Affairs within three working days from the date of bringing the matter to his attention to take notice of the case or to impose a the disciplinary sanction that is beyond the powers entrusted to the supervising employee.

#### **Article (32)**

The concerned VP has the right to order the closure of the investigation or refer the accused with committing the violation to the Disciplinary Committee within five working days from the date of referring the case to him.

#### **Article (33)**

The Disciplinary Committee should start investigating the case within ten working days from the date of bringing the case to its attention in the fall and spring semesters, and take the appropriate action in accordance with these

bylaws or recommend dismissal of the case. If the violation occurs during the final examinations of the Spring semester or during the Summer semester, and it was not referred to the committee before the beginning of the summer vacation, the committee should meet at the beginning of the fall semester and issue the necessary recommendations before the last day of the drop and add period.

#### **Article (34)**

Before undertaking the investigation with the student, he/she must be notified in writing about his referral to the committee for investigation by means of a summons request that includes the following information:

- Triple or quadrant name.
- Enrollment number or personal ID number.
- Student's college.
- Accusation attributed to him.
- The concerned authority that decided to refer student to investigation and the date of that decision.
- Date and place of the investigation, provided that the starting date of the investigation falls within the ten working days from the day of receiving the referral to investigation decision.

#### **Article (35)**

No disciplinary action shall be taken against a student unless after interrogation of such a student in writing and hearing his point of view. In cases where the student refuses to receive the summons, or does not show up before the committee, the summons request is marked and kept in the investigation file.

#### **Article (36)**

The University Disciplinary Committee has the right to take the necessary measures to ensure the integrity of the investigation, and can do the following in particular:

- Viewing records and papers, and acknowledging that in the minutes of the meeting, marking every paper it examines, and confirming the date of review.
- Requesting copies of any papers as long as neither the investigation nor the public interest require preservation of the original copies of such papers.

#### **Article (37)**

The investigation shall be documented in minutes punctuated by a serial number, and shall include the date, place, starting time of the investigation, investigator's name, the secretary's name, referral decision and its issuing authority, student's name, age, place of residence and college; summary of the case under investigation; statements of witnesses; viewed documents; date and time at which session was terminated. All pages of the recorded shall include signature of the investigator and involved parties.

#### **Article (38)**

The concerned VP Office shall notify the referred student with a copy of the referral decision along with the date and time of the investigation session by email that is sent to the student email account assigned by Qatar University, or by text message on the student's phone registered at the University, at least five working days before the investigation set date. The notification can be handed over personally to the student at his college if the case requires so.

#### **Article (39)**

Any student who is summoned for a hearing or investigation and refrains from attending or from giving information without an acceptable excuse shall undergo a disciplinary interrogation, if his testimony is substantial



to the completion of the investigation. Relatives of the accused student up to the fourth degree are excluded from testifying.

#### **Article (40)**

If, through the investigation, it was found that there is a reasonable doubt of the commission of a crime, the matter must be brought to the attention of the President to inform the Public Prosecution. Notifying the Public Prosecution does not jeopardize the University's right to impose disciplinary sanction for what has been proven against the violating student, unless in cases where the disciplinary action depends on the outcome of the criminal case.

#### **Article (41)**

The investigation period begins from the date of the student's referral to the investigation and ends with the preparation of a final report on the results of the investigation, which includes the recommendations of the University Disciplinary Committee to the concerned authority with either closing the case or inflicting the appropriate sanction upon the student. The investigation period shall not exceed 30 working days, but it may be extended for another period with the approval of the concerned VP.

#### **Article (42)**

The decision to inflict a sanction upon the student must be legally justified.

#### **Article (43)**

No more than one sanction shall be imposed for a single violation.

#### **Article (44)**

The concerned VP shall notify the student and the departments tasked with implementation of the written decision inflicting the sanction upon the student, within five working days from the date of its issuance.

#### **Article (45)**

All papers with relevance to investigation and the inflicted decision shall be kept in the student's file, and in addition, a record of penalties shall be made and kept in the same file detailing all the violations and sanctions imposed on him and the dates and reference numbers of decisions imposing those penalties. If the investigation resulted in the participation of more than one student in the commission of the violation, the original investigation papers shall be kept in the file of the first violator, and a genuine copy thereof in the files of the other students.

#### **Article (46)**

The University administration is committed to maintaining the confidentiality of investigations and interrogation procedures.

#### **Article (47)**

The prescription period for the disciplinary responsibility is two years from the date of commission of the violation. However, such period shall be interrupted by any investigating procedures or referral of the student to disciplinary investigation. The period shall be calculated again from the date of the last action taken regarding the violation. If there are multiple persons referred to disciplinary investigation, interruption of the period for one of them shall also be applicable to the others, even if no measures have been taken against them during the interrupted period. Nevertheless, if the act constitutes a crime, the right to disciplinary investigation shall not be forfeited unless the criminal case is dropped. Disciplinary measures shall end upon the death of the student.

## CHAPTER SIX: GENERAL PROVISIONS

### Article (48)

The student is not entitled to drop or withdraw the course where the violation occurs except after a final decision has been issued by the concerned authority. In the event that the course is withdrawn or dropped by the student, the University has the right to re-register him in the same course, and implement the sanction issued against him.

### Article (49)

If the violating student is in his final year at the University, graduation statement for such student shall be suspended until the violation is investigated and decided upon.

### Article (50)

Violations, investigations and disciplinary records shall be kept in confidential records in the Office of the concerned VP throughout the student's study period, and for a period of four years after graduation or cessation of study.

### Article (51)

Procedures, University instructions, and special student housing instructions apply to residents of student housing. A committee titled the "Student Housing Committee" is formed by a decision of the concerned VP. The committee is tasked with handling violations of resident students committed inside the Student Housing and recommend any of the sanctions stipulated in points (1) to (4) of Article (9) of these bylaws. If the violation requires a greater sanction, the Student Housing Committee will refer the violation to the concerned authority, who has the right to either close the case or refer it to the University Disciplinary Committee for further investigation and recommendations.

## STUDENT COMPLAINTS SYSTEM

Qatar University is committed to a policy of fair treatment for the students, faculty, and staff in their relationships with the QU community (student, administration, faculty, staff and other members) through the Student Complaints System and its academic and non-academic procedures.

## STUDENT COMPLAINTS REGARDING ACADEMIC DISPUTES

Academic disputes may include, but are not limited to admission, grades during the academic semester, academic suspension, and charges of dishonesty, plagiarism, deliberate forgery of data, work completed for one course and submitted for another, and violation of intellectual property. The Final Grade change appeal is excluded from this section.

### Scope

This section sets forth the procedures to be followed by a student who believes he/she has been unfairly or improperly treated by a faculty member in light of the academic process. For example, it applies to disputes over grade assignments during the academic semester, decisions about program or degree requirements or eligibility, or claims that course requirements are unfair.

### Informal Resolution

The student should first try to resolve the grievance informally by discussing the grievance with the faculty member as soon as is reasonably possible after the student becomes, or should become aware of the matter. If the student and faculty member are not able to reach an agreement, the student should discuss the objection with the faculty member's department head. If the complaint remains unresolved, the student should discuss it with the College Dean. In these informal discussions, the department head or dean is encouraged to mediate the dispute. In particular, he/she should talk to both the student and the faculty member, separately or together, and should examine any relevant evidence, including any documentation the parties wish to submit. If the student objection is against the department head or the dean, the student should discuss it with one administrative level higher than that of the department head/dean.

### **Formal Resolution**

1. Submit the official online application through myBanner within ten (10) business days of the incident outlining the complaint, the individuals involved, the date and the location of the incident. The student will be informed of the decision by e-mail within ten (10) business days of the complaint's submission. The student will be informed if the investigation exceeds 10 business days.
2. If the student is not satisfied with the outcome, he/she has the right to appeal the decision through the student complaints system within ten (10) business days of its announcement. The Vice President for Student Affairs will review and direct the appeal to the appropriate department. The result of the appeal will be e-mailed to the student within ten (10) business days of submitting the appeal.
3. In cases where the student believes that the procedures were not properly followed, he/she has the right to appeal the decision to the Vice President for Student Affairs. The appeal must be filed within ten (10) business days from the date of the decision. The Vice President for Student Affairs shall review all documentation relating to the appeal and make a decision. At this stage, the outcome of the appeal is final and no further appeal is available. In cases where the Vice President for Student Affairs recommends dismissal from the University, the student may submit an appeal to the University President.
4. All documents related to the complaint, appeal, and decision shall be kept at the Office of Vice President for Student Affairs.

### **Withdrawal of Complaint**

Students may withdraw a previously submitted complaint while the complaint is being investigated. In such cases, the complaint will be closed and applicable parties will be informed of the withdrawal. Complaints which have been solved or closed will not be withdrawn.

## **STUDENT COMPLAINTS REGARDING NON-ACADEMIC DISPUTES**

Non-academic issues may include, but are not limited to, harassment (verbal or physical), intimidation, disruptive or abusive behavior within the limitations of QU campus, fines, fees, exclusion from a use of service, discrimination, record access, and violation of policy.

### **Scope**

This section sets forth the procedures which should be followed by a student who believes that he/she has been unfairly or improperly treated by a member of the University community with regard to a non-academic matter.

### **Informal Resolution**

The student should first try to resolve the complaint informally as soon as reasonably possible after the student becomes, or should become aware of the matter. If the matter involves a staff member, and the student and the staff member cannot reach an agreement, the student shall discuss it with the staff member's supervisor. Although students are encouraged to resolve the complaint informally, but the nature of certain cases may require that the informal process be bypassed.

### **Formal Resolution**

1. Submit the official online application through myBanner within ten (10) business days of the incident outlining the complaint, the individuals involved, the date and the location of the incident. The student will be informed of the decision by e-mail within ten (10) business days of the complaint's submission. The student will be informed if the investigation exceeds 10 business days.
2. If the student is not satisfied with the outcome, he/she has the right to appeal the decision through the student complaints system within ten (10) business days of its announcement. The Vice President for Student Affairs will review and direct the appeal to the appropriate department. The result of the appeal will be e-mailed to the student within ten (10) business days of submitting the appeal.
3. In cases where the student believes that the procedures were not properly followed, he/she has the right to appeal the decision to the Vice President for Student Affairs. The appeal must be filed within ten (10) business days from the date of the decision. The Vice President for Student Affairs shall review all documentation relating to the appeal and make a decision. At this stage, the outcome of the appeal is final and no further appeal is available. In cases where the Vice President for Student Affairs recommends dismissal from the University, the student may submit an appeal to the University President.
4. All documents related to the complaint, appeal, and decision shall be kept at the Office of Vice President for Student Affairs.

### **Withdrawal of Complaint**

Students may withdraw a previously submitted complaint while the complaint is being investigated. In such cases, the complaint will be closed and applicable parties will be informed of the withdrawal. Complaints which have been solved or closed will not be withdrawn.

### **CONFIDENTIALITY**

Information related to a complaint is treated as confidential and is only shared with authorized individuals on a need-to-know basis. This information is used for the purpose of investigating and resolving the complaint in accordance with QU policy.







## CHAPTER 7 - ACADEMIC POLICIES AND REGULATIONS

### REGISTRATION

Once admitted to QU, students must select and register in courses required for their degrees. Registration for classes takes place prior to the beginning of every semester. Students are assisted by academic advisors to ensure that they have registered for the appropriate courses for each semester. Students should check with their advisors before registering. The following information identifies the steps and requirements necessary for a successful course registration process.

#### Methods of Registration

Students should register for courses online. In order to access the myQU portal, new students must use their username and password information as provided in their admission letter. Upon successful registration, students can view their schedule of courses, classroom locations, meeting times, and faculty assignments for all registered courses.

Students experiencing difficulty accessing their myQU portal should contact the ITS Helpdesk by email at [helpdesk@qu.edu.qa](mailto:helpdesk@qu.edu.qa).

#### Important Registration Information

Students are responsible for their own registration. They are only officially registered in a course when the course appears on their myQU schedule.

It is sometimes necessary for an academic department or college to make changes to its class schedule, such as a change of class time, location, instructor, merging sections, or even canceling a course. Departments will make every effort to announce such changes in advance; however, it is the student's responsibility to follow up their registration status according to such changes. The first week of classes in the semester is allotted for this purpose. Changes to a student's registration are not permitted beyond the last date for the add/drop period.

A student is allowed to pre-register for a course whose prerequisite(s) have not yet been completed, on the assumption that a student will pass the prerequisite course(s) during the semester in which the pre-registration takes place. If the student fails in any pre-requisite course(s), the Registration Department will drop, without notification, all the courses pre-registered by the student. Consequently, students are responsible for checking their final grades to make sure that they have successfully completed the prerequisite(s) and that they are successfully registered for the courses selected for the following semester. If a student is not allowed to register for a course because of failing or dropping a prerequisite course, it is the student's responsibility to ensure that the course load does not fall below the minimum number of credit hours allowed.

Dates for pre-registration and registration are determined by the University and stated in each year's academic calendar. These dates are communicated to the University community and updated regularly on the University's web site.

#### Academic Load

The minimum and maximum number of credit hours allowed per semester is as follows:

Semester	Academic Standing (GPA)	Level	Type of Study	Academic Load (per credit hour)
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				Min	Max
Fall and Spring	Good Standing (2.00 and above)	Undergraduates	Full Time	12	18
		Foundation	Full Time	0	15
	Academic probation (less than 2.00)	Undergraduates	Full Time	9	12
		Foundation	Full Time	0	12
Summer	Good Standing (2.00 and above)	Undergraduates	Full Time	0	12
		Foundation	Full Time		
	Academic probation (less than 2.00)	Undergraduates	Full Time	0	6
		Foundation	Full Time		

New students at the University will be allowed to register for the maximum number of credit hours allowed by their program. Students who achieve a cumulative 3.50 GPA based on 15 credit hours or more will be allowed to increase the load by 1-3 credit hours. A student expected to graduate by the end of a given semester may register, in that semester, for fewer than the minimum number of credit hours stipulated in the course loads shown above.

### Dropping and Adding Courses

A student may drop or add courses only during the designated period for drop/add. This period is determined by the University and specified in the academic calendar and updated on the university website. A course that is dropped before the drop deadline will not appear on the student's transcript.

### Prerequisites

When a student attempts to register for a course, the registration system will check the request against the student's academic record. If the student has not satisfied the prerequisite, the student will be prevented from registering for the course. Students should contact their program regarding prerequisite discrepancies.

### Registration Holds

Students with registration holds will not be allowed to register for classes until the hold is removed. The student should contact the department that placed the hold for a solution.

### Withdrawal from a Course

After the regular drop/add period at the beginning of each term, a student may withdraw from one or more courses before the end of the eighth week of the semester, provided that the total number of credit hours carried does not fall below the minimum credit hour requirement of the program. This withdrawal period results in differing refund rates. Students are encouraged to consult the University academic calendar for specific dates. If a student withdraws from a course during the withdrawal period, the grade of "W" is entered on the student's transcript.

### Withdrawal from the Semester

Withdrawal from a semester must be within the time limit set by the academic calendar.

A student cannot withdraw from QU for more than four semesters; the exception to this provision is during a study adjournment (for emergency reasons). If a student withdraws from a semester, he/she must re-enroll before registering for the following semester. The Vice President for Student Affairs may grant exceptions to this regulation in extenuating circumstances.

### **Withdrawal from the University**

A student may apply for withdrawal from the University by contacting the Registration Department. Enrollment will be suspended and earned grades will be maintained in the student's record given that the student has completed at least one semester. The maximum period for which a student can leave the University must not exceed four semesters.

### **RETURNING HIGH SCHOOL CERTIFICATES**

The Department of Registration will return the original high school certificate to the student if the student is no longer enrolled in Qatar University and will keep a soft copy of it in the student's electronic file and a hard copy in the student's paper file in the Archive. After a period of five years following deactivating the student record, the student's file will be destroyed. The University does not accept responsibility for any files destroyed. Enrolled students are strictly not allowed to collect their original certificates until such time when their record is deactivated. Original high school certificates may be returned to enrolled students with a pledge for a specific period of time.

### **FINAL EXAMINATION SCHEDULE**

Final examinations dates according to class/lecture timings are announced at the beginning of each semester, and the final exam schedule is posted by the Office of Student Affairs on the university website. It is the responsibility of the student to be aware of these dates. A student who misses a final exam due to circumstances beyond their control (family illness or death, personal illness, etc.), must contact the instructor to justify the absence and submit proof of the circumstance. This must take place by the time the instructor submits final grades to the Registrar. If the instructor accepts the excuse, the student is given an "Incomplete" grade, and a date will be scheduled for a make-up exam to be given. Once the make-up exam has been taken and graded, the instructor, with the approval of the Department Head, will provide the Registrar with the final grade to replace the "Incomplete" grade.

### **Final exam conflict Policy**

In case a student has three examinations on the same day or two examinations at the same time, he has the right to change the date/time of one of these exams.

### **Procedure**

1. The student will have to fill out the Final Exam Conflict Form.
2. The Enrollment Services One-Stop Section at the Admission and Registration will confirm that there is an overlap in final examinations.
3. The student will have to reschedule one of the exams after the approval of one of the instructors.
4. The department chair has to approve.
5. The assistant dean for student affairs has to approve.

6. The student will then take one of the exams on the new agreed upon date.

## **STUDY PRINCIPLES AND POLICIES**

### **Attendance**

Class participation and attendance are important elements of every student's learning experience at QU, and the student is expected to attend all classes. Keeping track of student attendance and observation of student performance in class are the responsibilities of the instructor. A student should not miss more than 25% of the classes (10% for students enrolled in the Medical Doctor program in the College of Medicine) during a semester. Those exceeding this limit will receive a failing grade, regardless of their performance. In exceptional cases, students with their instructor's prior permission can be exempted from attending a class, provided that the number of such occasions does not exceed the limit allowed by the University. The instructor will determine the validity of an excuse for being absent. A student who misses more than 25% of classes and has a valid excuse for being absent will be allowed to withdraw from the course. This student will be exempted from fines associated with withdrawal.

The following rules are applied in determining attendance of the students:

- If a student attends only part of class, the instructor determines whether he/she is considered present or absent for that day.
- Attendance record begins on the first day of class, irrespective of the period allotted to drop/add and late registration.
- If an instructor reschedules a class, the new timing must be suitable and agreed upon in writing by all students; otherwise, instructors cannot hold a student responsible for not meeting the attendance requirement.
- If more than 25% of the classes for a course are cancelled during a semester and not rescheduled appropriately, no student in that course will be failed for reasons of absenteeism.
- A student who does not take any exam may be determined as excused or unexcused by the instructor.

Class attendance is not used as an assessment measure and failure to attend classes within the allowed limits is not used as a reason to lower student grades.

### **Student Coursework Assessment and Grading**

Student assessment and grading is a continuous process starting on the first day of class and continuing until the end of the semester. Instructors evaluate student performance using a variety of techniques, methods and tools. Instructors assess each student's performance and progress in the class while recognizing areas of strengths and weaknesses.

Grading is a cumulative notion that is based on the student's performance during the semester. The student's final grade is not based on less than three different assessment tools. These may include, but are not limited to, exams, projects, presentations, reports, quizzes, reading assignments, research papers, writing essays, classroom feedback and discussions etc. In all cases, every student has the right to see, review and discuss with the instructor all marked materials used in grading them.

### **Grading Policy**

Instructors shall determine the grade for each undergraduate student registered in their courses according to the following table:

### Letter Grades and their Corresponding Grade Points

Letter Grade	Description	Percentage	Grade Points
A	Excellent	90 to 100	4.00
B+	Very Good	85 to < 90	3.50
B	Very Good	80 to < 85	3.00
C+	Good	75 to < 80	2.50
C	Good	70 to < 75	2.00
D+	Pass	65 to < 70	1.50
D	Pass	60 to < 65	1.00
F	Fail	less than 60	0.00
P	Pass		
NP	Not Pass		
CC	Continuing Course		
I	Incomplete		
TC	Transfer Credit		
W	Withdrawal		
WF	Forced Withdrawal		
Au	Audit		
FA	The student could not attend the final exam and could not provide an acceptable excuse for his absence.		
FB	The student exceeded the allowed absence limit (25%)		

### Grade Point Average (GPA)

Every letter grade has grade points corresponding to it. These constitute the basis for calculating the Grade Point Average (GPA). The total number of grade points earned for each course is calculated by multiplying the number of credit hours assigned to the course by the number of grade points corresponding to the letter grade received as shown above. The semester and cumulative GPA are determined by dividing the total number of grade points accumulated for all courses by the number of credit hours attempted. The GPA is an indicator of the student's overall academic performance at QU.



**Example:**

Student's number of courses registered in the current semester 4

Student's total number of completed credit hours 34

Total of earned grade points 95.5

Student's current GPA =  $95.5/34$  2.8

NB: The first two decimal digits that come after a proper (unbroken) number do count, while the rest do not (without rounding)

**Student's current registered courses are as follows:**

Subject	Credit hours
1	3
2	2
3	3
4	1
<b>Total credit hours for current semester</b>	<b>9</b>

**Student's GPA calculations:**

Subject	Grade Points	Credit hours	Total Points Gained*
1	4.0	3	$4.0 \times 3 = 12$
2	2.5	2	$2.5 \times 2 = 5$
3	1.0	3	$1.0 \times 3 = 3$
4	0.0	1	$0.0 \times 1 = 0$
		9	20

\* Total points gained = total credit hours x Grade points of each grade attained by student in the same course.

**Grade Reports and Transcripts**

The QU transcript is a student's official record of academic achievement. The transcript contains all the essential information pertaining to his or her course grades, academic level, scholarship, and degrees received—a summary of the student's academic history. At the end of each semester, every student is issued a grade report summarizing the course grades they have completed in that semester. Students may obtain an official copy of their QU transcript from the Registration Department.

## Major

A major is a curriculum component of an academic program intended to provide in-depth study in a discipline or a professional field of study. The major defines the student's primary area of study and requires the completion of a defined set of courses and credit hour requirements.

### Declaring a Major

1. Students are admitted into their college's general program at the time of admission to Qatar University.
2. Students may seek to declare their major, after meeting the minimum academic requirements. Admission to the major is extremely competitive; and satisfying the minimum requirements does not guarantee admission into the major.
3. Majors are open to QU students, provided that:
  - They meet the admission requirements for the major.
  - They meet the high school subject requirements.
  - They pass the Foundation Program requirements, if applicable.
  - The department offering the major approves the major declaration on the basis of department capacity.
4. Students may declare and pursue only one major.
5. Students should declare their selected major before completing 36 undergraduate credit hours.
6. At least half of the credit hours required to complete the major must be taken in residence at QU.
7. A student must complete the graduation requirements for a Bachelor degree at Qatar University in order to receive recognition for the completed major.
8. The only recognition delivered by the university for a major completed by a student consists of the appearance of the major on the student's official transcript at the time of graduation and the student's graduation statement.

### Change of Major

A student may change their major within the first 60 undergraduate credit hours. Additionally, students who have earned a minimum cumulative GPA of 2.50 and at least 24 undergraduate credit hours may apply for a change of major even if they did not satisfy the admission requirements for that major at the time of initial admission to QU.

In all cases, the sought

College or Department approves the major change, taking into consideration their transfer requirements and capacity.

## Minor

A minor is a curriculum component of an academic program, intended to provide a limited depth and/or breadth study in a discipline or a professional field of study. Its main objective is to provide students a fair measure of expertise and knowledge in more than one academic area.

### Declaring a Minor

1. Minors are open to all QU students provided that:
  - They meet the admission requirements for the minor.
  - The department offering the minor approves the student enrollment in the minor based on the department capacity.

2. Students may not declare a minor before declaring their major.
3. Students may declare one or multiple minors.
4. Students may not declare a minor in the same field as the declared major.
5. At least half of the credit hours required to complete the minor must be taken in residence at QU.
6. A student must complete the graduation requirements for a Bachelor degree at Qatar University in order to receive recognition for the completed minor.
7. The only recognition delivered by the university for a minor completed by a student consists on the appearance of the minor on the student official transcript at the time of graduation and the student graduation statement.

### Change of Minor

A student may change their minor only once and the change must occur before completing 12 credit hours in the minor and 90 undergraduate credit hours. The sought College or Department approves the minor change taking into consideration their transfer requirements and capacity.

### Double Use of Courses

Double use of courses to satisfy more than one requirement in a student's degree program is not allowed. A course successfully completed by a student and listed in the requirement of the student's degree program as part of the requirements of both the major and the minor the student is enrolled in will be counted towards the major unless the student satisfies the requirements for the major without the use of the course (e.g. course listed in the major electives).

In replacement of courses listed in the requirements for the minor that were already counted as part of the major, students must complete additional courses to satisfy the minor requirements in accordance with the following:

- The additional courses to be completed by students to satisfy the minor requirements should be identified and approved by the program offering the minor at the time when students declare their minor.
- In case the additional courses were not identified when students declared their minor, students must consult with the program offering the minor to identify additional courses that may be completed by the student to satisfy the minor requirements and to ensure that the additional courses will allow the student to complete the credit hour requirements for the minor. Subject to approval by the program offering the minor, these additional courses may be taken from the minor elective courses.

### Graduation Requirements

Every major has a study plan consisting of courses selected from the core curriculum, college requirements, major requirements, (major/minor) and electives. An academic degree is awarded to a student who completes all the requirements of the major in which he/she is enrolled with a minimum cumulative GPA of 2.00. The number of credit hours required by each academic major within individual colleges may vary. The minimum number of credit hours required for graduation is shown below:

College	Degree title	Major	Total number of credit hours
	Bachelor of Arts	Arabic Language	120

Arts and Sciences		English Literature & Linguistics	120
		Policy Planning & Development	120
		Psychology	120
		History	120
		Applied Geography and GIS	120
		International Affairs	120
		Mass Communication	126
		Social Work	120
		Sociology	120
	Bachelor of Science	Biological Sciences	120
		Chemistry	120
		Statistics	120
		Environmental Sciences (Concentration area in Marine Sciences)	125
		(Concentration area in Biotechnology)	126
		Mathematics	120
		Physics	120
Health Sciences	Bachelor of Science	Human Nutrition	132
		Biomedical Sciences	135
		Public Health	120
		Physical Therapy and Rehabilitation Science	139
Medicine	Bachelor of Science	Medicine	40, 300 ESTS
Business and Economics	Bachelor of Bus. Admin.	Accounting	125
		Economics	125
		Finance	125

		Management	125
		Marketing	125
		Management Information Systems	125
Education	Bachelor of Education	Primary Education	120
		Secondary Education	120
		Special Education	120
		Physical Education	120
		Art Education	120
		Sport Sciences (Forzen)	120
Engineering	Bachelor of Science	Architecture	160
		Chemical Engineering	131
		Civil Engineering	131
		Computer Engineering	128
		Computer Science	120
		Electrical Engineering	131
		Mechatronics Engineering	131
		Industrial & Systems Engineering	128
		Mechanical Engineering	131
Law	Bachelor of Law	Law	123
Pharmacy	Bachelor of Science	Pharmacy	165
Sharia and Islamic Studies	Bachelor of Sharia & Islamic	Islamic Studies	126
	Bachelor in Creed and Dawa	Creed and Dawa	126
	Bachelor in Fiqh and Usul Al-Fiqh	Fiqh and Usul Al-Fiqh	126
	Bachelor in Quran and Sunnah	Quran and Sunnah	126



Dental	Dental	Dental Medicine	six years
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### **Incomplete Grades**

An incomplete (I) grade may be received in a course if the student attends but fails to complete all the course requirements. The Incomplete grade is not an alternative for an “F” when the student performs poorly. To be considered for an Incomplete grade, the student must provide an acceptable justification for failing to complete the required work to the course instructor, which the Department Head must also approve. If the justification is related to medical problems, it must be supported by a medical report that is certified by the Public Health Authority or Hamad Medical Corporation and submitted to the Instructor. If the student could not attend the final exam and could not provide an acceptable excuse for his absence, a grade “FA” will be graded by the instructor. Any person presenting the medical report on behalf of a student must produce their ID and that of the student. If an incomplete grade is given because the student did not take the final exam, the student should arrange with the instructor to take the exam. The deadline for changing an (I) grade is the last day of the second week of classes in the ensuing semester. Upon successful completion of the required work, the course instructor will replace the (I) grade with a letter grade (A through F) and submit it to the Registration Department.

If a grade of “I” is not changed by the end of the specified period, it will be changed automatically to an “F”. Only the Vice President for Student Affairs may grant an extension beyond the specified time limit. At the end of the first week of classes in the following semester, the Registration Department will remind instructors who have given incomplete grades to change them before the deadline.

### **Grade Appeal and Changing a Grade**

A student who believes that he/she has received an unfair or erroneous grade may contest the grade to the instructor of the course within ten (10) business days of the issuance of grade reports. If the instructor concurs with what the student claims, the instructor may submit a grade change to the Department Head to be sent to registration Department. Once the final Grade Committee evaluate the request, the student will be notified of the decision by email.

If the instructor does not agree with the student’s claim, the student may submit a written, signed and dated appeal to the Department Head.

The Department Head will review the merits of the complaint and rule on it. The Department Head may consult with the relevant faculty in the Department before ruling on the claim. Should the course instructor also be the Department Head, the student should submit a written complaint directly to the Associate Dean of the College. If the student is not satisfied with the decision of the instructor or the Department Head, a written appeal may be submitted to the Associate Dean of the College who will then make the final decision on the appeal.

In cases where the student feels that proper procedures were not followed regarding his claim, he/she may appeal in writing to the Vice President for Student Affairs. It should be noted here that the Vice President for Student Affairs will only assess whether proper procedures were followed and will not make a decision regarding the grade change.

## Academic Probation

1. While every effort is made by Qatar University to provide timely and accurate information to students about their academic standing, it is the sole responsibility of students to stay informed about their academic standing at all times .
2. Student academic standing is evaluated by the Office of the Vice President for Student Affairs at the end of each semester excluding the summer term, unless summer performance removes the academic probation for the student .
3. Student academic standing is to be updated by the Office of the Vice President for Student Affairs after incomplete grades or grade corrections are posted.
4. Undergraduate students are placed under Academic Probation based on their cumulative GPA and the total number of GPA hours as detailed below:
  - 24 - 0 GPA Hours - No academic probation is to be applied
  - 25 GPA Hours or more - Placed under academic probation if cumulative GPA is below 2.0
5. Undergraduate students receive an Academic Warning notification if:
  - Student term GPA at the end of a semester, except the summer term, falls below GPA requirements for good standing.
  - Student fails any particular course two times.
  - Student exceeds six years at the university excluding the period during which the student was enrolled in the university foundation program.
6. First year students shall receive a warning and a hold is placed on their record if their cumulative GPA falls below 2.0 .
7. Once placed under Academic Probation at the end of a semester, undergraduate students who fail to satisfy the cumulative GPA requirement for “Good Standing” at the end of the following semester of enrolment, excluding the summer term, unless summer performance removes the academic probation for the student, are placed under Final Academic Probation .
8. Once placed under Final Academic Probation at the end of a semester, undergraduate students who fail to satisfy the cumulative GPA requirement for “Good Standing” at the end of the following semester of enrolment, excluding the summer term unless summer performance removes the academic probation for the student, are academically dismissed from the University in compliance with the university policy for academic dismissal of undergraduate students .
9. Academic Probation decisions and/or Academic Warning notifications are to be officially communicated by the Office of the Vice President for Student Affairs to all concerned students, their advisor, and the head of their department at the end of each semester excluding the summer term unless summer performance removes the academic probation for the student .
10. Academic Warnings do not impact student standing, do not appear on student transcript, and are not noted on student academic records.
11. Academic Probations are noted on student transcript and academic records.
12. The summer term is not considered for Academic Probation decisions unless summer performance removes the academic probation for the student .
13. Students placed under Academic Probation or Final Academic Probation may apply for transfer to another program subject to the university rules and regulations as defined in the transfer policy.

14. Undergraduate students placed under Academic Probation or Final Academic Probation are allowed to register in a maximum of 12 credit hours per regular semester and a maximum of 6 credit hours in the summer term. Students may however be allowed to register in more than the maximum number of credit hours subject to prior approval from the Student Affairs Committee .
15. An advisory hold preventing students from registering in classes is to be activated by the Office of the Vice President for Student Affairs for all students placed under Academic Probation or Final Academic Probation, or receiving an Academic Warning for reasons other than failing the course twice in order to ensure that these students do not register in classes offered in the following semester until they meet with their Academic Advisor and academic department to get approval for removing the hold .

### **Academic Dismissal**

1. While every effort is made by Qatar University to provide timely and accurate information to students about their academic standing, it is the sole responsibility of students to stay informed about their academic standing at all times.
2. Student Academic Standing is evaluated by the Office of the Vice President for Student Affairs at the end of each semester excluding the summer term unless summer performance removes the academic probation for the student.
3. Academic Dismissal decisions are to be officially communicated by the Office of the Vice President for Student Affairs to all concerned students, their advisor, and the head of their department at the end of each semester excluding the summer term .
4. An undergraduate student is Academically Dismissed from Qatar University under the following conditions:
  - Failing to achieve the minimum cumulative GPA requirement for “Good Standing” in three (3) consecutive semesters.
  - Failing to meet graduation requirements within 8 years of enrollment in the university excluding foundation program period or within the maximum allowed additional time as indicted in the appeal decision or the reinstatement decision for reinstated students.
5. Academic Dismissal is noted on student transcript and academic records.
6. Students may appeal the Academic Dismissal decision to the Vice President for Student Affairs within ten (10) business days of the official notification of the decision.
7. The Student Affairs Committee is to consider student appeals and communicate its recommendation to the Vice President for Student Affairs for decision within ten (10) days of the appeal deadline. The Student Affairs Committee must base its recommendation on criteria and guidelines approved by the Vice President for Student Affairs, and may recommend to:
  - Accept the appeal and authorize enrolment or correction of the student academic record as appropriate.
  - Accept the appeal and authorize an additional maximum period of time during which the student must complete the program requirements.
  - Decline the student request and maintain the academic dismissal decision.
8. The decision of the Vice President for Student Affairs on student appeals is to be communicated to concerned students by the Vice President for Student Affairs or designated person within two (2) business days of the committee recommendation .

9. Students who are academically dismissed from Qatar University may apply for reinstatement to the Vice President for Student Affairs .
10. Students who are academically dismissed from Qatar University for the second time are not eligible to apply for reinstatement.

### **Appealing Academic Dismissal**

Any Qatar University student who is dismissed from the institution for academic deficiency may appeal the decision to the Academic Dismissal, Appeal and Reinstatement Committee. The appeal should be submitted to the Director of the Registration Department within 10 business days of the official announcement of final grades. A maximum of a 1 regular semester extension (Fall or Spring) of Final Probation is granted to successful appeals. If the student is not eligible to appeal, is eligible to appeal but does not, or if the appeal is not successful, he/she may apply for Reinstatement.

### **Readmission**

Readmission Refers to a process by which applicants who previously admitted to Qatar University and who enrolled in at least one semester at the university request returning and readmission to Qatar University.

1. Applicants who were permanently dismissed from Qatar University are not eligible for readmission .
2. Applicants who were previously readmitted to Qatar University are not eligible for readmission .
3. Applicants who were previously admitted to Qatar University but whose admission was terminated are not eligible for readmission and must re-apply for admission if they wish to attend QU in a future semester.
4. Eligible applicants for readmission to Qatar University are:
  - Previously admitted students who officially withdrew from the university. (students placed under the "withdrawal from university" status).
  - Previously admitted students who were absent from the university for more than four consecutive regular semesters without prior approval (students placed under the "Long Absence" status).
  - Previously admitted students enrolled in the Foundation Program who were absent from the university for more than two consecutive regular semesters (students placed under the "Foundation Absence Suspension" status).
  - Previously admitted students enrolled in the Foundation Program who did not complete the program requirements within four regular semesters of enrollment (students placed under the "Foundation Academic Suspension" status).
  - Previously admitted students who academically dismissed from the university. (students placed under the "Academic dismissal" status).
5. Applicants who were placed under the following three status "withdrawal from university, Long Absence, and Foundation Absence Suspension" may choose one of the following two options:

#### **Option 1**

- Fresh record where courses and grades earned prior to the student, readmission remains on record and on the student QU transcript but are not counted towards degree requirements and are not considered in the cumulative records of students including in the calculation of the student cumulative grade point average (GPA).

- Applicants may apply for transfer of credits for courses completed at or outside QU (completed within 5 years of the semester of readmission, a minimum grade of C, and a maximum of 50% of credit hours required to complete the degree)

### **Option 2**

- All QU courses completed within 10 years of the semester of readmission remain on student records, are used in the calculation of the cumulative GPA, and are counted towards the degree, except for courses approved for elimination from the student cumulative records or if the student requests to return with a fresh record.
  - QU courses completed more than 10 years from the semester of readmission need approval from the academic program to be counted in student cumulative grade point average (GPA).
  - May apply for transfer of credits for courses completed outside QU (completed within 5 years of the semester of readmission, a minimum grade of C, and a maximum of 50% of credit hours required to complete the degree).
6. Readmission is granted at the discretion of Qatar University. The decision is based on criteria and guidelines approved by both the Vice President for Student Affairs and the Vice President and Chief Academic Officer. These criteria and guidelines take into consideration several factors including program capacity, previous academic achievement, prior disciplinary actions, length of absence, and activities during the period in which the applicant was not enrolled at QU.
  7. Decision on readmission applications may consist of:
    - Approval of readmission to a program that may be different from the previous programs student enrolled in at QU and under specific degree requirements that may be different from the degree requirements in effect when the student left the university.
    - Conditional approval specifying additional requirements, the applicant must complete or satisfy before being readmitted and allowed to enroll in a program .
    - Decline the readmission application.
  8. For applicants who were placed under the following status "Foundation Academic Suspension"

### **Offered option**

- Return with a fresh record where all courses and grades earned prior to the student, readmission remains on the student QU transcript but are not counted towards degree requirements and are not considered in the cumulative records of students including in the calculation of the student cumulative grade point average (GPA) except for courses approved under the transfer of credit rules.
- Students may apply for transfer of credits for courses completed at or outside QU (completed within 5 years of the semester 1of readmission, a minimum grade of C, and a maximum of 50% of credit hours required to complete the degree).

### **Program and other requirements**

- Applicants who were placed under the Foundation Program “Foundation Academic Suspension” status may apply for readmission only to a program that do not require enrollment in the Foundation Program or they



provide evidence of having achieved the English and Mathematic competency requirements for admission into the program they are applying to.

- Satisfy additional requirements, if needed, in order to ensure their readiness to resume their studies at the university.
- At least one regular semester, excluding the summer term, has elapsed since their academic dismissal or placement under the “Foundation Academic Suspension” status.

9. For applicants who were placed under the following status Academic dismissal

**Offered option**

- Return with a fresh record where all courses and grades earned prior to the student, readmission remains on the student QU transcript but are not counted towards degree requirements and are not considered in the cumulative records of students including in the calculation of the student cumulative grade point average (GPA) except for courses approved under the transfer of credit rules.
- Students may apply for transfer of credits for courses completed at or outside QU (completed within 5 years of the semester 1 of readmission, a minimum grade of C, and a maximum of 50% of credit hours required to complete the degree).

**Program and other requirements**

- Satisfy additional requirements, if needed, in order to ensure their readiness to resume their studies at the university.
  - At least one regular semester, excluding the summer term, has elapsed since their academic dismissal or placement under the “Foundation Academic Suspension” status.
10. Students applying for readmission may request to join their original program or another program offered at the university .
  11. Upon readmission, students may be required to complete the degree requirements of their degree program in effect at the time of their semester of readmission. These may or may not be the same degree requirements in effect when the student left Qatar University.
  12. All holds and outstanding financial obligations to the university must be resolved and removed before the application for readmission is processed.
  13. Once readmitted, students are subject to all university rules and policies as applicable to regular degree seeking students.
  14. All previous course work completed at Qatar University remains part of the permanent record of readmitted students.
  15. Applicants seeking readmission may request to eliminate from their cumulative records including the calculation of their cumulative GPA, the effect of up to four courses in which a grade of F, D, or D+ was earned or all courses completed in one specific semester provided that the student was not previously found in violation of the academic integrity policy in any of the concerned courses and that the applicant is to benefit from such measure for the first time. Courses approved for elimination shall not be used towards satisfying the program degree requirements including the program credit hour requirements unless the student registers and successfully completes these courses after readmission.

16. The cumulative records including the cumulative GPA of readmitted students, takes into account all courses completed and grades earned within ten (10) years prior to the student's semester of readmission to the university except for courses approved for elimination from the student cumulative records or when the student requests to return with a fresh record .
17. Courses completed more than ten (10) academic years prior to the semester of readmission by readmitted students are not automatically counted towards the student degree program and in the cumulative records of the student including the cumulative GPA. Such courses must be reviewed for eligibility by the academic program in order to be counted towards the degree and to effect the cumulative records of the student including the student cumulative GPA .
18. Applicants seeking readmission may request to return with a fresh record where courses and grades earned prior to the student' readmission remain on record and on the student QU transcript but are not counted towards degree requirements and are not considered in the cumulative records of students including in the calculation of the student cumulative grade point average (GPA).
19. Applicants seeking readmission must, at minimum, satisfy admission requirements of the requested degree program for the semester of intended readmission.

### **Reinstatement**

1. Only undergraduate students who were academically dismissed from Qatar University may apply for reinstatement to the Vice President for Student Affairs within two (2) years of the official notification of the latest academic dismissal decision.
2. Academically dismissed students applying for reinstatement may request to join their original program or another program offered at the university possibly at another college .
3. Academically dismissed students applying for reinstatement may also apply for the elimination from their cumulative records including the calculation of their cumulative GPA the effect of up to four courses in which a grade of F, D, or D+ was earned or all courses completed in one specific semester provided that the student was not previously found in violation of the academic integrity policy in any of the concerned courses. Courses approved for elimination shall not be used towards satisfying the program degree requirements including the program credit hour requirements unless the student registers and successfully completes these courses after reinstatement.
4. A university level committee is to consider all applications for reinstatement and communicate its recommendation to the Vice President for Student Affairs for decision .
5. The University Level Committee must base its recommendation for student reinstatement on criteria and guidelines approved by both the Vice President for Student Affairs and the Vice President and Chief Academic Officer, and may recommend to:
  - Approve the student reinstatement, remove from the student cumulative records the effect of specific courses taken among the ones requested by the student and eventually authorize an additional maximum period of time during which the student must complete the program requirements .
  - Decline the student application.
6. The decision of the Vice President for Student Affairs on student reinstatement applications is to be communicated to concerned students by the Vice President for Student Affairs or designated person.

7. Reinstated students may be authorized by the Vice President for Student Affairs to join their original program or another program possibly offered at another college subject to the college and program approval.
8. Students may be reinstated only after at least one regular semester, excluding the summer term, has elapsed since they were academically dismissed.
9. Following reinstatement, all QU courses completed before academic dismissal and the cumulative GPA achieved at the time of academic dismissal are to be restored.
10. All reinstated students are placed under “good standing” status in the semester of reinstatement .

### **Repeating a Course**

1. Undergraduate students may repeat a course taken at Qatar University in which a final grade of D+ or below was earned .
2. Undergraduate students who failed a required course must obtain the approval of their academic advisor and the head of department of their program before repeating the course.
3. Undergraduate students who failed a course twice shall receive an academic warning.
4. Students repeating a course do not earn additional cumulative credit.
5. In the event that a student repeats and completes a course, the highest grade obtained in all attempts of the course will be used in the calculation of the cumulative GPA
6. Grades for all attempts of a course will appear on the student’s official transcript regardless of whether or not the grade has been excluded from the calculation of the student’s cumulative GPA.
7. A notation of “R” will appear next to the grade(s) of repeated courses on the student’s transcript.
8. The repeat course policy does not apply, with the exception indicated below, to courses that use the same course id (same subject and number) but where different topics are offered in different terms. Such courses include special topics courses.

Exception: For courses that use the same course id (same subject and number) but where different topics are offered in different terms, the course repeat policy is to be applied only when the repeated course taken by the student cover the same topics as the previously attempted course.

9. Students seeking to repeat a deactivated course may register in an equivalent or substitute course and replace the grade obtained in the original course subject to approval for the course grade replacement from the head of the department before registering in the course.
10. Following the awarding of a degree, no changes in the grade point average will be made, even if students repeat a course.
11. Students who cross-register a course at another institution with which QU has an articulation agreement shall receive the grade obtained from the other institution. In all other cases, a course repeated at another university will be transferred with a grade of “TC” and will be used to satisfy degree requirements but will be excluded from the cumulative GPA calculation.
12. Students wishing to repeat courses with a grade of D or D+ for the third time shall request approval from the Academic Advisor.

### **Auditing Courses**

QU allows a student to enroll in courses on a non-credit basis, provided that the student receives prior permission from the instructor of the course, and registers as an audit student. Permission to audit a course is contingent upon the availability of space and class size. Priority is given to a student who takes the course for credit. A student

who audits a course, however, is charged the standard tuition, fees, and registration costs. An audit student is expected to attend class regularly, but is not obliged to take exams and so does not receive the normal grade (A-F); rather upon completion of the course, a grade of “AU” is recorded in the student’s transcript to denote that the course was taken on an audit basis. Should a student wish to take the course for credit, he/she must get the status changed at the Registration Department no later than two weeks from the commencement of classes. A student can audit a given course only once.

### **Internships**

The University encourages its students to benefit from internships whenever possible. Internships combine what the student has learned in the classroom with a real-world environment such as a company, business, laboratory, or governmental project. The academic department determines the number of credit hours awarded to internships. Upon completing the requirements of an internship, the student receives a grade. To apply for an internship, the student must have the support of the academic advisor, the department head, and the dean of the college in which he/she is enrolled.

Application forms for internships are available at the office of the Career Services Center, or from the office of the Dean of the student’s College. Students are selected for internships based on their ability to perform the work required by the position in which they wish to intern. At the time of application, the student must have a full-time status and be in good academic standing at the University. Maintaining an internship requires satisfactory job performance and a minimum cumulative GPA of 2.0. If a student is terminated from the internship due to failure to meet job expectations, he/she is eligible to reapply one year from the date of termination.

### **Study Away**

Students wishing to participate in Study Away should obtain pre-approval from the QU Registration Department. Courses not receiving Study Away pre-approval will be considered for possible transfer credit by the relevant QU academic department upon return to QU.

To be eligible for transfer credit consideration, Study Away applicants must have earned a minimum of 24 undergraduate credit hours with a cumulative GPA of at least 2.00 by the time they participate in the Study Away. All QU Transfer Credit and Course Repetition policies apply to Study Away. Coursework taken at accredited universities or colleges and transferred to QU will receive a Transfer Credit grade of “TC” and will not be included in the QU GPA calculation. Students participating in Study Away may not exceed QU’s maximum credit load for the academic semester. Students are required to satisfy the QU course pre-requisites in order to receive transfer credit for Study Away courses.

### **Transferring Credits to QU**

Qatar University students may take courses at other accredited colleges or universities, and this academic credit may be transferred to QU under the following conditions:

- The student submits an application to the Registration Department, along with all official transcripts and course syllabi from the colleges and universities attended. The content of the transferred courses must match 90% of the course content of their counterparts at QU. Only courses with a grade of “C” or above are transferable.
- The respective academic department at QU will make the final decision on transfer of credit into its program. Coursework taken at accredited universities or colleges and transferred to QU will receive a Transfer Credit

grade of “TC” and will not be included in the QU GPA calculation. Credit hours transferred will be used to satisfy graduation requirements provided they do not exceed 50% of the required credit hours needed for graduation from QU. If the student has successfully completed more than 50% of the courses required for a degree at QU at other institutions, he/she will have to determine the course(s) to be transferred to their record at QU given that they fall within their study plan at QU.

In the case of repeating course the student received a final grade of "D +" or below in this course and was repeating it in another university, the course will be received a Transfer Credit grade of “TC” and will be counted within the study plan. The lower grade obtained in the attempt(s) of the course studied in QU will be excluded from the cumulative GPA calculation.

First Year admits are not eligible to receive transfer credit consideration for coursework completed prior to their semester of admission to QU.

### **Transfer Students**

QU welcomes students transferring from other accredited institutions of higher education. A comprehensive list of transfer admission requirements can be found in the admissions portion of the Undergraduate Catalog.

## **ACADEMIC ACHIEVEMENT AWARDS**

The purpose of having the academic achievement awards is to recognize and acknowledge students whose academic performance is deemed as excellent and distinguished during their studies at QU. The levels of honor are reflected in the following lists:

### **1. The Order of Excellence Award**

To be eligible for the Order of Excellence award, bachelor’s degree graduates must satisfy the following requirements:

- Attained or expected to attain a minimum overall GPA of 3.9 by the end of their semester of graduation.
- Never received a grade less than “B” during their undergraduate studies at the university.
- Never received a written disciplinary warning or sanction during their studies at the university.

### **2. The High Distinction Award**

To be eligible for the High Distinction award, bachelor’s degree graduates must satisfy the following requirements:

- Are not eligible for the Order of Excellence award.
- Attained or expected to attain a minimum cumulative GPA of 3.7 by the end of their semester of graduation.
- Never received a written disciplinary warning or sanction during their studies at the university.

### **3. The Distinction Award**

To be eligible for the Distinction award, bachelor’s degree graduates must satisfy the following requirements:

- Attained or expected to attain a cumulative GPA between 3.5 and 3.69 by the end of their semester of graduation.
- Never received a written disciplinary warning or sanction during their studies at the university.



#### **4. The Vice-President and Chief Academic Officer's List**

The Vice President and Chief Academic Officer's List recognizes all students at the Undergraduate level who have shown distinguished academic performance. This award is issued at the completion of each fall and spring semester by the Vice President for Student Affairs, upon approval of the University's Vice President and Chief Academic Officer. This award is reflected on the student's transcript for the semester of award. To achieve Vice President and Chief Academic Officer List recognition, a student must satisfy the following conditions, in addition to:

1. Satisfy all Dean's List requirements
2. Earn a minimum cumulative GPA of 3.50.
3. Complete a minimum of 30 credit hours.
4. Earn a minimum final grade of "C" for all courses taken, with the exception of courses taken on Pass/Fail basis.
5. Never subjected to any disciplinary action by the University.

#### **5. The Dean's List**

The Dean's List is an academic award recognizing the remarkable achievements of undergraduate students. Deans of the respective colleges issue the award upon completion of each fall and spring semester, and the award is reflected on the student's transcript for the semester of the award. To achieve Dean's List recognition for the semester, a student must satisfy the following conditions:

1. Earn a minimum semester GPA of 3.50.
2. Maintain a minimum semester course load of 12 credit hours in undergraduate courses.
3. Earn a minimum final grade of "C" for all courses taken in the semester, with the exception of courses taken on Pass/Fail basis.
4. Not placed on academic probation during the academic semester of award.
5. Not subjected to any disciplinary action by the University for two semesters prior to the award.

### **STUDENT LIFE AWARDS**

Qatar University is continually working on empowering its students and encouraging them to be actively involved in the student campus life activities that support their academic experience and refine their personal development. To attain this goal, the Student Affairs Sector has established the Student Life Awards to recognize and reward students who have made distinguished contributions to student campus life at Qatar University. Five categories of awards will be presented to both male and female students: (1) Student Leadership Award, (2) Student Clubs and Organizations Award, (3) Volunteering Award, (4) Student Employment Award and (5) Student Athletic Award.

#### **Nomination Guidelines**

1. A student should fill in the online nomination application on myBanner Self-Service System.
2. A student must nominate him/herself to one award category only and must fill in a curriculum vitae (CV) template and submit it along with the nomination application.
3. 10% of the nominee's total evaluation will be given to his/her academic performance (e.g. A student with a GPA of 3.5/4 will be given 8.5%).
4. A student may ask for recommendation letters from QU faculty and/or staff members.

## General Conditions

1. The nominee must be active either in Fall or Spring semester during the academic year of application.
2. The nominee should have a minimum cumulative GPA of 2.50/4.00 for the previous two semesters prior to nomination.
3. The nominee shouldn't have been subject to disciplinary action (dismissal or warning) during the last two semesters before the nomination.
4. A student who has previously won an award is not eligible to apply again for the same award category.

## Awards Categories

### 1. Student Leadership Award

This award is presented to a male and a female student who demonstrated distinguished leadership attributes and behaviors in student campus life.

#### Award Conditions

To be eligible for this award, the student must have completed 59 credit hours.

#### Evaluation Criteria

The evaluation Committee will adopt the following criteria in its evaluation of submitted nominations:

- It is preferred that the student attend the leadership training programs and workshops offered by the Student Leadership Center.
- Served in a leadership position or more through university participations.
- Demonstrated commitment to engage and train student to participation in campus life.
- Demonstrated clear leadership capabilities through team work or group activity.

### 2. Student Clubs and Organizations Award

This award is presented to a male and a female student who are members of a student organization(s) approved by the Student Activities Department who had clear contributions to the achievement of the organizations' goals, and create opportunities that support the continuity of the organization(s).

#### Award Conditions

To be eligible for this award, the student must have:

- Been registered in a student organization at Qatar University at the time of application.
- Completed a minimum of 59 credit hours.

#### Evaluation Criteria

The evaluation Committee will adopt the following criteria in its evaluation of submitted nominations:

- Demonstrated a clear role in the achievement of the student organization goals.
- Demonstrated a clear role in supporting the continuity of the student organization.
- Contributed to the creation of a teamwork culture within the student organization.

### 3. Volunteering Award

This award is presented to a male and a female student who have contributed effectively to the university volunteering activities.

#### Award Conditions

To be eligible for this award, the student must have:

- Been registered in the QU Center for Volunteerism and Community Service.
- Participated in volunteer work for at least 500 hours through the Center for Volunteerism and Community Service.
- Completed a minimum of 59 credit hours.

#### Evaluation Criteria

The evaluation Committee will adopt the following criteria in its evaluation of submitted nominations:

- Contributed in fostering the culture of volunteer work.
- Committed to the spirit and ethics of volunteering.
- Contributed in attracting his colleagues to participate in volunteer programme.

### 4. Student Employment Award

This award is presented to a male and a female student who participated in the Student Employment Program at the University.

#### Award Conditions

To be eligible for this award, the student must have:

- Complete 600 working hours within the Student Employment Program.
- Achieved a performance evaluation of no less than “Exceed expectations” in his monthly evaluation.

#### Evaluation Criteria

The evaluation Committee will adopt the following criteria in its evaluation of submitted nominations:

- The student demonstrated an improvement and development in job performance during the enrollment in the student employment program.
- The student proposed a new idea which has been implemented in the workplace.
- The student's productivity in the workplace.

### 5. Student Athletic Award

This award is presented to a male and a female student who have contributed effectively to the university sport activities.

#### Award Conditions

To be eligible for this award, the student must have:

- Have been practicing in one or more university sport activity.

**Evaluation Criteria**

The evaluation committee will adopt the following criteria in its evaluation of submitted nominations:

- The evaluation Committee will adopt the following criteria in its evaluation of submitted nominations:
- Contributed in fostering the culture of volunteer work.
- Committed to the spirit and ethics of volunteering.
- Contributed in attracting his colleagues to participate in volunteer programe.

إدارة القبول  
Admission Department

تسليم الوثائق  
Documents Submission





## CHAPTER 8 - ACADEMIC ADVISING

Email: [caa@qu.edu.qa](mailto:caa@qu.edu.qa)

Website: <http://www.qu.edu.qa/students/success-and-development/academic-advising>

### ABOUT ACADEMIC ADVISING

Academic Advising at Qatar University is a collaborative process between the student and the Academic Advisor wherein Academic Advisors serve as the first point of communication and a primary link between the student's program and the other available resources at the university. Academic Advisors deliver personalized and proactive academic advising to all undergraduate students empowering them to be active and responsible learners. Academic Advisors are equipped with necessary information and tools to provide students with accurate and up-to-date information in regards to the institutional policies, procedures, academic programs, and available resources.

The Academic Advising services are delivered in a form of one-on-one advising sessions, intervention sessions, and group advising sessions, class visits, or workshops. During one-on-one advising sessions, Advisors ensure the unique needs of students are met. The students can book an appointment with their assigned Academic Advisor using the Appointment Manager or simply visits the Advisors in their offices within colleges.

### ADVISOR RESPONSIBILITIES

The Academic Advisors strive to create a community of learners by helping students identify their life, career, and educational goals during the course of their academic journey at Qatar University. The Academic Advisors work closely with the students, guide and support them to set and achieve their academic, career and personal goals. The role of the Academic Advisors at Qatar University is:

- To assist students with academic planning, identifying the appropriate academic programs, and identifying and meeting the requirements of specialization and graduation requirements.
- To teach students about the available campus resources and services and refer students to the relevant stakeholders when needed.
- To help students make responsible decisions consistent with the student's interest, goals, and abilities.
- To provide students with accurate and up-to-date information regarding the academic requirements, university policies and procedures.
- To provide support to the special populations of students who are academically at risk by developing and implementing effective intervention strategies to ensure their success.
- To assists students in selecting and registering the accurate courses according to their study plans.
- To continuously monitor students' academic progress toward graduation and achieving their academic goals.

### STUDENT RESPONSIBILITIES

While the Academic Advisors at Qatar University help students make effective academic choices, it is the responsibility of each student to plan for completing their academic programs and following up on their academic status. Hence, students are encouraged to take the lead in initiating communication with their academic advisors and communicating with them routinely. Regular communication with the Academic Advisor helps student to develop basic university skills such as communication skills, decision making and problem solving, as well as to

participate effectively in university life and thus enhance their university experience. Therefore, the students are advised to visit the Academic Advisor at least once during a semester.

### **STUDENT LEARNING OUTCOMES**

The Student Learning Outcomes from Academic Advising at Qatar University are:

1. Students will demonstrate knowledge of QU academic policies and procedures.
2. Students will demonstrate knowledge of available technological resources that assist them in educational planning and course registration.
3. Students will effectively utilize technological resources.
4. Students will demonstrate knowledge of degree program requirements and the ability to select courses each semester to progress towards fulfillment of their educational plans.
5. Students will demonstrate the ability to select courses each semester to progress towards completing their degree plan
6. Students are able to identify and utilize available QU support services.







## CHAPTER 9 - DEANSHIP OF GENERAL STUDIES

Address: GCR building – Office GCR- 44 & GS0 - 13

Phone: (+974) 4403-4772

Email: dean.generalstudies@qu.edu.qa

### Dean

Dr. Ibrahim Al Kaabi

### Director Foundation Program

Dr. Hezam Al Awah

### Director Core Curriculum Program

Professor Rana Soboh

### Director Honors Program

Prof. Abdrabo Soliman

### Qatar University Testing Center

Dr. Walid Massoud

### Administrative Coordinator

Mrs. Noura Daouk, Mrs. Moza Al Sada

## ABOUT THE DEANSHIP OFFICE

The Deanship of General Studies aspires to be recognized for its leadership role in the transformative educational journey of Qatar University students.

Deanship of General Studies houses three academic programs: Core Curriculum Program, Foundation Program, and Honors Program as well as the QU Testing Center. The Deanship of General Studies prepares Qatar University students for academic and professional excellence. Through these distinguished programs and a recognized Testing Center, the deanship endeavors to put students on the right path to succeed academically and professionally. In addition, the deanship strives to instill a set of attributes in Qatar university graduates to make them civically engaged and mature citizens capable of leading the socio-economic development in Qatar.

Through a student-centered teaching approach, and a careful selection of courses, the Core Curriculum Program strives to cultivate a range of skills, knowledge, values and dispositions needed for academic success, intellectual growth, and responsible citizenship. The ultimate goal is to prepare well-rounded and engaged graduates who are able to bring about positive change in Qatar and beyond.

Qatar University Foundation Program is an academic program, which designed to develop students' English language proficiency and math skills to a level that will allow those students to succeed in their

science/engineering/health majors at Qatar University. In addition, the program offers English language courses designed to develop students' communication skills for Arabic-track students. The Foundation Program consists of Math and English academic departments, as well as students' affairs office, which provides students with help and assistance to resolve any problems that may arise.

The Honors Program is a unique program designed exclusively for exceptional students. The honors study plan encompasses 6 credit hours and 8 zero credit co-curricular modules. Students can join the program directly once admitted either to the university with a minimum 90% in the secondary school or after achieving a GPA of 3.3 or above. The Honors Program is intended for highly ambitious and academically accomplished students who seek to undergo an outstanding college experience by developing critical thinking skills and engrossing in various academic activities. The program was established in Fall 2009 with just four students. Currently, the program has evolved into a university-wide community with close to 400 students and Honors faculty from all colleges.

The Center supports Qatar University students and the wider community in assessing their knowledge, skills, and abilities as they relate to higher education by providing a variety of local and international testing opportunities that are valid, reliable, and fair. The Center is committed to maintaining professional testing standards and developing tests that cater to the needs of all stakeholders.

## **HONORS PROGRAM**

GSO-09-GSO 10 & GSO 11 Female Classroom Building (GCR)

102, 103, 104 Men's Engineering Building (Corridor F)

Phone: (+974) 4403-4990/ 4403-4992/ 4403-4993 / 4403-4994

Email: quhonors@qu.edu.qa

Website: [http://www.qu.edu.qa/honors\\_program](http://www.qu.edu.qa/honors_program)

## **ABOUT THE PROGRAM**

The Qatar University Honors Program (HP) is designed for highly motivated and academically inquisitive students who are looking for an enriching college experience by enhancing their critical thinking and ability to engage in scholarly activities. Advancing written, analytical and oral communication skills within a community of excellence is a main priority of the program. The program encompasses all undergraduate colleges and programs in the university. Honors Program aims to equip competent graduates according to the international standards for Honors Program graduates.

The program was established in Fall 2009 with just four students. Currently, the program has evolved into a university-wide community with close to 400 students and Honors faculty from all colleges

## **VISION**

The Honors Program aspires to be the model and the catalyst for excellence in Qatar University, renowned for its quality academic program and inspiring initiatives, wherein highly qualified students are prepared to be the leaders of tomorrow.



## MISSION

The Qatar university Honors Program aims to provide talented, ambitious, and highly motivated students with an enriched cross- disciplinary academic experience through a framework of learner-centric, experiential, research-informed, digitally enriched, and entrepreneurial education with a focus on the development of excellent lifelong learning habits. To achieve this, the Honors Program provides small seminar-style classes with an emphasis on active and collaborative learning; opportunities to take innovative courses combined with teaching excellence; a schedule of scholarly and social co-curricular activities; and meaningful community-engagement projects that use the students' academic skills to drive real-life social change. Together these experiences will enable students to develop the skills and knowledge needed to be successful, confident, and entrepreneurial individuals, responsible global citizens, and effective contributors. The Qatar University Honors Program requires students to provide a sustained commitment to excellence and to maintain an active engagement with the Program, with faculty members and with other students at the University.

## PROGRAM OBJECTIVES

The objectives of the Honors program:

- Create a model of cross-disciplinary academic excellence and innovation for both students and faculty across the university.
- Support talented and highly motivated students to reach their full potential by challenging them to think beyond the scope of the traditional curricula to achieve excellence.
- Provide small and challenging seminar-style classes, that encourage academic freedom and examine unique topics crossing disciplinary boundaries.
- Establish a framework of course options, as well as options for tasks, projects and procedures, that enables students to be actively involved and willingly responsible for their own scholarship.
- Encourage students to examine and understand issues from a wide variety of different perspectives and across diverse religious and cultural settings.
- Encourage faculty to work in an interdisciplinary manner, to create innovative courses that explore exciting new topics and theories, and to experiment with new pedagogies in order to advance teaching excellence .
- Facilitate active and collaborative student-faculty interaction and encourage faculty mentorship of Honors students .
- Prepare students for graduate and professional schools, to hold leadership roles with both excellence and integrity, and to maintain social responsibility in their future career path.
- Support students to earn competitive fellowships and seek deserved recognition for their academic accomplishments and service to the Qatari community.
- Successfully see the annual graduation of a substantial cohort of students prepared to excel in graduate school and in professional life.
- Support Honors students to take responsibility for learning, both inside and outside of the classroom, and establish excellent lifelong learning habits.

## PROGRAM LEARNING OUTCOMES

The program learning outcomes for the Honors program are:

1. Students will develop advanced level of critical thinking and problem-solving skills.
2. Students will develop the digital skills needed to be productive citizens in the 21st century workforce.
3. Students will demonstrate advanced oral and written communication skills.
4. Students will recognize key skills and characteristics important for lifelong, self-directed learning and leadership.
5. Students will develop entrepreneurial skills in the recognition and development of product/ service/ process opportunities.
6. Students will demonstrate the ability to plan, design and conduct an original research or creative senior project in the appropriate discipline that meet professional standards.

## **PROGRAM BENEFITS**

- Priority Registration that allows all Honors students, regardless of their year, to be among the first students to register for the following semester's classes.
- Innovative courses and modules created especially for the Honors Program by outstanding scholars and professors.
- A number of annual awards for top Honors students.
- Wide opportunities for participating in local and international conferences, trips and events.
- Full and partial waiver of membership fees for QU clubs.
- Recognition at graduation and on student transcript of successful participation in a challenging, high-quality honors program.

## **PROGRAM ADMISSION REQUIREMENTS**

The Honors Program is a unique program designed exclusively for exceptional students. The honors study plan encompasses 6 credit hours and 8 zero credit co-curricular modules. Students can join the program directly once admitted either to the university with a minimum 90% in the secondary school or after achieving a GPA of 3.3 or above. The Honors Program is intended for highly ambitious and academically accomplished students who seek to undergo an outstanding college experience by developing critical thinking skills and engrossing in various academic activities .

For newly admitted undergraduate students:

- Minimum of 90% or higher score on high school certificate or an equivalent certificate.
- Successfully pass an interview.
- Recommendation letters
- Written essay

For regular undergraduate students can apply to enroll in the Honors Program if they satisfy the following requirements:

- Complete or about at least 15 credit hours in undergraduate level courses with a 3.3 GPA or above
- Have no record of academic probation, disciplinary misconduct, or violation.
- Recommendation letters from current or previous instructors, counselors, or academic advisors.

- Submit a written essay.
- Successfully pass an interview.
- Still having 6 semesters to complete the Honors modules.

**The current students can also benefit and may opt to switch to the new plan where applicable.**

### **CONTINUATION IN THE PROGRAM**

All undergraduate students admitted to the Honors Program have to satisfy the following requirement in order to maintain their enrollment in the Honors Program.

- A minimum cumulative Qatar University GPA of 3.30.
- Progress towards completion of his/her degree requirements.
- Complete the Introduction to Honors Course within the following semester of joining the Program.
- Never going more than two consecutive semesters without Honors Modules or failing in Honors Modules
- Having no violations, probation, or record of any misconduct.

### **GRADUATION FROM THE PROGRAM**

Regular undergraduate students must complete the following requirements in order to graduate from the Honors Program:

- Earn a minimum cumulative Qatar University undergraduate GPA of 3.50 at graduation.
- Complete a minimum of 6 credit hours of Honors Program courses.
- Complete 8 non-credit co-curricular modules
- Complete all Honors Program courses with a minimum grade of C.
- Pass all Honors modules
- Have never been placed on academic probation, nor be subjected to disciplinary action while studying at QU.

For students who complete all the honors requirement but have a GPA of less than 3.5 and no lower than 3.3, they will be issued with a certificate of honors course and modules completion (for students who have successfully completed all required courses and modules in the honors study plan, course listing and grades will be identical to what is officially stated on the students' official academic records).

### **HONOR'S STUDY PLAN**

To graduate from Academic Honors programs, students must complete:

- HONS 102 Introduction to Honors
- HONS 201 Design Thinking for Innovation
- HONS 202 Entrepreneurship: Launching an Innovative Business
- HONS 203 Mastering Critical thinking
- HONS 204 Leadership in the Age of Disruption
- HONS 205 Digital Technologies: Reimagining the Future
- HONS 206 The Fourth Industrial Revolution and Sustainable Development
- HONS 301 Expertise, Experience and Exchange: Tips for Research Methods
- HONS 302 Guide to senior project

3 CHs 498 Honors Senior Seminar, 499 Honors Thesis (Senior Project, Senior Seminar, Capstone, etc.).

## DISMISSAL AND WITHDRAWAL FROM THE PROGRAM

An Honors student will be dismissed from the Honors Program when:

- GPA drops below 3.3.
- A student is found by the university to have committed or participated in an incident of academic dishonesty or any other violation.
- Failure to successfully complete the Introduction to Honors Course within the following semester of joining the Program.
- Failure to successfully complete an Honors module in two consecutive semesters.
- Students wishing to withdraw from the program should fill in the required “withdrawal form” and submit it to the Honors office for evaluation.

## REINSTATEMENT TO THE PROGRAM

Any student dismissed or who has withdrawn from the Honors Program may apply for reinstatement to the program. A student who has been dismissed or has withdrawn from the Honors Program may submit a formal petition in the form of a letter requesting re-instatement to the program. The typed letter must be submitted to the Director of the Honors Program, explaining the circumstances of dismissal/withdrawal and reasons for re-instatement. After considering the circumstances and the student’s academic history, current GPA and academic progress, and the number of semesters to complete the modules, the Honors Director will consult with the Honors council and decide whether the student is to be reinstated.

## PROGRAM COMPLETION REQUIREMENTS

In order to graduate with Honors, students must complete a minimum of 6 credits of Honors coursework (Introduction to Honors and Graduation Project). Reasonable progress includes the completion of four non-credits Honors Modules each year, with an overall cumulative GPA of 3.50.

## PROGRAM CURRICULUM

Honors courses and modules are offered in Fall and Spring specifically for Honors Program members. Outstanding and acclaimed faculty members teach these courses and modules. Honors courses usually emphasize participatory classroom styles, intense and in-depth study of subject matter, the use of primary source material, team or group teaching, an interdisciplinary theme, and an element of independent study. The Honors modules small seminar-style classes with an emphasis on active and collaborative learning; opportunities to take innovative courses; a schedule of scholarly and social co-curricular activities. The modules are project-based using E-portfolios. For the Honors thesis follows the standards of postgraduate studies in accordance with Honors Programs standards. Honors courses include intensive reading, writing, and research. Only Honors students may enroll in Honors courses.

## PROGRAM REQUIREMENTS

Credit Hours	Courses
3	Introduction to Honors (Honors Core 1)
Zero	Eight Modules

3	Honors Senior Seminar 498, Honors Thesis 499 (Senior Project, Senior Seminar, Capstone, etc.)
6	Total Program Credit Hours
8	Total non-credit modules

### **HONORS STUDENT ASSOCIATION**

Honors students have several opportunities to engage in academic and recreational activities through their participation in the Honors Student Association (HSA). The association is a student-elected body with the following functions:

1. Represent the interests of Honors students and promote the Honors program on and off campus.
2. Plan and implement special events, including academic and extracurricular activities that focus on academic enrichment, professional development, social development, and community service.
3. Engage Honors students with students in academic departments across campus and with the various academic programs in Education City.

### **HONORS STUDENT ADVISING**

Every student is assigned an academic advisor upon matriculation; however, Honors students also have access to an Honors advisor, who will advise both on Honors issues as well as in broader areas. Honors advising is similar to mentoring and it does not end with advising on Honors Program curriculum issues. The Honors Advising Office will report directly to the Honors Program Director and work very closely with the university advising center.

### **CONTACT INFORMATION**

For additional information on the Honors Program, visit their website at [http://www.qu.edu.qa/honors\\_program](http://www.qu.edu.qa/honors_program) or email: [quhonors@qu.edu.qa](mailto:quhonors@qu.edu.qa).



## FOUNDATION PROGRAM

Foundation Building (D05 Women's Campus; A06 Men's Campus)

Phone (Men): (+974) 4403- 5324

Phone (Women): (+974) 4403-5328

Email: [foundation@qu.edu.qa](mailto:foundation@qu.edu.qa)

Website: <http://www.qu.edu.qa/foundation/>

### Foundation Program Director

Dr. Hezam Yahya Al-Awah

Phone: (+974) 4403-5300

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Email: [hezam@qu.edu.qa](mailto:hezam@qu.edu.qa)

## INTRODUCTION

The Foundation Program (FP) at Qatar University presents unique and challenging opportunities for students to become better-prepared and confident in key academic areas of English language and Mathematics for their study at Qatar University. All Qatar University students who register in Foundation-level courses are provided opportunities to develop their academic abilities in preparation for degrees in Science, Engineering, and Pharmacy at Qatar University. FP also offers English courses to QU students through the Core Curriculum Program, College of Arts and Sciences, College of Education and College of Health Sciences.

## VISION

The Foundation Program aspires to be internationally recognized for its innovative and quality education.

## MISSION

The Foundation Program is committed to developing students' English language proficiency and math skills to a level that will allow them to succeed in the academic programs at Qatar University. Through innovative, research-based educational practices, the program aims to help students achieve academic readiness by fostering their intellectual curiosity. As they develop their knowledge through study skills and critical thinking, students will integrate independent and collaborative learning with the appropriate use of information technology.

## OVERVIEW

The Foundation Program is composed of two academic departments and Office for Assistant Director for Student Affairs. The Foundation Program offers up to 25 contact hours per week (21 hours in English, 4 hours in math) for foundation-level students. In addition, both the Departments of English and Math provide online resources to help students practice their mathematics and English skills independently, outside of the classroom.

All new students who intend to major in science, engineering, pharmacy, health sciences, some majors in education and other majors at Qatar University must complete the requirements of the Foundation Program or submit evidence of the exemption scores on the ACT, SAT, TOEFL or IELTS. Students must complete all FP courses within two academic years at most. Foundation-level courses are not part of the undergraduate major study plans and therefore, these courses do not count towards an undergraduate degree.

## PROGRAM OBJECTIVES

Objective 1: Attain English oral and written language communication skills required to meet the minimum competency requirements of relevant academic degree programs offered at QU.

Objective 2: Demonstrate competency in mathematics knowledge and skills to meet the competency requirements of relevant academic degree programs offered at QU.

Objective 3: Develop critical thinking skills necessary for successful completion of academic tasks.

Objective 4: Develop a learning-centered education and a socially motivating environment.

## PROGRAM LEARNING OUTCOMES

PLO 1: Interpret academic texts

PLO 2: Express ideas and facts effectively in writing

PLO 3: Use verbal skills to communicate effectively

PLO 4: Apply algebraic skills to solve mathematical problems

PLO 5: Apply academic study skills

PLO 6: Demonstrate critical thinking skills

## OFFICE FOR ASSISTANT DIRECTOR FOR STUDENT AFFAIRS

Assistant Director for Student Affairs: Mrs. Hayat El Samad

Foundation Building (D05 Women's Campus; A06 Men's Campus)

Phone: +97444035328

E-mail: fpstudent@qu.edu.qa

In an ongoing effort to provide a positive university experience to students and enhance their success, the Office for Assistant Director for Student Affairs provides a variety of academic support services to enhance students' English proficiency and math skills and help them attain their education goals.

The main objectives of the FP Student Affairs office are listed below:

1. Provide orientation to students regarding the Foundation Program and Qatar University policies, regulations and academic support services through FP Open Days.
2. Develop students' math and English skills through FP Success Zone by providing one-on-one tutoring, exam revision workshops, tutorials, online videos, quizzes and supplementary material.
3. Provide opportunities for students to practice their English and math skills in an engaging manner outside of the classroom through different student initiatives such as competitions, exhibitions, and events that promote leadership skills and civic engagement.

## FOUNDATION PROGRAM DEPARTMENT OF ENGLISH

Head of Department: Dr. Mohammad Al Manasrah

Phone: (+974) 4403-5330

Email: fpde@qu.edu.qa

## FOUNDATION ENGLISH

The Foundation English courses work on developing students' English language skills in reading, writing, listening, and speaking. Appropriate technology is integrated with activities to aid language skills development

and to support autonomous learning. The Foundation Level English courses are accredited by the Commission on English Language Program Accreditation (CEA).

### Length & Structure of the Foundation English Courses

The Foundation English courses consist of three-course packages, each of which is offered at the elementary and intermediate levels. The course packages are English Integrated Core, English Reading Workshop, and English Writing Workshop. Students may be placed in different levels in each package based on their scores in different sections of the placement test upon entering the Foundation Program. By completing the intermediate level of each course with at least a 70% score (C grade), students will complete the Foundation English requirements.

### Exemption or Placement Criteria

Students will be exempted from or placed in the English Foundation courses according to their scores on ACCUPLACER or international tests as follows:

#### Exemption criteria from Foundation English courses

Standardized Test	Minimum Score for Exemption	
TOEFL	Internet-Based (IBT)	<b>61</b>
IELTS	Academic Version	<b>5.5</b>
ACCUPLACER ESL	Aggregate Score	<b>400</b>
	ESL Reading Skills	<b>100</b>
	ESL Language in Use	<b>100</b>

#### Placement Criteria in Foundation English Courses

ACCUPLACER ESL	Workshop		
	English Integrated Core	English Reading Workshop	English Writing Workshop
Score Used	APIC	APRS	APWS
Elementary	0 - 268	0 - 62	0 - 146
Intermediate	269 - 399	63 - 99	147 - 224

## DEPARTMENT OF MATHEMATICS

Head of Department: Dr. Mohamed Ben Haj Rhouma

Phone: (+974) 4403-5500

Email: fmcqu@qu.edu.qa

### Length and Structure of the Elementary Algebra Course (Math 021)

This course is designed for students who require a review of elementary algebra before taking further university mathematics courses. The course provides students with the basic skills in mathematical operations of real numbers, linear and quadratic equations and their graphs, polynomials, factoring, rational expressions, and radicals. This course prepares students for the Math P100 (Pre-Calculus) course. Since it is a non-credit course,

MATH 021 will not be counted towards students' undergraduate degree. It is a four hour per week course (3 hours in the class and 1 hour in the lab). Students complete the Foundation Math when they achieve a score of at least 70% (C) in the Elementary Algebra course.

### Placement or Exemption Criteria

Students will be exempted from or placed in Elementary Algebra and Pre-Calculus math courses according to their scores in QU-MATH PLACEMENT TEST or one of the international tests as follows:

#### Exemption Criteria\* (from Elementary Algebra & Pre-Calculus)

Math Tests	Full Exemption
ACT	24 and higher
SAT (Old)	550 and higher
SAT (New)	570 and higher
QU-Math-Placement Test	235 and higher *

#### Placement Criteria\* (in Elementary Algebra & Pre-Calculus)

Math Tests	Elementary Algebra (Math 021)	Pre- Calculus Course (Math P100)
ACT	0 - 20	21 – 23
SAT (Old)	0 - 499	500 – 549
SAT (New)	0 - 529	530 - 569
QU_Math Placement	0-199	200-234

\*For all exemption criteria QUTC website for the updated information, visit:  
<http://www.qu.edu.qa/foundation/Qatar-University-Testing-Center>.

## CORE CURRICULUM PROGRAM

The Core Curriculum is a substantial component in all undergraduate academic programs offered by QU. It is an important building block of any bachelor's degree program. The inclusion of the Core Curriculum in all academic programs has been based on the understanding that it would not be sufficient for students to take courses in only the field of their major.

The main goal of the Core Curriculum is to ensure that all undergraduate students are equipped with a broad knowledge related to disciplinary and interdisciplinary fields, basic skills and dispositions essential to the intellectual growth, moral maturity, personal fulfillment and social development needed for living successfully in an increasingly globalized and interconnected world. The concept of a "Core Curriculum" is based on the idea that the mastery of certain fundamental skills is crucial to the learning process, no matter what students choose to study. The Core Curriculum has been designed to provide undergraduates with a general education, a core of general skills and knowledge that every individual needs; either to excel in professional career, or to build a rich and fulfilling personal life.

### MISSION

The Core Curriculum Program at Qatar University offers a common academic experience that binds students from diverse disciplines together. Through a student-centered approach, and a careful selection of courses, the program aims to cultivate a range of skills, knowledge, values and dispositions needed for academic success, intellectual growth, and responsible citizenship. The ultimate goal is to prepare well-rounded and engaged graduates who are able to bring about positive change in Qatar and beyond.

### PROGRAM Objectives

The Core Curriculum Program aims at helping students to:

1. Instill the concept of good citizenship within the commitment to the framework of Arabic and Islamic moral values.
2. Develop basic competence in the principles, theories and analytical methods used in a broad variety of disciplines.
3. Equip students with the 21st century skills needed for academic success and lifelong learning.
4. Prepare graduates to bring about positive change in the community and chosen professions.

### PROGRAM LEARNING OUTCOMES

At the end of the Core Curriculum Program, students should be able to:

1. Identity and Cultural Diversity: Discuss the concept of the Arabic and Islamic identities and values and its relation to other cultures from an Islamic perspective.
2. Communication: Demonstrate competency in written and oral communication.
3. Critical Thinking: Critically evaluate the validity of ideas, assumptions and evidence regarding various issues, in order to make a judgment or reach a conclusion.
4. Quantitative Literacy: Solve problems from a wide array of contexts and everyday life situations using scientific reasoning and quantitative evidence as appropriate.



5. **Civic Responsibility:** Discuss diverse civic issues considering their role in promoting the quality of life in the community.
6. **Digital Information Literacy:** Apply search skills in accessing and using information from digital resources to address a particular problem.
7. **Entrepreneurial Thinking:** Develop innovative solutions or approaches in addressing actual problems to bring about noticeable progress in a variety of contexts.

## STRUCTURE

Coursework in the Core Curriculum is intended to impart the skills, foundational knowledge, and dispositions described in the Core Curriculum's Objectives and Learning Outcomes. The CCP degree requirements encompass a set of college-level courses drawn from different disciplines. These courses are organized and distributed into six packages: Identity and Communication Package (15-18 Credits), Social/ Behavioral Sciences Package (3 Credits), Natural Sciences and Mathematics Package (3 Credits), Humanities/Fine Arts Package (0-3 credits), and Core Knowledge and Skills Package (0-6 Credits).

In some study plans, depending on the major, the structure has a package titled "Supplemental College/Program Core Requirements." This package (0-12 Credits) may include different courses that vary by College or program. It might include courses pertaining to natural sciences, mathematics, social/behavioral sciences, and humanities/fine arts. Courses in such a package can be counted as Core Curriculum courses. In addition, English courses focusing on developing language skills might be included in this package.

Each package has a required number of credit hours. Students have to satisfy the minimum credit hours assigned to each package. Generally, the Core courses are selected to cover different disciplines including social/behavioral sciences, humanities/fine arts, natural sciences, and mathematics.

## REGULATION

- As a general rule, all undergraduates of Qatar University are required to complete a 33-credit Core Curriculum before receiving a baccalaureate degree. These requirements must be met by every student pursuing a baccalaureate degree at Qatar University, regardless of his or her major .
- The Core Curriculum is spread out across students' full tenure at the University. The Core requirements must be completed prior to graduation. English courses focusing on developing language skills should be completed by the second semester of the third year.
- Courses offered in a student's major or minor program cannot be counted for credit in the Core Curriculum .

## Core Curriculum Program

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

### Identity and Communication Package (15 - 18 CH)

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I

- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

## **QATAR UNIVERSITY TESTING CENTER (QUTC)**

A06 (Men's Foundation Building)

Phone: (+974) 4403-5522

Email: [QUTCsupport@qu.edu.qa](mailto:QUTCsupport@qu.edu.qa)

Website: <http://www.qu.edu.qa/testing-center>

### **TESTING CENTER MANAGER**

Dr. Walid Ahmed Massoud

Phone: (+974) 4403-5525

Email: [wmassoud@qu.edu.qa](mailto:wmassoud@qu.edu.qa)

### **ABOUT THE CENTER**

QUTC is the largest testing center in Qatar, which offers a variety of tests to QU students and the wider community. It provides the highest quality testing services that adhere to international testing standards and guidelines. It is a pioneer in developing the first locally produced standardized placement tests. The Center works jointly with international testing partners such as Cambridge University, College Board, Pearson, the British Council, ACT, Japan Foundation, and ETS. International partners have often commended the Center for achieving the "Highest Grade of Excellence." It offers all admission and placement exams for undergraduate and postgraduate students for all majors.

### **VISION**

The Center aspires to become a nationally and regionally recognized facility for providing quality testing services and meeting the testing needs of Qatar University students and the wider community.

### **MISSION**

The Center supports Qatar University students and the wider community in assessing their knowledge, skills, and abilities as they relate to higher education by providing a variety of local and international testing opportunities that are valid, reliable, and fair. The Center is committed to maintaining professional testing standards and developing tests that cater to the needs of all stakeholders.

## **TESTS REQUIRED FOR THE UNDERGRADUATE ADMISSION**

### **Placement Tests**

- ACCUPLACER ESL Test
- QU-Placer Math Test

### **International Exams**

- IELTS (Academic Version)
- TOEFL iBT
- ACT International
- SAT (General)
- BMAT

### **EXAMS BRIEF**

**ACCUPLACER ESL:** is a computer-adaptive test designed to place English learners in English language courses. Its components are Language Use, Listening, Sentence-Meaning, and Reading. There are 20 multiple-



choice questions in each component. The test score for each component ranges from 20 – 120 points. It is used at QU to determine an applicant's partial or complete exemption from English courses in the Foundation Program.

**QU-Placer Math Test:** is designed to place students in appropriate QU math courses. It has two components: elementary algebra and pre-calculus, which comprises a total of 66 questions. The test score ranges from 125-275 points. A score of 200 is required to exempt applicants from the Elementary Algebra course, and 235 is required to exempt applicants from the Pre-calculus course.

**IELTS Academic:** is another English test used at QU to determine an applicant's complete exemption from English language requirements of the Foundation Program. The four components are Listening, Reading, Writing and Speaking. IELTS is designed to assess English language skills across a wide range of levels. Results are reported as band scores on a scale from 1 (the lowest) to 9 (the highest). An overall band of 5.5 in IELTS Academic exempt applicants from the Foundation Program English courses.

**TOEFL iBT:** is one of the tests used at QU to determine an applicant's complete exemption from the Foundation English requirements. The general test skills are Reading, Listening, Speaking, and Writing. Some test sections have a combination of two or more skills. For the TOEFL iBT test, a candidate receive four scaled scores and a total score within the range of 0 – 120. An overall score of 61 or greater is necessary for exemption from Foundation Program English language requirements.

**ACT International (Math section):** is one of the tests used at QU to exempt applicants (partially or entirely) from the Elementary Algebra and Pre-Calculus courses in the Foundation Program based on the score of the math section only. The math section has 60 multiple-choice questions administered in 60 minutes. The total possible points are 36. QU requires a score of 21 to exempt applicants from the Elementary Algebra course and 24 to exempt applicants from the Pre-calculus course.

**General SAT (Math section):** is one of the tests used at QU to exempt applicants (partially or entirely) from the Elementary Algebra and Pre-Calculus courses in the Foundation Program based on the score of the math section only. The test consists of three sections: mathematics, reading, and writing. QU uses only the score of the mathematics section, which consists of 58 questions; that some are solved using a calculator and others without a calculator. QU requires a score of 530 to exempt applicants from the Elementary Algebra course and 570 to exempt applicants from the Pre-calculus course.

**BMAT (Bio-Medical Admissions Test):** is an aptitude test used as part of the admissions process for the College of Medicine, and it is offered a few times a year. It lasts for two hours and consists of three components: Aptitude and Skills (35 multiple-choice questions), Scientific Knowledge and Application (27 multiple-choice questions), and a Writing Task (one task from a choice of three).



## CHAPTER 10 – BACHELOR PROGRAMS

### COLLEGE OF ARTS AND SCIENCES

College of Arts and Sciences

Men's Section, Corridor 2, Dean's Office B111

Phone: (+974) 4403-4516

Email: cas@qu.edu.qa

Website: <http://www.qu.edu.qa/artssciences/>

#### Dean

Ibrahim Mohammed AlKaabi

#### Associate Dean for Languages, Communication and Translation

Fatma Mohammed H Al-Sowaidi

#### Associate Dean for Humanities and Social Sciences

Abdulnasser Saleh M S Alyafei

#### Associate Dean for Sciences and Applied Sciences

Leena Abdulrahman Al-Sulaiti

#### Assistant Dean for Student Affairs

Muneera Al-Subaiey

### ABOUT THE COLLEGE

The College of Arts and Sciences (CAS) aspires to provide the foundation of liberal education, quality academic research, and educational programs to contribute to the development and advancement of human thought, bearing in mind values and the changing societal needs of the 21st century. The College of Arts and Sciences offers a variety of quality academic programs in both arts and sciences to fulfill the teaching, research and service missions of the university. The College is dedicated to enhancing and disseminating knowledge through research, quality instruction, critical thinking, global learning and community service. CAS fosters an open and supportive learning environment to attract a diverse student body and distinguished faculty who are committed to research and teaching excellence.

### DEGREE OFFERINGS

**The College of Arts and Sciences offers the following undergraduate degree programs:**

- Bachelor of Arts in Arabic Language
- Bachelor of Arts in English Literature and Linguistics
- Bachelor of Arts in History

- Bachelor of Arts in Geography and Geographic Information Systems
- Bachelor of Arts in International Affairs
- Bachelor of Arts in Mass Communication
- Bachelor of Arts in Policy, Planning, and Development
- Bachelor of Arts in Psychology
- Bachelor of Arts in Social Work
- Bachelor of Arts in Sociology
- Bachelor of Science in Biological Sciences
- Bachelor of Science in Chemistry
- Bachelor of Science in Environmental Science
- Bachelor of Science in Statistics
- Bachelor of Science in Mathematics
- Bachelor of Science in Physics
- Bachelor of Science in Sport Science

**The College of Arts and Sciences offers the following minors:**

- Minor in Arabic
- Minor in Biological Sciences
- Minor in Chemistry
- Minor in Geology
- Minor in English
- Minor in Translation
- Minor in French
- Minor in Spanish
- Minor in Turkish
- Minor in History
- Minor in Philosophy
- Minor in International Affairs
- Minor in Policy Planning and Development
- Minor in Mass Communication
- Minor in Statistics
- Minor in Sociology
- Minor in Psychology
- Minor in Actuarial Mathematics

**DECLARING THE MAJOR**

CAS Students should take into consideration the following requirements for declaring their major:

1. Students must satisfy QU requirements for declaring a major including the need to declare the major before completing 36 undergraduate credit hours. Students who completed 36 credit hours without declaring a Major will be blocked from enrolling in the next semester's courses until they apply for a major.
2. New students are admitted on the basis of competitiveness and according to the capacity of the program, no minimum semester GPA or cumulative GPA is required for the admission.

3. Students can apply for a major since their first academic semester without a minimum of completed credit hours. The application should include a choice of several majors listed by priority.
4. Most of the majors in CAS can only be assigned after students complete at least 9 credit hours.
5. When applicable, students must apply for a concentration area within their Major before completing 45 credit hours. Students who completed 45 credit hours without applying for a concentration area they will be blocked from enrolling in the next semester's courses until they apply for a concentration area.
6. QU students who wish to transfer to the College of Arts and Sciences can submit their Major application with their transfer request before the deadline announced by the college.
7. Transferred students from other universities/colleges who have completed 30 credit hours or more should apply to a Major immediately upon their admission to the university. Their application should provide the cumulative GPA obtained at the university/college transferring them. Students who have completed less than 30 credit hours must submit their Major application within the deadline announced by the college.
8. Re-enrolled and re-admitted students who completed 36 hours or more can continue the same previous Major or change their Major after college approval.
9. Academic programs may have additional requirements.
10. When applicable, students must apply for a minor before earning 60 Credit Hours; without a minor students will be blocked from enrolling in the next semester's courses until they apply for a Minor.

For more details about the University requirements for declaring the major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations.

### **DECLARING THE MINOR**

Students who wish to enroll in a minor offered by the College of Arts and Science must satisfy the university requirements for declaring a minor. For more details about the University requirements for declaring a minor, please refer to the paragraph “Declaring the minor” in Chapter 7 – Academic Policies and Regulations.



## LANGUAGES, COMMUNICATION & TRANSLATION CLUSTER

### DEPARTMENT OF ARABIC LANGUAGE AND LITERATURE

Women's Main Building - Room 112

Phone: (+974) 4403-4820/ 4403-4859

Email: [headdeparabic@qu.edu.qa](mailto:headdeparabic@qu.edu.qa)

Website: <http://www.qu.edu.qa/ar/artssciences/departments/dept-arabic-language>

#### Head

Rachid Bouziane

#### Faculty

##### Professors:

Salama Abdullah Al-Suwaidi, Fatma Al-Sowaidi, Maryam Al-Naemi, Rachid Bouziane, Haitham Sarhan, Morad Mabrook, Abdelsalam Hamed,

##### Associate Professors

Hanan AlFayadh, Noora Faraj, Imtenan Smadi, Loui Khalil, Mahrous Alsayed Borayek, Abdullah Al-Hetari, Abdelhak Belabed, Emad Abdellatif, Ahmad Halabi, Mostafa Bouanani, Ahmet Natouf. Mohamed Mostafa Selim, Amro Mohamed Madkour, Mohammad Al-Absi, Haidar Ghaylan,

##### Assistant Professors

Haya Al-Derhim, Seeta Al-Athba, Huda Al-Shammari, Louloa Al-Abdallah, Ahmad Haji Safar, , Adel Fathy, Mahmoud Kaheel, Sumaya Makki, Falah Naseef, Mohammad Al-Rahaoui, Mohamed Al-Mahgari, , Selcuk Koca, Ibrahim Orioglo

##### Lecturers

Aysha Al-Henzab, Tamader Jabir Al-Henzab Radwan Menisy, Yahya Al-Mahdi, Ibrahim Amer, Youssry Al-sawy, Ali Fathallah Mohamed, Sael Shadid, Rami Abu Shehab.

##### Teaching Assistants

Raisa Al-Dosari, Asmaa Al-Aggi, Sultan Mahyoub Al-Kamel

### ABOUT THE DEPARTMENT

#### Vision

The Arabic language Department looks forward to the specialization in the Arabic language and literature as a prestigious place among all disciplines in order to achieve a high level of quality in teaching and research and service of the university and the community, keeping abreast with the developments in the educational and

educational fields that lead to academic accreditation in the fields of cognitive formation, scientific research and acquisition of language skills, in order to produce a generation of serious learners and elites of pioneers, leaders and thinkers, who are qualified to serve their language, home and nation, are open to the culture and civilization of the other, armed with tools of dialogue and communication with man and machine.

### **Mission**

The mission of the Department of Arabic language is to prepare specialists in literary and linguistic studies, with sufficient communicative skills, and to apply this knowledge and experience in the fields of research and all fields of work that require the employment of the Arabic literature and its techniques, absorbing the heritage of the nation, open to the curricula of others and their schools, while entrenching the values of citizenship, developing critical thinking skills, self-learning and teamwork.

## **BACHELOR OF ARTS IN ARABIC LANGUAGE**

### **Objectives**

The Arabic language program aims to help the student:

- Improving the education process and improving the specialized scientific training.
- Develop language and communication skills to enhance and refine creativeness among students.
- Imparting and developing literary and monetary skills in an environment of self-and cooperative learning.
- To develop the spirit of pride in the Arabic language and the Arab-Islamic heritage.
- Understanding the Arab and Islamic cultural instruments outside the Arab countries
- Develop a culture of dialogue and openness to the other and its civilization.

### **Learning outcomes**

Upon completion of the program courses, the student is expected to be able to:

1. Shows high efficiency in the use of Arabic language in the fields of reading, writing and scientific research.
2. Employs Arabic in writing, reading and thinking about expressing the needs of the local, Arab and Islamic community.
3. Improves the use of linguistic and literary heritage sources through various scientific activities.
4. Distinguishes the ages of Arabic literature and its different artistic trends.
5. Accommodates the historical, theoretical and material mulch of the relationship of Arab culture to human cultures.
6. Distinguishes the linguistic schools and their theories and applications.
7. Apply the acquired skills in research, analysis, criticism and comparison

### **Opportunities**

Graduates of the Arabic Language Department will be able to meet the needs of the labor market and Qatari society, especially in the following job opportunities:

- Teaching assistant at the university.
- Teaching in the field of education.
- Working as a journalist in the field of press and electronic journalism.
- Working as a professional in the media and communicating television or radio stations.

- Acting as a language and linguistic checker in news organizations, public ministries and other governmental organizations.
- Work in literary creativity centers.
- Managing cultural activities in clubs or any field that requires critical thinking.
- Working in the field of public relations and the diplomatic corps.

### **Admission Requirements**

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement, a written test, and a personal interview.

Detailed Undergraduate admission requirements are available at the following link:

[http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### **Declaring the major**

Only Female students can apply to the Arabic Language Major.

In addition to the university and college requirements for declaring a major including the need to declare the major before completing 36 undergraduate credit hours, students must pass the major qualification interview and exam. For more details about the University requirements for declaring the Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document. For more details about the College requirements for declaring the Major, please refer to the paragraph “Declaring the major” in the College section of this Chapter.

### **DEGREE REQUIREMENTS - Major in Arabic Language**

A minimum of 120 credit hours are required to complete the major in Arabic Language, including the following:

- A minimum of 33 credit hours in core curriculum requirements.
- A minimum of 30 credit hours in major requirements courses.
- A minimum of 12 credit hours in major requirements courses in skills and research.
- A minimum of 6 credit hours in major elective courses in language and linguistics.
- A minimum of 6 credit hours in major elective courses in literature and criticism.
- A minimum of 6 credit hours in major elective courses in modern language.
- A minimum of 24 credit hours in minor requirement courses.
- A minimum of 3 credit hours in free elective courses.

### **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills

- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I

- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences



(excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **Major Requirements Courses (30 CH)**

Students must complete a minimum of 12 credit hours in major requirements courses:

- ARAB 213 Grammar I
- ARAB 218 Morphology
- ARAB 221 Classical Arabic Poetry I
- ARAB 224 Classical Arabic Prose
- ARAB 261 Rhetoric
- ARAB 319 Grammar II
- ARAB 331 Classical Arabic Criticism
- ARAB 351 Introduction to Linguistics
- ARAB 481 Modern Literary Criticism
- ARAB 483 Comparative Literature

### **Major Requirements Courses in Skills and Research (12 CH)**

Students must complete a minimum of 12 credit hours in major requirements courses in skills and research:

- ARAB 220 Writing Registers: types and rules of use
- ARAB 391 Research Resources & Methods in Language and Literature
- ARAB 490 Field practical training
- ARAB 493 Capstone Project on linguistics & Literature

### **Major Elective Courses in Language and Linguistics (6 CH)**

Students must complete a minimum of 6 credit hours in major elective courses in language and linguistics:

- ARAB 355 Applied linguistics
- ARAB 354 Semantics
- ARAB 375 Phonology
- ARAB 412 Readings in ARAB. Ling. Trad
- ARAB 392 Arabic Syntax
- ARAB 419 Comparative Linguistics
- ARAB 352 Philology
- ARAB 464 Socio-Linguistics

### **Major Elective Courses in Literature and Criticism (6 CH)**

Students must complete a minimum of 12 credit hours in major elective courses in literature and criticism:

- ARAB 223 Classical Arabic Poetry (2)
- ARAB 225 Qatari Folklore in Literature
- ARAB 326 Literary Text Analysis
- ARAB 327 Readings in Literary Tradition ( Modern Perspective)
- ARAB 381 Modern & Cont. ARAB. Poetry
- ARAB 382 Modern Narratives

- ARAB 482 Contemporary Gulf Literature
- ARAB 262 Prosody and Metrics

### **Major Elective Courses in Modern Language (6 CH)**

The student chooses from the below list one of the offered languages:

- ARAB 271 Persian Language (1)
- ARAB 372 Persian Language(2)
- TURK 101 Turkey Language (1)
- TURK 201 Turkey Language (2)

### **Minor Requirements Courses (24 CH)**

Students must complete a minor offered at the university other than the minor in Arabic Language. If the selected minor requires less than 24 CH the student must take additional free electives to complete the 24 CH requirements.

### **Free Electives Courses (3 CH)**

Students must take 3 credit hours from courses outside the Arabic major.

## **MINOR IN ARABIC**

The minor in Arabic provides students with a fair measure of expertise and knowledge in the Arabic Language and Literature via highly elected courses.

### **Declaring the minor**

Applicants for the minor in Arabic must satisfy the University and the College requirements for declaring a minor.

### **MINOR REQUIREMENTS - Minor in Arabic (24 CH)**

Students seeking a minor in Arabic must complete a minimum of 24 credit hours, including the following:

- A minimum of 12 credit hours in minor requirements courses
- A minimum of 12 credit hours in minor electives courses

### **Minor Requirements Courses (12 CH)**

Students must complete a minimum of 12 credit hours in minor requirements courses:

- ARAB 213 Grammar I
- ARAB 218 Morphology
- ARAB 221 Classical Arabic Poetry I
- ARAB 261 Rhetoric

### **Minor Electives Courses (12 CH)**

Students must complete a minimum of 6 CH in the Arabic Minor Electives I and a minimum of 6 CH in the Arabic Minor Electives II.

### **Arabic Minor Electives I (6 CH)**

Students must complete a minimum of 6 CH taken in the minor electives courses:

- ARAB 262 Prosody and Metrics
- ARAB 319 Grammar II
- ARAB 351 Introduction to Linguistics
- ARAB 352 Philology
- ARAB 354 Semantics

### **Arabic Minor Electives II (6 CH)**

Students must complete a minimum of 6 CH taken in the minor electives courses:

- ARAB 223 Classical Arabic Poetry
- ARAB 331 Classical Arabic Criticism
- ARAB 381 Modern and Contemporary Arabic Poetry
- ARAB 481 Modern Literary Criticism
- ARAB 482 Contemporary Gulf Literature
- ARAB 483 Comparative Literature

### **MINOR IN TURKISH**

Turkish is one of the languages of the Altaic family and is spoken by over a hundred million people across the globe. Today Turkish is written in Latin script, but it was previously written in Arabic script during the Ottoman Caliphate. Turkish has 29 characters, and is written as it is pronounced. The Turkish language contains many Arabic words, and it also loaned Arabic a number of words related to food, clothing, social behavior and administrative titles. The Turkish language is distinguished by its rules, its lack of complexity, its ease of understanding and its comprehension. This makes it very popular.

The sub-specialization in the Turkish language for boys and girls was launched in the fall of 2019, supervised by the Arabic Language Department at Qatar University, and its courses vary between language, literature, communication skills, written production, history and civilization, to serve the educational process, and gives the student an additional opportunity to compete in the labor market. From this program, the university aims at a set of goals.

#### **Program Goals**

1. Strengthening the bonds of brotherhood between the Arab and Turkish-speaking peoples.
2. Knowing the aspects of influence and influence between the Arabic and Turkish languages and civilizations, and their role in building Islamic civilization.
3. Studying the Turkish linguistic, cultural and scientific corpus found in many international libraries.
4. Seeing the history of Turkish countries, especially the Ottoman Empire, as well as seeing the cultural and social aspects therein.
5. Encouraging the translation movement from Arabic to Turkish and vice versa, to facilitate the process of cultural, commercial and civilized exchange between the Arab and Turkish-speaking peoples.
6. Providing students specialized in administration, economics, international affairs, law, media, Sharia and other skills with sufficient skills in the Turkish language to facilitate their inclusion in the labor market, investment, trade and tourism.
7. Contributing to creating researchers and advisors who are interested in the Turkish society and its components. They have the analytical tools that help them provide insights and opinions about that society in the midst of the current development and globalization.

### **Fields of work**

Graduates of the subspecialty in the Turkish language can work in the following fields:

1. Government agencies, for example, ministries and diplomatic missions.
2. International bodies and organizations such as the United Nations and the International Labor Organization.
3. Cultural attachés in the Turkish-speaking countries.
4. Turkish schools and cultural centers.
5. Tourism companies in Qatar, Turkey and the Arab world.
6. Turkish investment sectors in Qatar and the Arab world.
7. Communications and consulting firms.
8. Written and visual media.
9. Sheikh Hamad Award for Translation, International Understanding, and Special Translation Centers.
10. Qatar-Turkish Chamber of Commerce.
11. Museums, galleries and publishing houses.
12. Interpretation at international conferences and symposia.
13. Arabic language teaching centers for Turks.
14. Work in research centers in Qatar, Turkey, and Turkish-speaking countries.

### **Declaring the minor**

Applicants for the minor in Turkish must satisfy QU requirements for declaring a minor. In addition, applicants must complete a Turkish Placement Test. Admission into the Turkish minor program of study is competitive and will be based on a recommendation by the relevant committee at the program and/or college level.

### **MINOR REQUIREMENTS - Minor in Turkish (24 CH)**

Students seeking a minor in Turkish must complete a minimum of 24 credit hours, including the following:

- A minimum of 18 credit hours in minor requirements courses
- A minimum of 6 credit hours in minor Electives courses

#### **Minor Requirements Courses (18 CH)**

Students must complete a minimum of 18 credit hours in minor requirements courses:

- TURK 101 Turkish I
- TURK 201 Turkish II
- TURK 210 Aspects of Turkish Culture
- TURK 211 Introduction to Turkish Literature
- TURK 302 Turkish Reading & Speaking
- TURK 303 Turkish Writing

#### **Minor Electives Courses (6 CH)**

Student must complete a minimum of 6 CH in minor elective courses:

- TURK 401 Modern Turkey: From an Empire to a Nation
- TURK 402 Turkish Listening & Conversation
- TURK 403 Turkish for Specialization
- TURK 404 Topics in Turkish Literature and Culture

## DEPARTMENT OF ENGLISH LITERATURE AND LINGUISTICS

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### Faculty

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Haifa Al-Buainain

#### Associate Professors

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#### Assistant Professors:

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#### Lecturers

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#### Teaching Assistants

Afra Hassan Al-Kholifi, Afra Mubarak Al-Qahtani, Fatima Al-Abdulla, Noora Al-Kaabi, Fatima Al Hajri, Muneera Al Khulaifi, Jawaher Al-Abdulghani, Noora Al-Ansari

## ABOUT THE DEPARTMENT

The Department of English Literature and Linguistics provides high-quality, student-centered education in a positive learning and research environment. Students acquire a broad knowledge of English literature and linguistics. They then choose to develop advanced knowledge and skills in either area. The program equips graduates to meet the challenges of their careers, and it enhances their awareness and appreciation of human values and the literature, culture and language of others. The Department also offers four Minors in English, Translation, Spanish and French.



## BACHELOR OF ARTS IN ENGLISH LITERATURE AND LINGUISTICS

### Objectives

The major in English Literature and Linguistics strives to:

- Enable students to develop effective communication skills.
- Develop students' appreciation for the diversities of languages and cultures.
- Familiarize students with linguistics, its sub-branches, applications and relations to other disciplines.
- Introduce students to the various literary genres of English in their historical, cultural and artistic contexts.
- Develop students' critical thinking skills and enhance their ability to produce logical and well-structured arguments.

### Learning Outcomes

1. Demonstrate the ability to read, communicate and write clearly in English.
2. Apply the tools of linguistic analysis to English and other languages.
3. Relate the phenomena of language and literature to their social, cultural and psychological contexts.
4. Analyze critically literary genres within their historical, social, and intellectual contexts.
5. Demonstrate theoretical knowledge and competence in the use of practical methods in literature and linguistics.

### Opportunities

Graduates with a major in English Literature and Linguistics will be qualified to work as English teachers, translators, and in the fields of communication and language industry. They could also work in mass media organizations: newspapers, radio and television. In addition, they could work in non-governmental organizations, the private sector, international aid and development agencies, community services, social organizations, and research organizations. They may also pursue graduate studies in linguistics or literature.

### Admissions Requirements

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement and a minimum score of 5.5 on the IELTS or 500 on the TOEFL or 61 on the TOEFL iBT. In addition, applicants must score above the cut-off percentage in the entrance interview held by the Department. Detailed Undergraduate admission requirements are available at the following link: [http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### Declaring the major

Only Female students can apply to the English Literature and Linguistics Major.

In addition to the university and college requirements for declaring a major including the need to declare the major before completing 36 undergraduate credit hours, students must have a minimum score of 5.5 on the IELTS or 500 on the TOEFL or 61 on the TOEFL iBT. Moreover, students must pass the major qualification interview.

For more details about the University requirements for declaring the Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document. For more details about the College requirements for declaring the Major, please refer to the paragraph “Declaring the major” in the College section of this Chapter.

## **DEGREE REQUIREMENTS - Major in English**

A minimum of 120 credit hours are required to complete the major in English, including the following:

- A minimum of 33 credit hours in core curriculum requirements.
- A minimum of 27 credit hours in major requirements courses.
- A minimum of 24 credit hours in concentration requirements and electives.
- A minimum of 24 credit hours in minor requirements courses.
- A minimum of 12 credit hours in free electives courses.

## **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society

- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods

- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **Major Requirements Courses (27 credit hours)**

Students must complete a minimum of 27 credit hours in major requirements courses:

- ENGL 153 Essay Writing II
- ENGL 155 Introduction to Language
- ENGL 156 Introduction to Literature I
- ENGL 157 Introduction to Linguistics
- ENGL 158 Introduction to Literature II
- ENGL 208 Literary Criticism
- ENGL 226 History of the English Language
- ENGL 230 Professional Writing
- ENGL 499 Capstone Course (Integrated Skills)

### **Concentration in Linguistics (24 CH)**

Students must complete a minimum of 9 CH in concentration requirements and a minimum of 15 CH in concentration electives.

### **Linguistics Concentration Requirements (9 CH)**

Students must complete a minimum of 9 credit hours in concentration requirements:

- ENGL 216 Phonetics & Phonology
- ENGL 301 Syntax
- ENGL 303 Sociolinguistics

**Linguistics Concentration Electives (15 CH)**

Students must complete a minimum of 15 credit hours in concentration electives from specific packages. Students must complete 3 CH in each of the Language Across Disciplines, Language and Psychology, Language and Meaning, Research Techniques, and Linguistics Special Topics packages.

**Language Across Disciplines Package (3 CH)**

- ENGL 209 Language and Society
- ENGL 213 Language and Culture
- ENGL 233 Language and Computer
- ENGL 234 Language and Gender

**Language and Psychology Package (3 CH)**

- ENGL 305 First Language Acquisition
- ENGL 307 Psycholinguistics
- ENGL 309 Second Language Acquisition

**Language and Meaning Package (3 CH)**

- ENGL 319 Semantics
- ENGL 327 Discourse Analysis

**Research Techniques Package (3 CH)**

- ENGL 401 Speech Sciences
- ENGL 403 Field Methods

**Linguistics Special Topics Package (3 CH)**

- ENGL 423 Seminar in Linguistics
- ENGL 425 Topics in Linguistics
- ENGL 448 Independent Study

**Concentration in Literature (24 CH)**

Students must complete a minimum of 9 CH in concentration requirements and a minimum of 15 CH in concentration electives.

**Literature Concentration Requirements (9 CH)**

Students must complete a minimum of 9 credit hours in concentration requirements:

- ENGL 220 American Literature
- ENGL 302 Comparative Literature
- ENGL 304 Shakespeare

**Literature Concentration Electives (15 CH)**



Students must complete a minimum of 15 credit hours in concentration electives from specific packages. Students must complete a minimum of 3 CH in each of the Period, Genre, and Literature Special Topics packages.

**Period package (3 CH)**

- ENGL 306 Medieval Literature
- ENGL 308 Renaissance to Restoration
- ENGL 314 Augustan to Romantic
- ENGL 324 Victorian Literature
- ENGL 393 Twentieth Century Literature

**Genre package (3 CH)**

- ENGL 326 Poetry
- ENGL 328 Drama
- ENGL 330 The Short Story
- ENGL 332 The Novel

**Literature Special Topics package (3 CH)**

- ENGL 400 Women's Literature
- ENGL 402 Text and Film
- ENGL 404 Modernism
- ENGL 406 Post-Modernism
- ENGL 408 Post-Colonial Literature
- ENGL 424 Modern Drama
- ENGL 426 Children's Literature
- ENGL 428 Topics in Literature
- ENGL 448 Independent Study

**Minor Requirements Courses (24 CH)**

Students enrolled in the English program may take any of the Minors offered within the university. If the minor the students enrolled in is less than 24 CH, students must take additional courses as free electives to complete the 24 CH requirements.

**Free Electives Courses (if applicable) (12 CH)**

Students must complete a minimum of 12 credit hours in free electives Courses from courses outside the English major and minor

**Study Plan**

**Bachelor of Arts in English Literature and Linguistics in Linguistics Track**

FIRST YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours

Fall	ENGL 150	Essay Writing I	3
	ENGL 151	Advanced Reading Comprehension	3
	ENGL 155	Introduction to Language	3
	ENGL 156	Introduction to Literature I	3
		Core Curriculum	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	ENGL 153	Essay Writing II	3
	ENGL 157	Introduction to Linguistics	3
	ENGL 158	Introduction to Literature II	3
		Core Curriculum	3
		Core Curriculum	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>SECOND YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	ENGL 230	Professional Writing	3
	ENGL 208	Literary Criticism	3
	ENGL 216	Phonetics and Phonology	3
		Core Curriculum	3
		Free Elective	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	ENGL 226	History of the English Language	3
		Language across Disciplines Package Course	3
		Core Curriculum	3
		Core Curriculum	3
		Free Elective	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

THIRD YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ENGL 301	Syntax	3
	ENGL 304	Language & Psychology Package Course	3
		Minor Course 1	3
		Minor Course 2	3
		Core Curriculum	3
Total Credit Hours in Semester			15
Spring	ENGL 303	Sociolinguistics	3
		Language & Meaning Package Course	3
		Minor Course 3	3
		Minor Course 4	3
		Free Elective	3
Total Credit Hours in Semester			15

FOURTH YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall		Research Techniques Package Course	3
		Minor Course 5	3
		Minor Course 6	3
		Core Curriculum	3
		Free Elective	3
Total Credit Hours in Semester			15
Spring	ENGL 499	Capstone Course (Integrated Skills)	3
		Linguistics Special Topics Package Course	3
		Minor Course 7	3
		Minor Course 8	3

		Core Curriculum	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

### Bachelor of Arts in English Literature and Linguistics in Literature Track

<b>FIRST YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	ENGL 150	Essay Writing I	3
	ENGL 151	Advanced Reading Comprehension	3
	ENGL 155	Introduction to Language	3
	ENGL 156	Introduction to Literature I	3
		Core Curriculum	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	ENGL 153	Essay Writing II	3
	ENGL 157	Introduction to Linguistics	3
	ENGL 158	Introduction to Literature II	3
		Core Curriculum	3
		Core Curriculum	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>SECOND YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	ENGL 230	Professional Writing	3
	ENGL 208	Literary Criticism	3
		Core Curriculum	3
		Core Curriculum	3
		Free Elective	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
	ENGL 226	History of the English Language	3

Spring	ENGL 220	American Literature	3
		Minor Course 1	3
		Core Curriculum	3
		Free Elective	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>THIRD YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	ENGL 302	Comparative Literature	3
	ENGL 304	Shakespeare	3
		Minor Course 2	3
		Minor Course 3	3
		Core Curriculum	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring		Period Package Course	3
		Genre Package Course	3
		Minor Course 4	3
		Core Curriculum	3
		Free Elective	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>FOURTH YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall		Special Topics Package Course	3
		Free Choice from Literature Package Course	3
		Minor Course 5	3
		Minor Course 6	3
		Free Elective	3



<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	ENGL 499	Capstone Course (Integrated Skills)	3
		Free Choice from Literature Package Course	3
		Minor Course 7	3
		Minor Course 8	3
		Core Curriculum	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

## MINOR IN ENGLISH

The Minor in English offers a variety of courses in writing, literature, and linguistics which allow students to develop advanced communicative and critical thinking skills. It also enables students to appreciate the diversity of languages and cultures.

### Declaring the minor

Applicants for the minor in English must satisfy QU and College requirements for declaring a minor. Acceptance depends on capacity.

### Minor Requirements - Minor in English (24 CH)

Students seeking a minor in English must complete 24 credit hours, including the following:

- A minimum of 15 credit hours in minor requirements courses.
- A minimum of 9 credit hours in minor electives courses

### Minor Requirements Courses (15 CH)

Students must complete a minimum of 15 credit hours in minor requirement courses:

- ENGL 153 Essay Writing II
- ENGL 155 Introduction to Language
- ENGL 156 Introduction to Literature I
- ENGL 157 Introduction to Linguistics
- ENGL 158 Introduction to Literature II

### Minor Electives Courses (9 CH)

Students must complete a minimum of 9 credit hours in minor electives courses:

- ENGL 209 Language and Society
- ENGL 213 Language and Culture
- ENGL 220 American Literature
- ENGL 230 Professional Writing
- ENGL 234 Language and Gender
- ENGL 302 Comparative Literature

- ENGL 303 Sociolinguistics
- ENGL 305 First Language Acquisition
- ENGL 307 Psycholinguistics
- ENGL 309 Second Language Acquisition
- ENGL 328 Drama
- ENGL 330 The Short Story
- ENGL 400 Women's Literature
- ENGL 402 Text and Film
- ENGL 426 Children's Literature

## **MINOR IN TRANSLATION**

The Minor in Translation is designed to meet the demands of an increasingly globalized society by developing translation skills in the fields of law, science and technology, business, as well as media and the arts. Students will enhance language proficiency and gain hands-on experience in the translation of a variety of texts from English to Arabic and vice versa. The program aims at developing students' awareness of the cultural and linguistic challenges involved in translation, as well as preparing them to pursue postgraduate education in the field of Translation Studies.

### **Declaring the Minor:**

Applicants for the minor in Translation must satisfy QU and the College requirements for declaring a minor. In addition, students must pass the department admission test.

### **Minor Requirements - Minor in Translation (24 CH)**

Students seeking a minor in Translation must complete a minimum of 24 credit hours, including the following:

- A minimum of 15 credit hours in minor requirements courses.
- A minimum of 9 credit hours in minor elective courses.

### **Minor Requirements Courses (15 CH)**

Students must complete a minimum of 15 credit hours in minor requirements courses:

- TRAN 201 Principles and Strategies of Translation
- TRAN 202 Contemporary Translation Theories
- TRAN 301 Media Translation
- TRAN 302 Specialized Translation I
- TRAN 303 Intercultural Communication

### **Minor Elective Courses (9 CH)**

Students must complete a minimum of 9 credit hours in minor elective courses

- TRAN 210 Arabic Writing Skills for Translators
- TRAN 211 English Writing Skills for Translators
- TRAN 212 Linguistic Comparison of Arabic & English
- TRAN 314 Introduction to Subtitling
- TRAN 316 Translation Technologies

- TRAN 403 Introduction to Interpreting

## **MINOR IN FRENCH**

The Minor in French aims to build and expand students' skills and competencies in French, and introduce them to the French culture. The minor is also aimed at developing students' appreciation of other cultures and languages in order to prepare them to live and work in a globalized and interconnected world.

### **Declaring the minor**

Applicants for the minor in French must satisfy QU and the College requirements for declaring a minor.

### **Minor Requirements - Minor in French (24 CH)**

Students seeking a minor in French must complete 24 credit hours, including the following:

- A minimum of 18 credit hours in minor requirements courses
- A minimum of 6 credit hours in minor electives courses.

### **Minor Requirements (18 CH)**

Students must complete a minimum of 15 credit hours in minor requirements courses:

- FREN 100 French I
- FREN 110 French 2
- FREN 220 French 3
- FREN 300 Language, Culture, and Society
- FREN 210 French for Oral Communication I
- FREN 221 French composition I

### **Minor Electives (6 CH)**

Students must complete a minimum of 9 credit hours in minor electives courses:

- FREN 320 French for Oral Communication II
- FREN 341 French composition II
- FREN 410 Introduction to French Literature
- FREN 420 Business French
- FREN 440 French Media

## **MINOR IN SPANISH**

Designed for beginners, the Minor in Spanish offers a variety of language skill courses, in addition to an introduction to Spanish and Hispano-American literature and civilization. The program will allow students to develop functional communicative skills in the Spanish language as well as broaden their awareness of other cultures, in order to prepare them to live and work in a globalized and interconnected world.

### **Declaring the minor**

Applicants for the minor in Spanish must satisfy QU and the College requirements for declaring a minor.

### **Minor Requirements - Minor in Spanish (24 CH)**

Students seeking a minor in Spanish must complete 24 credit hours, including the following:

- A minimum of 18 credit hours in minor requirements courses.
- A minimum of 6 credit hours in minor electives courses.

### **Minor Requirements Courses (18 CH)**

Students must complete a minimum of 18 credit hours in minor requirements courses:

- SPAN 105 Spanish 1
- SPAN 115 Spanish 2
- SPAN 220 Spanish 3
- SPAN 300 Language, Culture, and Society
- SPAN 215 Spanish for Oral Communication I
- SPAN 223 Spanish composition I

### **Minor Electives Courses (9 CH)**

Students must complete a minimum of 9 credit hours in minor electives courses:

- SPAN 320 Spanish for Oral Communication II
- SPAN 341 Spanish composition II
- SPAN 410 Introduction to Spanish Literature
- SPAN 420 Business Spanish
- SPAN 440 Spanish Media

## DEPARTMENT OF MASS COMMUNICATION

Women's Main Building, CO4- Room 255 (Women's Section)

Men's Main Building, BO5 Room 233 (Men's Section)

Phone: (+974) 4403-4860/ 4403-4865 / 4403-4866

Email: [headdepmasscommunication@qu.edu.qa](mailto:headdepmasscommunication@qu.edu.qa)

Website: <http://www.qu.edu.qa/artssciences/macom/index.php>

### Acting Head

Kamal Hamidou

### Faculty

#### Professor

Basyoni Hamada, Nouredine Miladi, Saddek Rabah

#### Associate Professors

Kamal Hamidou, Abdulrahman Al-Shami, Moez Ben Messaoud, Mohamed Elamin Ibrahim, Saadia Malik, Hala Guta

#### Assistant Professors

Fayez Shaheen, Mohamed El-fateh Hamdi, Wael Abdelal, Abd Motalab Makki

#### Lecturers

El-Sayed El-Alkilani, Mohamed El Kafrawy, Mohamed Hassan, Eiman Eissa, Chaker Ayadi, Hind Al-Ibrahim, Nejude Al-Ibrahim, Fuad Abdulaziz Mohamed, Majdi Alkhoul, Aqsa Husein, Mohsen Alafranji.

#### Teaching Assistants

Dala Al Dosari, Ismail Ahmed, Hamda Al Mohannadi, Mohammed Buhmaid, Bothaina Al-Dosari, Abdullah Fetais, Fatma Al-Remaihi, Taleb Al-adbah, Hassan Al-Jahni, Thamer Al-Thani, Sara Al-Ansari, Sara Alderham.

## ABOUT THE DEPARTMENT

The Mass Communication Department strives to respond to the aspirations of the state of Qatar as a vibrant global media hub by providing up-to-date curriculum, which reflects the pace of advances in the field of mass media. The program creates a student-centered learning environment that merges the practical with the theoretical. Students develop their critical thinking abilities and acquire professional competencies by engaging in a hands-on, technologically attuned learning environment, which addresses the needs of the mass media industries in the region. The department educates and trains students from the Middle East and beyond in the areas of print and online journalism, broadcast and online journalism, and strategic communication. The faculty and students engage in research, professional development, creative and service activities for the benefit of the multicultural societies in the region.

The Mass Communication Department has earned the ACEJMC accreditation, which makes it the first department in the Middle East to have the ACEJMC accreditation.

## **BACHELOR OF ARTS IN MASS COMMUNICATION**

### **Objectives**

The major in Mass Communication strives to:

- Provide students with strong theoretical and conceptual understanding in Mass Communication fields.
- Enhance students' writing, oral, and editing skills.
- Enable students to conduct research related to communication and mass media, including collecting, analyzing, and reporting data.
- Prepare students for careers in Strategic Communication (public relations/advertising), Broadcast/Online Journalism, and Print/Online Journalism.
- Create an intellectual climate for students to think critically, creatively and independently on issues related to mass communication at the national, regional, and global levels.
- Promote professional and ethical values related to mass communication fields.
- Respect cultural diversity.

### **Additional Requirements**

Students in the program must prepare a capstone graduation project in the area of their specialization. The project must fulfill the requirements of the application of the theories and practices learned in the respective concentrations and must demonstrate an application of major competencies and values of the ACEJMC, which are also the Mass Communication program learning outcomes. The capstone graduation project is to be evaluated by a panel of academics and professionals from media institutions. The panel evaluates the project and convenes a thirty-minute round of discussion with the student to evaluate his/her competency in the area of concentration.

### **Learning Outcomes**

The learning outcomes of the Department of Mass Communication are to educate graduates who will:

1. Understand and apply media law and principles of freedom of speech and of the press appropriate to professional practice.
2. Demonstrate an understanding of the history and role of professionals and institutions in shaping communications.
3. Critically evaluate their work and that of others for accuracy and fairness, clarity, appropriate style and grammatical correctness.
4. Comprehend concepts and apply theories in the use and presentation of images and information.
5. Demonstrate technical skills in writing and reporting correctly and clearly for different audiences.
6. Conduct research and evaluate information by methods appropriate to the communications professions in which they work, including the application of basic numerical and statistical concepts.
7. Think critically, creatively and independently.
8. Acquire and apply an ethical framework for the practices of mass communication and journalism.
9. Demonstrate an understanding of the diversity of groups in a global society in relationship to communication.
10. Analyze and interpret media messages.



11. Apply tools and technologies appropriate for the communications professions in which they work.
12. Demonstrate an understanding of gender, race, ethnicity, sexual orientation and, as appropriate, other forms of diversity in domestic society in relation to mass communications.

### **Opportunities**

Mass Communication graduates take many career paths. Besides working as reporters, editors, writers in print and online newspapers, our graduates may land their first jobs with national, regional and local magazines, radio stations, television channels, advertising agencies, and/ or public relations firms. In addition to television and radio careers, graduates of the department may work for advertising agencies or marketing departments of major corporations in the fast-growing Gulf region; our graduates are trained to write and produce video documentaries for public relations and corporate communications clients.

Integrated into all these professional options is the study and practice of communication-based skills, techniques, theories and aesthetics, which our graduates will need to succeed in an ever-changing field of Mass Communication. Students will learn the tried-and-true mass communication basics as well as media techniques needed to excel in this globally interconnected world.

### **Admissions Requirements**

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement and pass a department-based interview and a written test.

Detailed Undergraduate admission requirements are available at the following link:

[http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### **Declaring the major**

Both Male and Female students can apply to the Mass Communication Major.

In addition to the university and college requirements for declaring a major including the need to declare the major before completing 36 UG credit hours, students must pass the major qualification interview and exam.

For more details about the University requirements for declaring the Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document. For more details about the College requirements for declaring the Major, please refer to the paragraph “Declaring the major” in the College section of this Chapter.

### **DEGREE REQUIREMENTS - Major in Mass Communication**

A minimum of 126 credit hours are required to complete the major in mass communication, including the following:

- A minimum of 33 credit hours in core curriculum requirements.
- A minimum of 6 credit hours in major supporting requirements.
- A minimum of 6 credit hours in major supporting electives.
- A minimum of 15 credit hours in major requirements courses.
- A minimum of 6 credit hours in major electives courses.
- A minimum of 18 credit hours in concentration requirements courses.
- A minimum of 6 credit hours in concentration electives courses.

- A minimum of 24 credit hours in minor requirements or concentration supporting requirements.
- A minimum of 12 credit hours in free electives courses.

### **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare

- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development

- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

- ENGL 250 English for Communication I
- ENGL 251 English for Communication II
- UNIV 100 First Year Seminar

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **Major Supporting Requirements (6 CH)**

Students must complete a minimum of 6 credit hours in major supporting requirements:

- STAT 101 Statistics I
- SOCI 120 Introduction to Sociology

### **Major Supporting Electives (6 CH)**

Students must complete a minimum of 6 credit hours in major supporting electives:

- GEOG 344 Political Geography
- INTA 205 Middle East History
- PSYC 300 Psychology of Personality
- SOCI 453 Sociology of Law
- SOCI 304 Sociology of Crime
- SOCI 402 Political Sociology
- SOCI 202 Contemporary Arab Society

### **Major Requirements Courses (15 CH)**

Students must complete a minimum of 15 credit hours in major requirements courses:

- MCOM 103 Media and Society
- MCOM 212 Visual Communication
- MCOM 215 Multimedia Reporting and Writing I
- MCOM 222 Communication Theories
- MCOM 317 Media Law and Ethics

### **Major Electives Courses (6 CH)**

Students must complete a minimum of 3 credit hours in each of the Major Theoretical Electives and the Major Practical Electives.

### **Major Theoretical Electives Package (3 CH)**

Students must complete a minimum of 3 credit hours in major theoretical elective courses:

- MCOM 223 Media Writing
- MCOM 303 Women and Media
- MCOM 318 Global Communication
- MCOM 349 Sports Journalism

### **Major Practical Electives Package (3 CH)**

Students must complete a minimum of 3 credit hours in major practical elective courses:

- MCOM 226 Special Topics in Mass Communication
- MCOM 315 Communication Research Methods
- MCOM 348 Investigative Journalism
- MCOM 360 Photo Journalism
- MCOM 382 Organizational Communication
- MCOM 465 Web-Content for Radio

### **Concentration in Print/Online Journalism (24 CH)**

Students must complete a minimum of 18 CH in concentration requirements and a minimum of 6 CH in concentration electives.

### **Print/Online Journalism Concentration Requirements (18 CH)**

A minimum of 18 credit hours in concentration requirement courses:

- MCOM 341 News Reporting, Writing and Editing Arabic
- MCOM 342 News Reporting, Writing and Editing English
- MCOM 343 Online Journalism
- MCOM 350 Multimedia Reporting and Writing II
- MCOM 447 Journalism Internship
- MCOM 450 Multimedia Journalism (Capstone)

### **Print/Online Journalism Concentration Electives (6 CH)**

A minimum of 3 credit hours in concentration elective courses:

- MCOM 345 Newspaper Design and Production
- MCOM 346 Internet-Assisted Reporting
- MCOM 348 Investigative Journalism
- MCOM 364 Broadcast Production
- MCOM 452 Magazine Writing

### **Concentration in Broadcast/Online Journalism (24 CH)**

Students must complete a minimum of 18 CH in concentration requirements and a minimum of 6 CH in concentration electives.

### **Broadcast /Online Journalism Concentration Requirements (18 CH)**

A minimum of 18 credit hours in concentration requirement courses:

- MCOM 350 Multimedia Reporting and Writing II
- MCOM 361 Broadcast News Reporting and Writing I
- MCOM 364 Broadcast Production
- MCOM 467 Broadcast Internship
- MCOM 469 Television Documentary Production
- MCOM 470 Broadcast Capstone

### **Broadcast /Online Journalism Concentration Electives (6 CH)**

A minimum of 6 credit hours in concentration elective courses:

- MCOM 363 Announcing
- MCOM 365 Script Writing
- MCOM 366 Broadcast Directing
- MCOM 367 Broadcast News Reporting and Writing II
- MCOM 465 Web-Content for Radio

### **Concentration in Strategic Communication (24 CH)**

Students must complete a minimum of 18 CH in concentration requirements and a minimum of 6 CH in concentration electives.

### **Strategic Communication Concentration Requirements (18 CH)**

A minimum of 18 credit hours in concentration requirement courses:

- MCOM 381 Principles of Public Relations
- MCOM 383 Principles of Advertising
- MCOM 384 Advertising Copy Writing and Design
- MCOM 388 Public Relations Writing and Presentations
- MCOM 487 PR/AD Internship
- MCOM 490 Strategic Communication “Capstone”

### **Strategic Communication Concentration Electives (6 CH)**

A minimum of 6 credit hours in concentration elective courses:

- MCOM 364 Broadcast Production
- MCOM 382 Organizational Communication
- MCOM 386 Public Relations and New Media
- MCOM 491 Strategic Communication
- MCOM 492 Social Marketing
- MCOM 493 Public Opinion Research



### Minor or Concentration Supporting Requirements (24 CH)

Students can choose to either enroll in a minor or to complete concentration supporting requirements. If the minor a student enrolled in is less than 24 CH, the student must take additional courses as free electives to complete the 24 CH requirements. If students choose to complete concentration supporting requirements, the concentration supporting requirements that the students must complete depends on the concentration they have selected.

### Concentration Supporting Requirements for the Broadcast/Online Journalism and the Print/Online Journalism Concentrations:

- SOWO 361 Society & Human Rights
- SOCI 363 Ethnicity
- INTA 103 Introduction to International Relations
- INTA 201 Comparative Political Systems
- INTA 306 Gulf Studies
- INTA 440 Politics of Development
- HIST 445 Modern and Contemporary History of Arabian Gulf
- SOCI 263 Badawi Society
- SOCI 267 Urban Sociology

### Concentration Supporting Requirements for the Strategic Communication Concentration

- MAGT 101 Principles of Management
- MAKT 101 Principles of Marketing (E)
- MAKT 301 Consumer Behavior
- MAKT 303 International Marketing
- PSYC 201 Introduction to Psychology
- SOCI 363 Ethnicity
- PSYC 205 Social Psychology
- SOCI 261 Quantitative Research Methods
- SOCI 300 Qualitative Research Methods
- SOCI 263 Badawi Society
- SOCI 267 Urban Sociology

### Free Electives Courses (12 CH)

Students must complete a minimum of 12 Credit Hours in free electives from courses outside the Mass Communication major.

### Study Plan

#### Bachelor of Arts in Mass Communication - Broadcast/Online Journalism Concentration

FIRST YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours

Fall	MCOM 103	Media and Society	3
		Core Curriculum 1	3
		Core Curriculum2	3
		Core Curriculum 3	3
		University Free Elective 1	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	MCOM 222	Communication Theories	3
	STAT 101	Statistics I	3
		Core Curriculum 4	3
		Core Curriculum 5	3
		University Free Elective 2	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>SECOND YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	MCOM 212	Visual Communication	3
		Core Curriculum 6	3
	SOCI 120	Introduction to Sociology	3
		Elective Supportive Courses Basket A	3
		Core Curriculum 7	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	MCOM 215	Multimedia Reporting and Writing 1	3
		Elective Supportive Courses Basket B	3
		Core Curriculum 8	3
		Core Curriculum 9	3
		University Free Elective 3	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

THIRD YEAR (36 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	MCOM 350	1 Multimedia Reporting and Writing2 (E)	3
		Mass Communication Major practical package	3
		University Free Elective 4	3
		Mass Communication Major Theoretical package	3
		Minor Course 1	3
		Minor Course 2	3
Total Credit Hours in Semester			18
Spring	MCOM 361	Broadcast News Reporting and writing 1	3
	MCOM 364	Broadcast Production	3
		Concentration Electives Basket	3
		Core Curriculum 10	3
		Minor Course 3	3
		Minor Course 4	3
Total Credit Hours in Semester			18

FOURTH YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	MCOM 317	Media Law and Ethics	3
	MCOM 469	TV Documentary Production	3
		Minor Course 5	3
		Minor Course 6	3
		Concentration Elective Basket	3
Total Credit Hours in Semester			15

Spring	MCOM 470	Broadcast (Capstone)	3
	MCOM 467	Broadcast Internship	3
		Core Curriculum 11	3
		Minor Course 7	3
		Minor Course 8	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

### Bachelor of Arts in Mass Communication - Print/Online Journalism

FIRST YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	MCOM 103	Media and Society	3
		Core Curriculum 1	3
		Core Curriculum2	3
		Core Curriculum 3	3
		University Free Elective 1	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	MCOM 222	Communication Theories	3
	STAT 101	Introduction to Statistics 1	3
		Core Curriculum 4	3
		Core Curriculum 5	3
		University Free Elective 2	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

SECOND YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	MCOM 212	Visual Communication	3
		Core Curriculum 6	3

	SOCI 120	Introduction to Sociology	3
		Elective Supportive Courses Basket A	3
		Core Curriculum 7	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	MCOM 215	Multimedia Reporting and Writing 1	3
		Elective Supportive Courses Basket B	3
		Core Curriculum 8	3
		Core Curriculum 9	3
		University Free Elective 3	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>THIRD YEAR (36 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	MCOM 341	1 News Reporting, Writing and Editing Arabic (A)	3
	MCOM 342	News Reporting Writing and Editing English	3
		Concentration Electives Basket	3
		Mass Communication Major Theoretical package	3
		Minor Course 1	3
		Minor Course 2	3
<b>Total Credit Hours in Semester</b>			<b>18</b>
Spring	MCOM 343	Online Journalism	3
		Mass Communication Major practical package	3
		University Free Elective 4	3
		Core Curriculum 10	3
		Minor Course 3	3

		Minor Course 4	3
<b>Total Credit Hours in Semester</b>			<b>18</b>

<b>FOURTH YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	MCOM 350	Multimedia Reporting and Writing 2	3
	MCOM 317	Media Law and Ethics	3
		Concentration Elective Basket	3
		Minor Course 5	3
		Minor Course 6	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	MCOM 450	Multimedia Journalism (Capstone)	3
	MCOM 447	Journalism internship	3
		Core Curriculum 11	3
		Minor Course 7	3
		Minor Course 8	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

### **Bachelor of Arts in Mass Communication - Strategic Communication Concentration**

<b>FIRST YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	MCOM 103	Media and Society	3
		Core Curriculum 1	3
		Core Curriculum2	3
		Core Curriculum 3	3
		University Free Elective 1	3
<b>Total Credit Hours in Semester</b>			<b>15</b>



Spring	MCOM 222	Communication Theories	3
	STAT 101	Statistics I	3
		Core Curriculum 4	3
		Core Curriculum 5	3
		University Free Elective 2	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

SECOND YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	MCOM 212	Visual Communication	3
		Core Curriculum 6	3
	SOCI 120	Introduction to Sociology	3
		Elective Supportive Courses Basket A	3
		Core Curriculum 7	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	MCOM 215	Multimedia Reporting and Writing 1	3
		Elective Supportive Courses Basket B	3
		Core Curriculum 8	3
		Core Curriculum 9	3
		University Free Elective 3	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

THIRD YEAR (36 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	MCOM 381	Principles of Public Relations	3
	MCOM 383	Principles of Advertising	3
		University Free Elective 4	3

		Mass Communication Major Theoretical package	3
		Minor Course 1	3
		Minor Course 2	3
<b>Total Credit Hours in Semester</b>			<b>18</b>
Spring	MCOM 384	Advertising Copy Writing and Design	3
	MCOM 388	Public Relations Writings and Presentations	3
		Concentration Elective 1	3
		Core Curriculum 10	3
		Minor Course 3	3
		Minor Course 4	3
<b>Total Credit Hours in Semester</b>			<b>18</b>

FOURTH YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	MCOM 317	Media Law and Ethics	3
		Concentration Elective Basket	3
		Minor Course 5	3
		Minor Course 6	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	MCOM 490	Strategic Communication (Capstone)	3
	MCOM 487	AD Internship	3
		Core Curriculum 11	3
		Minor Course 7	3
		Minor Course 8	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

## **MINOR IN MASS COMMUNICATION**

The minor in Mass Communication is designed to provide students a wide spectrum of knowledge in the field of Mass Communication through courses that cover the major areas of print and online journalism, broadcast journalism and strategic communication.

### **Declaring the minor**

Applicants for the minor in Mass Communication must satisfy the University and the College requirements for declaring a minor.

### **Minor Requirements - Minor in Mass Communication (24 CH)**

Students seeking a minor in Mass Communication must complete a minimum of 24 credit hours, including the following:

- A minimum of 9 credit hours in minor requirements courses.
- A minimum of 15 credit hours in minor electives courses.

### **Minor Requirements Courses (9 CH)**

Students must complete a minimum of 9 credit hours in minor requirements courses:

- MCOM 103 Media and Society
- MCOM 222 Communication Theories
- MCOM 223 Media Writing

### **Minor Electives Courses (15 CH)**

Students must complete a minimum of 15 credit hours in minor electives courses:

- MCOM 303 Women and Media
- MCOM 315 Communication Research Methods
- MCOM 318 Global Communication
- MCOM 341 News Reporting, Writing and Editing Arabic
- MCOM 342 News Reporting, Writing and Editing English
- MCOM 343 Online Journalism
- MCOM 345 Newspaper Design and Production
- MCOM 363 Announcing
- MCOM 364 Broadcast Production
- MCOM 381 Principles of Public Relations
- MCOM 382 Organizational Communication
- MCOM 452 Magazine Writing

## HUMANITIES & SOCIAL SCIENCES CLUSTER

### DEPARTMENT OF HUMANITIES

Women's Main Building, Rooms 142 and 143 (Women's Section)

Men's Main Building, Room 120 (Men's Section)

Phone: (+974) 4403-4700/ 4403-4704 / 4403-4705

Email: humanities.office@qu.edu.qa

Website: <http://www.qu.edu.qa/artssciences/humanities/history/index.php>

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Mariam Ibrahim Al-Hammadi

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Yehya Mohammed Galab , Sayed Mahmoud Moursi, Essam Ayyad, Nidal Al-Momani, Mohammad Bani-Salamah, Raed Hayajneh ,

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Mohammad Al Zarir, Sahar Al-Jubori

##### Teaching Assistant

Abdulaziz Al Mannai, Hamad Al Ghaded  
Abdullah Haider, Mazna Al- Marri,

### ABOUT THE DEPARTMENT

The Department of Humanities is one of the leading in the region and is committed to achieving academic excellence in teaching and scholarly endeavors, as well as serving the academic community and the public in general. The Department currently offers a major in History, as well as a minor in philosophy and history. In

addition, the Department offers many elective courses in History, Geography and Philosophy. Our bachelor's degrees are well established and comparable to similar programs offered by regional universities.

The primary educational objective of the Department is to provide high-quality undergraduate education to QU students. Our students will be equipped with valuable knowledge, as well as with technical, critical-thinking, problem-solving, communication, and teamwork skills. This empowers our students for their future careers in educational and professional sectors.

The faculty members of the department are highly qualified with international academic experience, and are committed to advance the teaching of History, Geography and Urban Planning, and Philosophy, through instruction and research. The members of the Department are also involved in scholarly endeavors, with the aim of extending the frontier of human and scientific knowledge that will benefit the State of Qatar and humanity in general. Their research results have been disseminated internationally through publication, as well as through international and regional conferences. Moreover, some of their research projects have been supported by national and institutional grants.

The Department of Humanities continues to serve the Qatari society in various capacities, including community outreach programs, professional development activities, and collaborative partnerships with various sectors of the national and international community.

## **BACHELOR OF ARTS IN HISTORY**

### **Objectives**

1. Encourage students to see cause and effect relationship over time and across civilizations by using a mixed chronological, thematic, and topical approach.
2. Expand students' ability to understand the chronological relationship between geography and history, resulting in an understanding of difference of lifestyles, cultures, and patterns of social interactions.
3. Enhance students' recognition and understanding of major turning points in history.
4. Improve students' communication skills by encouraging them to interpret, analyze, defend, and advocate positions via writing and oration, based on their study of global and regional history.

### **Learning Outcomes**

Graduates of the History major will succeed in achievement and mastery of the program level learning outcomes below:

1. Analyze the evolution and distinctive characteristics of global societies and cultures across different periods in history.
2. Examine interactions among major civilizations and their effects with special emphasis on Islamic History.
3. Analyze patterns of continuity and change in historical events across time periods.
4. Compare similarities and differences in historical phenomena.
5. Interpret historical facts to draw conclusions.
6. Develop information gathering, reasoning and synthesizing abilities through the examination of primary sources.

## Opportunities

The program provides graduates opportunities in governmental organizations such as ministries, diplomatic offices, the media sector, authorities and also non-governmental organizations including hotels, tourism agencies and publishing houses. In addition, graduates are highly demanded for work at museums, libraries and research centers. Also, Qatar University, as well as other universities, have employment openings for graduates.

## Admissions Requirements

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement.

Detailed Undergraduate admission requirements are available at the following link:

[http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

## Declaring the major

Students must satisfy the university and college requirements for declaring a major including the need to declare the major before completing 36 credit hours.

For more details about the University requirements for declaring the Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document. For more details about the College requirements for declaring the Major, please refer to the paragraph “Declaring the major” in the College section of this Chapter.

## DEGREE REQUIREMENTS - Major in History

A minimum of 120 credit hours are required to complete the major in History, including the following:

- A minimum of 33 credit hours in core curriculum requirements.
- A minimum of 27 credit hours in major requirements courses.
- A minimum of 6 credit hours in major electives courses.
- A minimum of 15 credit hours in a focus area.
- A minimum of 6 credit hours in the language requirements.
- A minimum of 24 credit hours in minor requirements courses.
- A minimum of 9 credit hours in free electives courses.

## Core Curriculum Program

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

## Identity and Communication Package (15 - 18 CH)

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II



- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures

- MATH 105 Mathematics in Society

### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

- ENGL 250 English for Communication I
- ENGL 251 English for Communication II
- UNIV 100 First Year Seminar

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences

(excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **Major Requirements Courses (27 CH)**

Students must complete a minimum of 27 credit hours in major requirements courses:

- HIST 103 Introduction to History
- HIST 111 The History of the Muslim World I (600 –1187)
- HIST 131 The World History Since 1300
- HIST 204 Historical Research Methodology
- HIST 212 The History of the Muslim World II (1187 - 1516)
- HIST 213 The Modern Arab History (1516 -1919)
- HIST 370 The Modern Arab History since 1919
- HIST 406 Codicology
- HIST 407 Capstone

### **Major Electives Courses (6 CH)**

Students must complete a minimum of 6 credit hours in major electives courses:

- HIST 220 Epidemic Diseases in World History
- HIST 334 Arabian Gulf in Antiquity
- HIST 336 Women and Gender in the Ancient Near East
- HIST 380 The Making of Modern America
- HIST 390 The History of Modern China and Japan
- HIST 427 Muslim Minorities in the World
- HIST 436 Intellectual History of Europe in the 20th Century
- HIST 470 Modern Latin American History
- INTA 302 Politics of Oil
- INTA 345 The Arab Israeli Conflict

### **Focus Area (15 CH)**

Students must select one of the three Focus Areas Packages namely the Islamic History Focus Area, the European History Focus Area, or the Modern Gulf History Focus Area.

#### **The Islamic History Focus Area (15 CH)**

Students must complete a minimum of 3 CH in The Islamic History Focus Area Requirements, a minimum of 6 CH in The Islamic History Focus Area Electives, a minimum of 3 CH from The Islamic History Focus Area Additional Electives I, and a minimum of 3 CH from The Islamic History Focus Area Additional Electives II.

#### **The Islamic History Focus Area Requirements (3 CH)**

- HIST 217 Islamic Civilization

#### **The Islamic History Focus Area Electives (6 CH)**

Students must complete a minimum of 6 credit hours in the focus area elective courses:

- HIST 314 Economic & Social History of the Muslim World
- HIST 318 History of Al-Andalus
- HIST 319 History of the Crusades (The Franks Invasion)
- HIST 320 History of Islamic Sects and Movements
- HIST 415 History of Science in Islam
- HIST 416 History of Islamic Arts and Architecture (7th -13th Century)
- HIST 417 Topics in Islamic History

### **The Islamic History Focus Area Additional Electives I (3 CH)**

Students must complete a minimum of 3 credit hours taken from the Modern Gulf History Focus Area Requirements or Electives Packages.

### **The Islamic History Focus Area Additional Electives II (3 CH)**

Students must complete a minimum of 3 credit hours taken from the European History Focus Area Requirements or Electives Packages.

### **The Modern Gulf History Focus Area (15 CH)**

Students must complete a minimum of 3 CH in The Modern Gulf History Focus Area Requirements, a minimum of 6 CH in The Modern Gulf Focus Area Electives, a minimum of 3 CH from The Modern Gulf Focus Area Additional Electives I, and a minimum of 3 CH from The Modern Gulf Focus Area Additional Electives II Package.

### **The Modern Gulf History Focus Area Requirements (3 CH)**

- HIST 222 The Gulf in Modern Period

### **The Modern Gulf History Focus Area Electives (6 CH)**

Students must complete a minimum of 6 credit hours in the focus area elective courses:

- HIST 322 Iran and its Neighbors
- HIST 323 Gulf-South Asian Relations in the Modern and Contemporary History
- HIST 324 Economic History of the Gulf
- HIST 421 The Gulf and the Arab World
- HIST 425 Topics in Gulf History
- SOCI 202 Contemporary Arab Society

### **The Modern Gulf History Focus Area Additional Electives I (3 CH)**

Students must complete a minimum of 3 credit hours taken from the Islamic History Focus Area Requirements or Electives Packages.

### **The Modern Gulf History Focus Area Additional Electives II (3 CH)**

Students must complete a minimum of 3 credit hours taken from the European History Focus Area Requirements or Electives Packages.

### **The European History Focus Area Package (15 CH)**

Students must complete a minimum of 3 CH in The European History Focus Area Requirements, a minimum of 6 CH in The European History Focus Area Electives, a minimum of 3 CH from The European History Focus Area Additional Electives I, and a minimum of 3 CH from The European History Focus Area Additional Electives II.

### **The European History Focus Area Requirements (3 CH)**

- HIST 231 Europe and the World since 1500 CE

### **The European History Focus Area Electives (6 CH)**

Students must complete a minimum of 6 credit hours in the focus area elective courses:

- HIST 331 Ancient Greece and Rome, 1200 BCE to 500 CE
- HIST 332 Medieval Europe, 500 to 1400 CE
- HIST 333 The Renaissance and Reformation, 1400 to 1648
- HIST 337 The Age of Absolutism and Revolution, 1648 to 1815
- HIST 431 Nationalism and its Consequences, 1815 to 1914
- HIST 432 Europe Between the Two World Wars, 1914-1945
- HIST 434 Topics in European History
- INTA 433 Europe, the Cold War and the World since 1945

### **The European History Focus Area Additional Electives I (3 CH)**

Students must complete a minimum of 3 credit hours taken from the Islamic History Focus Area Requirements or Electives Packages.

### **The European History Focus Area Additional Electives II (3 CH)**

Students must complete a minimum of 3 credit hours taken from the Modern Gulf History Focus Area Requirements or Electives Packages.

### **Language Requirements (6CH)**

Students must complete a minimum of 6 credit hours in one of the three language requirement packages depending on the selected focus area. The three language requirement packages are: The Islamic History Focus Area Language Requirement, The Modern Gulf History Focus Area Language Requirement, and the European History Focus Area Language Requirement.

### **The Islamic History Focus Area Language Requirement (6 CH)**

Students must complete a minimum of 6 credit hours taken from the Persian Language Package or the Turkish Language.

### **The Modern Gulf History Focus Area Language Requirement (6 CH)**

Students must complete a minimum of 6 credit hours taken from the Persian Language Package or the Turkish Language Package.

**The European History Focus Area Language Requirement (6 CH)**

Students must complete a minimum of 6 credit hours taken from the French Language Package or the Spanish Language Package.

**The Persian Language package (6 CH)**

- ARAB 271 Persian Language 1
- ARAB 372 Persian Language 2

**The Turkish Language package (6 CH)**

- TURK 101 Turkish 1
- TURK 201 Turkish 2

**The French Language package (6 CH)**

- FREN 100 French I
- FREN 110 French 2

**The Spanish Language package (6 CH)**

- SPAN 101 Spanish 1
- SPAN 201 Spanish 2

**Minor Requirements Courses (24 CH)**

Students enrolled in the History program may take any of the Minors offered within the university. If the minor the students enrolled in is less than 24 CH, students must take additional courses as free electives to complete the 24 CH Minor requirements.

**Free Electives Courses (9 credit hours)**

Students must complete a minimum of 9 credit hours in free electives from courses outside the History major.

**Study Plan****Bachelor of Arts in History**

<b>FIRST YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall		Core Curriculum 1	3
		Core Curriculum 2	3
		Core Curriculum 3	3
		Core Curriculum 4	3
		Core Curriculum 5	3



<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring		Core Curriculum 6	3
		Core Curriculum 7	3
		Core Curriculum 8	3
		Core Curriculum 9	3
		Core Curriculum 10	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>SECOND YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	HIST 103	An Introduction to History	3
	HIST111	History of the Muslim World I (600 – 1187)	3
	HIST 121	History of Qatar	3
	HIST 131	World History since 1300	3
		Language 1	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	HIST 204	Historical Research Methodology	3
	HIST 213	Modern Arab History (1516 – 1919)	3
		Core Curriculum 11	3
		Mandatory focus	3
		Free elective 1	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>THIRD YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	HIST 212	History of the Muslim World II (1187 – 1516)	3
		Major elective 1	3

		Minor 1	3
		Minor 2	3
		Language 2	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	HIST 370	Modern Arab History since 1919	3
		Focus elective 1	3
		Focus elective 2	3
		Minor 3	3
		Minor 4	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>FOURTH YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall		Focus elective 3	3
		Focus elective 4	3
		Major elective 2	3
		Minor 5	3
		Minor 6	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	HIST 407	Capstone	3
		Free elective 2	3
		Free elective 3	3
		Minor 7	3
		Minor 8	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

## MINOR IN HISTORY

The Minor in History is an excellent opportunity for students who are interested in providing depth to their chosen major through gaining a historical perspective in their area of specialization. Adding an interdisciplinary aspect to a degree, this minor allows students to learn about history as a science, providing training in the use of basic tools and methods in the study of history. Through a wide range of approaches, students will be exposed to both modern and ancient history, tailoring choices to their specific interests.

### Declaring the minor

Applicants for the minor in History must satisfy QU requirements for declaring a minor.

### Minor Requirements - Minor in History (24 CH)

Students seeking a minor in History must complete a minimum of 24 credit hours, including the following:

- A minimum of 12 credit hours in minor requirements courses.
- A minimum of 12 credit hours in minor electives courses.

### Minor Requirements Courses (12 CH)

Students must complete a minimum of 12 credit hours in minor requirements courses:

- HIST 103 An Introduction to History
- HIST 111 History of the Muslim World I (600 –1187)
- HIST 131 World History Since 1300
- HIST 213 Modern Arab History (1516 -1919)

### Minor Electives Courses (12 CH)

Students must complete a minimum of 12 credit hours in minor elective courses. Those credits can be selected from the list of the major electives or any of the focus areas (Islamic History Focus, Modern Gulf History Focus and European History): the courses including:

- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- HIST 231 Europe and the World since 1500 CE
- HIST 314 Economic & Social History of the Muslim World
- HIST 318 History of Al-Andalus
- HIST 319 History of the Crusades (The Franks Invasion)
- HIST 320 History of Islamic Sects and Movements
- HIST 322 Iran and its Neighbors
- HIST 323 Gulf-South Asian Relations in Modern and Contemporary History
- HIST 324 Economic History of the Gulf
- HIST 331 Ancient Greece and Rome, 1200 BCE to 500 CE
- HIST 332 Medieval Europe, 500 to 1400 CE
- HIST 333 The Renaissance and Reformation, 1400 to 1648
- HIST 334 Arabian Gulf in Antiquity
- HIST 336 Women and Gender in the Ancient Near East
- HIST 337 The Age of Absolutism and Revolution, 1648 to 1815

- HIST 380 The Making of Modern America
- HIST 390 The History of Modern China and Japan
- HIST 415 History of Science in Islam
- HIST 416 History of Islamic Arts and Architecture (7th -13th Century)
- HIST 417 Topics in Islamic History
- HIST 421 The Gulf and the Arab World
- HIST 425 Topics in Gulf History
- HIST 427 Muslim Minorities in the World
- HIST 431 Nationalism and its Consequences, 1815 to 1914
- HIST 432 Europe Between the Two World Wars, 1914-1945
- HIST 434 Topics in European History
- HIST 436 Intellectual History of Europe in the 20th Century
- HIST 470 Modern Latin American History
- INTA 302 Politics of Oil
- INTA 345 The Arab Israeli Conflict
- INTA 433 Europe, the Cold War and the World since 1945
- SOCI 202 Contemporary Arab Society

## **BACHELOR OF ARTS IN APPLIED GEOGRAPHY AND GIS**

### **Objectives**

1. Develop a basic level of proficiency of the fundamental principles of GIS, remote sensing, cartography, and spatial analysis.
2. Handle, acquisition, and analysis of geographic data and apply these skills to real world problem solving
3. Apply knowledge of spatial analysis to comprehend geospatial issues related to Qatar's sustainable development in the spheres of environment, economy, and society.
4. Apply different applications of GIS, remote sensing, and spatial analysis in fields such as urban, land use, and environmental analysis; resource applications; and planning.

### **Learning Outcomes**

1. Apply basic spatial analysis tools and other geographical methods to analyze the spatial structure and expansion of human settlements in urban and regional contexts.
2. Synthesize geospatial knowledge to solve a real-world problem (environment, economic, social, sustainable development, ...etc ) in Qatar and beyond.
3. Acquire, analyze, evaluate, interpret geographic data, and utilize the processes and techniques of geospatial data collection and analysis in conducting research.
4. Demonstrate understanding of basic spatial analysis, and evaluate the methodologies, processes, and findings of geospatial modeling techniques.

### **Opportunities**

The program provides job opportunities for graduates in government agencies such as ministries (land and water management, sustainability, environmental consulting, urban and regional planning, economic development, tourism planning, transportation planning, housing, and social welfare). Job opportunities are also available at Qatar University, and other universities in the country.

### **Admissions Requirements**

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement.

Detailed Undergraduate admission requirements are available at the following link:

[http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### **Declaring the major**

Students must satisfy the university and college requirements for declaring a major including the need to declare the major before completing 36 credit hours.

For more details about the University requirements for declaring the Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document. For more details about the College requirements for declaring the Major, please refer to the paragraph “Declaring the major” in the College section of this Chapter.

### **DEGREE REQUIREMENTS - Major in Applied Geography and GIS**

A minimum of 120 credit hours are required to complete the major in Applied Geography and GIS, including the following:

- A minimum of 33 credit hours in core curriculum requirements.
- A minimum of 66 credit hours in major requirements courses.
- A minimum of 12 credit hours in major electives courses.
- A minimum of 9 credit hours in supporting courses

### **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture

- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society



**Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

**Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

**Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### Major Requirements Courses (66 CH)

All Bachelor of Applied Geography and Geographic Information Systems students at Qatar University are required to complete 66 credit hours of the required major courses before obtaining a bachelor's degree. These requirements consist of a group of courses available in the list of required specialization courses:

- GEOG 110 General Geography
- GEOG 204 General Economic Geography
- GEOG 241 Geography of Qatar
- GEOG 242 Weather and Climate
- GEOG 243 Introduction to Remote Sensing
- GEOG 254 Population Geography
- GEOG 260 Introduction to Cartography
- GEOG 340 Geomorphology
- GEOG 344 Political Geography
- GEOG 346 Introduction to Geographic Information Systems
- GEOG 347 Geography of Transportation
- GEOG 348 Urban Land Use and Development
- GEOG 349 Spatial Analysis
- GEOG 350 Geographical research methods
- GEOG 351 Spatial database
- GEOG 370 Internship
- GEOG 430 Satellite Images processing
- GEOG 431 Web Geographic Information System
- GEOG 450 GIS Applications for Coastal Management
- GEOG 451 GIS Applications for petroleum and renewable energy
- GEOG 498 Graduation Project 1
- GEOG 499 Graduation Project 2

### Major Electives Courses (12 CH)

All Bachelor of Applied Geography and Geographic Information Systems students at Qatar University are required to complete 12 credit hours of the elective major courses before obtaining a bachelor's degree. These requirements consist of a group of courses available in the list of elective specialization courses:

- GEOG 270 People, Space and Change
- GEOG 271 Urban Form & Spatial Structure
- GEOG 300 Geography of Arab World
- GEOG 330 Geography of Tourism
- GEOG 331 Urban Geography
- GEOG 332 Energy and Sustainability
- GEOG 333 Food Systems and Sustainability
- GEOG 342 Natural Hazard
- GEOG 343 Environmental Remote Sensing
- GEOG 345 Natural Resource Management
- GEOG 366 Urban Ecology

- GEOG 420 Creative Thinking and Problem Solving in Geography
- GEOG 442 Environment & Pollution
- GEOG 446 Industrial Development in Qatar and Gulf
- GEOG 448 Hydrogeography
- GEOG 452 GIS Applications for Transportation
- GEOG 453 GIS Application for Planning & Development
- GEOG 464 Geography of Arid lands

### **Supporting Courses (9 CH)**

All Bachelor of Applied Geography and Geographic Information Systems students at Qatar University are required to complete 9 credit hours of the supporting courses before obtaining a bachelor's degree. These requirements consist of a group of courses available in the list of supporting courses:

- POPL 285 Impact Assessment Studies
- POPL 375 Urban Sustainability
- POPL 488 Public policy planning and analysis

### **MINOR IN PHILOSOPHY**

The minor in philosophy engages students with a range of philosophical subjects, problems, schools of thought, and a survey of their historical development, along with rigorous training of a wide-ranging, highly transferable critical thinking skill set; all aimed at enhancing the students general educational experience at Qatar University.

### **Declaring the minor**

Applicants for the minor in Philosophy must satisfy QU requirements for declaring a minor.

### **Minor Requirements - Minor in Philosophy (24 CH)**

A minimum of 24 credit hours are required to complete the minor in Philosophy, including the following:

- A minimum of 18 credit hours in the minor requirements courses.
- A minimum of 6 credit hours in the minor electives courses.

### **Minor Requirements Courses (18 CH)**

Students must complete a minimum of 18 credit hours in minor requirements courses:

- PHIL 100 Logic and Critical Thinking
- PHIL 110 Introduction to Philosophy
- PHIL 200 Introduction to Ethics
- PHIL 210 Islamic Philosophy
- PHIL 300 Knowledge and Reality
- PHIL 310 Philosophy and Contemporary Life

### **Minor Electives Courses (6 CH)**

Students must complete a minimum of 6 credit hours in minor elective courses:

- PHIL 120 The Principles of Professional Ethics
- PHIL 320 Asian Values

- PHIL 330 Philosophy of History
- PHIL 400 Philosophy of Natural and Human Science
- PHIL 410 Special Topics

## DEPARTMENT OF INTERNATIONAL AFFAIRS

College of Arts and Sciences

Main's Building, BCR B-121-122

Phone: (+974) 4403-7600

Email: [DIA@qu.edu.qa](mailto:DIA@qu.edu.qa)

Website: <http://www.qu.edu.qa/artssciences/departments/international-affairs>

### Acting Head

Mazhar Ahmad Al-Zoubi

### Faculty

#### Professors:

Larbi Sadiki, Youcef Bouandel, Hassan Barari

#### Associate Professors

Abduljalil Soufi, Esmat Zaidan, Mazhar Al-Zoubi, Layla Saleh, Bahaeldin Gaily, Ahmed Badran, Bakeel Al-Zandani, Mohamed Mokhtar El Moctar

#### Assistant Professors

Meshari Al Ruwaih, Tarek Ben Hassen, Mohammed Ourya, , Abdalla Ahmed, Fatima Almohannadi, Aref Saeed, Malath Alagha, Mohamed Hamad, Adeeb Bader, Joseph Bayeh, Noof Al-Dosari, Ahmed Nassar, Lehib Belia, Khalid Ahmed, Ahmed Nassar, Khalid Ahmed

#### Lecturers

Thayyiba Ibrahim, Tamadher Al Malik, Hend Al-Sulaiti, Eiman Sultan Almaadeed, Aisha Hadi Al-Rashdi, Abdulla Al-Etaibi, Maryam Al-kuwari, Mohamed Al-Marri, Nafja Al-Kuwari, Aya Okamoto

#### Teaching Assistants

Fatema Ali, Haya Al-Nuaimi, Haya Al-Marri, Mohammed Al-Ansari, Fahad Nahiyyan, Alreem Al Khelaifi, Hanan Alsaadi, Maryam Sultan, Maha-Almrekhi

### ABOUT THE DEPARTMENT

The Department of International Affairs offers an interdisciplinary degree focused on generating knowledge and understanding the politics, histories, economies, and cultures of modern global societies. Through focusing on national, regional, and international issues, the degree seeks to prepare its graduates to thrive in an increasingly interdependent global community by grounding them in independent critical thinking, leadership skills, global awareness, tolerance, and social responsibility. Graduates will be ready for further study and professional careers in both the public and private sectors.

## BACHELOR OF ARTS IN INTERNATIONAL AFFAIRS

### Objectives

The major in International Affairs strives to:

- Provide Qatari society with highly qualified graduates in order to support the development of a knowledge-based society, in accordance with Qatar University's mission.
- Train future leaders with advanced knowledge and research skills to meet the needs of Qatari society in the areas of politics, domestic and international affairs, and international institutions.
- Provide students with the skills and knowledge to appreciate and understand the world and its pluralistic heritage in terms of history, cultures, politics, norms, values, economics, and religions.
- Foster an understanding of the dynamics of globalization and its impact on global and local contexts.
- Provide Qatar with highly competent graduates who understand the contemporary national, regional and global challenges facing society today.

### Learning Outcomes

1. Analyze global issues, systems and trends from a variety of disciplinary perspectives (political, cultural, economic, geographic, and diplomatic).
2. Effectively and ethically utilize discipline-specific information from appropriate sources.
3. Explain the importance of the histories, politics, cultures and perspectives of different regions of the world.
4. Analyze the impact of political, social, cultural and economic systems on Gulf societies and politics.
5. Evaluate the political and economic impact of energy and natural resources on modern societies and international affairs.
6. Effectively apply appropriate research methods skills to skills to international affairs related issues.
7. Communicate findings clearly, analytically and persuasively in both oral and written formats.

### Opportunities

Graduates will be ready for further study and professional careers in public and private sectors, including foreign affairs, international organizations, government, media, civil service and journalism.

### Admissions Requirements

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement.

Detailed Undergraduate admission requirements are available at the following link:

[http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### Declaring the major

Students must satisfy the university and college requirements for declaring a major including the need to declare the major before completing 36 credit hours.

For more details about the University requirements for declaring the Major, please refer to the paragraph "Declaring the major" in Chapter 7 – Academic Policies and Regulations of this document. For more details about



the College requirements for declaring the Major, please refer to the paragraph “Declaring the major” in the College section of this Chapter.

### **DEGREE REQUIREMENTS - Major in International Affairs**

A minimum of 120 credit hours are required to complete the major in International Affairs, including the following:

- A minimum of 33 credit hours in core curriculum requirements.
- A minimum of 39 credit hours in major requirements courses.
- A minimum of 18 credit hours in major electives courses.
- A minimum of 24 credit hours in either a Minor or in Concentration requirements
- A minimum of 6 credit hours in free electives courses.

### **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

#### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

#### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors

- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics

- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

- ENGL 250 English for Communication I
- ENGL 251 English for Communication II
- UNIV 100 First Year Seminar

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **Major Requirements Courses (39 CH)**

Students must complete a minimum of 39 credit hours in major requirements courses:

- EDUC 201 Research Methodology
- INTA 100 First Year Seminar
- INTA 101 Political and Social Thought
- INTA 102 Introduction to Political Science
- INTA 103 Introduction to International Relations
- INTA 296 International Organizations
- INTA 302 Politics of Oil
- INTA 306 Gulf studies
- INTA 308 International Political Economy
- INTA 313 Culture and Politics
- INTA 411 Capstone
- INTA 415 History of the Middle East in the 20th Century
- LAWC 339 Public International Law

### **Major Electives Courses (18 CH)**

Students must complete a minimum of 18 credit hours (CH) from the Major Electives by completing a minimum of 12 CH from the Electives I sub-package and a maximum of 6 CH from one of the Language Sub-Packages. Students may satisfy the Major Elective package requirements by either completing all 18 CH from the Electives I Sub-package, or 15 CH from the Electives I Sub-package and one course from one of the language Sub-packages, or 12 CH from the Electives I Sub-package and two courses from the same language Sub-package.

### **Electives I sub-package (12 – 18 CH)**

Students must complete a minimum of 12 credit hours taken from the following courses:

- INTA 201 Comparative Political Systems
- INTA 203 Women in Islam
- INTA 204 Middle East History I
- INTA 205 Middle East History II
- INTA 206 Globalization
- INTA 209 Islam and the West
- INTA 300 Chinese Society and Politics in the 21st Century
- INTA 301 Islamic Political Thought
- INTA 305 Internship
- INTA 345 The Arab-Israeli Conflict
- INTA 350 Foreign Policy of the United States
- INTA 375 Qatari Foreign Policy
- INTA 401 International Relations Theory
- INTA 403 Security Studies
- INTA 404 Gender and Law
- INTA 405 Gender in International Perspective
- INTA 420 Conflict Resolution and Human Rights
- INTA 440 Politics of Development
- INTA 450 Ethics of International Relations
- INTA 461 Special Topics
- INTA 465 Leadership and Civic Responsibility
- INTA 470 Area Studies
- SOCI 361 Human Rights

### **French Language Sub-Package**

Students must complete a maximum of 6 credit hours from courses listed in the French Language Sub-Package.

- FREN 100 French 1
- FREN 110 French 2

### **Japanese Language Sub-Package**

Students must complete a maximum of 6 credit hours from courses listed in the Japanese Language Sub-Package.

- JAPN 101 Japanese I
- JAPN 102 Japanese II

### **Korean Language Sub-Package**

Students must complete a maximum of 6 credit hours from courses listed in the Korean Language Sub-Package.

- KORN 101 Korean I
- KORN 102 Korean II

### **Minor or Concentration requirements (24 CH)**

Students must complete a minimum of 24 credit hours in either a Minor or in Concentration requirements:

- Choosing the minor: the student may take any of the Minors offered within the university, provided that the total number of credit hours for the minor is 24. If the students are enrolled in a minor with less than 24 CH, they must take additional courses as free electives to complete the 24 CH requirement.
- Choosing the concentration requirements: The student may choose one of the three below concentration.

### **Concentration in International Security and Diplomacy (24 CH)**

Students must complete a minimum of 12 CH in concentration requirements and a minimum of 12 CH in concentration electives.

### **International Security and Diplomacy Concentration Requirements (12 CH)**

A minimum of 12 credit hours in concentration requirement courses:

- INTA 200 Study and Practice of Diplomacy
- INTA 350 Foreign Policy of the United States
- INTA 403 Security Studies
- INTA 420 Conflict Resolution and Human Rights

### **International Security and Diplomacy Concentration Electives (12 CH)**

A minimum of 12 credit hours in concentration elective courses:

- FREN 220 French Language 3
- HIST 322 Iran and its Neighbors
- HIST 323 Gulf-South Asian Relations in the modern and contemporary history
- INTA 345 The Arab-Israeli Conflict
- INTA 404 Gender and Law
- INTA 433 Europe, the Cold War and the World since 1945
- INTA 450 Ethics of International Relations
- INTA 470 Area Studies
- LAWC 102 Human Rights and International Humanitarian Law
- SOCI 368 Law and Society
- SOCI 361 Human Rights
- SOCI 366 Language, Communication and Society

### **Concentration in International Political Economy (24 CH)**

Students must complete a minimum of 12 CH in concentration requirements and a minimum of 12 CH in concentration electives.

**International Political Economy Concentration Requirements (12 CH)**

A minimum of 12 credit hours in concentration requirement courses:

- ECON 111 Principles of Microeconomics
- ECON 112 Principles of Macroeconomics
- INTA 440 Politics of Development
- MATH 119 Business Mathematics I

**International Political Economy Concentration Electives (12 CH)**

A minimum of 12 credit hours in concentration elective courses:

- ECON 451 Economic Development
- ECON 453 International Economics
- ECON 454 Economics of Energy
- FINA 201 Principles of Finance
- HIST 324 Economic History of the Gulf
- INTA 201 Comparative Political Systems
- INTA 206 Globalization
- INTA 405 Gender in International Perspective
- INTA 470 Area Studies
- SOCI 200 Sustainable Development
- SOCI 401 Sociology of Organizations

**Concentration in Culture, Society and Heritage (24 CH)**

Students must complete a minimum of 12 CH in concentration requirements and a minimum of 12 CH in concentration electives.

**Culture, Society and Heritage Concentration Requirements (12 CH)**

A minimum of 12 credit hours in concentration requirements courses:

- HIST 131 World History
- INTA 203 Women in Islam
- SOCI 121 Introduction to Anthropology
- SOCI 202 Contemporary Arab Society

**Culture, Society and Heritage Concentration Electives (12 CH)**

A minimum of 12 credit hours in concentration elective courses:

- ARAB 481 Modern Literary Criticism
- ARAB 482 Contemporary Gulf Literature
- ARAB 483 Comparative Literature
- ENGL 209 Language and Society
- ENGL 213 Language and Culture
- HIST 231 Europe and the World since 1500 CE
- HIST 334 Arabian Gulf in Antiquity
- HIST 416 History of Islamic Arts and Architecture (7th -13th Century)



- HIST 425 Topics in Gulf History
- HIST 427 Muslim Minorities in the World
- INTA 206 Globalization
- INTA 209 Islam and the West
- INTA 300 Chinese Society and Politics in the 21st Century
- INTA 301 Islamic Political Thought
- INTA 470 Area Studies
- PHIL 110 Introduction to Philosophy
- SOCI 120 Introduction to Sociology
- SOCI 263 Badawi Society
- SOCI 264 Sociology of the Family
- SOCI 122 Demography
- SOCI 267 Urban Sociology
- SOCI 361 Human Rights

### Free Electives Courses (6 CH)

Students must complete a minimum of 6 Credit Hours in free electives from courses outside the International Affairs major.

### Study Plan

#### Bachelor of Arts in International Affairs

FIRST YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	Core	Core Curriculum Elective	3
	Core	Core Curriculum Elective	3
	Core	Core Curriculum Elective	3
	Core	Core Curriculum Elective	3
	Core	Core Curriculum Elective	3
Total Credit Hours in Semester			15
Spring	Core	Core Curriculum Elective	3
	Core	Core Curriculum Elective	3
	Core	Core Curriculum Elective	3
	Core	Core Curriculum Elective	3
	Core	Core Curriculum Elective	3

<b>Total Credit Hours in Semester</b>	<b>15</b>
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<b>SECOND YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	INTA 296	International Organizations	3
	INTA 101	Political and Social Thought	3
	INTA 102	Introduction to Political Science	3
	INTA 100	First Year Seminar	3
	Elective	INTA Major Elective	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	INTA 308	International Political Economy	3
	INTA 306	Gulf Studies	3
	INTA 103	Introduction to International Relations	3
	EDUC201	Research Methodology	3
	Elective	INTA Major Elective	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>THIRD YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	INTA 313	Culture and Politics	3
	LAWC 339	Public International Law	3
	Elective	INTA Major Elective	3
	-	Concentration OR Minor 1	3
	-	Concentration OR Minor 2	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	INTA 302	Politics of Oil	3
	Elective	INTA Major Elective	3

	Core	Core Curriculum Elective	3
	-	Concentration OR Minor 3	3
	-	Concentration OR Minor 4	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>FOURTH YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	INTA 415	History of the Middle East in the 20th Century	3
	Free Elective	Free Elective	3
	Elective	INTA Major Elective	3
	-	Concentration OR Minor 5	3
	-	Concentration OR Minor 6	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	INTA 411	Capstone	3
	Free Elective	Free Elective	3
	Elective	INTA Major Elective	3
	-	Concentration OR Minor 7	3
	-	Concentration OR Minor 8	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

### **MINOR IN INTERNATIONAL AFFAIRS**

The minor in International Affairs aims to equip students with interdisciplinary knowledge in the field of International Affairs, and to also prepare them for living and working within an increasingly global community.

#### **Declaring the Minor**

Applicants for the minor in International Affairs must satisfy the University and the College requirements for declaring a minor.

#### **Minor Requirements - Minor in International Affairs (24 CH)**

Students seeking a minor in International Affairs must complete a minimum of 24 credit hours, including the following:

- A minimum of 18 credit hours in minor requirements courses.
- A minimum of 6 credit hours in minor electives courses.

### **Minor Requirements Courses (18 CH)**

Students must complete a minimum of 18 credit hours in minor requirements courses:

- INTA 101 Political and Social Thought
- INTA 102 Introduction to Political Science
- INTA 103 Introduction to International Relations
- INTA 308 International Political Economy
- INTA 415 History of the Middle East in the 20th Century
- LAWC 339 Public International Law

### **Minor Electives Courses (6 CH)**

Students must complete a minimum of 6 credit hours in minor electives courses:

- INTA 203 Women in Islam
- INTA 206 Globalization
- INTA 209 Islam and the West
- INTA 300 Chinese Society and Politics in the 21st Century
- INTA 306 Gulf studies
- INTA 401 International Relations Theory
- INTA 403 Security Studies
- INTA 404 Gender and Law
- INTA 405 Gender in International Perspective
- INTA 440 Politics of Development
- INTA 450 Ethics of International Relations
- INTA 470 Area Studies
- SOCI 200 Sustainable Development
- INTA 375 Qatari Foreign Policy

## POLICY, PLANNING AND DEVELOPMENT PROGRAM

Department of International Affairs

College of Arts and Sciences

Main's Building BCR B-121- 122

Phone: (+974) 4403-7600

Email: [dia@qu.edu.qa](mailto:dia@qu.edu.qa)

Website: <http://www.qu.edu.qa/artssciences/departments/international-affairs>

### ABOUT THE PROGRAM

The Policy, Planning and Development program offers an interdisciplinary degree focused on generating knowledge and understanding the public policy, energy security, urban planning and development, and environment. Through focusing on national, regional, and international issues, the degree seeks to prepare its graduates to thrive in an increasingly interdependent global community by grounding them in independent critical thinking, leadership skills, global awareness, tolerance, and social responsibility. Graduates will be ready for further study and professional careers in both the public and private sectors.

## BACHELOR OF ARTS IN POLICY, PLANNING AND DEVELOPMENT

### Objectives

The major in Policy, Planning and Development strives to:

1. Effectively lead and manage public sector institutions and other organizations.
2. Participate in and contribute to the policy process.
3. Articulate and apply dedicated service on behalf of the public good.
4. Analyze, synthesize, think critically, solve problems, and make decisions.
5. Communicate and interact productively with a diverse and changing workforce and citizenry.

### Additional Requirements

To receive a BA in Policy, Planning and Development, students must complete the 120 credit hour approved study plan of the major. Students must also achieve a minimum cumulative GPA of 2.00. With the help and supervision of an assigned advisor, students under the newly proposed program will have to diversify their coursework by the end of their sophomore year to include departmental concentrations and/or a Minor.

### Learning Outcomes

Students completing the Major will acquire competency in the following domains:

PLO 01 Core: Identify and explain the fundamental concepts and research methods relevant to policy analysis and evaluations.

PLO 02 Core: Analyze and synthesize information to inform the assessment of policy options and solving problems in public policy.

PLO 03 Core: Communicate complex ideas clearly and persuasively in written and oral forms.

PLO 04 Core: Analyze societal determinants and define relevant policy, planning and development processes related to concentration areas offered by the major.

PLO 05 Energy and Security: Critically assess the role of different sources of energy in an international context and in the central events in world history.

PLO 06 Environment and Sustainability: Evaluate how society decisions and actions impact the sustainability of the local and global environment.

PLO 7 Urban Planning and Development: Examine and interpret current principles and practices of urban planning relevant at multiple levels of government and the conditions and prerequisites needed for urban transition.

### **Opportunities**

Graduates will be ready for further study and professional careers in public and private sectors, including foreign affairs, international organizations, government, media, civil service and journalism.

### **Admissions Requirements**

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement.

Detailed Undergraduate admission requirements are available at the following link:

[http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### **Declaring the major**

Students must satisfy the university and college requirements for declaring a major including the need to declare the major before completing 36 credit hours.

For more details about the University requirements for declaring the Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document. For more details about the College requirements for declaring the Major, please refer to the paragraph “Declaring the major” in the College section of this Chapter.

### **DEGREE REQUIREMENTS - Major in Policy Planning and Development**

A minimum of 120 credit hours are required to complete the major in Policy Planning and Development, including the following:

- A minimum of 33 credit hours in core curriculum requirements.
- A minimum of 48 credit hours in major requirement courses.
- A minimum of 9 credit hours in major elective courses.
- A minimum of 24 credit hours either in a Minor or in Concentration Requirements.
- A minimum of 6 credit hours in Capstone and Internship Requirements.

### **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.



- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I

- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

- ENGL 250 English for Communication I

- ENGL 251 English for Communication II
- UNIV 100 First Year Seminar

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **Major Requirements Courses (48 CH)**

Students must complete a minimum of 48 credit hours in major requirements courses:

- ECON 112 Macroeconomics
- EDUC 201 Research Methodology
- INTA 102 Introduction to Political Science
- INTA 103 Introduction to International Relations
- INTA 440 Politics of Development
- INTA 465 Leadership and Civic Responsibility
- MAGT 101 Principles of Management
- MATH 119 Business Mathematics I
- POPL 100 Introduction to Public Policy and Analysis
- POPL 200 Ethical Development of Public Policy
- POPL 210 Disaster Planning and Crisis Management Fundamentals
- POPL 229 Public Finance
- POPL 300 Principles and Tools for Evidence-Based Policy Decision Making
- POPL 400 Public Leadership and Policy Development
- SOCI 120 Introduction to Sociology
- STAT 220 Business Statistics

### **Major Electives Courses (9 CH)**

Students must complete a minimum of 9 credit hours in major elective courses:

- SOCI 122 Demography
- HIST 324 Economic History of the Gulf
- LAWC 339 Public International Law
- MAGT 302 Human Resource Management
- POPL 221 International Energy Issues
- POPL 228 Introduction to Energy Law and Policy
- POPL 230 Climate Change Policy Analysis
- POPL 232 Energy and Environmental Economics
- POPL 241 Community-Based Policy Development and Analysis
- POPL 242 Law and Public Policy
- POPL 245 Introduction to the Theory and Practice of Urban Planning
- POPL 285 Impact Assessment Studies
- POPL 320 Energy Risk Management

- POPL 321 Energy: Science, Technology, and Human Usage
- POPL 325 International Law and Security
- POPL 330 International Environmental Climate Change Politics and Policy
- POPL 335 Science, Technology and Policy
- POPL 340 Organizational Behavior and Management in Public Service Agencies
- POPL 345 Diversity and Community Development
- POPL 350 Housing and Community Development
- POPL 353 Transportation and Transit-Oriented Development
- POPL 375 Urban Sustainability
- POPL 385 Special Topics I
- POPL 386 Special Topic II
- POPL 387 Energy Conservation
- POPL 392 Post-Disaster Recovery and Planning
- POPL 420 Energy and Global Security
- POPL 431 Economic Policy Approaches to Sustainability
- POPL 432 Sustainability Planning and Protection of Cultural Resources
- POPL 439 Environmental Impact Assessment
- POPL 450 Urban and Regional Economics
- POPL 452 Urban Planning and Development
- POPL 470 Communication Fundamentals for Leaders in Public Policy
- POPL 485 Public Policy and Knowledge based Economy
- POPL 486 Alternative Energy
- POPL 488 Public Policy Planning and Analysis

### **Minor or Concentration requirements (24 CH)**

Students must complete a minimum of 24 credit hours either in a Minor or in Concentration requirements:

- Choosing the minor: the student may take any of the Minors offered within the university, provided that the total number of credit hours for the minor is 24. If the students are enrolled in a minor with less than 24 CH, they must take additional courses as free electives to complete the 24 CH requirement.
- Choosing the concentration requirements: The student may choose one of the four below concentration.

### **Concentration in Public Policy (24 CH)**

Students must complete a minimum of 15 credit hours in the Public Policy concentration requirements and 9 credit hours in the Public Policy concentration electives.

### **Public Policy Concentration Requirements (15 CH)**

Students must complete a minimum of 15 credit hours in concentration requirements courses:

- POPL 242 Law and Public Policy
- POPL 340 Organizational Behavior and Management in Public Service Agencies
- POPL 345 Diversity and Community Development
- POPL 470 Communication Fundamentals for Leaders in Public Policy
- POPL 488 Public Policy Planning and Analysis

**Public Policy Concentration Electives (9 CH)**

Students must complete 9 credit hours in concentration elective courses:

- ECON 214 Monetary Policy
- POPL 241 Community-Based Policy Development and Analysis
- POPL 285 Impact Assessment Studies
- POPL 325 International Law and Security
- POPL 335 Science, Technology and Policy
- POPL 392 Post-Disaster Recovery and Planning
- POPL 485 Public Policy and Knowledge Based Economy
- SOCI 368 Law and Society

**Concentration in Environment and Sustainability (24 CH)**

Students must complete a minimum of 15 credit hours in the Environment and Sustainability concentration requirements and 9 credit hours in the Environment and Sustainability concentration electives.

**Environment and Sustainability Concentration Requirements (15 CH)**

Students must complete a minimum of 15 credit hours in concentration requirements courses:

- SOCI 200 Sustainable Development
- POPL 375 Urban Sustainability
- POPL 431 Economic Policy Approaches to Sustainability
- POPL 432 Sustainability Planning and Protection of Cultural Resources
- POPL 439 Environmental Impact Assessment

**Environment and Sustainability Concentration Electives (9 CH)**

Students must complete a minimum of 9 credit hours in concentration elective courses:

- BIOL 345 Health Safety and Environment
- GEOL 411 Geology of Qatar and Arabian Peninsula
- LAWC 449 Environmental Law and Regulations
- POPL 230 Climate Change Policy Analysis
- POPL 232 Energy and Environmental Economics
- POPL 321 Energy: Science, Technology, and Human Usage
- POPL 335 Science, Technology and Policy

**Concentration in Energy and Security (24 CH)**

Students must complete a minimum of 15 credit hours in the Energy and Security concentration requirements package and 9 credit hours in the Energy and Security concentration electives.

**Energy and Security Concentration Requirements (15 CH)**

Students must complete a minimum of 15 credit hours in concentration requirements courses:

- INTA 403 Security Studies
- POPL 221 International Energy Issues
- POPL 228 Introduction to Energy Law and Policy

- POPL 320 Energy Risk Management
- POPL 420 Energy and Global Security

### **Energy and Security Concentration Electives (9 CH)**

Students must complete a minimum of 9 credit hours in concentration elective courses:

- INTA 302 Politics of Oil
- POPL 232 Energy and Environmental Economics
- POPL 321 Energy: Science, Technology, and Human Usage
- POPL 325 International Law and Security
- POPL 335 Science, Technology and Policy
- POPL 387 Energy Conservation
- POPL 486 Alternative Energy

### **Concentration in Urban Planning and Development (24 CH)**

Students must complete a minimum of 15 credit hours in the Urban Planning and Development concentration requirements and 9 credit hours in the Urban Planning and Development concentration electives.

### **Urban Planning and Development Concentration Requirements (15 CH)**

Students must complete a minimum of 15 credit hours in concentration requirements courses:

- GEOG 346 Introduction to GIS
- POPL 245 Introduction to the Theory and Practice of Urban Planning
- POPL 353 Transportation and Transit-Oriented Development
- POPL 450 Urban and Regional Economics
- POPL 452 Urban Planning and Development

### **Urban Planning and Development Concentration Electives (9 CH)**

Students must complete a minimum of 9 credit hours in concentration elective courses:

- POPL 285 Impact Assessment Studies
- POPL 350 Housing and Community Development
- POPL 375 Urban Sustainability
- POPL 345 Diversity and Community Development
- SOCI 122 Demography
- SOCI 267 Urban Sociology

### **Capstone and Internship Requirements (6 CH)**

Students must complete the following courses:

- POPL 490 Internship
- POPL 499 Capstone



**Study Plan****Bachelor of Arts in Policy, Planning and Development**

<b>FIRST YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	Core	MATH 103 – Numbers and Basic Algebra	3
	Core	Core Curriculum Elective	3
	Core	Core Curriculum Elective	3
	Core	Core Curriculum Elective	3
	Core	Core Curriculum Elective	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	Core	Core Curriculum Elective	3
	Core	Core Curriculum Elective	3
	Core	Core Curriculum Elective	3
	Core	Core Curriculum Elective	3
	Core	Core Curriculum Elective	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>SECOND YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	Core	Core Curriculum Elective	3
	POPL 100	Introduction to Public Policy and Analysis	3
	INTA 102	Introduction to Political Science	3
	SOCI 120	Introduction to Sociology	3
	POPL 200	Ethical Development of Public Policy	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	INTA 103	Introduction to International Relations	3
	EDUC 201	Research Methodology	3
	POPL 210	Disaster-Planning and Crisis Management	3

	MAGT 101	Principles of Management	3
	STAT 220	Business Statistics 1	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

**THIRD YEAR (30 credit hours)**

<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	POPL 300	Principles and Tools for Evidence-Based	3
	POPL 400	Public Leadership and Policy Development	3
	MATH 119	Business Math	3
	-	Concentration 1	3
	-	Concentration 2	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	POPL 229	Public Finance	3
	INTA 440	Politics of Development	3
	Elective	Major Elective 1	3
	-	Concentration 3	3
	-	Concentration 4	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

**FOURTH YEAR (30 credit hours)**

<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	POPL 490	Internship	3
	Elective	Major Elective 2	3
	-	Concentration 5	3
	-	Concentration 6	3
	INTA 465	Leadership and Civic Responsibility	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

Spring	POPL 499	Capstone	3
	Elective	Free Elective 3	3
	Elective	Major Elective 4	3
	-	Concentration 7	3
	-	Concentration 8	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

## MINOR IN POLICY PLANNING AND DEVELOPMENT

This minor program offers students enrolled in other majors a comprehensive knowledge and expertise in Policy, Planning and Development to complement their major. This minor will contribute in equipping students with leadership skills and in enhancing their ability to analyze, define, and develop planning and development strategies for the common good of the country, region, communities, and global society. The program addresses several sub-specialties, including sustainability, energy security, public policy and planning.

### Declaring the minor

Applicants for the minor in Policy, Planning and Development must satisfy the University and the College requirements for declaring a minor.

### Minor Requirements - Minor in Policy Planning and Development (24 CH)

A minimum of 24 credit hours are required to complete the minor in Philosophy, including the following:

- A minimum of 15 credit hours in the minor requirements courses.
- A minimum of 9 credit hours in the minor electives courses.

### Minor Requirements Courses (15 CH)

Students must complete a minimum of 15 credit hours in minor requirements courses:

- POPL 100 Introduction to Public Policy and Analysis
- POPL 200 Ethical Development of Public Policy
- POPL 300 Principles and Tools for Evidence-Based Policy Decision Making
- POPL 400 Public Leadership and Policy Development
- SOCI 120 Introduction to Sociology

### Minor Electives Courses (9 CH)

Students must complete a minimum of 9 credit hours in minor elective courses:

- POPL 221 International Energy Issues
- POPL 230 Climate Change Policy Analysis
- POPL 232 Energy and Environmental Economics
- POPL 241 Community-Based Policy Development and Analysis
- POPL 245 Introduction to the Theory and Practice of Urban Planning

- POPL 321 Energy: Science, Technology, and Human Usage
- POPL 335 Science, Technology and Policy
- POPL 340 Organizational Behavior and Management in Public Service Agencies
- POPL 450 Urban and Regional Economics

## DEPARTMENT OF SOCIAL SCIENCES

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#### Associate Professors

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#### Assistant Professors

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#### Teaching Assistants

Ruba Abu Tarbush, Yousif Saleh Mahdi, Tahani Al-Shamari, Bana Al-Ghanim, Abdulla AlHajri

### ABOUT THE DEPARTMENT

The Department of Social Sciences offers courses that address both classic and contemporary perspectives on the social worlds in which humans live. Through broad training and practical experience in a research-oriented environment, students in the department will gain the skills and knowledge necessary to meaningfully contribute to society, to pursue graduate study in the social sciences, and to grapple with the social and cultural aspects of our collective existence. This mission is shared by the Department's three programs: Sociology, Social Work and Psychology.

## BACHELOR OF ARTS IN SOCIOLOGY

### About the Sociology Program

The mission of the program is to train students in the foundational methods and theories integral to sociology and closely related social sciences, and to combine that training with practical experience and research skills to produce graduates capable of significant contributions in a wide variety of practical and research-oriented pursuits. Coursework in the sociology program is configured to simultaneously build a strong social and cultural understanding of the local region, while also producing global citizens with an awareness and respect for cultural diversity and other ways of living.

### Objectives

The major in Sociology strives to:

- Have a critical understanding of basic social science concepts.
- Acquire methods of gathering and analyzing systematically derived field-based data.
- Ethically conduct research on social and cultural issues to explain societal patterns or problems.
- Understand uniformity and diversity among socio-cultural orders.

### Learning Outcomes

Upon completion of the major, students will be able to:

1. Explain Social and Cultural Concepts in real settings.
2. Explain and Give example of social and cultural issues.
3. Analyze Quantitative and qualitative data related to social issues.
4. Design appropriate data Collection strategies to conduct sociological research.
5. Apply international sociological code of ethics.
6. Support social and culture diversity.

### Opportunities

Graduates in Sociology find employment in government agencies, non-governmental organizations, international aid and development agencies, and in the private sector in management positions, community service, social service, and research organizations. Quantitative and qualitative research skills allow graduates to be employed by marketing, research and consulting agencies.

### Admissions Requirements

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement.

Detailed Undergraduate admission requirements are available at the following link:

[http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### Declaring the major

Students must satisfy the university and college requirements for declaring a major including the need to declare the major before completing 36 credit hours.



For more details about the University requirements for declaring the Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document. For more details about the College requirements for declaring the Major, please refer to the paragraph “Declaring the major” in the College section of this Chapter.

### **DEGREE REQUIREMENTS - Major in Sociology**

A minimum of 120 credit hours are required to complete the major in Sociology, including the following:

- A minimum of 33 credit hours in core curriculum requirements.
- A minimum of 30 credit hours in major requirements courses.
- A minimum of 21 credit hours in major electives courses.
- A minimum of 24 credit hours in minor requirements courses.
- A minimum of 6 credit hours in free elective courses.
- A minimum of 6 credit hours in supporting elective courses.

### **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

#### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

#### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology

- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life

- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

- ENGL 250 English for Communication I
- ENGL 251 English for Communication II
- UNIV 100 First Year Seminar

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **Major Requirements Courses (30 CH)**

Students must complete a minimum of 30 CH in major requirements courses:

- SOCI 120 Introduction to Sociology
- SOCI 122 Demography
- SOCI 201 Sociology of Development
- SOCI 261 Quantitative Research Methods
- SOCI 300 Qualitative Research Methods
- SOCI 301 Social Statistics
- SOCI 302 Social Change
- SOCI 360 Sociological Theory
- SOCI 400 Internship
- SOCI 469 Research Project

## Major Electives Courses (21 CH)

Students must complete a minimum of 21 Credit Hours in major electives courses:

### General Sociology Package

- SOCI 121 Intro to Anthropology
- SOCI 202 Contemporary Arab Society
- SOCI 204 Sociology of Culture
- SOCI 205 Sociology of Gulf Society
- SOCI 306 Digital Society
- SOCI 307 Sociology of Sport
- SOCI 361 Human Rights
- SOCI 363 Ethnicity
- SOCI 402 Political Sociology
- SOCI 403 Industrial Sociology
- SOCI 467 Globalization
- SOCI 471 Special Topics

### Development Studies Package

- SOCI 200 Sustainable Development
- SOCI 267 Urban Sociology
- SOCI 308 Sociology of Education
- SOCI 309 Economic Sociology
- SOCI 310 Sociology of Risk
- SOCI 404 Social Problems
- SOCI 405 Environmental Sociology

### Population & Migration Studies Package

- SOCI 203 Medical Sociology
- SOCI 264 Sociology of the Family
- SOCI 303 Social Anthropology
- SOCI 304 Sociology of Crime
- SOCI 305 Sociology of Gender
- SOCI 401 Sociology of Organizations
- SOCI 464 Social Policy and Planning

## Minor Requirements Courses (24 CH)

Students enrolled in the Sociology program may take any of the Minors offered within the university. If the minor the students enrolled in is less than 24 CH, students must take additional courses as free electives to complete the 24 CH requirements.

**Free Electives Courses (6 CH)**

Students must complete a minimum of 6 credit hours in University free elective courses from courses outside the Sociology major.

**Supporting Elective Courses (6 CH)**

Students must complete a minimum of 6 credit hours in supporting elective courses from the following list:

- INTA 102 Introduction to Political Science
- EDUC 200 Education and Social Problems
- PSYC 206 Introduction to Social Psychology
- GEOG 254 Population Geography
- SOWO 309 Voluntary Social Work
- HIST 314: Economic & Social History of the Muslim World

**Study Plan****Bachelor of Arts in Sociology**

<b>FIRST YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	SOCI 120 or SOCI 121	Intro to Sociology or Introduction to Anthropology	3
		Core Curriculum Course	3
		Core Curriculum Course	3
		Core Curriculum Course	3
		Free Elective (1)	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring		Core Curriculum Course	3
		Core Curriculum Course	3
		Core Curriculum Course	3
		Core Curriculum Course	3
		Free Elective (2)	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
<b>SECOND YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>

Fall		Minor Course/Minor Elective (1)	3
	SOCI 261	Quantitative Research Methods	3
		Core Curriculum Course	3
		Core Curriculum Course	3
		Minor Course/Minor Elective (2)	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	SOCI 300	Qualitative Research Methods	3
		Major Elective (1)	3
		Minor Course/Minor Elective (3)	3
		Free Elective (3)	3
		Minor Course/Minor Elective (4)	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>THIRD YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	SOCI 360	Sociological Theory	3
		Major Elective (2)	3
		Core Curriculum Course	3
		Minor Course/Minor Elective (5)	3
		Minor Course/Minor Elective (6)	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	SOCI 361	Human Rights	3
		Core Curriculum Course	3
		Major Elective (3)	3
		Major Elective (4)	3
		Minor Course/Minor Elective (7)	3
<b>Total Credit Hours in Semester</b>			<b>15</b>



<b>FOURTH YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	SOCI 301	Social Statistics	3
	SOCI 202	Contemporary Arab Society	3
		Major Elective (5)	3
		Major Elective (6)	3
		Minor Course/Minor Elective (8)	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	SOCI 461/ SOCI 469	Honor's Thesis Research Project	3
		Major Elective (7)	3
		Major Elective (8)	3
		Major Elective (9)	3
		Free Elective (4)	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

### MINOR IN SOCIOLOGY

Students pursuing a minor in Sociology will have an opportunity to learn about social phenomena which influence human action within society. The minor will also offer a body of knowledge to enable students to understand core concepts of societal issues and critically think about them.

#### Declare the minor

Applicants for the minor in Sociology must satisfy the University and the College requirements for declaring a minor.

#### Minor Requirements - Minor in Sociology (24 CH)

Students seeking a minor in Sociology must complete a minimum of 24 credit hours, including the following:

- A minimum of 12 credit hours in minor requirements courses.
- A minimum of 12 credit hours in minor electives courses.

#### Minor Requirements Courses (12 CH)

Students must complete a minimum of 12 credit hours in minor requirements courses:

- SOCI 120 Introduction to Sociology
- SOCI 201 Sociology of Development
- SOCI 261 Quantitative Research Methods

- SOCI 360 Sociological Theory

**Minor Electives Courses (12 CH)**

Students must complete a minimum of 12 credit hours in minor electives courses:

**General Sociology Package**

- SOCI 121 Intro to Anthropology
- SOCI 202 Contemporary Arab Society
- SOCI 204 Sociology of Culture
- SOCI 205 Sociology of Gulf Society
- SOCI 306 Digital Society
- SOCI 307 Sociology of Sport
- SOCI 361 Human Rights
- SOCI 363 Ethnicity
- SOCI 402 Political Sociology
- SOCI 403 Industrial Sociology
- SOCI 467 Globalization
- SOCI 471 Special Topics

**Development Studies Package**

- SOCI 200 Sustainable Development
- SOCI 267 Urban Sociology
- SOCI 308 Sociology of Education
- SOCI 309 Economic Sociology
- SOCI 310 Sociology of Risk
- SOCI 404 Social Problems
- SOCI 405 Environmental Sociology

**Population & Migration Studies**

- SOCI 122 Demography
- SOCI 203 Medical Sociology
- SOCI 264 Sociology of the Family
- SOCI 303 Social Anthropology
- SOCI 304 Sociology of Crime
- SOCI 305 Sociology of Gender
- SOCI 401 Sociology of Organizations
- SOCI 464 Social Policy and Planning

## BACHELOR OF ARTS IN SOCIAL WORK

### About the Social Work Program

The Program's mission is to develop generalist social workers who will be strategic thinkers, life-long learners and opinion shapers. The knowledge-base, skills, and values necessary for entry-level generalist social work practice will be taught in an environment that fosters sensitivity and integration of Qatari culture, professional development, critical thinking, and leadership and will prepare students to take appropriate action guided by the best available scientific evidence.

### Objectives

The objectives of the Social Work Program are driven by its mission of preparing students for entry-level generalist practice. These goals portray the meaning and purpose of professional generalist social workers, who must be able to practice effectively within any given person-in-the environment context. The Social Work Program will prepare students to:

- Develop an overview of social work as a profession historically, globally, and culturally
- Introduce a perspective on social work theoretical frameworks
- Provide perspective in social work on core values, social justice and ethics
- Develop a perspective on basic professional skills in social work

### Learning Outcomes

Upon completion of the major, students will be able to:

1. Analyze the role of culture in the context of social work.
2. Apply the roles of Ethics in social work practice.
3. Utilize social work knowledge, skills and methods in social work practice.
4. Evaluate strategies to respond to local and global community socio-economic challenges using appropriate theories in the field.
5. Employ effective research skills to social work issues.
6. Apply effective communication skills important for social work practices.

### Opportunities

Job opportunities abound in Qatar for social work majors. Social Work graduates might work with children, families, adults, elders, couple, groups, organizations and communities. Opportunities also exist for social workers in other fields including child welfare, school social work, mental health social work, addictions, gerontology, community organizing, and policy.

### Admissions Requirements

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement and pass a department-based interview and a written test.

Detailed Undergraduate admission requirements are available at the following link:

[http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### **Declaring the major**

Both Male and Female students can apply to the Social Work Major.

Students must satisfy the university and college requirements for declaring a major including the need to declare the major before completing 36 credit hours.

For more details about the University requirements for declaring the Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document. For more details about the College requirements for declaring the Major, please refer to the paragraph “Declaring the major” in the College section of this Chapter.

### **DEGREE REQUIREMENTS - Major in Social Work**

A minimum of 120 credit hours are required to complete the major in Social Work, including the following:

- A minimum of 33 credit hours in core curriculum requirements.
- A minimum of 54 credit hours in major requirements courses.
- A minimum of 18 credit hours in major supporting requirements courses.
- A minimum of 9 credit hours in major electives courses.
- A minimum of 6 credit hours in free elective courses.

### **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

#### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

- ENGL 250 English for Communication I
- ENGL 251 English for Communication II
- UNIV 100 First Year Seminar

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

#### **Major Requirements Courses (54 CH)**

Students must complete a minimum of 54 credit hours in major requirements courses:

- SOWO 101 Introduction to Social Work and Welfare
- SOWO 200 Social Work and Law
- SOWO 311 Social and Cultural Diversity
- SOWO 320 Human Behavior and Social Environment I
- SOWO 321 Human Behavior and Social Environment II
- SOWO 330 Social Welfare Policy and Services I
- SOWO 350 Social Work Generalist Practice I
- SOWO 360 Social Work Research Methods I



- SOWO 370 Children and Family Practice & Services
- SOWO 400 Social Welfare Policy & Services II
- SOWO 420 Social Work Generalist Practice II
- SOWO 430 Social Work Generalist Practice III
- SOWO 442 Advanced Intervention models
- SOWO 444 Field Practicum I
- SOWO 445 Field Practicum II
- SOWO 450 Graduation project

### **Major Electives Courses (9 CH)**

Students must complete a minimum of 9 credit hours in major electives courses:

- SOWO 301 Medical Social Work
- SOWO 302 Mental Health Social Work
- SOWO 303 School Social Work
- SOWO 304 Social Work Program Evaluation
- SOWO 305 Social Protection
- SOWO 306 Social work in Disability and Rehabilitation
- SOWO 307 Social Work and the Environment
- SOWO 308 Crises and Disaster Management
- SOWO 309 Voluntary Social Work
- SOWO 361 Society and Human Rights

### **Major Supporting Requirements Courses (18 CH)**

Students must complete a minimum of 18 credit hours in major supporting requirements courses:

- BIOL 110 Human Biology
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 200 Sustainable Development
- STAT 101 Statistics I

### **Free Electives Courses (6 CH)**

Students must complete a minimum of 6 credit hours in University free electives from courses outside the Social Work major.

### **Study Plan**

#### **Bachelor of Arts in Social Work**

<b>FIRST YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>

Fall		Core Curriculum Course	3
		Core Curriculum Course	3
		Core Curriculum Course	3
		Core Curriculum Course	3
	SOWO 101	Intro to Social Work & Social Welfare	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring		Core Curriculum Course	3
		Core Curriculum Course	3
		Core Curriculum Course	3
		Core Curriculum Course	3
		Core Curriculum Course	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

SECOND YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	SOCI 200	Sustainable Development	3
	STAT 101	Statistics I	3
	PSYC 201	Fundamentals of Psychology	3
		Core Curriculum Course	3
		Core Curriculum Course	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring		Free elective 1	3
	BIOL 110	Human Biology	3
	PSYC 206	Introduction to Social Psychology	3
	SOCI 120	Introduction to Sociology	3

	SOWO361 <b><u>OR</u></b> SOWO305 <b><u>OR</u></b> 303 <b><u>OR</u></b> SOWO 307 <b><u>OR</u></b> SOWO 308	Society and Human Rights <b><u>OR</u></b> Social Protection <b><u>OR</u></b> School Social Work <b><u>OR</u></b> Social Work and the Environment <b><u>OR</u></b> Crises and Disaster Management	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

**THIRD YEAR (30 credit hours)**

<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	SOWO 301 <b><u>OR</u></b> SOWO 304 <b><u>OR</u></b> SOWO 306 <b><u>OR</u></b> SOWO 309 <b><u>OR</u></b> SOWO 302	Medical Social Work <b><u>OR</u></b> Social Work Program Evaluation <b><u>OR</u></b> Social work in Disability and Rehabilitation <b><u>OR</u></b> Voluntary Social Work <b><u>OR</u></b> Mental Health Social Work	3
	SOWO 311	Social & Cultural Diversity	3
	SOWO 320	Human Behavior & Social Environment I	3
	SOWO 330	Social Welfare Policy and Services I	3
	SOWO 350	Social Work Generalist Practice I	3
	<b>Total Credit Hours in Semester</b>		<b>15</b>
Spring	SOWO 200	Social Work & the Law	3
	SOWO 370	Children & Family Practice & Services	3
	SOWO 321	Human Behavior & Social Environment II	3
	SOWO 400	Social Welfare Policy and Services II	3
	SOWO 420	Social Work Generalist Practice II	3

<b>Total Credit Hours in Semester</b>	<b>15</b>
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<b>FOURTH YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	SOWO 301 <b><u>OR</u></b>	Medical Social Work <b><u>OR</u></b>	3
	SOWO 304 <b><u>OR</u></b>	Social Work Program Evaluation <b><u>OR</u></b>	
	SOWO 306 <b><u>OR</u></b>	Social work in Disability and Rehabilitation <b><u>OR</u></b>	
	SOWO 309 <b><u>OR</u></b>	Voluntary Social Work <b><u>OR</u></b>	
	SOWO 302	Mental Health Social Work	
	SOWO 430	Social Work Generalist Practice III	3
	SOWO 360	Social Work Research Methods I	3
	SOWO 444	Field Practicum I	6
<b>Total Credit Hours in Semester</b>			<b>15</b>
	SOWO 442	Advanced Intervention models	3
	SOWO 445	Field Practicum II	6
	SOWO 450	Graduation project	3
		Free Elective (2)	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

## BACHELOR OF ARTS IN PSYCHOLOGY

### About the Psychology Program

The mission of the Psychology Program is to provide students with high quality education by engaging them in inquiry-driven learning and by developing their critical thinking, effective communication, and consensus building skills. The program prepares students to lead successful careers in psychology, including careers in teaching, research and clinical services and enables them to pursue their studies beyond the baccalaureate degree.

### Objectives

Students who complete the Psychology Program will:

- Develop student fundamental knowledge and comprehension of the major concepts, theoretical perspectives, historical trends, and empirical findings in psychology and develop a working knowledge of psychology's content domains.
- Develop and use scientific reasoning, creative thinking and problem-solving, including effective research methods.
- Develop understanding of the major ethical issues associated with psychological research, professional behavior and practice.
- Develop professional lexicon, competence in writing and in oral communication skills.
- Promote application of psychological content and skills, reflective practice, teamwork, and career preparation.

### Learning Outcomes

Upon completion of the major, students will be able to:

1. Explain the primary objectives of psychology and key characteristics of its major content domains.
2. Apply psychological concepts to explain behavior and mental processes.
3. Use effective research methodology to solve problems.
4. Develop working knowledge of psychological intervention methods and therapeutic techniques.
5. Apply professional ethical standards to evaluate psychological science and practice.
6. Write scientific arguments and present information orally using scientific and psychological concepts.

### Opportunities

The psychology program prepares students for a wide range of careers as, family counselors, psychiatric technicians, psychological testing technicians and human service workers. Psychologists might provide psychological help for children, families, couples, and groups in different settings. Opportunities also exist for psychologists to work in non-profit organizations and in health establishments, including hospitals and mental health agencies.

### Admissions Requirements

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement and pass the program admission interview.

Detailed Undergraduate admission requirements are available at the following link:

[http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### **Declaring the major**

Students must satisfy the university and college requirements for declaring a major including the need to declare the major before completing 36 credit hours.

For more details about the University requirements for declaring the Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document. For more details about the College requirements for declaring the Major, please refer to the paragraph “Declaring the major” in the College section of this Chapter.

### **DEGREE REQUIREMENTS - Major in Psychology**

A minimum of 120 credit hours are required to complete the major in psychology, including the following:

- A minimum of 33 credit hours in core curriculum requirements.
- A minimum of 36 credit hours in major requirements courses.
- A minimum of 6 credit hours in Practicum
- A minimum of 12 credit hours in major electives courses.
- A minimum of 24 credit hours in minor requirements courses.
- A minimum of 9 credit hours in free electives courses.

### **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

#### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

#### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:



- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

- ENGL 250 English for Communication I
- ENGL 251 English for Communication II
- UNIV 100 First Year Seminar

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **Major Requirements Courses (36 CH)**

Students must complete 36 credit hours in major requirements course:

- PSYC 201 Fundamentals of Psychology
- PSYC 203 Health Psychology
- PSYC 206 Introduction to Social Psychology
- PSYC 221 Research Design and Statistics
- PSYC 300 Psychology of Personality
- PSYC 301 Developmental Psychology
- PSYC 303 Abnormal Psychology
- PSYC 304 Cognitive Psychology

- PSYC 400 Principles of Cognitive Behavioural Therapy
- PSYC 401 Psychological Helping Skills
- PSYC 403 Psychophysiology
- PSYC 406 Capstone

### **Practicum (6 CH)**

Students must complete the following Practicum course:

- PSYC 405 Practicum

### **Major Electives Courses (12 CH)**

Students must complete a minimum of 12 credit hours in major elective courses:

- PSYC 306 Emotion and Motivation
- PSYC 402 Counseling Over the Lifespan
- PSYC 404 Psychology of Family Relations
- PUBH 202 Health Behavior and Society
- SOCI 300 Qualitative Research Methods
- SOCI 305 Sociology of Gender
- SPSC 308 Sport Psychology

### **Minor Requirements Courses (24 CH)**

Students enrolled in the Psychology program may take any of the Minors offered within the university. If the minor the students enrolled in is less than 24 credit hours, students must take additional courses as free electives to complete the 24 credit hours requirements

### **Free Electives Courses (9 CH)**

Students must complete a minimum of 9 credit hours in University Free Electives from courses outside the Psychology major, 6 of which must be in 300-level courses or above.

### **Study Plan**

#### **Bachelor of Arts in Psychology**

<b>FIRST YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall		Core Curriculum course	3
		Core Curriculum course	3
		Core Curriculum course	3
		Free elective 1	3
		Core Curriculum course	3

<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring		Core Curriculum course	3
		Core Curriculum course	3
		Free elective 2	3
		Core Curriculum course	3
	PSYC 201	Fundamentals of Psychology	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>SECOND YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	PSYC 203	Health Psychology	3
		Major Elective 1	3
		Free elective 3	3
		Core Curriculum course	3
		Core Curriculum course	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	PSYC 206	Introduction to Social Psychology	3
	PSYC 221	Research Design and Statistics	3
		Core Curriculum course	3
		Major Elective 2	3
		Minor 1	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>THIRD YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	PSYC 300	Personality of Psychology	3
	PSYC 301	Developmental Psychology	3

		Core Curriculum course	3
		Minor 2	3
		Major Elective 3	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	PSYC 303	Abnormal Psychology	3
	PSYC 304	Cognitive Psychology	3
		Major Elective 4	3
		Minor 3	3
		Minor 4	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>FOURTH YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	PSYC 400	Principles of Cognitive Behavioral Therapy	3
	PSYC 401	Psychological Helping Skills	3
	PSYC 403	Psychophysiology	3
		Minor 5	3
		Minor 6	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	PSYC 405	Practicum	6
	PSYC 406	Capstone	3
		Minor 7	3
		Minor 8	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

### MINOR IN PSYCHOLOGY

The minor in Psychology is designed to provide students with an introduction to the field of psychology and familiarize them with the major concepts in psychology. The minor will provide students with skills needed to recognize, understand, and respect the complexity of sociocultural and international diversity.

**Declare the minor**

Applicants for the minor in Psychology must satisfy the University and the College requirements for declaring a minor.

**Minor Requirements - Minor in Psychology**

- A minimum of 24 credit hours are required to complete the minor in Psychology, including the following:
- A minimum of 18 credit hours in the minor requirements courses.
- A minimum of 6 credit hours in the minor electives courses.

**Minor Requirements Courses (18 CH)**

Students must complete 18 credit hours in minor requirements courses:

- PSYC 201 Fundamentals of Psychology
- PSYC 203 Health Psychology
- PSYC 206 Introduction to Social Psychology
- PSYC 301 Developmental Psychology
- PSYC 303 Abnormal Psychology
- PSYC 304 Cognitive Psychology

**Minor Electives Courses (6 CH)**

Students must complete a minimum of 6 credit hours in minor elective courses:

- PSYC 300 Psychology of Personality
- PSYC 306 Emotion and Motivation
- PSYC 401 Psychological Helping Skills
- PSYC 404 Psychology of Family Relations



## SCIENCES CLUSTER

### DEPARTMENT OF BIOLOGICAL AND ENVIRONMENTAL SCIENCES

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#### Acting Head

Mohammed Abu-Dieyeh

#### Faculty

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Samir Mohamed Jaoua, Nabil Zouari, Allal Ouhtit, Said Sif, Mohammed Nejib Daly Yahia, Sergio Crovella, Mohammad Al-Ghouti, Mohammed Abu-Dieyeh

##### Associate Professors:

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##### Assistant Professors:

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##### Lecturers:

Perumal Balakrishnan, Zahoor Ul Hassan

##### Teaching Assistants:

Abdelrahman Mahgoub Osman; Huda Essa Al-Muraikhi; Hayat Al-Jabri, Radoslaw Stefan Rusyniak, Imane Saleh, Mohammed Nayeem Mullungal, Mohammed Al-Janaydeh, Bilal Nasr, Mera AlNaimi, Ghaliya Al Noaimi, Essa Al-Jehani, Khalid Al-Naemi

### ABOUT THE DEPARTMENT

The Department of Biological and Environmental Sciences (DBES) at Qatar University offers two undergraduate programs, namely B.Sc. in Biological Sciences and B.Sc. in Environmental Science and two Graduate programs of M.Sc. in Environmental Science and Ph.D. in Biological and Environmental Sciences, in addition to the Graduate Certificate in Environmental Sciences. The DBES is currently the only department in the College of Arts and Sciences that offers programs at the B.Sc., M.Sc., and Ph.D. levels. The two BSc programs in

Environmental Science and Biological Sciences feed into the MSc program in Environmental Science, which in turn feeds into the Ph.D. in Biological and Environmental Sciences.

The program of B.Sc. in Biological sciences is designed in such a way as to provide proper training and qualification in modern biology, meeting the unprecedented advancement in the field and responding to the needs and aspiration of the Qatari society. The B.Sc. in Environmental Science is an accredited (CHES-UK) and the first program at Qatar. It is developed to address escalating issues and problems associated with the environment of Qatar, and the region, as well as imminent and consequential projected needs of stakeholders. All these 4 programs create an exciting and excellent Teaching and Research environment.

The M.Sc. in Environmental Sc., started in Fall 2011, is an accredited (CHES-UK) program dedicated to the graduation of professionals and researchers who are committed to the development of a sustainable environment for Qatar. It is an interdisciplinary graduate program in environmental science that is the first choice of students preparing graduates for both industry and PhD programs. The PhD in Biological & Environmental Sc. provides students with the most advanced research skills enabling them to carry out research independently, publishing and showing innovations and creativity.

## **BACHELOR OF SCIENCE IN BIOLOGICAL SCIENCES**

### **About the Program**

The program of B.Sc. in Biological Science is designed in such a way as to provide proper training and qualification in modern biology, meeting the unprecedented advancement in the field and responding to the needs and aspiration of the Qatari society.

### **Objectives**

The major in Biological Sciences aims to:

- Develop an understanding of the principles of biological sciences.
- Provide students with intensive laboratory and field experiences.
- Carry out basic and applied research in biological sciences.
- Enhance student abilities to communicate effectively in biological issues.

### **Learning Outcomes**

Graduates of the Biological Sciences major will be able to:

1. Define structure and function of organisms.
2. Describe the interactions between organisms and their environments.
3. Use instrumentation and proper techniques in biological sciences research correctly
4. Engage in critical thinking on problem solving activities on a biological topic.
5. Demonstrate proficiency in written by giving concise, clear and organized written communication about a biological concept.
6. Demonstrate proficiency in oral communication by giving concise, clear, and organized oral presentations on a biological topics.

## Opportunities

Graduates in Biological Sciences find employment in government agencies, non-governmental organizations, and in the private sector in clinical, chemical and research laboratories.

## Admissions Requirements

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement.

Detailed Undergraduate admission requirements are available at the following link:

[http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

## Declaring the major

Students must satisfy the university and college requirements for declaring a major including the need to declare the major before completing 36 credit hours.

For more details about the University requirements for declaring the Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document. For more details about the College requirements for declaring the Major, please refer to the paragraph “Declaring the major” in the College section of this Chapter.

## DEGREE REQUIREMENTS - Major in Biological Sciences

A minimum of 120 credit hours are required to complete the major in Biological Sciences, including the following:

- A minimum of 33 credit hours in core curriculum requirements.
- A minimum of 24 credit hours in major requirements courses.
- A minimum of 21 credit hours in major supporting requirements.
- A minimum of 24 credit hours in major elective courses.
- A minimum of 18 credit hours in minor requirements courses.

## Core Curriculum Program

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

## Identity and Communication Package (15 - 18 CH)

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I

- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

**Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

**Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

**Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

**Major Requirements Courses (24 CH)**

Students must complete a minimum of 24 credit hours in major requirements courses:

- BIOL 101 Biology I
- BIOL 102 Biology II
- BIOL 221 Basic Ecology
- BIOL 241 Microbiology
- BIOL 311 Molecular Biology
- BIOL 351 Plant Anatomy & Physiology
- BIOL 362 Animal Anatomy & Physiology
- BIOL 497 Senior Project

### **Major Supporting Requirements Courses (21 CH)**

Students must complete a minimum of 21 credit hours in major supporting requirements courses:

- CHEM 101 General Chemistry I
- CHEM 103 Experimental General Chemistry I
- CHEM 209 Fundamentals in Organic Chemistry
- CHEM 351 Basic Biochemistry
- CHEM 352 Experimental Biochemistry
- MATH 101 Calculus I
- PHYS 110 General Physics for Biology
- PHYS 111 Practical Physics for Biology
- STAT 151 Introduction to Applied Statistics

### **Major Electives Courses (24 CH)**

Students must complete a minimum of 24 credit hours in major elective courses:

- BIOL 211 Cell Biology
- BIOL 212 Genetics
- BIOL 312 Histology
- BIOL 321 Principles of Environmental Biology
- BIOL 322 Desert Biology
- BIOL 344 General Parasitology
- BIOL 412 Genetic Engineering & DNA Technology
- BIOL 420 Special Topics
- BIOL 421 Ecophysiology
- BIOL 422 Environmental Management & Conservation
- BIOL 442 Biotechnology
- BIOL 444 Immunology
- BIOL 451 Cell & Tissue Culture

### **Minor Requirements Courses (18 CH)**

Students enrolled in the Biological Sciences program must complete the minor in Chemistry to satisfy the program degree requirements.



**Study Plan****Bachelor of Science in Biological Sciences**

<b>FIRST YEAR (32 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	ARAB 100	Arabic Language 1	3
	ENGL 202	English Language 1 (Post Foundation)	3
	DAWA 111	Islamic Culture	3
	BIOL 101	Biology I	3
	CHEM 101	General Chemistry I	3
	CHEM 103	Experimental General Chemistry I	1
<b>Total Credit Hours in Semester</b>			<b>16</b>
Spring	ARAB 200	Arabic Language 2	3
	ENGL 203	English Language 2 (Post Foundation)	3
	BIOL 102	Biology II	3
	CHEM 102	General Chemistry II	3
	CHEM 104	Experimental General Chemistry II	1
	MATH 101	Calculus I	3
<b>Total Credit Hours in Semester</b>			<b>16</b>

<b>SECOND YEAR (32 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	BIOL 221	Basic Ecology	3
	BIOL 241	Microbiology	3
	CHEM 209	Fundamentals in Organic Chemistry	3
	PHYS 110	General Physics for Biology	3
	BIOL	Major Elective	3
	PHYS 111	Practical Physics for Biology	1

<b>Total Credit Hours in Semester</b>			<b>16</b>
Spring	BIOL 311	Molecular Biology	3
	BIOL 212	Genetics	3
	CHEM	Minor Elective	3
	CHEM 351	Basic Biochemistry	3
	CHEM 352	Experimental Biochemistry	1
	STAT 151	Introduction to Applied Statistics	3
<b>Total Credit Hours in Semester</b>			<b>16</b>

<b>THIRD YEAR (32 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	BIOL 362	Animal Anatomy & Physiology	3
	BIOL	Major Elective	3
	CHEM	Minor Elective	3
	CHEM	Minor Elective	2
	BIOL	Major Elective	3
	CC Elective	Core Curriculum Elective	3
<b>Total Credit Hours in Semester</b>			<b>17</b>
Spring	BIOL 351	Plant Anatomy & Physiology	3
	BIOL	Major Elective	3
	BIOL	Major Elective	3
	CHEM	Minor Elective	3
	CC Elective	Core Curriculum Elective	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>FOURTH YEAR (24 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>

Fall	BIOL	Major Elective	3
	BIOL	Major Elective	3
	CC Elective	Core Curriculum Elective	3
	CC Elective	Core Curriculum Elective	3
	BIOL 497	Senior Project	-
<b>Total Credit Hours in Semester</b>			<b>12</b>
Spring	BIOL	Major Elective	3
	CHEM	Minor Elective	3
	CC Elective	Core Curriculum Elective	3
	BIOL 497	Senior Project (continued)	3
<b>Total Credit Hours in Semester</b>			<b>12</b>

### MINOR IN BIOLOGICAL SCIENCES

The Department of Biological and Environmental Sciences offers an undergraduate minor in Biological Sciences that is intended to increase the programs of students whose major fields are outside the biological sciences and who are interested in obtaining a broad-based perspective in biology.

#### Declare the minor

Applicants for the minor in Biological Sciences must satisfy the University and the College requirements for declaring a minor.

#### Minor Requirements - Minor in Biological Sciences (18 CH)

Students seeking a minor in Biological Sciences must complete a minimum of 18 credit hours, including the following:

- A minimum of 12 credit hours in minor requirements courses.
- A minimum of 6 credit hours in minor electives courses.

#### Minor Requirements Course (12 CH)

Students must complete a minimum of 12 credit hours in minor requirements courses:

- BIOL 101 Biology I
- BIOL 102 Biology II
- BIOL 221 Basic Ecology
- BIOL 241 Microbiology

#### Minor Electives Courses (6 CH)

Students must complete a minimum of 6 credit hours in minor electives courses:

- BIOL 211 Cell Biology
- BIOL 212 Genetics
- BIOL 311 Molecular Biology
- BIOL 321 Principles of Environmental Biology
- BIOL 344 General Parasitology
- BIOL 442 Biotechnology
- BIOL 444 Immunology

## **BACHELOR OF SCIENCE IN ENVIRONMENTAL SCIENCE**

### **About the Program**

The B.Sc. in Environmental Science is the first such program in Qatar. The program started with a vision to address the escalating environmental issues and problems associated with Qatar and the region, as well as imminent and consequential projected needs of stakeholders. The Program in B.Sc. in Environmental Science has an 8-semester curriculum (4 years), offered through principal participating departments in the three Colleges of Arts and Sciences, Engineering, and Law. The curriculum consists of a set of compulsory “core” courses and a “concentration” that students follow for specialization in their particular area of interest. The Degree offered is a B.Sc. in Environmental Science with a concentration in either Biotechnology or Marine Sciences.

One of the advantages of this program is that it is fully accredited by the Committee of Heads of Environmental Sciences - Institution of Environmental Sciences (CHES-IES) - UK. It also enables the student to choose one of two concentrations: the marine sciences concentration and the biotechnology concentrations. The program is offering to both male and female students. The Environmental Science Program in the Department of Biological and Environmental Sciences is considered one of the most successful programs in the State of Qatar and even regionally. The Environmental Science Program has entered the Quacquarelli Symonds (QS) 2021 rankings, which is now among the top four programs in the Arab world. This classification confirms the Department of Biological and Environmental Sciences is firmly committed to the strategic curriculum of Qatar University, which is based on excellence in teaching and scientific research, and to provide the best possible education for our students.

### **Objectives**

The major in Environmental Science strives to:

- Possess the fundamental knowledge of areas of environmental science
- Be proficient in the current techniques used in environmental research
- Carry out basic and applied research in environmental science.
- Develop high levels of communication skills
- Current with advances in environmental science
- Be prepared for professional practice and to work in ethical manner with professional teams and to show professional development in their career.

### **Learning Outcomes**

Graduates of the Environmental Science major will be able to:

1. Define and explain basic principles and concepts in different environments and ecosystems.
2. Explain the underlying causes for environmental degradation and conversations
3. Conduct experiments using modern lab techniques and analyze, evaluate and interpret data.
4. Employ scientific approaches in interdisciplinary research in a safe and ethical manner, and to be aware of risk assessment, health and safety regulations as well as environmental laws.
5. Explain the human dimensions in their profession, including diverse social, cultural, economic, and international aspects.
6. Apply skilled delivery using verbal, written and electronic communication to convey environmental issues.
7. Explain contemporary and emerging environmental issues and to recognize the need for the lifelong learning.
8. Use techniques, skills and modern environmental tools in integration with applying professional, and ethical practice with multidisciplinary team in professional practice.

### **Opportunities**

Graduates of the Environmental Science program are able to address the imminent and consequential projected needs of stakeholders in Qatar as well as in the global market. Graduates are presented with job opportunities in government agencies, non-governmental organization, industry and private sectors.

The Environmental Science program allows its graduates to be able to be employed in a wide range of fields that include but are not limited to: Environmental Sustainability, Environmental Protection (Conservation Management), Environmental Control, Environmental Risk Management Urban and Environmental Planning, Marine Environmental Science, Environmental Chemistry, Environmental Technology, Marine Biology, Water Resource(s) (Management), Environmental Analysis and Monitoring and Research in either Biotechnology or Marine Sciences.

### **Employment Options**

- Health, Safety, and Environment (HSE) officers at the Environment department in each of the Oil and Gas companies operating in Qatar.
- Environment officer at Ministry of Municipality and Environment (MME)
- Fisheries specialist at Ministry of Municipality and Environment (Department of Fisheries)
- Marine environment specialist at Ministry of Municipality and Environment (Department of Monitoring and Environmental Laboratory)
- Marine environment specialist at Ministry of Municipality and Environment (Department of Environmental Assessment)
- Microalgae farming specialist
- Zooplankton farming specialist
- Curator at Qatar Museum or the foreseen Aquarium.
- Marine biotechnologist
- Environmental Impact Assessment officers
- Officers at NGO for environmental protection and public awareness

- Consultancy companies operating in Qatar (there are around 34 active companies, continuously contacting us looking for M/F environmental scientists)
- Work at a foreseen pearl production farm from oysters
- Oil spill response specialist in oil and gas companies
- UN organization (Qatar representative)
- Contamination of coastal waters
- Officer at pollution and water treatment companies
- Officers at Coast Guard
- Research Technicians and Research Assistants at Qatar University and Qatar foundation research centers,
- Continuing their MSc and Ph.D. studies in our Graduate Programs
- Teaching science in independent or private schools

### **Admissions Requirements**

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement.

In addition, applicants must hold a General Secondary Education Certificate or its equivalent for students of the scientific discipline.

Detailed Undergraduate admission requirements are available at the following link:

[http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### **Declaring the major**

Students must satisfy the university and college requirements for declaring a major including the need to declare the major before completing 36 credit hours.

For more details about the University requirements for declaring the Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document. For more details about the College requirements for declaring the Major, please refer to the paragraph “Declaring the major” in the College section of this Chapter.

### **DEGREE REQUIREMENTS - Major in Environmental Science**

A minimum of 126 credit hours (CH) are required to complete the major in Environmental Science with concentration in Biotechnology. A minimum of 125 credit hours are required to complete the major in Environmental Science with concentration in Marine Sciences. The degree requirements for the major include the following:

- A minimum of 33 credit hours in core curriculum requirements.
- A minimum of 54 credit hours in major requirements courses.
- A minimum of 9 credit hours in major electives courses.
- A minimum of 15 credit hours in major supporting requirements courses
- A minimum of 14 or 15 credit hours in concentration requirements: A minimum of 15 credit hours for the concentration in Biotechnology and a minimum of 14 credit hours for the concentration in Marine Sciences.



## Core Curriculum Program

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

### Identity and Communication Package (15 - 18 CH)

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

### Social/Behavioral Sciences package (3 CH)

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

**Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

**Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

**Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **Major Requirements Courses (54 CH)**

Students must complete a minimum of 54 credit hours in major requirements courses:

- BIOL 101 Biology I
- BIOL 102 Biology II
- BIOL 221 Basic Ecology
- BIOL 241 Microbiology
- BIOL 322 Desert Biology
- BIOL 345 Health Safety and Environment
- BIOL 399 Internship
- BIOL 422 Environmental Management and Conservation
- BIOL 496 Senior Project
- CHEM 275 Principles of Environmental Chemistry
- CHME 361 Petroleum and Gas Technologies
- CVEN 342 Water Resources and Management
- CVEN 352 Waste Management
- GENG 107 Engineering Skills and ethics
- GEOG 442 Environment and Pollution
- LAWC 449 Environmental Law and Regulations
- MARS 101 Introduction to Marine Science
- MARS 251 Marine Biology
- MARS 459 Environmental Impact Assessment

### **Major Electives Courses (9 CH)**

Students must complete a minimum of 9 credit hours in major electives courses:

- BIOL 212 Genetics
- BIOL 312 Histology
- BIOL 344 General Parasitology
- BIOL 346 Environmental Health
- BIOL 351 Plant Anatomy and Physiology
- BIOL 362 Animal Anatomy and Physiology
- BIOL 421 Ecophysiology

- BIOL 444 Immunology
- BIOL 493 Special Topics
- BIOM 324 Medical Virology
- GEOG 204 General Economic Geography
- GEOG 242 Weather and Climate
- GEOG 243 Introduction to Remote sensing
- GEOG 346 Introduction to GIS
- GEOG 241 Geography of Qatar
- GEOG 448 Hydro-geography

### **Major Supporting Requirements Courses (15 CH)**

Students must complete a minimum of 15 CH in major supporting requirements courses:

- BIOL 103 Freshman Seminar
- CHEM 101 General Chemistry I
- CHEM 103 Experimental General Chemistry I
- CHEM 102 General Chemistry II
- CHEM 104 Experimental General Chemistry II
- PHYS 110 General Physics for Biology
- PHYS 111 Practical Physics for Biology
- STAT 151 Introduction to Applied Statistics

### **Concentration in Biotechnology (15 CH)**

The program is offering to both male and female students. Students must complete a minimum of 15 CH in concentration requirements.

- BIOL 310 Molecular Cell Biology
- BIOL 433 Monitoring and Toxicology
- BIOL 443 Biotechnology and Bioremediation
- BIOL 451 Cell and Tissue Culture
- BIOL 452 Molecular Analytical Techniques

### **Concentration in Marine Sciences (14 CH)**

The program is offering to both male and female students. Students must complete a minimum of 14 CH in concentration requirements.

- MARS 222 Chemical Oceanography
- MARS 325 Marine Pollution
- MARS 327 Plankton and Productivity
- MARS 455 Marine Ecology
- MARS 458 Fisheries and Aquaculture

### **Study Plan**

#### **Bachelor of Science in Environmental Science – Biotechnology**

<b>FIRST YEAR (32 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	ARAB 100	Arabic Language 1	3
	ENGL 202	English Language 1 (Post Foundation)	3
	SOCI 200	Sustainable Development (E)	3
	BIOL 101	Biology I	3
	CHEM 101	General Chemistry I	3
	CHEM 103	Experimental General Chemistry I	1
<b>Total Credit Hours in Semester</b>			<b>16</b>
Spring	ARAB 200	Arabic Language 2	3
	ENGL 203	English Language 2 (Post Foundation)	3
	BIOL 102	Biology II	3
	CHEM 102	General Chemistry II	3
	CHEM 104	Experimental General Chemistry II	1
	MATH 101	Calculus I	3
	BIOL 103	Freshman Seminar - Environmental Science	
<b>Total Credit Hours in Semester</b>			<b>16</b>

<b>SECOND YEAR (34 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	BIOL 221	Basic Ecology	3
	MARS 101	Introduction to Marine Sciences	3
	PHYS 110	General Physics for Biology	3
	PHYS 111	Practical Physics for Biology	1
	DAWA 111	Islamic Culture	3
	GEOG 442	Environment and Pollution (E)	3

<b>Total Credit Hours in Semester</b>			<b>16</b>
Spring	BIOL 241	Microbiology	3
	MARS 251	Marine Biology	3
	GENG 107	Engineering Skills and Ethics	3
	STAT 151	Introduction to Applied Statistics	3
	CHEM 275	Principles of Environmental Chemistry	3
	CC Elective	Core Curriculum Elective	3
<b>Total Credit Hours in Semester</b>			<b>18</b>

<b>THIRD YEAR (33 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	BIOL 310	Molecular Cell Biology	3
	BIOL 322	Desert Biology	3
		Major Elective	3
	HIST 121	History of Qatar	3
	CC Elective	Core Curriculum Elective	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	BIOL 443	Biotechnology and Bioremediation	3
	MARS 459	Environmental Impact Assessment	3
		Major Elective	3
	CVEN 352	Waste Management	3
	LAWC 449	Environmental Law & Regulations	3
	CC Elective	Core Curriculum Elective	3
<b>Total Credit Hours in Semester</b>			<b>18</b>

<b>FOURTH YEAR (27 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>



Fall	BIOL 345	Health, Safety and Environment	3
	BIOL 422	Environmental Management and Conservation	3
	CVEN 342	Water Resources and Management	3
	CHME 361	Petroleum and Gas Technologies	3
	BIOL 496	Senior project	-
<b>Total Credit Hours in Semester</b>			<b>12</b>
Spring	BIOL 433	Monitoring and Toxicology	3
	BIOL 451	Cell & Tissue Culture	3
	BIOL 452	Molecular Analytical Techniques	3
		Major Elective	3
	BIOL496	Senior Project (continued)	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
<b>SUMMER (after the third year) (0 credit hours)</b>			
	BIOL 399	Internship	0
<b>Total Credit Hours in Semester</b>			<b>0</b>

### Bachelor of Science in Environmental Science - Marine Sciences

<b>FIRST YEAR (32 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	ARAB 100	Arabic Language 1	3
	ENGL 202	English Language 1 (Post Foundation)	3
	SOCI 200	Sustainable Development (E)	3
	BIOL 101	Biology I	3
	CHEM 101	General Chemistry I	3
	CHEM 103	Experimental General Chemistry I	1
<b>Total Credit Hours in Semester</b>			<b>16</b>
	ARAB 200	Arabic Language 2	3

Spring	ENGL 203	English Language 2 (Post Foundation)	3
	BIOL 102	Biology II	3
	CHEM 102	General Chemistry II	3
	CHEM 104	Experimental General Chemistry II	1
	MATH 101	Calculus I	3
	BIOL 103	Freshman Seminar - Environmental Science	
<b>Total Credit Hours in Semester</b>			<b>16</b>

<b>SECOND YEAR (34 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	BIOL 221	Basic Ecology	3
	MARS 101	Introduction to Marine Sciences	3
	PHYS 110	General Physics for Biology	3
	PHYS 111	Practical Physics for Biology	1
	CHEM 275	Principles of Environmental Chemistry	3
	GEOG 442	Environment and Pollution (E)	3
<b>Total Credit Hours in Semester</b>			<b>16</b>
Spring	BIOL 241	Microbiology	3
	MARS 251	Marine Biology	3
	MARS 222	Chemical Oceanography	3
	GENG 107	Engineering Skills and Ethics	3
	STAT 151	Introduction to Applied Statistics	3
	CC Elective	Core Curriculum Elective	3
<b>Total Credit Hours in Semester</b>			<b>18</b>

<b>THIRD YEAR (35 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>

Fall	BIOL 322	Desert Biology	3
	MARS 327	Plankton and Productivity	3
		Major Elective	3
	DAWA 111	Islamic Culture	3
	HIST 121	History of Qatar	3
	CC Elective	Core Curriculum Elective	3
<b>Total Credit Hours in Semester</b>			<b>18</b>
Spring	MARS 325	Marine Pollution	2
	MARS 455	Marine Ecology	3
	MARS 459	Environmental Impact Assessment	3
	CVEN 352	Waste Management	3
	LAWC 449	Environmental Law & Regulations	3
	CC Elective	Core Curriculum Elective	3
<b>Total Credit Hours in Semester</b>			<b>17</b>

<b>FOURTH YEAR (24 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	BIOL 345	Health, Safety and Environment	3
	BIOL 422	Environmental Management and Conservation	3
	CVEN 342	Water Resources and Management	3
	CHME 361	Petroleum and Gas Technologies	3
	BIOL 496	Senior project	-
<b>Total Credit Hours in Semester</b>			<b>12</b>
Spring	MARS 458	Fisheries and Aquaculture	3
		Major Elective	3
		Major Elective	3
	BIOL 496	Senior project (continued)	3

Total Credit Hours in Semester			12
<b>SUMMER (after the third year) (0 credit hours)</b>			
	BIOL 399	Internship	0
Total Credit Hours in Semester			<b>0</b>

## DEPARTMENT OF CHEMISTRY AND EARTH SCIENCES

College of Sciences Building, Room B222 (Women's Section)

College of Arts and Sciences, Corridor D, Room 121 (Men's Section)

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### Head

Yousef Mohammad Hijji

### Faculty

#### Professors

Hala Sultan Saif Al-Easa (professor emeritus), Hamad Abdul-Rahman Al-Saad Al-Kuwari, Ibrahim Saleh Al-Naimi (on leave), Mohammad Mahroof-Tahir, Siham Yousuf A Alqaradawi, Lamees Abdulhadi H Shahada, Lakshmaiah Sreerama, Yousef Mohammad Hijji, Nasr Bensalah, Abdulilah Abdulqader Dawoud, Mazen Khaled, Ismail Warad, Amina Sultan J M Aljaber, Hassan Ibrahim Nimir, Khalid Abdulla Al-Saad Al-Kuwari

#### Associate Professors

Nessreen Abdulla S A Al-Hashimi, Abdulali Mohd Sadiq A H Abdulla (emeritus), Amjad Mahmoud Ahmad Shraim, Saeed Hashim M A Almeer, Shabi Abbas Zaidi

#### Assistant Professors

Hezam Yahya H A Al- Awah, Latifa Shaheen K G Al-Naimi, Yasser Hussein Abdulra Hussein, Marwa Mohamed Said Mo El-Azazy, Maryam Mustafa M Y Al-Mulla, Patrick Burgon, Ismail Badran, Ameera Al-Jabiry, Mohamed Youssry Abdelnaby

#### Lecturers

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#### Teaching Assistants

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### ABOUT THE DEPARTMENT

Since its establishment in 1973, the Department of Chemistry and Earth Sciences has been graduating both male and female students with a B.Sc. degree in Chemistry. The department also offers minors in both Chemistry and Geology (for male and female students). The "Chemistry Major" is accredited by the Canadian Society for Chemistry (CSC) since 2009. The Geology program in the department offers introductory geology courses to a

wide variety of students and more advanced courses for students enrolled in geology minor. The Chemistry program in addition to offering a chemistry major and minor, also offers a variety of service courses to different programs at Qatar University as well as serving the Qatari community in many different ways. For example, departmental faculty offer consultancy services to industry via providing solutions for numerous scientific problems, extensive research collaborations, hosts symposia, workshops, public lectures, and training programs for employees in many sectors.

## BACHELOR OF SCIENCE IN CHEMISTRY

### About the Program

The B.Sc. Chemistry program (120 CH) is designed to provide a broad background in basic and advanced contemporary topics in chemistry. The program involves extensive laboratory training in modern instrumentation and other soft-skills necessary for success in further education and/or employment, and responds to the needs and aspirations of the Qatari society. The program is accredited by the CSC, and the curriculum and training meets international standards.

### Objectives

- Possess a fundamental knowledge of all major areas of modern chemistry.
- Be proficient in the use of up-to-date laboratory techniques.
- Possess the knowledge to apply quantitative and computational methods to practical problems.
- Become creative researchers and confident problem solvers.
- Practice safe laboratory procedures and assess the environmental impact of chemical processes.
- Develop a high level of communication skills.
- Understand ethical and professional responsibilities as chemists and as citizens.

### Note Related to Accreditation:

The B.Sc. Chemistry Major Program was first accredited by CSC in 2009 and it has been re-accredited through 2021. The CSC is the Canadian national technical association representing the field of chemistry, chemists in industry, academia and government institutions. The CSC provides accreditation to undergraduate chemistry programs in Canada and abroad. The accreditation process by the CSC involves an extensive review by external experts of the chemistry program and its curriculum, with sufficient laboratory experience along with incorporation of advanced instrumentation and detailed safety standards. Accreditation helps to maintain national and international standards of education by providing an external audit service for programs, and by promoting the portability of the qualifications of graduates.

Accreditation of the B.Sc. Chemistry Major program implies that the chemistry program at QU meets international standards and prepares competent graduates. Students graduating with the B.Sc. Chemistry major degree receive an official certificate from the Canadian Society for Chemistry certifying their graduation from a CSC accredited program.

### Learning Outcomes

Students will be able to:

1. Apply critical thinking and demonstrate problem-solving skills in two or more of the major areas of chemistry.



2. Apply proper procedures and regulations for safe handling and use of chemicals and equipment in the laboratory.
3. Employ current analytical techniques and/or utilize instrumentation to conduct experiments, collect and analyze results, and work in teams.
4. Use modern literature search methods to obtain information about chemistry topics and write reports.
5. Conduct research (theoretical or practical) in the field of chemical sciences and document findings according to professional and ethical standards.
6. Communicate results to chemists and non-chemists.

### **Opportunities**

The B.Sc. Chemistry graduates find employment opportunities in the following organizations in Qatar:

- Qatar Gas
- RasGas
- Qatar Petrochemical Company (QAPCO)
- Qatar Fertilizer Company (QAFCO)
- Qatar Steel Company (QASCO)
- Qatar Lubricants Company Limited (QALCO)
- Qatar Chemical Company (Q-Chem)
- Qatar Fuel Additives Company (QAFAC)
- Qatar Vinyl Company (QVC)
- Qatar Industrial Manufacturing Company (QIMC)
- Ministry of Municipality and Environment
- Forensic Department, Interior Security Force
- Ministry of Education and Higher Education
- Anti-Doping Lab
- Ministry of Health

### **Admissions Requirements**

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement.

Detailed Undergraduate admission requirements are available at the following link:

[http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### **Declaring the major**

Students must satisfy the university and college requirements for declaring a major including the need to declare the major before completing 36 credit hours.

For more details about the University requirements for declaring the Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document. For more details about the College requirements for declaring the Major, please refer to the paragraph “Declaring the major” in the College section of this Chapter.

## **DEGREE REQUIREMENTS - Major in Chemistry**

A minimum of 120 credit hours (CH) are required to complete the major in Chemistry, including the following:

- A minimum of 33 credit hours in Core Curriculum requirements
- A minimum of 47 credit hours in major Requirements
- A minimum of 12 credit hours in major Electives
- A minimum of 10 credit hours in major supporting requirements
- A minimum of 18 credit hours in minor requirements

## **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

## **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

## **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society

- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods

- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

- BIOL 101 Biology I
- UNIV 100 First Year Seminar

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **Major Requirements Courses (47 CH)**

Students must complete a minimum of 47 credit hours in major requirements courses:

- CHEM 101 General Chemistry I
- CHEM 102 General Chemistry II
- CHEM 103 Experimental General Chemistry I
- CHEM 104 Experimental General Chemistry II
- CHEM 217 Organic Chemistry I
- CHEM 218 Experimental Organic Chemistry I
- CHEM 221 Inorganic Chemistry I
- CHEM 222 Experimental Inorganic Chemistry
- CHEM 237 Analytical Chemistry I
- CHEM 238 Experimental Analytical Chemistry I
- CHEM 241 Physical Chemistry I
- CHEM 242 Experimental Physical Chemistry I
- CHEM 310 Organic Chemistry II
- CHEM 313 Experimental Organic Chemistry II
- CHEM 321 Inorganic Chemistry II
- CHEM 337 Analytical Chemistry II
- CHEM 338 Experimental Analytical Chemistry II
- CHEM 341 Physical Chemistry II

- CHEM 351 Basic Biochemistry
- CHEM 352 Experimental Biochemistry
- CHEM 362 Research Methods in Chemistry
- CHEM 442 Experimental Physical Chemistry II
- CHEM 463 Research Project

### **Major Electives Courses (12 CH)**

Students must complete a minimum of 12 credit hours in major elective courses:

- CHEM 311 Organic Chemistry III
- CHEM 316 Introduction to Organic Polymer Chemistry
- CHEM 317 Introduction to Natural Products Chemistry
- CHEM 318 Organic Spectroscopy
- CHEM 322 Inorganic Chemistry III
- CHEM 325 Bioinorganic Chemistry
- CHEM 342 Physical Chemistry III
- CHEM 343 Principles of Corrosion Science
- CHEM 365 Forensic Chemistry
- CHEM 375 Industrial Chemistry
- CHEM 377 Materials Chemistry
- CHEM 393 Advanced Biochemistry
- CHEM 394 Experimental Advanced Biochemistry
- CHEM 434 Chemical Separation Techniques
- CHEM 435 Environmental Chemistry
- CHEM 456 Protein Engineering
- CHEM 457 Bioinformatics
- CHME 431 Petroleum Refining Processes
- CHME 433 Petrochemical Technology
- CHEM 461 Special topics

### **Major Supporting Requirements Courses (10 CH)**

Students must complete a minimum of 10 credit hours in major supporting requirements courses:

- MATH 102 Calculus II
- PHYS 101 General Physics I
- PHYS 102 General Physics II
- PHYS 103 General Physics Lab

### **Minor Requirements Courses (18 CH)**

Students enrolled in the Chemistry program may take any of the Minors offered within the university, provided that the total number of credit hours for the minor is 18. If the students are enrolled in a minor with less than 18 CH, they must take additional courses as free electives to complete the 18 CH requirement.

**Study Plan****Bachelor of Science in Chemistry**

<b>FIRST YEAR (32 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	ARAB 100	Arabic Language I	3
	ENGL 202	English Language I Post Foundation	3
	CHEM 101	General Chemistry I	3
	CHEM 103	Experimental General Chemistry I	1
	MATH 101	Calculus I	3
	UNIV 100	First year Seminar	3
<b>Total Credit Hours in Semester</b>			<b>16</b>
Spring	ARAB 200	Arabic Language II	3
	ENGL 203	English Language II Post Foundation	3
	CHEM 102	General Chemistry II	3
	CHEM 104	Experimental General Chemistry II	1
	MATH 102	Calculus II	3
	BIOL 101	Biology I	3
<b>Total Credit Hours in Semester</b>			<b>16</b>

<b>SECOND YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	CHEM 217	Organic Chemistry I	3
	CHEM 218	Experimental Organic Chemistry I	1
	CHEM 237	Analytical Chemistry I	3
	CHEM 238	Experimental Analytical Chemistry I	1
	PHYS 101	General Physics I	3
	CHEM 241	Physical Chemistry 1	3
	CHEM 242	Experimental Physical Chemistry I	1
<b>Total Credit Hours in Semester</b>			<b>15</b>



Spring	CHEM 310	Organic Chemistry II	3
	CHEM 313	Experimental Organic Chemistry II	1
	CHEM 337	Analytical Chemistry II	3
	CHEM 338	Experimental Analytical Chemistry II	1
	CHEM 221	Inorganic Chemistry I	3
	PHYS 102	General Physics II	3
	PHYS 103	General Physics Lab	1
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>THIRD YEAR (31 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	DAWA 111	Islamic Culture	3
	CHEM 351	Basic biochemistry I	3
	CHEM 352	Experimental Biochemistry	1
	CHEM 222	Experimental Inorganic Chemistry	1
	CHEM 321	Inorganic Chemistry II	3
		Chemistry Elective	3
		Minor Course	3
<b>Total Credit Hours in Semester</b>			<b>17</b>
Spring	CHEM 341	Physical Chemistry II	3
	CHEM 442	Experimental Physical Chemistry II	1
	CHEM 362	Research Methods in Chemistry	1
		Chemistry Elective	3
		Core curriculum course	3
		Minor course	3
<b>Total Credit Hours in Semester</b>			<b>14</b>

#### **FOURTH YEAR (27 credit hours)**

Term	Course #	Course Title	Credit Hours
Fall		Core curriculum course	3
		Minor course	3
	CHEM 463	Research Project	3
		Chemistry Elective	3
		Minor course	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring		Core curriculum course	3
		Minor course	3
		Chemistry Elective	3
		Minor course	3
<b>Total Credit Hours in Semester</b>			<b>12</b>

\*Students with minor in Human Nutrition will take 2 credit courses.

## MINOR IN CHEMISTRY

The minor in Chemistry provides students with knowledge of the general areas of chemistry and allows them to apply this knowledge in other disciplines.

### Declaring the minor

Applicants for the minor in Chemistry must satisfy the University and the College requirements for declaring a minor.

### Minor Requirements - Minor in Chemistry (18 CH)

Students seeking a minor in Chemistry must complete a minimum of 18 credit hours (CH), including the following:

- A minimum of 11 credit hours in minor requirements courses.
- A minimum of 7 credit hours in minor elective courses.

### Minor Requirements Courses (11 CH)

Students must complete a minimum of 11 credit hours in minor requirements courses:

- CHEM 101 General Chemistry I
- CHEM 102 General Chemistry II
- CHEM 103 Experimental General Chemistry I
- CHEM 104 Experimental General Chemistry II
- CHEM 209 Fundamentals in Organic Chemistry

**Minor Elective Courses (7 CH)**

Students must complete a minimum of 7 credit hours in minor elective courses:

- CHEM 221 Inorganic Chemistry I
- CHEM 222 Experimental Inorganic Chemistry
- CHEM 237 Analytical Chemistry I
- CHEM 238 Experimental Analytical Chemistry
- CHEM 241 Physical Chemistry I
- CHEM 242 Experimental Physical Chemistry I
- CHEM 341 Physical Chemistry II
- CHEM 351 Basic Biochemistry
- CHEM 352 Experimental Biochemistry
- CHEM 393 Advanced Biochemistry
- CHEM 394 Experimental Advanced Biochemistry

**MINOR IN GEOLOGY**

The minor in Geology provides students with an overview of the main topics of the discipline, allowing students to apply this knowledge in other areas.

**Declare the minor**

Applicants for the minor in Geology must satisfy the University and the College requirements for declaring a minor.

**Minor Requirements - Minor in Geology (18 credit hours)**

Students seeking a minor in Geology must complete a minimum of 18 credit hours (CH), including the following:

- A minimum of 6 credit hours in minor requirements courses.
- A minimum of 12 credit hours in minor electives courses.

**Minor Requirements Courses (6 CH)**

Students must complete a minimum of 6 credit hours in minor requirements courses:

- GEOL 101 Principles of General Geology
- GEOL 321 Structural Geology and Geotectonics

**Minor Electives Courses (12 CH)**

Students must complete a minimum of 12 credit hours in minor electives courses:

- GEOL 201 Crystallography & Mineralogy
- GEOL 211 Principles of Paleontology
- GEOL 303 Sediment & Sedimentation
- GEOL 322 Survey & Field Geology
- GEOL 332 Geophysics
- GEOL 401 Geochemistry
- GEOL 403 Economic Geology

- GEOL 411 Geology of Qatar and Arabian Peninsula
- GEOL 421 Photogeology & Remote Sensing
- GEOL 432 Geology of Petroleum
- GEOL 434 Hydrogeology

## DEPARTMENT OF MATHEMATICS, STATISTICS AND PHYSICS

College of Arts and Sciences Building

Corridor 1, Room A105 (Men's Section)

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Temadher Khalifa Al-Maadeed

### Faculty

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#### Associate Professors

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#### Teaching Assistants

Muneera Abdulla Al-Subaiey, Ignatius Prateesh Pinto, Mohammad Abdul Mujeeb Khan, Fatiha Meziane, Saed Mara'beh, Nahla Elbashir, Ehab Salih, Samir Naqos, Abdulla Sultan A A Al Suwaidi, Mohammed Vallikkaparambil

#### Lab Technician

Omer Medani, Ahmed Edriss Amin, Muna Al Rayashi, Mohamed Elshaer, Mohamed Hafis.

#### Administrative

Mooza Al-Aswad, Fatima Abdulla, Jawhara Mohammed Abdul Qader

## **ABOUT THE DEPARTMENT**

The Departments of Mathematics, Statistic and Physics were integrated into a single department in September 2004, which grew in size and number to include 67 staff members, 15 of which are Qatari nationals. The Department of Mathematics, Statistic & Physics consists of three different programs: Mathematics, Statistics and Physics, and the department aims to provide an excellent undergraduate teaching. Currently there is a major that leads to the Bachelor degree of Science in Statistics with minor in computer science, business or social science. The other major is in Mathematics with concentration in either Actuarial Mathematics or Applied Mathematics. The department also offers a Master of Science in Materials Science and Technology, a Graduate Certificate in Corrosion, a Master of Science in Applied Statistics, a Graduate Certificate in Applied Statistics, and offers also service courses for various Colleges and Programs within the University.

## **BACHELOR OF SCIENCE IN STATISTICS**

### **About the Program**

The Statistics Program in the Department of Mathematics, Statistics and Physics at the Colleges of Arts and Sciences (CAS) at Qatar University provides an opportunity to obtain a Bachelor's of Science (BSc) degree major in statistics and a minor in Computer Science, Social Sciences or Business Administration. The BSc in statistics program offers a minor in Statistics that is open for all students from other departments within CAS and from other colleges. In addition, the Bachelor of Statistics program has been accredited by the Royal Statistics Society (RSS) – United Kingdom.

### **Program Objectives**

- Gain knowledge in the principles of statistics and its application to the other related fields of applications.
- Have a good training in statistical computing necessary to conduct different kinds of data analysis
- Build Strong theoretical background for the statistical techniques used.
- Have a good understanding of the statistical principles and methods necessary to collect data including experimental design and statistical surveys.
- Gain the ability to provide sound “statistical consultation” to users of statistics in the different disciplines.
- Acquire the ability to communicate effectively orally and in writing to undertake statistical tasks.
- Promote critical learning skills and enabling students to be lifelong learners

### **Learning Outcomes**

1. Collect data that conform with the statistical principles.
2. Use relevant experimental design for scientific investigations.
3. Describe various types of data numerically and graphically.
4. Analyze various types of data using statistical packages.
5. Communicate effectively with statistics users.
6. Demonstrate the theoretical basis of statistical methods.
7. Provide alternative techniques for data analysis based on various approaches.

### **Opportunities**

Graduates of the Statistics major have a number of employment opportunities. They have places in government agencies, non-governmental organizations and in the private sector in financial institutions, education and research organizations. Knowledge of the statistical data analysis techniques allows graduates to also be employed by research and consulting agencies.

### **Admissions Requirements**

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement.

Detailed Undergraduate admission requirements are available at the following link:

[http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### **Declaring the major**

Students must satisfy the university and college requirements for declaring a major including the need to declare the major before completing 36 credit hours.

For more details about the University requirements for declaring the Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document. For more details about the College requirements for declaring the Major, please refer to the paragraph “Declaring the major” in the College section of this Chapter.

### **DEGREE REQUIREMENTS - Major in Statistics**

A minimum of 120 credit hours are required to complete the major in Statistics, including the following:

- A minimum of 33 credit hours in core curriculum requirements.
- A minimum of 39 credit hours in major requirements courses.
- A minimum of 12 credit hours in major electives courses.
- A minimum of 12 credit hours in major supporting requirements courses.
- A minimum of 24 credit hours in minor requirements courses.

### **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.



- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **Major Requirements Courses (39 CH)**

Students must complete a minimum of 39 credit hours in major requirements courses:

- STAT 101 Statistics I
- STAT 102 Statistics II
- STAT 211 Introduction to Probability
- STAT 221 Mathematical Statistics I
- STAT 231 Applied Regression Analysis
- STAT 312 Stochastic Processes
- STAT 322 Mathematical Statistics II
- STAT 332 Design of Experiments
- STAT 333 Time Series
- STAT 361 Sampling Methods
- STAT 371 Statistical Packages
- STAT 481 Multivariate Analysis
- STAT 499 Graduation Project

### **Major Electives Courses (12 CH)**

Students must complete a minimum of 12 credit hours in major electives courses:

- STAT 241 Biostatistics
- STAT 242 Demography
- STAT 341 Actuarial Statistics I
- STAT 343 Applied Survival Analysis
- STAT 344 Quality Control
- STAT 372 Statistical Simulation
- STAT 381 Categorical Data Analysis
- STAT 382 Nonparametric Methods
- STAT 434 Generalized Linear Models
- STAT 442 Actuarial Statistics II
- STAT 445 Reliability and Life Testing
- STAT 464 Environmental Statistics
- STAT 482 Bayesian Statistics
- STAT 498 Special Topics

### **Major Supporting Requirements Courses (12 CH)**

Students must complete a minimum of 12 credit hours in major supporting requirements courses:

- MATH 101 Calculus I
- MATH 102 Calculus II
- MATH 231 Linear Algebra
- MATH 251 Mathematics for Statistics

### **Minor Requirements Courses (24 CH)**

Students enrolled in the Statistics program may take any of the minors offered within the university.

**Study Plan****Bachelor of Science in Statistics**

<b>FIRST YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	STAT 101	Statistics I	3
	MATH 101	Calculus (1)	3
		Core Curriculum Course 1	3
		Core Curriculum Course 2	3
		Core Curriculum Course 3	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	STAT 102	Statistics II	3
	MATH 102	Calculus (2)	3
		Core Curriculum Course 4	3
		Core Curriculum Course 5	3
		Core Curriculum Course 6	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>SECOND YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	STAT 211	Introduction to Probability	3
	MATH 231	Linear Algebra	3
	MATH 251	Mathematics for Statistics	3
		Core Curriculum Course 7	3
		Core Curriculum Course 8	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	STAT 221	Mathematical Statistics I	3
	STAT 231	Applied Regression Analysis	3
		Core Curriculum Course 9	3
		Core Curriculum Course 10	3

		Core Curriculum Course 11	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>THIRD YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	STAT 312	Stochastic Processes	3
	STAT 322	Mathematical Statistics II	3
	STAT 371	Statistical Packages	3
		Minor 1	3
		Minor 2	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	STAT 332	Design of Experiments	3
	STAT 333	Time Series	3
	STAT 361	Sampling Methods	3
		Minor 3	3
		Minor 4	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>FOURTH YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall		Major Elective 1	3
		Major Elective 2	3
		Major Elective 3	3
		Minor 5	3
		Minor 6	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	STAT 499	Graduation Project	3
	STAT 481	Multivariate Analysis	3

		Major Elective 4	3
		Minor 7	3
		Minor 8	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

## MINOR IN STATISTICS

The minor in Statistics is designed to provide students with a firm foundation in statistical theory so that they can confidently collect and analyze their data with the help of statistical packages.

### Declare the minor

Applicants for the minor in Statistics must satisfy the University and the College requirements for declaring a minor.

### Minor Requirements - Minor in Statistics (24 CH)

Students seeking a minor in Statistics must complete a minimum of 24 credit hours, including the following:

- A minimum of 18 credit hours in minor requirements courses.
- A minimum of 6 credit hours in minor electives courses.

### Minor Requirements Courses (18 CH)

Students must complete a minimum of 18 credit hours in minor requirements courses:

- STAT 101 Statistics I
- STAT 102 Statistics II
- STAT 211 Introduction to Probability
- STAT 231 Applied Regression Analysis
- STAT 361 Sampling Methods
- STAT 371 Statistical Packages

### Minor Electives Courses (6 CH)

Students must complete a minimum of 6 credit hours in minor electives courses:

- STAT 221 Mathematical Statistics I
- STAT 241 Biostatistics
- STAT 242 Demography
- STAT 332 Design of Experiments
- STAT 333 Time Series
- STAT 343 Applied Survival Analysis
- STAT 344 Quality Control
- STAT 372 Statistical Simulation
- STAT 381 Categorical Data Analysis
- STAT 382 Nonparametric Method

## BACHELOR OF SCIENCE IN MATHEMATICS

### About the Program

The Mathematics Program offers two focus areas: Applied mathematics and Actuarial mathematics. The applied focus area aims to provide the industry and education sectors with graduates that can use their modeling and mathematical skills to solve real problems. On the other hand, the actuarial focus area aims to provide the financial and insurance industries and institutions with experts who are capable to analyze and assess risk in insurance, financial markets and other industries and professions.

### Objectives

1. To provide a coherent, solid foundation in Mathematics.
2. To prepare students to understand Mathematics as an academic and applied discipline, and as a profession.
3. To develop student capacity to understand mathematical reasoning and modelling tasks.
4. To provide opportunities for further specialization in Mathematics related to career orientation.
5. To Promote critical learning skills and enabling students to be lifelong learners.
6. To emphasize modern applications through exposure to relevant subjects that are essential for broad career in mathematical sciences.

### Learning Outcomes

Upon completion of the program, students will be able to:

1. Formulate and examine the correctness of mathematical arguments.
2. Analyze mathematical models from real life-problems.
3. Solve a problem from visual, numerical and symbolic perspectives.
4. Communicate mathematical ideas orally and in writing.
5. Make use of, and relate to, the aids and tools of mathematics, including IT.
6. Apply appropriate problem-solving strategies.
7. Illustrate mathematical models by using computer packages
8. Make contributions to some research projects and new applications within the field.

### Opportunities

Students graduating with degree in Mathematics are equipped with capabilities to work in diverse areas like financial sectors, industry, business, education, and government or commercial organizations. Graduates with focus in Actuarial Mathematics can work in Life insurance, General insurance, Pensions, Health insurance, Finance, Investment firms, Banks, Risk Management firms, Health care sector, any local or international organization that deals with analyzing risk and its financial impact. The program also prepares the students to pursue graduate studies.

### Admissions Requirements

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement.

Detailed Undergraduate admission requirements are available at the following link:



[http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### **Declaring the major**

Students must satisfy the university and college requirements for declaring a major including the need to declare the major before completing 36 credit hours.

For more details about the University requirements for declaring the Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document. For more details about the College requirements for declaring the Major, please refer to the paragraph “Declaring the major” in the College section of this Chapter.

### **DEGREE REQUIREMENTS - Major in Mathematics**

A minimum of 120 credit hours are required to complete the major in Mathematics, including the following:

- A minimum of 33 credit hours in core curriculum requirements
- A minimum of 45 credit hours in major requirements courses.
- A minimum of 6 credit hours in major elective courses.
- A minimum of 9 credit hours in focus area requirements.
- A minimum of 24 credit hours in minor requirements courses.
- A minimum of 3 credit hours in free elective courses.

### **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

#### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

#### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

#### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

#### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **Major Requirements Courses (45 CH)**

Students must complete a minimum of 45 credit hours in major requirements courses:

- MATH 102 Calculus II
- MATH 211 Calculus III
- MATH 213 Differential Equations
- MATH 220 Foundations of Mathematics
- MATH 222 Real Analysis
- MATH 231 Linear Algebra
- MATH 291 Financial Mathematics
- MATH 312 Calculus IV
- MATH 365 Scientific Computation and Programming
- MATH 366 Numerical Analysis I

- STAT 101 Statistics I
- STAT 102 Statistics II
- STAT 211 Introduction to Probability
- STAT 312 Stochastic Processes
- MATH 496 Capstone Course
- MATH 499 Internship

### **Focus Area Requirements (9 CH)**

Students must complete 9 CH from the Applied Mathematics or the Actuarial Mathematics focus areas offered by the program by completing either the Applied Mathematics focus area requirements sub-package or the Actuarial Mathematics focus area requirements sub-package defined below.

### **Applied Mathematics Focus Area Requirements sub-package (9 CH)**

Students who choose to complete the Applied Mathematics focus area requirements must complete 9 CH from the following courses:

- MATH 314 Partial Differential Equations
- MATH 324 Complex Analysis
- MATH 471 Mathematical Modelling

### **Actuarial Mathematics Focus Area Requirements sub-package (9 CH)**

Students who choose to complete the Actuarial Mathematics focus area requirements must complete 9 CH from the following courses:

- MATH 292 Actuarial Sciences Problems Solving Lab
- MATH 391 Life Contingencies I
- MATH 392 Life Contingencies II

### **Major Electives Courses (6 CH)**

Student must complete 6 CH in the major elective courses:

- MATH 233 Abstract Algebra
- MATH 335 Number Theory
- MATH 341 Modern Geometry
- MATH 368 Operations Research I
- MATH 371 Advanced Mathematical Methods
- MATH 413 Theory of Differential Equations
- MATH 443 Introduction to Differential Geometry
- MATH 466 Numerical Analysis II
- MATH 498 Special Topics
- STAT 231 Applied Regression Analysis
- STAT 333 Time Series
- STAT 341 Actuarial Statistics I
- STAT 442 Actuarial Statistics II

**Minor Requirements Courses (24 CH)**

Students enrolled in the Mathematics program may take any of the minors offered within the university. If the minor the students enrolled in requires less than 24 CH, students must take additional courses outside their major as free electives to complete the 24 CH requirements.

**Free Electives Courses (3 CH)**

Students enrolled in the Mathematics program must complete a minimum of 3 credit hours from courses outside the Mathematics major.

**Study Plan****Bachelor of Science in Mathematics**

<b>FIRST YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall		CCP Course	3
		CCP Course	3
	UNIV 100	First Year Seminar	3
	MATH 101	Calculus I	3
	STAT 101	Statistics I	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring		CCP Course	3
		CCP Course	3
		CCP Course	3
	MATH 102	Calculus II	3
	STAT 102	Statistics II	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>SECOND YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall		CCP Course	3
		CCP Course	3

	MATH 211	Calculus III	3
	MATH 291	Financial Mathematics	3
	STAT 211	Introduction to Probability	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring		CCP Course	3
		CCP Course	3
	MATH 292/324	Focus Area Course	3
	MATH 213	Differential Equations	3
	MATH 220	Foundations of Mathematics	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>THIRD YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall		Minor Course	3
		Minor Course	3
	MATH 312	Calculus IV	3
	MATH 231	Linear Algebra	3
	MATH 391/314	Focus Area Course	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring		Minor Course	3
		Minor Course	3
	MATH 222	Real Analysis	3
	MATH 392/471	Focus Area Course	3
	MATH 365	Scientific Computation and Programming	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>FOURTH YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall		Minor Course	3
		Minor Course	3
		Major Elective Course	3
	STAT 312	Stochastic Processes	3
	MATH 366	Numerical Analysis I	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring		Minor Course	3
		Major Elective Course	3
		Free Elective Course	3
		Minor Course	3
	MATH 496	Capstone Course	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

## MINOR IN ACTUARIAL MATHEMATICS

### Declare the minor

Applicants for the minor in Statistics must satisfy the University and the College requirements for declaring a minor.

### Minor Admission Requirements

This minor is offered to all Qatar University's students who meet the following requirements:

1. Must satisfy the University and the College requirements for declaring a minor.
2. Must have a GPA 2.0 or more
3. Must have passed Math 101 or Math 119.

### Minor Requirements - Minor in Actuarial Mathematics (18 CH)

Students must complete the minor core requirements (12 CH) and a minimum of 6 CH in the minor electives. Students who already completed one or more courses in the minor core requirements as part of their major must take additional courses from Minor Electives to complete the minor 18 CH requirement.

### Minor Requirements - Minor in Actuarial Mathematics (24 CH)



Students must complete the minor core requirements (12 CH) and a minimum of 12 CH in the minor electives. Students who already completed one or more courses in the minor core requirements as part of their major must take additional courses from Minor Electives to complete the minor 24 CH requirement.

### **Minor in Actuarial Mathematics (18 CH)**

Students must complete a minimum of 18 credit hours in the minor requirements including:

- A minimum of 12 CH in courses in minor requirements courses
- A minimum of 6 CH from courses the minor electives courses.

### **Minor Requirements Courses (12 CH)**

Students must complete a minimum of 12 credit hours in minor requirements courses:

- STAT 101 Statistics I
- MATH 291 Financial Mathematics
- STAT 211 Introduction to Probability
- MATH 292 Actuarial Sciences Problems Solving Lab

### **Minor Electives Courses (6 CH)**

Students must complete a minimum of 6 credit hours in minor electives courses:

- MATH 102 Calculus II
- MATH 221 Business Math II
- MATH 391 Life Contingencies I
- MATH 392 Life Contingencies II
- ECON 111 Principles of Microeconomics
- ECON 112 Principles of Macroeconomics
- ACCT 110 Financial Accounting
- STAT 102 Statistics II
- STAT 231 Applied Regression Analysis
- STAT 341 Actuarial Statistics I
- STAT 442 Actuarial Statistics II

### **Minor in Actuarial Mathematics (24 CH)**

Students must complete a minimum of 18 credit hours in the minor requirements including:

- A minimum of 12 CH in courses in minor requirements courses
- A minimum of 12 CH from courses the minor electives courses.

### **Minor Requirements Courses (12 CH)**

Students must complete a minimum of 12 credit hours in minor requirements courses:

- STAT 101 Statistics I
- MATH 291 Financial Mathematics

- STAT 211 Introduction to Probability
- MATH 292 Actuarial Sciences Problems Solving Lab

### **Minor Electives Courses (12 CH)**

Students must complete a minimum of 12 credit hours in minor electives courses:

- MATH 102 Calculus II
- MATH 221 Business Math II
- MATH 391 Life Contingencies I
- MATH 392 Life Contingencies II
- ECON 111 Principles of Microeconomics
- ECON 112 Principles of Macroeconomics
- ACCT 110 Financial Accounting
- STAT 102 Statistics II
- STAT 231 Applied Regression Analysis
- STAT 341 Actuarial Statistics I
- STAT 442 Actuarial Statistics II

## **BACHELOR OF SCIENCE IN PHYSICS**

### **Objectives**

1. Provide students with a broad knowledge and understanding of the fundamental concepts of theoretical and experimental physics.
2. Educate and train students to acquire critical thinking and skills of problem solving essential to analyze general physics problems.
3. Educate students to be familiar with research methodologies and ethics, and are able to communicate scientific results in oral and written reports and presentations of their work at various settings.
4. Produce graduates to extend their knowledge of the principles of physics to the use in technological applications, or who can work effectively in the different disciplines of physics.
5. Produce graduates who can peruse in further graduate studies.

### **Learning Outcomes**

Upon completion of the program, students will be able to:

1. Demonstrate a well-founded knowledge and understanding of the fundamental concepts of physics.
2. Analyze physics related problems to formulate appropriate solutions.
3. Develop logical and critical thinking.
4. Demonstrate ability of using mathematical, computational skills, and software to solve physical problems correctly.
5. Illustrate experimental skills in physics to apply physical concepts.
6. Communicate the experimental and theoretical results in written and oral forms.
7. Demonstrate high ethical standards.

8. Use modern lab techniques and computer software effectively and safely.

### **Admissions Requirements**

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement.

Detailed Undergraduate admission requirements are available at the following link:

[http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### **Declaring the major**

Students must satisfy the university and college requirements for declaring a major including the need to declare the major before completing 36 credit hours. For more details about the University requirements for declaring the Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document. For more details about the College requirements for declaring the Major, please refer to the paragraph “Declaring the major” in the College section of this Chapter.

### **DEGREE REQUIREMENTS - Major in Physics**

A minimum of 120 credit hours are required to complete the major in physics, including the following:

- A minimum of 33 credit hours in core curriculum requirements.
- A minimum of 47 credit hours in major requirements courses.
- A minimum of 18 credit hours in major elective courses.
- A minimum of 22 credit hours in supporting courses.

### **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation

- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography

- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **Major Requirements Courses (47 CH)**

Students must complete a minimum of 47 credit hours in major requirements courses:

- PHYS 101 General Physics 1
- PHYS 120 General Physics Lab 1
- PHYS 115 Electricity and Magnetism
- PHYS 116 Electricity and Magnetism Lab

- PHYS 219 Electronics I
- PHYS 223 Electronics I Lab
- PHYS 229 Introductory Modern Physics
- PHYS 230 Introduction to Modern Physics Lab
- PHYS 258 Thermodynamics and Statistical Physics
- PHYS 260 Thermodynamics and Statistical Physics Lab
- PHYS 251 Vibrations and Waves
- PHYS 303 Mathematical Methods of Physics
- PHYS 301 Electromagnetic Theory
- PHYS 331 Classical Mechanics
- PHYS 333 Quantum Mechanics I
- PHYS 375 Optics
- PHYS 376 Optics Lab
- PHYS 462 Statistical Mechanic
- PHYS 341 Solid State Physics I
- PHYS 353 Introductory Nuclear Physics
- PHYS 354 Introductory Nuclear Physics Lab
- PHYS 378 Computational Physics
- PHYS 490 Internship
- PHYS 499 Senior Project

### **Major Electives Courses (18 CH)**

Student must complete 18 CH in the major elective courses:

- PHYS 322 Advanced Electronics
- PHYS 324 Advanced Electronics II Lab
- PHYS 361 Properties of Matter
- PHYS 440 Solid State Physics II
- PHYS 442 Solid State Physics II Lab
- PHYS 445 Semiconductors
- PHYS 452 Advanced Nuclear Physics
- PHYS 453 Advanced Nuclear Physics Lab
- PHYS 456 Radiation Physics
- PHYS 475 Laser Physics and its Applications
- PHYS 482 Cosmic Rays and Particle Physics
- PHYS 410 Atomic and Molecular Physics
- PHYS 433 Quantum Mechanics II

- PHYS 493 Special Topics

**Supporting Courses (22 CH)**

Students must complete 22 credit hours listed below:

- MATH 102 Calculus II
- MATH 211 Calculus III
- MATH 231 Linear Algebra
- MATH 285 Mathematics for Electrical Engineering
- CHEM 101 General Chemistry I
- CHEM 103 Experimental General Chemistry I
- BIOL 101 Biology I
- GEOL 101 Principles of General Geology



## SPORTS SCIENCE PROGRAM [Temporary Deactivated]

Women's Main Building, Room 227 (Women's Section)

Phone: (+974) 4403-4964 / 4403-4966

Email: [sportscience@qu.edu.qa](mailto:sportscience@qu.edu.qa)

Website: <http://www.qu.edu.qa/sportscience/>

### Program Director

Khalid Walid Bibi

### ABOUT THE DEPARTMENT

Sport Science Program at Qatar University consists of three specializations: Exercise and Fitness, Sport Management, and Physical Education. These specializations have been established to match the country's needs in regard to the National Vision 2030, the Sport Sector Strategy 2011-2016, and certainly the FIFA Football World Cup 2022. The program is currently undergoing an enhancement plan to meet international standards. Our mission is to enrich the Qatari society through highly qualified graduates and contributing in developing knowledge in sport sciences in the region. Our strong strategic partners include Qatar Olympic Committee, Aspire, and Aspetar. We aspire to work with all key stakeholders of sport education and sport science in the country. Those partners offer a great support in volunteering, internship, and scientific experience opportunities, which are a valuable contribution to our growing program. Affiliated partners such as Aspetar, Hamad Medical Center, Josoor Institute, Olympic Academy, as well as sport governing bodies, and Ministry of Youth and Sports are contributing to offer our students all rounded experience about Sport Science provision in Qatar. We wish that this fruitful partnership would lead in opening job opportunities to our graduate students.

## BACHELOR OF SCIENCE IN SPORT SCIENCE [Temporary Deactivated]

### About the Program

The Sport Science Program offers a Bachelor (B.Sc.) degree and provides a comprehensive coursework and field experience that will educate its students for professions in a broad scope of sports business, exercise and fitness enterprises, and educational institutions.

Committed to providing an innovative curriculum which will be continuously updated, the Program is differentiated into three concentrations:

1. Physical Education (**Enrollment for this concentration is Frozen**)
  2. Exercise and Fitness (**Enrollment for this concentration is Frozen**)
  3. Sport Management (**Enrollment for this concentration is Frozen**)
- The Sport Management concentration seeks to train students to work in the growing sport market and industry in Qatar and in the region (e.g. sport marketing, event management, sport and development)
  - The Exercise and Fitness concentration focuses on the physiological, psychological, social and biomechanical effects of exercise and physical activity in different populations, to promote health and well-being within Qatar.

- The Physical Education concentration aims to train PE school teachers to work in schools and with the community.

These specializations have been established to match the country's needs in regards to the National Vision 2030, the Sport Sector Strategy 2011-2016, and certainly the FIFA Football World Cup 2022. Our unique program is designed to target the important need to initiate a life-style change among the local population and promoting a healthier life-style. To addresses issues such as obesity and diabetes and other health problems related to lack of physical inactivity. To examine the impact of formal and informal sport activities on the wellbeing of the population. Finally, Qatar hosts around 45 international sport events every year. Our program helps the State of Qatar to train home grown specialists in the area of sport management (including sport finance, sport governance, sport marketing, and sport development).

In addition to teaching, the program aims to contribute with interdisciplinary impactful research outputs in different areas of sport studies with the collaboration of partners in national sport system. It is organized under the following pillars to meet the national research priorities; Sport, Culture and Identity; Sport Performance; Sport, Health and well-being. These research themes group a number of sport sciences disciplines: sport psychology, sport nutrition, sport and human movement, sport physiology, sport management, sociology of sport, and school sport.

### **Objectives**

- The program will train the students to understand the functional anatomy and biomechanics of the human body.
- The program will introduce to the students the physiological basis for exercise and physical activity in direct application to physical fitness and athletic conditioning.
- The program will facilitate the students to assess health status, conduct fitness testing, and prescribe and administer exercise programs.
- The program will familiarize the students to perform health and wellness programming based upon the ability to assess needs, and to design, implement, and evaluate a project.
- The program will train students to work in different sport organizations and sectors, including sport business; sport and health provisions; elite sport and community sport development; school sport; sport sciences research field
- The program will train students to comprehend the social, economic, cultural and political environments around sport practice at different levels (community sport, elite sport, and people with special needs)
- The program will facilitate the students' problem-solving skills. Thinking creatively and synthesizing information for integrative solutions in health-related aspects of sport, emotions and motivations around sport, and how to deal with the day-to-day management/needs of sport organizations.
- The program will introduce the students to current research in the field of sport sciences, laboratory equipment and instrumentation; and methods for collecting, and analyzing data.
- The program will prepare students to present to different audiences on sport science related matters.

### **Learning Outcomes**

- a) Core LOs

LO1 Develop key understanding of the theoretical concepts of Physical Education or Exercise Science & Fitness or Sport Management.

LO2 Apply at least one of the following principles: physiology, psychology, biomechanics, pedagogy and management in sports and exercise.

LO3 Apply and synthesize research skills to offer solutions for problems related to sport science.

b) Sport Management LO

LO4 Develop an understanding for Sport Management, Sport Marketing and its economical responsibilities.

c) Exercise and Fitness LO

LO5 Apply scientific knowledge to promote and develop public health programs and physical activity interventions.

d) Physical Education LO

LO6 Plan and implement effective teaching methods in Physical Education and Physical Activity.

### **Opportunities**

The B.Sc. in Sport Science major was developed to address escalating market needs in fields of Physical Education, Sport Management and Exercise and Fitness. The interdisciplinary nature of the program and its anticipated learning outcomes will provide wide range of employment opportunities for the program graduates. Graduates will be ready for roles such as PE Teachers, trainers and coaches, club managers, event managers, facilities managers, officers of national and international sports associations, as well as sport community advocates for fitness and healthy lifestyles.

### **Admissions Requirements**

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement and pass the personal interview.

Detailed Undergraduate admission requirements are available at the following link:

[http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate).

### **Additional Admission Requirements**

- Medical clearance for participating in physical activity.
- Applicants to the Sports Science Program may be required to appear for a personal interview, upon request.

### **Declaring the major**

Students must satisfy the university and college requirements for declaring a major including the need to declare the major before completing 36 credit hours.

For more details about the University requirements for declaring the Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document. For more details about the College requirements for declaring the Major, please refer to the paragraph “Declaring the major” in the College section of this Chapter.

### **DEGREE REQUIREMENTS - Major in Sport Science**

A minimum of 120 credit hours are required to complete the major in Sport Science, including the following:

- A minimum of 33 credit hours in core curriculum requirements.

- A minimum of 51 credit hours in major requirements courses.
- A minimum of 36 credit hours in concentration requirements.

### **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare

- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development

- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **Major Requirements Courses (51 CH)**

Students must complete a minimum of 51 credit hours in major requirements courses:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- SPSC 215 General and Functional Anatomy
- SPSC 101 Traditional and New Games
- SPSC 200 Theory and Practice Individual Sports I
- SPSC 201 Theory and Practice (Team Sports) I
- SPSC 202 Theory and Practice (Team Sports) II
- SPSC 203 Exercise Physiology I
- SPSC 204 Theory and Practice Individual Sports II
- SPSC 206 Research Methods in Exercise Science and Health
- SPSC 210 Principles of Training and Coaching I
- SPSC 306 Motor Learning
- SPSC 308 Sport Psychology
- SPSC 310 Principles of Training and Coaching II
- SPSC 400 Psycho-Social Aspects of Games
- SPSC 401 Performance Analysis and Assessment
- SPSC 490 Sport Science Senior Project

### **Concentration in Physical Education (36 CH) (Enrollment for this concentration is Frozen)**

Students must complete a minimum of 36 credit hours in concentration requirements.

- EDEC 411 Health and Safety of Young Children
- EDUC 310 Foundation of Education in Qatar and School Reform
- EDUC 312 Curriculum and Assessment
- EDUC 316 Classroom Management
- EDUC 317 Inclusive Classrooms

- SPSC 209 Biomechanics and Movement Analysis
- SPSC 349 Developmental Psychology
- SPSC 399 Physical Education in Schools
- SPSC 449 Teaching PE in Primary Schools
- SPSC 475 Teaching PE in Secondary Schools
- SPSC 499 Internship

### **Concentration in Exercise and Fitness (36 CH)**

Students must complete a minimum of 27 credit hours in concentration major requirements and 9 CH in concentration supporting requirements.

### **Exercise and Fitness Concentration Major Requirements (27 CH)**

Students must complete a minimum of 27 credit hours in concentration major requirements.

- SPSC 209 Biomechanics and Movement Analysis
- SPSC 302 Fitness Testing and Training
- SPSC 303 Exercise and Metabolism
- SPSC 307 Exercise Physiology II
- SPSC 309 Exercise and Aging
- SPSC 318 Exercise Psychology
- SPSC 403 Exercise, Obesity and Diabetes
- SPSC 404 Exercise and Heart Disease
- SPSC 405 Testing and Exercise Prescription

### **Exercise and Fitness Concentration Supporting Requirements (9 CH)**

Students must complete all courses listed below:

- SPSC 305 Sport Marketing and Management I
- SPSC 311 First Aid and CPR
- SPSC 406 Concepts of Fitness and Nutrition
- SPSC 407 Sport Governance and Economics I

### **Concentration in Sport Management (36 CH)**

Students must complete a minimum of 24 credit hours in concentration major requirements and 12 CH in concentration supporting requirements.

### **Sport Management Concentration Major Requirements (24 CH)**

Students must complete a minimum of 24 credit hours in concentration major requirements.

- ACCT 110 Financial Accounting
- ECON 111 Principles of Microeconomics
- ECON 112 Principles of Macroeconomics
- FINA 201 Principles of Finance
- MAGT 101 Principles of Management
- MAGT 306 International Business



- MAKT 101 Principles of Marketing
- MATH 119 Business Math I

### Sport Management Concentration Supporting Requirements (12 CH)

Students must complete all courses listed below:

- SPSC 305 Sport Marketing and Management I
- SPSC 407 Sport Governance and Economics I
- SPSC 409 Sport Marketing and Management II
- SPSC 410 Sport Governance and Economics II

### Study Plan

#### Bachelor of Science in Sports Science – Sport Management (Enrollment for this concentration is Frozen)

FIRST YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	BIOL 101	Biology I	3
	MATH 119	Business Math	3
	SPSC 101	Traditional and New Games	3
	SPSC 201	Theory and Practice of Team Sports I	3
	Core Curriculum	Common Package	3
Total Credit Hours in Semester			15
Spring	Core Curriculum	Social/Behavioral Sciences Package	3
	BIOL 110	Human Biology	3
	SPSC 202	Theory and Practice of Teams Sports II	3
	CC	UNIV 100	3
	Core Curriculum	Common Package	3
Total Credit Hours in Semester			15

SECOND YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	SPSC 200	Theory and Practice of Individual Sport I	3

	SPSC 203	Exercise Physiology I	3
	SPSC 206	Res Methods in Exercise Science and Health	3
	SPSC 210	Principals of Training and Coaching I	3
	SPSC 215	General Anatomy and Function	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	SPSC 204	Theory and Practice Individual Sport II	3
	SPSC 306	Motor Learning	3
	Core Curriculum	Natural Sciences/ Mathematics Package	3
	Core Curriculum	Common Package	3
	Core Curriculum	Common Package	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>THIRD YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	MAGT 101	Princ of Management	3
	ACCT 110	Financ Accounting	3
	ECON 111	Principles of Microeconomics	3
	SPSC 308	Sport Psychology	3
	CC	Humanities/Fine Arts	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	MAKT 101	Princ of Marketing	3
	FINA 201	Princ of Finance	3
	SPSC 305	Sport Marketing and Management I	3
	SPSC 310	Principals of Training and Coaching II	3
	SPSC 400	Psychosocial Aspects of Games	3
	CC	Qatar and Gulf History	3
<b>Total Credit Hours in Semester</b>			<b>18</b>

<b>FOURTH YEAR (27 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	ECON 112	Principle of Macroeconomics	3
	SPSC 407	Sport Government Economics I	3
	SPSC 409	Sport Marketing and Management II	3
	SPSC 401	Performance Analysis + Assessment	3
	Core Curriculum	General Knowledge	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	MAGT 306	International Business	3
	SPSC 410	Sport Govern + Economics II	3
	SPSC 490	Sport Science Project	3
	Core Curriculum	General Skills Package	3
<b>Total Credit Hours in Semester</b>			<b>12</b>

### **Bachelor of Science in Sports Science – Exercise and Fitness (Enrollment for this concentration is Frozen)**

<b>FIRST YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	BIOL 101	Biology I	3
	SPSC 101	Traditional and New Games	3
	SPSC 201	Theory and Practice of Team Sports I	3
	MATH 103	Numbers and Basic Algebra	3
	Core Curriculum	Common Package	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	Core Curriculum	Social/Behavioral Sciences Package	3

	BIOL 110	Human Biology	3
	SPSC 202	Theory and Practice of Team Sports II	
	CC	UNIV 100	3
	Core Curriculum	Common Package	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>SECOND YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	SPSC 200	Theory and Practice of Individual Sport I	3
	SPSC 203	Exercise Physiology I	3
	SPSC 206	Res Methods in Exercise Science and Health	3
	SPSC 210	Principals of Training and Coaching I	3
	SPSC 215	General Anatomy and Function	3
	Core Curriculum	Common Package	3
<b>Total Credit Hours in Semester</b>			<b>18</b>
Spring	SPSC 204	Theory and Practice Individual Sport II	3
	SPSC 306	Motor Learning	3
	SPSC 209	Biomechanics and Movement Analysis	3
	Core Curriculum	Common Package	3
	Core Curriculum	Common Package	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>THIRD YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>

Fall	SPSC 302	Fitness Testing and Training	3
	SPSC 303	Exercise and Metabolism	3
	SPSC 307	Exercise Physiology II	3
	SPSC 308	Sport Psychology	3
	SPSC 311	First Aid and CPR	0
	Core Curriculum	Humanities/Fine Arts	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	SPSC 309	Exercise and Aging	3
	SPSC 305	Sport Marketing and Management I	3
	SPSC 310	Principals of Training and Coaching II	3
	SPSC 400	Psychosocial Aspects of Games	3
	Core Curriculum	Qatar and Gulf History	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>FOURTH YEAR (33 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	SPSC 318	Exercise Psychology	3
	SPSC 406	Concepts of Fitness and Nutrition	3
	SPSC 401	Performance Analysis and Assessment	3
	SPSC 407	Sport Governance and Economics I	3
	Core Curriculum	General Knowledge	
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	SPSC 403	Exercise, Obesity and Diabetes	3
	SPSC 404	Exercise and Heart Disease	3
	SPSC 405	Testing and Exercise Prescription	3

	SPSC 490	Sport Science Project	3
	Core Curriculum	General Skills Package	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

**Bachelor of Science in Sports Science – Physical Education (Enrollment for this concentration is Frozen)**

<b>FIRST YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	BIOL 101	Biology 1	3
	SPSC 101	Traditional and New Games	3
	SPSC 201	Theory and Practice of Team Sports I	3
	MATH 103	Numbers and Basic Algebra	3
	Core Curriculum	Common Package	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	Core Curriculum	Social/Behavioral Sciences Package	3
	BIOL 110	Human Biology	3
	SPSC 215	General and functional anatomy	3
	SPSC 200	Theory and Practice Individual Sport I	3
	Core Curriculum	Common Package	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>SECOND YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	SPSC 202	Theory and Practice of Team Sport II	3
	SPSC 203	Exercise Physiology I	3
	SPSC 206	Res Methods in Exercise Science and Health	3

	Core Curriculum	Common Package	3
	Core Curriculum	Common Package	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	SPSC 204	Theory and Practice of Individual Sport II	3
	SPSC 210	Principals of Training and Coaching I	3
	SPSC 306	Motor Learning	3
	SPSC 209	Biomechanics and Movement Analysis	3
	Core Curriculum	Common Package	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>THIRD YEAR (33 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	EDUC 310	Foundation of Education in Qatar and School Reform	3
	EDUC 312	Curriculum and Assessment	3
	SPSC 349	Developmental Psychology	3
	SPSC 308	Sport Psychology	3
	EDUC 317	Inclusive Classroom	3
	SPSC 399	Physical Education in Schools	3
<b>Total Credit Hours in Semester</b>			<b>18</b>
Spring	EDUC 316	Classroom Management	3
	SPSC 310	Principals of Training and Coaching II	3
	SPSC 400	Psychosocial Aspects of Games	3
	SPSC 449	Teaching PE in Primary Schools	3
	Core Curriculum	Humanities/ Fine Arts	3
<b>Total Credit Hours in Semester</b>			<b>15</b>



<b>FOURTH YEAR (27 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	EDEC 411	Health and Safety of Young Children	3
	SPSC 475	Teaching PE in secondary Schools	3
	SPSC 401	Performance Analysis and Assessment	3
	Core Curriculum	Qatar and Gulf History	3
	Core Curriculum	General Knowledge	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	SPSC 499	Internship (7 weeks each)	6
	SPSC 490	Sport Science Project	3
	Core Curriculum	General Skills Package	3
<b>Total Credit Hours in Semester</b>			<b>12</b>



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## COLLEGE OF EDUCATION

College of Education Building  
 Phone: (974) 4403-5100/ 4403-5118  
 Email: dean-edu@qu.edu.qa  
 Website: <http://www.qu.edu.qa/education>

### Dean

Ahmed Abdulrahman H.Y.Al-Emadi

### Associate Dean for Academic Affairs

Hessa AL-Thani

### Associate Dean for Research and Graduate Studies

Ahmed Mohamed Megreya

### Assistant Dean for Student Affairs

Aisha Fadl AL- Kaabi

## ABOUT THE COLLEGE

The College of Education was the first higher education institution in the State of Qatar and the founding unit of Qatar University. It remains the single entity for the preparation of educators in the country. The college embraces its unique position of honor, as well as the exceptional responsibility this entails. The vision of the college reflects awareness of this role by asserting that:

The College of Education will be a leading institution in the preparation of education professionals through outstanding teaching, scholarship, and leadership in order to shape the future of Qatar.

Its mission states:

The College of Education is committed to providing excellence in the initial and advanced preparation of education professionals by establishing a foundation in which life-long learning, teaching, research, and community partnerships are fostered. The college fulfills its commitment by providing:

- Its members an educational, motivational, and supportive environment for both learning and teaching in a climate which blends and balances modernity and the preservation of Arabic and Islamic identity.
- Society with highly qualified education professionals and on-going professional development, by supporting scholarly activities, and by sharing the responsibility of the modernization of the country through effective partnerships.

## DEGREE OFFERINGS

The College of Education offers the following undergraduate degree programs:

- **Bachelor of Education in Primary Education with four concentrations:**
  1. Arabic Studies (Arabic Language, Islamic Studies and Social Studies)
  2. Math and Science
  3. English/ESL

4. Early Childhood

• **Bachelor of Education in Secondary Education in Education with eight concentrations:**

1. Islamic studies
2. Arabic Language
3. Social Studies
4. English- ESL
5. Mathematics
6. Chemistry
7. Physics
8. Biology

• **Bachelor of Education in Physical Education (Elementary and Secondary)**

• **Bachelor of Education in Art Education**

• **Bachelor of Education in Special Education with three concentrations:**

1. Early Childhood Special Education Services
2. School-Based Special Education
3. Severe/Profound Disabilities

## **DECLARING THE MAJOR**

College of Education students should take into consideration the following requirements for declaring their major:

1. Students can apply for a major since their first academic semester without a minimum number of completed credit hours -The application should include a list of five Majors listed by priority.
2. Major can only be assigned after students complete at least 12 credit hours.
3. Students must pass the Major qualification interview during the first semester of the student's admission to the college. The students who do not attend their interview will be blocked from enrolling before the beginning of the early registration for the next semester.
4. For admission to the physical Education program should pass physical test in addition to passing the personal interview.
5. Students are admitted on the basis of competitiveness and according to the capacity of the programs. No minimum GPA is required.
6. Students must satisfy QU requirements for declaring a major including the need to declare the major before completing 36 undergraduate credit hours. Students who completed 36 credit hours without declaring a Major will be blocked from enrolling in the next semester's classes until they apply for a major.
7. QU Students who completed 30 credit hours or more and wish to transfer to the College of Education can submit their Major application with their transfer request before the deadline announced by the college. Those who completed (after their admission to the college) 45 credit hours or more and wish to join the secondary education, primary education or special education program, can submit an application to the desired concentration along with the major application according to the concentration declaration requirements mentioned below. QU students who have acquired less than 30 credit hours and who wish to transfer to the College of Education, must submit their Major application after joining the college at the announced dates for receiving requests.

8. Transferred students from other universities/colleges who have completed 30 credit hours or more should apply to a Major immediately upon their admission to the university. Their application should specify the desired concentration area. Students who have completed less than 30 credit hours must submit their Major application within the deadline announced by the college.
9. Re-enrolled and re-admitted students who completed 30 hours or more can continue in the same Major they were previously enrolled in or change their Major after college approval.
10. The College of Education's programs may have additional requirements.

### **Admissions Requirements in Concentrations (Primary Education, Secondary Education, and Special Education)**

For their application to a Concentration area to be accepted, students must meet the following requirements:

1. Having a cumulative average GPA of no less than 2.00
2. Having a Grade (C) or above in EDUC 312
3. Minimum IELTS score of 5.5 or its equivalent for English Language Concentration areas.
4. Completed the University minimum competency requirements for admission in science majors or the University Foundation Program for enrollment in science related concentration areas.
5. Students who completed 45 credit hours without applying for a Concentration area will be blocked from enrolling in the next semester's classes until they apply for a Concentration.

### **DECLARING THE MINOR**

The college of Education does not offer any minor.

### **ABOUT THE DEPARTMENTS**

The Department of Educational Sciences, The Department of Psychological Sciences, The Department of Art Education and Physical Education Department aim to prepare highly qualified graduates in the field of education, who will have outstanding knowledge of the scientific foundations of their field, and exhibit practical experience and skills in professional roles as well as conduct and evaluate research using scientific methods.

The Department is committed to the educational preparation of human power necessary to work at different education institutions at different jobs and specializations in a way that qualify them for continual professional development and continuing higher studies.

## DEPARTMENT OF EDUCATIONAL SCIENCES

Education Sciences Department, Room 108

Phone: (974) 4403-5108-5169

Email: ESD@qu.edu.qa

Website [http://www.qu.edu.qa/education/educational\\_sciences\\_department/](http://www.qu.edu.qa/education/educational_sciences_department/)

### Head

Abdullah Abu-Tineh

### Program Coordinators

Areej Barham

### Faculty

#### Professors

Abdalla Al-Mannai, Ahmad Al-Saai, Abdullah Abu-Tineh, Saleh Rawadieh, Michael Romanowski, Hissa Sadiq, Ghadnana Binali, Nassra Al-Banai, Badria Al-Ammari, Aisha Fakhroo, Areej Barham, Du Xiangyum

#### Associate Professors

Yousef Al-Shaboul, Mamduh Ashraah, Mubarak Al-Akraf, Fatma Al-Mutawah, Hadeel Al-Khatib, Intisar Ghazi, Amal Malkawi, Maha Cherif

#### Assistant Professors

Mohammad Ragab, Adel Abu El Roos, Naser Al-Dosari, Hessa Al-Thani, Reem Khalid, Aisha Al-Kaabi, Huda Al-Kubaisi, Saba Mansoor, Manal Hendawi

#### Lecturers

Sayed Ragab, Mayamin Altae, Elham Ghazi, Na'ela Almheidat

#### Teaching Assistants

Sara Abdulrahman Al-Muftah, Easra Al-Muftah, Roua Al-Merri, Amira Ahmed Alkhawaja, Hissa Al-Saadi Abdulrahman Sufi

## BACHELOR OF EDUCATION IN PRIMARY EDUCATION

### Objectives

- Support the mission of Qatar University to provide experts needed for Qatari Society.
- Provide highly qualified primary teachers, so that all children in Qatar's primary schools may receive an excellent class education.
- Develop teacher-leaders, who will contribute to ongoing progress in teaching, scholarship, and leadership in Qatar.



## Learning Outcomes

Graduates from this major will:

1. Apply key theories and concepts of the subject matter in educational settings.
2. Plan effective instruction to maximize student learning.
3. Design instructional plans to maximize student learning.
4. Design an effective educational environment.
5. Use a range of assessments to inform teaching.
6. Use current and emerging technologies in instructionally powerful ways.
7. Foster successful learning experiences for all students by addressing individual differences.
8. Arrive at data-informed decisions by systematically examining a variety of factors and resources.
9. Actively engage in scholarship in education.
10. Apply professional ethics in all educational contexts.
11. Lead positive change in education.

## Opportunities

Graduates from the Primary Education major are prepared to seek employment in the educational sector, namely private, as well as government-run primary schools for children. Other possible job opportunities are also connected with the educational sector, such as working in international or governmental agencies connected with education.

## Admissions Requirements

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement.

Detailed Undergraduate admission requirements are available at the following link:

[http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

## Declaring the major

Students must satisfy the university and college requirements for declaring a major including the need to declare the major before completing 36 credit hours. In order to be eligible for enrollment in the English /ESL concentration area, students must have an IELTS score of 5.5 or higher or its equivalent. For more details about the University requirements for declaring the Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document. For more details about the College requirements for declaring the Major, please refer to the paragraph “Declaring the major” in the College section of this Chapter.

## DEGREE REQUIREMENTS - Major in Primary Education

A minimum of 120 credit hours are required to complete the major in Primary Education, including the following:

- A minimum of 33 credit hours in core curriculum requirements.
- A minimum of 36 credit hours of major requirement courses.
- A minimum of 6 credit hours of major electives courses.
- A minimum of 45 credit hours of concentration requirements.



## Core Curriculum Program

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

### Identity and Communication Package (15 - 18 CH)

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

### Social/Behavioral Sciences package (3 CH)

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

**Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

**Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

**Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

- ENGL 250 English for Communication I
- ENGL 251 English for Communication II
- UNIV 100 First Year Seminar

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **Major Requirements (36 CH)**

Students must complete 27 CH from the major requirements courses and 9 CH from the training course requirements.

### **Major Requirements Courses (27 CH)**

Students must complete a minimum of 27 credit hours in major requirements courses:

- EDUC 310 Foundations of Education in Qatar and School Reform
- EDUC 312 Curriculum and Assessment
- EDUC 313 Developing Literacy in Children
- EDUC 314 Technology for Children
- EDUC 315 Child Development & Learning
- EDUC 316 Classroom Management
- EDUC 317 Inclusive Classrooms
- EDUC 318 Integrating Visual Arts
- EDUC 319 Classroom Assessment

### **Training Course Requirements (9CH)**

Students must complete a minimum of 9 credit hours by completing one of the following courses depending on the selected concentration:

- EDUC 481 Student Teaching - Early Childhood
- EDUC 482 Student Teaching – Arabic Studies
- EDUC 483 Student Teaching – Math and Science
- EDUC 484 Student Teaching – English/ESL

### **Major Electives Courses (6 CH)**

Students must take a minimum of 6 credit hours from the list of courses listed below:

- EDUC 200 Education and Societal Problems

- EDUC 201 Research Methodology
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- EDUC 203 Family Relationships
- EDUC 100 Photography

### **Concentration Requirements (45 CH)**

#### **Concentration in Early Childhood (45 CH)**

Students must complete a minimum of 45 credit hours by completing the following courses in the concentration requirements:

- EDEC 410 Play and the Theory of Movement
- EDEC 411 Health and Safety of Young Children
- EDEC 412 Community Outreach and Resources
- EDEC 413 Integrated Math and Science for Young Children
- EDEC 452 Teaching Reading and Writing to Young Children
- EDEC 453 Teaching Arabic Language to Young Children
- EDEC 454 Integrated Social Studies to Young Children
- EDEC 456 ESL and Young Children
- BIOL 100 Introduction to Life Science
- GEOL 101 Principles of Geology
- MATH 103 Intermediate Algebra
- GEOG 110 General Geography
- ENGL 156 Introduction to Literature I
- ARAB 213 Grammar I
- ARAB 218 Morphology
- DAWA 210 Philosophy of Sirah

#### **Concentration in Math and Science (45 CH)**

Students must complete a minimum of 45 credit hours by completing the following courses in concentration requirements:

- EDPR 410 Reading and Writing in all Disciplines
- EDPR 450 Teaching Primary Level Science
- EDPR 451 Teaching Primary Level Mathematics
- EDPR 452 Methods in Inquiry and Research
- BIOL 101 Biology I
- BIOL 102 Biology II
- BIOL 221 Basic Ecology
- CHEM 103 Experimental General Chemistry I
- CHEM 101 General Chemistry I
- PHYS 183 Introduction to General Physics
- GEOL 101 Principles of General Geology

- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 203 Basic Analysis
- STAT 101 Statistics I
- ENGL 150 Essay Writing I

### **Concentration in Arabic Studies (45 CH)**

Students must complete a minimum of 45 credit hours by completing the following courses in concentration requirements:

- EDPR 446 Teaching Primary Level Arabic
- EDPR 447 Teaching Primary Level Islamic Studies
- EDPR 448 Teaching Primary Level Social Studies
- HIST 222 The Gulf in Modern Period
- HIST 213 Modern Arab History (1516-1919)
- GEOG 110 General Geography
- ARAB 110 Intro to Literature and Language
- ARAB 218 Morphology
- ARAB 213 Grammar I
- ARAB 319 Grammar II
- ARAB 375 Phonology
- QURS 101 Quranic studies
- QURS 200 Quran Recitation & Memorization
- QURS 203 Hadith studies
- FIQH 205 Fiqh of Worship (1)
- DAWA 210 Philosophy of Sirah

### **Concentration in English/ESL (45 CH)**

Students must complete a minimum of 42 credit hours from the English/ESL Concentration Requirements and a minimum of 3 credit hours from the English/ESL Concentration Supplementary Requirements.

### **English/ESL Concentration Requirements (42 CH)**

- EDPR 453 Teaching Primary Level English (ESL I)
- EDPR 454 Teaching Primary Level English (ESL II)
- EDPR 455 Teaching Primary Level Reading
- EDPR 410 Reading and Writing in all Disciplines
- BIOL 100 Introduction to Life Science
- ENGL 153 Essay Writing II
- ENGL 155 Introduction to Language
- ENGL 156 Introduction to Literature I
- ENGL 157 Introduction to Linguistics
- ENGL 158 Introduction to Literature II
- ENGL 309 Second Language Acquisition

- ENGL 353 Sounds of English
- ENGL 354 Structure of the English Language
- ENGL 426 Children's Literature

### English/ESL Concentration Supplementary Requirements (3 CH)

- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures

### Study Plan

#### Bachelor of Education in Primary Education – Math and Science Concentration

FIRST YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	UNIV 100	First Year Seminar	3
		Core	3
	EDUC 312	Curriculum and Assessment	3
	EDUC 310	Foundations of Education in Qatar and School Reform	3
		Elective	3
Total Credit Hours in Semester			15
Spring		Core	3
		Core	3
		Core	3
	EDUC 201	Research Methodology	3
	EDUC 315	Child Development & Learning	3
Total Credit Hours in Semester			15

SECOND YEAR (34 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	CHEM 101	General Chemistry I	3
	CHEM 103	Experimental General Chemistry I	1

		Core	3
	EDUC 317	Inclusive Classrooms	3
	EDUC 313	Developing Literacy in Children	3
	BIOL 101	General Biology I	3
<b>Total Credit Hours in Semester</b>			<b>16</b>
Spring	EDUC 314	Technology for Children	3
	BIOL 102	General Biology II	3
	MATH 103	Intermediate Algebra	3
	MATH 104	Basic Geometry and Measures	3
	GEOL 101	General Geology	3
	EDUC 319	Classroom Assessment	3
<b>Total Credit Hours in Semester</b>			<b>18</b>

THIRD YEAR (29 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	MATH 203	Basic Analysis	3
	ENGL 150	Essay Writing I	3
	PHYS 183	Introduction to General Physics	3
	EDPR 452	Methods in Inquiry and Research	2
		Core	3
<b>Total Credit Hours in Semester</b>			<b>14</b>
Spring		Core	3
	EDPR 450	Teaching Primary Level Science	3
	EDUC 316	Classroom Management	3
		Core	3
		Core	3
	EDUC 318	Integrating Visual Arts	



<b>Total Credit Hours in Semester</b>	<b>15</b>
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<b>FOURTH YEAR (27 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	EDPR 410	Reading and Writing in all Disciplines	3
		Core	3
	BIOL 221	Basic Ecology	3
	STAT 101	Statistics 1	3
	EDPR 451	Teaching Primary Level mathematics	3
		Core	3
<b>Total Credit Hours in Semester</b>			<b>18</b>
Spring	EDUC 483	Student Teaching – Math and Science	9
<b>Total Credit Hours in Semester</b>			<b>9</b>

### **Bachelor of Education in Primary Education - Early Childhood Concentration**

<b>FIRST YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	UNIV 100	First Year Seminar	3
		Core	3
	EDUC 312	Curriculum and Assessment	3
	EDUC 310	Foundations of Education in Qatar and School Reform	3
		Elective	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	Core		3
	EDUC 312	Curriculum & Assessment	3
	EDUC 201	Research Methodology	3

		core	3
	EDUC 315	Child Development & Learning	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>SECOND YEAR (34 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	ARAB 213	Grammar Arabic	3
	BIOL 100	Introduction to Life Science	3
		Core	3
	EDUC 317	Inclusive Classrooms	3
	EDUC 313	Developing Literacy in Children	3
	ENGL 156	Introduction to Literature	3
<b>Total Credit Hours in Semester</b>			<b>18</b>
Spring	EDUC 319	Classroom Assessment	3
	EDEC 411	Health and Safety of Young Children	2
	MATH 103	Intermediate Algebra	3
	EDEC 410	Play and the Theory of Movement	2
	EDUC 314	Technology for Children	3
	GEOG 110	General Geography	3
<b>Total Credit Hours in Semester</b>			<b>16</b>

<b>THIRD YEAR (29 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	EDEC 412	Community Outreach and Resources	2
		Core	3
		Core	3
	ENGL 156	Introduction to Literature I	3

	DAWA 113	Philosophy of Sirah	3
<b>Total Credit Hours in Semester</b>			<b>14</b>
Spring	EDEC 453	Teaching Arabic Language for Young Children	3
	EDUC 318	Integrating Visual Arts	3
	EDEC 452	Teaching Reading and Writing for Young Children	3
	GEOL 101	Principals of Geology	3
	EDUC 316	Classroom Management	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>FOURTH YEAR (27 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	EDEC 456	ESL and Young Children	3
	Core	Integrated Social Studies for Young Children	3
	EDEC 454	Integrated Social Studies for Young Children	3
	EDEC 413	Integrated Math and Science	3
		Core	3
		Core	3
<b>Total Credit Hours in Semester</b>			<b>18</b>
Spring	EDUC 481	Student Teaching\ Early Childhood	9
<b>Total Credit Hours in Semester</b>			<b>9</b>

### **Bachelor of Education in Primary Education - Arabic Studies Concentration**

<b>FIRST YEAR (33 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>

Fall	UNIV 100	First Year Seminar	3
		Core	3
	EDUC 312	Curriculum and Assessment	3
	EDUC 310	Foundations of Education in Qatar and School Reform	3
		Elective	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring		Core	3
	EDUC 312	Curriculum & Assessment	3
		Core	3
	EDUC 201	Research Methodology	3
	EDUC 315	Child Development & Learning	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>SECOND YEAR (33 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	QURS 203	Science of Hadith	3
	HIST 222	The Gulf in Modern Period	3
	ARAB 110	Introduction to Language and Literature	3
	EDUC 313	Developing Literacy in Children	3
	EDUC 317	Inclusive Classrooms	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	EDUC 319	Classroom Assessment	3
		Core	3
	EDUC 314	Technology for Children	3
	ARAB 218	Morphology	3
	FIQH 215	FiQH of Worship	3

	ARAB 213	Arabic Grammar 1	3
<b>Total Credit Hours in Semester</b>			<b>18</b>

**THIRD YEAR (30 credit hours)**

<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	GEOG 110	General Geography	3
	QURS 101	Quranic Science	3
		Core	3
	ARAB 319	Arabic Grammar II	3
	EDPR 446	Teaching Primary Level Arabic	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	EDPR 448	Teaching Primary Level Social Studies	3
	HIST 213	Modern Arab History (1516 – 1919)	3
	EDUC 316	Classroom Management	3
		Core	3
	EDUC 318	Integrating Visual Arts	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

**FOURTH YEAR (27 credit hours)**

<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall		Core	3
	ARAB 375	Phonology	3
	EDPR 447	Teaching Primary Level Islamic Studies	3
	DAWA 210	Philosophy of Sirah	3
		Core	3
		Core	3
		Core	3

<b>Total Credit Hours in Semester</b>			<b>18</b>
Spring	EDAR 482	Student Teaching \ Arabic Studies	9
<b>Total Credit Hours in Semester</b>			<b>9</b>

### Bachelor of Education in Primary Education - English Concentration

<b>FIRST YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	UNIV 100	First Year Seminar	3
		Core	3
	EDUC 312	Curriculum and Assessment	3
	EDUC 310	Foundations of Education in Qatar and School Reform	3
		Elective	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring		Core	3
	EDUC 312	Curriculum & Assessment	3
	EDUC 201	Research Methodology	3
		Core	3
	EDUC 315	Child Development & Learning	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>SECOND YEAR (33 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	BIOL 100	Introduction to Life Science	3
	EDUC 313	Developing Literacy in Children	3
	ENGL 156	Introduction to Literature I	3
	EDUC 317	Inclusive Classrooms	3
	ENGL 155	Introduction to Language	3

<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	EDUC 314	Technology for Children	3
	ENGL 153	Essay Writing II	3
	MATH 103 OR Math 104	Intermediate Algebra OR Basic Geometry and Measures	3
	ENGL 157	Introduction to Linguistics	2
	ENGL 158	Introduction to Literature II	3
	EDUC 319	Classroom Assessment	3
<b>Total Credit Hours in Semester</b>			<b>18</b>

<b>THIRD YEAR (33 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall		Core	3
		Core	3
	ENGL 353	Sounds of English	3
	ENGL 354	Structure of the English Language	3
	EDPR 453	Teaching Primary Level English I	3
		Core	3
<b>Total Credit Hours in Semester</b>			<b>18</b>
Spring	EDPR 455	Teaching Primary Level Reading	3
	EDPR 454	Teaching Primary Level English II	3
		Core	3
	EDUC 318	Integrating Visual Arts	3
	EDUC 316	Classroom Management	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

**FOURTH YEAR (24 credit hours)**



<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	EDPR 410	Reading and Writing in all Disciplines	3
		Core	3
	ENGL 309	Second Language Acquisition	3
	ENGL 426	Children's Literature	3
		Core	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	EDER 481 EDUC 484	Student Teaching \ English	9
<b>Total Credit Hours in Semester</b>			<b>9</b>

## **BACHELOR OF EDUCATION IN SECONDARY EDUCATION**

### **Objectives**

- Gain the knowledge, skills, and dispositions necessary for secondary school teachers.
- Implement student-centered, standards-based pedagogy at the secondary level.
- Participate in the ongoing progress of teaching and learning.
- Contribute to ongoing educational research in Qatar by teaching and modeling inquiry methodologies and data-informed instruction.

### **Learning Outcomes**

Graduates from this major will:

1. Apply key theories and concepts of the subject matter.
2. Plan effective instruction to maximize student learning.
3. Use current and emerging technologies in instructionally powerful ways.
4. Foster successful learning experiences for all students by addressing individual differences.
5. Arrive at data-informed decisions by systematically examining a variety of factors and resources.
6. Actively engage in scholarship by learning from and contributing to the knowledge base in education.
7. Apply professional ethics in all educational contexts.
8. Lead positive change in education.

### **Opportunities**

Graduates from the Secondary Education major are prepared to seek employment in the educational sector, namely private, as well as government-run secondary schools. Other possible job opportunities are also connected with the educational sector, such as working in international or governmental agencies connected with education.

## Admissions Requirements

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement.

Detailed Undergraduate admission requirements are available at the following link:

[http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

## Declaring the major

Students must satisfy the university and college requirements for declaring a major including the need to declare the major before completing 36 credit hours. In order to be eligible for enrollment in the English /ESL concentration area, students must have an IELTS score of 5.5 or higher or its equivalent. In order to be eligible for enrollment in the Science related concentration area, students must have successfully completed the university Foundation Program or achieve the university basic competency requirements for admission in science majors. For more details about the University requirements for declaring the Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document. For more details about the College requirements for declaring the Major, please refer to the paragraph “Declaring the major” in the College section of this Chapter.

## DEGREE REQUIREMENTS – Major in Secondary Education

### Major in Secondary Education

A minimum of 120 credit hours are required to complete the major in Secondary Education, including the following:

- A minimum of 33 credit hours in core curriculum requirements.
- A minimum of 36 credit hours of major requirements courses.
- A minimum of 6 credit hours of major electives courses.
- A minimum of 45 credit hours of concentration requirements

### Core Curriculum Program

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

### Identity and Communication Package (15 - 18 CH)

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I

- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

- ENGL 250 English for Communication I
- ENGL 251 English for Communication II
- UNIV 100 First Year Seminar

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

**Major Requirements Courses (36 CH)**

Students must complete 30 CH from the courses listed below in addition to completing 6 CH from courses listed in the Methods sub- package related to the concentration area selected by the student.

- EDUC 310 Foundations of Education in Qatar and School Reform
- EDUC 312 Curriculum and Assessment
- EDUC 316 Classroom Management
- EDUC 317 Inclusive Classrooms
- EDUC 319 Classroom Assessment
- EDUC 320 Human Development
- EDSE 331 Reading and Writing Across the Curriculum
- EDSE 491 Student Teaching in Secondary Education

**Methods for Arabic sub-package (6 CH)**

Students selecting the Arabic concentration area must take a minimum of 6 credit hours from the courses listed below:

- EDSE 340 Methods I: Instructional Strategies for Arabic
- EDSE 460 Methods II: Inquiry and ICT for Arabic

**Methods for English sub-package (6 CH)**

Students selecting the English concentration area must take a minimum of 6 credit hours from the courses listed below:

- EDSE 341 Methods I: Instructional Strategies for English
- EDSE 461 Methods II: Inquiry and ICT for English

**Methods for Islamic Studies sub-package (6 CH)**

Students selecting the Islamic Studies concentration area must take a minimum of 6 credit hours from the courses listed below:

- EDSE 342 Methods I: Instructional Strategies for Islamic Studies
- EDSE 462 Methods II: Inquiry and ICT for Islamic Studies

**Methods for Social Studies sub-package (6 CH)**

Students selecting the Social Studies concentration area must take a minimum of 6 credit hours from the courses listed below:

- EDSE 343 Methods I: Instructional Strategies for Social Studies
- EDSE 463 Methods II: Inquiry and ICT for Social Studies

**Methods for Mathematics sub-package (6 CH)**

Students selecting the Mathematics concentration area must take a minimum of 6 credit hours from the courses listed below:

- EDSE 344 Methods I: Instructional Strategies for Mathematics
- EDSE 464 Methods II: Inquiry and ICT for Mathematics

**Methods for Physics sub-package (6 CH)**

Students selecting the Physics concentration area must take a minimum of 6 credit hours from the courses listed below:

- EDSE 345 Methods I: Instructional Strategies for Physics
- EDSE 465 Methods II: Inquiry and ICT for Physics

**Methods for Chemistry sub-package (6 CH)**

Students selecting the Chemistry concentration area must take a minimum of 6 credit hours from the courses listed below:

- EDSE 346 Methods I: Instructional Strategies for Chemistry
- EDSE 466 Methods II: Inquiry and ICT for Chemistry

**Methods for Biology sub-package (6 CH)**

Students selecting the Biology concentration area must take a minimum of 6 credit hours from the courses listed below:

- EDSE 347 Methods I: Instructional Strategies for Biology
- EDSE 467 Methods II: Inquiry and ICT for Biology

**Major Electives Courses (6 CH)**

Students must take a minimum of 6 credit hours in the major elective courses:

- EDUC 100 Photography
- EDUC 200 Education and Societal Problems
- EDUC 201 Research Methodology
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology

**Concentration Requirements (45 CH)****Concentration in Arabic (45 CH)**

Students must complete a minimum of 45 credit hours by completing the following courses in concentration requirements:

**Arabic Concentration Requirements (45 CH)**

- ARAB 213 Grammar I
- ARAB 218 Morphology
- ARAB 221 Classical Arabic Poetry I
- ARAB 224 Classical Arabic Prose
- ARAB 261 Rhetoric
- ARAB 319 Grammar II
- ARAB 331 Classical Arabic Criticism
- ARAB 351 Introduction to Linguistics
- ARAB 354 Semantics

- ARAB 355 Applied Linguistics
- ARAB 381 Modern and Contemporary Arabic Poetry
- ARAB 391 Research Resources & Methods in Language and Literature
- ARAB 412 Readings and Linguistics Tradition
- ARAB 481 Modern Literary Criticism
- ARAB 483 Comparative Literature

### **Concentration in English/ESL (45 CH)**

Students must complete a minimum of 39 credit hours from the English/ESL Concentration Requirements package and a minimum of 6 credit hours from the English/ESL Concentration Supplementary Requirements package.

#### **English/ESL Concentration Requirements (39 CH)**

- ENGL 153 Essay Writing II
- ENGL 155 Introduction to Language
- ENGL 156 Introduction to Literature I
- ENGL 157 Introduction to Linguistics
- ENGL 158 Introduction to Literature II
- ENGL 209 Language and Society
- ENGL 230 Professional Writing
- ENGL 303 Sociolinguistics
- ENGL 305 First Language Acquisition
- ENGL 309 Second Language Acquisition
- ENGL 327 Discourse Analysis
- ENGL 353 Sounds of English
- ENGL 354 Structure of the English Language

#### **English/ESL Concentration Supplementary Requirements (6 CH)**

- ENGL 326 Poetry
- ENGL 328 Drama
- ENGL 330 The Short Story
- ENGL 332 Novel

### **Concentration in Social Studies (45 CH)**

Students must complete a minimum of 45 credit hours by completing the following courses in concentration requirements:

#### **Social Studies Concentration Requirements (45 CH)**

- GEOG 110 General Geography
- GEOG 300 Geography of Arab World
- GEOG 344 Political Geography
- GEOG 346 Introduction to GIS
- GEOG 241 Geography of Qatar
- HIST 103 An Introduction to History



- HIST 111 History of the Muslim Word I (600 -1187 C.E.)
- HIST 131 World History since 1300
- HIST 212 History of the Muslim Word II (1187-1516 C.E.)
- HIST 213 Modern Arab History (1516-1919)
- HIST 314 Economic and Social History of the Muslim World
- INTA 102 Introduction to Political Science
- SOCI 120 Introduction to Sociology
- SOCI 200 Sustainable Development
- SOCI 361 Human Rights

### **Concentration in Biology (45 CH)**

Students must complete a minimum of 45 credit hours by completing the following courses in concentration requirements:

#### **Biology Concentration Requirements (45 CH)**

- BIOL 101 Biology I
- GEOL 101 Principles of Geology
- MARS 101 Introduction to Marine Science
- PHYS 110 General Physics for Biology
- PHYS 111 Practical Physics for Biology
- CHEM 101 General Chemistry I
- CHEM 103 Experimental General Chemistry I
- CHEM 209 Fundamentals in Organic Chemistry
- CHEM 351 Basic Biochemistry
- CHEM 352 Experimental Biochemistry
- BIOL 102 Biology II
- BIOL 110 Human Biology
- BIOL 212 Genetics
- BIOL 221 Basic Ecology
- BIOL 241 Microbiology
- BIOL 311 Molecular Biology
- BIOL 321 Principles of Environmental Biology

### **Concentration in Chemistry (45 CH)**

Students must complete a minimum of 45 credit hours by completing the following courses in concentration requirements:

#### **Chemistry Concentration Requirements (45 CH)**

- CHEM 101 General Chemistry I
- CHEM 102 General Chemistry II
- CHEM 103 Experimental General Chemistry I
- CHEM 104 Experimental General Chemistry II
- BIOL 101 Biology I
- GEOL 101 Principles of Geology

- PHYS 183 Introduction to General Physics
- CHEM 217 Organic Chemistry I
- CHEM 218 Experimental Organic Chemistry I
- CHEM 221 Inorganic Chemistry I
- CHEM 222 Experimental Inorganic Chemistry
- CHEM 237 Analytical Chemistry I
- CHEM 238 Experimental Analytical Chemistry
- CHEM 241 Physical Chemistry I
- CHEM 242 Experimental Physical Chemistry I
- CHEM 310 Organic Chemistry II
- CHEM 313 Experimental Organic Chemistry II
- CHEM 337 Analytical Chemistry II
- CHEM 338 Experimental Analytical Chemistry II
- CHEM 351 Basic Biochemistry
- CHEM 352 Experimental Basic Biochemistry

### **Concentration in Physics (45 CH)**

Students must complete a minimum of 45 credit hours by completing the following courses in concentration requirements:

#### **Physics Concentration Requirements (45 CH)**

- PHYS 101 General Physics I
- PHYS 102 General Physics II
- PHYS 103 General Physics Lab
- BIOL 101 Biology I
- MATH 101 Calculus I
- MATH 102 Calculus II
- MATH 211 Calculus III
- CHEM 101 General Chemistry I
- CHEM 103 Experimental General Chemistry I
- PHYS 115 Electricity & Magnetism
- PHYS 116 Electricity & Magnetism Lab
- PHYS 201 Renewable Energy
- PHYS 221 Electronics
- PHYS 231 Modern Physics
- PHYS 301 Electromagnetic Theory I
- PHYS 331 Classical Mechanics I
- PHYS 333 Quantum Mechanics I

### **Concentration in Mathematics (45 CH)**

Students must complete a minimum of 45 credit hours by completing the following courses in concentration requirements:

#### **Mathematics Concentration Requirements (45 CH)**

- STAT 101 Statistics I
- MATH 101 Calculus I
- MATH 102 Calculus II
- PHYS 101 General Physics I
- MATH 211 Calculus III
- MATH 213 Differential Equations
- MATH 220 Foundations of Mathematics
- MATH 222 Real Analysis I
- MATH 231 Linear Algebra
- MATH 233 Abstract Algebra
- MATH 324 Complex Analysis
- MATH 335 Number Theory
- MATH 341 Modern Geometry
- MATH 365 Scientific Computation & Programming
- MATH 366 Numerical Analysis I

### **Concentration in Islamic Studies (45 CH)**

Students must complete a minimum of 45 credit hours by completing the following courses in concentration requirements:

#### **Islamic Studies Concentration Requirements (45 CH)**

- QURS 101 Quranic Sciences
- QURS 200 Quran Recitation & Memorization
- QURS 203 Hadith Studies
- QURS 204 Analytical Exegesis (1)
- QURS 205 Hadith analysis (1)
- DAWA 118 Introduction to Islamic Creed
- DAWA 203 Principles and methods of Dawa
- DAWA 407 Belief & excommunication
- DAWA 210 Philosophy of Sirah
- FIQH 108 Introduction to Islamic Fiqh
- FIQH 205 Fiqh of Worship (1)
- FIQH 206 Fiqh of Financial Affairs
- FIQH 331 Fiqh of Worship (2)
- FIQH 333 The Islamic Family Law (1)
- FIQH 336 The Islamic Family Law (2)
- FIQH 406 Penal Code

### **Study Plan**

#### **Bachelor of Education in Secondary Education**

##### **FIRST YEAR (33 credit hours)**

Term	Course #	Course Title	Credit Hours
Fall		General Core	3
		General Core	3
	EDUC 310	Foundation of Education & School Reform	3
		General Core	3
		Concentration Course	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring		General Core	3
		General Core	3
	EDUC 312	Curriculum and Assessment	3
	EDUC 320	Human Development	3
		Concentration Course	3
		Concentration Course	3
<b>Total Credit Hours in Semester</b>			<b>18</b>

SECOND YEAR (33 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall		General Core	3
		Elective in Major	3
		Concentration Course	
		Concentration Course	3
		Concentration Course	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring		General Core	3
		General Core	3
	EDUC 317	Inclusive Classrooms	3

	EDSE 331	Reading and Writing Across the Curriculum	2
		Concentration Course	3
		Concentration Course	3
<b>Total Credit Hours in Semester</b>			<b>18</b>

**THIRD YEAR (33 credit hours)**

Term	Course #	Course Title	Credit Hours
Fall		General Core	3
	EDUC 319	Classroom Assessment	3
		General Core	3
		Concentration Course	3
		Concentration Course	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	EDSE 34x	Methods I: Instructional Strategies for X	3
		Concentration Course	3
		Concentration Course	3
		Concentration Course	3
		Concentration Course	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

**FOURTH YEAR (27 credit hours)**

Term	Course #	Course Title	Credit Hours
Fall	EDUC 316	Classroom Management	3
	EDSE 46x	EDSE 46x Methods II: Inquiry and ICT for X	3
		General Core	3
		Concentration Course	3
		Concentration Course	3

<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	EDSE 491	EDSE 491 Student Teaching in Secondary Education	9
<b>Total Credit Hours in Semester</b>			<b>9</b>

## DEPARTMENT OF PHYSICAL EDUCATION

### BACHELOR OF EDUCATION IN PHYSICAL EDUCATION

#### Physical Education Chair

#### Sport Science Program Director

Khalid W. Bibi

#### Faculty

##### Professors

Khalid Walid Bibi

##### Associate Professors

Nasser Al Rawahi, Monoem Haddad, Georges Jabbour, Mahfoud Amara, Stefanos Volianitis, Bryna Chrimas, Lina Majed

##### Assistant Professors

Senaid Al-marri, Walid Briki, Ayat Al-Shaer, Ferman Konukman, Maha Sellami, Rony Ibrahim, Souhail Hermassi, Wadih Ishac

##### Lecturers and Teaching Assistants

Saad Al-Shammari, Mohammed Al-Athani, Zlatan Aganivic, Mustapha Alaoui, Khouloud Mtabaa, Imen Musa-Chamari

#### Objectives

- Prepare highly qualified physical education teachers
- Support the mission of Qatar University to provide experts needed for Qatari Society.
- Develop teacher-leaders, who will contribute to ongoing progress in teaching, scholarship, and leadership in Qatar.
- To prepare and position students for success in post baccalaureate education

#### Learning Outcomes

Graduates from this major will:

1. Apply knowledge, pedagogy, and planning/preparation related to teaching health and physical education.
2. Apply technology skills that relate to health and physical education.
3. Plan effective instruction to maximize student learning.
4. Apply knowledgeable about a variety of health and physical education content areas.
5. Demonstrate effective communication skills necessary for effective teaching.
6. Develop management skills in the classroom (theoretical) and gymnasium (practical).



## Opportunities

Graduates are prepared to seek employment in the educational sector, namely private, as well as government-run primary schools for children. Other possible job opportunities are also connected with the educational sector, such as working in international or governmental agencies connected with physical and health education.

## Admissions Requirements

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement.

Detailed Undergraduate admission requirements are available at the following link:

[http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

## Declaring the major

Students must satisfy the University and the College of Education requirements for declaring a major including the need to declare the major before completing 36 credit hours. In addition, in order to be eligible for enrollment in the Sport Science major, students must satisfy the following requirements:

- Pass the skills and physical abilities tests
- Pass the personal interview
- Be medically fit.

For more details about the University requirements for declaring the Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document. For more details about the College requirements for declaring the Major, please refer to the paragraph “Declaring the major” in the College section of this Chapter.

## DEGREE REQUIREMENTS – Major in Physical Education

A minimum of 120 credit hours are required to complete the major in Physical Education, including the following:

- A minimum of 33 credit hours in core curriculum requirements.
- A minimum of 60 credit hours of major requirements courses.
- A minimum of 3 credit hours of major electives courses.
- A minimum of 24 credit hours of major supporting requirements.

## Core Curriculum Program

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

## Identity and Communication Package (15 - 18 CH)

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language

- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra

- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

- ENGL 250 English for Communication I
- ENGL 251 English for Communication II
- UNIV 100 First Year Seminar

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and

Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **Major Requirements Courses (60 CH)**

Students must complete a minimum of 60 credit hours in the major requirements courses:

- EDUC 310 Foundation of Education in Qatar and School Reform
- EDUC 312 Curriculum & Assessment
- EDPE 210 Introduction to Physical Education and Physical Activity
- EDPE 220 Functional Anatomy and Basic Physiology
- EDPE 230 Motor Learning and Development
- EDPE 240 Principles and Practices of Sport 1
- EDPE 270 Biomechanics of Physical Activity and Sport
- EDPE 280 Principles and Practices of Sport 2
- EDPE 310 Teaching Physical Education in Primary Schools
- EDPE 330 Principles and Practices of Sport 3
- EDPE 350 Exercise Physiology
- EDPE 360 Adapted Physical Activity
- EDPE 380 Teaching Physical Education in Secondary Schools
- EDPE 390 Principles and Practices of Sport 4
- EDPE 410 Work-based Learning
- EDPE 430 Independent Project in Physical Activity and Sport
- EDPE 440 Principles and Practices of Sport 5
- EDPE 450 Principles and Practices of Sport 6
- EDPE 490 Internship

### **Major Electives Courses (3 CH)**

Students must take a minimum of 3 credit hours in the major elective courses:

- EDUC 200 Education and Societal Problems
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- EDUC 203 Family Relationships
- EDPE 449 Physical Conditioning

### **Major Supporting Requirements (24 CH)**

Student must complete 24 CH from courses in the major supporting requirements:

- EDUC 201 Research Methodology
- EDPE 320 Psychological Aspect of Physical Activity and Sport
- EDPE 250 Sport Injuries
- EDPE 260 Child Physical Education curriculum and practicum
- EDPE 290 Nutrition for Sport, Exercise and Health
- EDPE 340 Sociological Aspects of Physical Activity and Sport

- EDPE 370 Sport Management and Recreation
- EDPE 420 Measurement and evaluation in Physical Education and Sports Studies

### Study Plan

#### Bachelor of Education in Physical Education

FIRST YEAR (33 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall		General Core	3
		General Core	3
	EDUC 310	Foundation of Education & School Reform	3
	UNIV 100	First Year Seminar	3
	EDUC 201	General Core	3
Total Credit Hours in Semester			15
Spring		CCP Course	3
		CCP Course	3
		CCP Course	2
		CCP Course	3
	EDUC 312	Curriculum & Assessment	3
Total Credit Hours in Semester			18

SECOND YEAR (34 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall		CCP Course	3
	EDPE 210	Intro. to PE, PA & Sport Studies	3
	EDPE 220	Funct. Anatomy & Basic Physiology	2
	EDPE 230	Motor Learning and Development	3
	EDPE 240	Principles and Practices of Sport (1)	3
		General Core	3

<b>Total Credit Hours in Semester</b>			<b>17</b>
Spring		CCP Course	3
	EDPE 250	Sport Injuries	3
	EDPE 260	Child Physical Education curriculum and practicum	3
	EDPE 270	Biomechanics of Physical Activity and Sport	2
	EDPE 280	Principles and Practices of Sport (2)	3
	EDPE 290	Nut. for Sport, Exercise & Health	3
<b>Total Credit Hours in Semester</b>			<b>17</b>

<b>THIRD YEAR (29 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall		CCP Course	3
	EDPE 310	Teaching Physical Education in Primary Schools	3
	EDPE 320	Psychological Aspect of Physical Activity and Sport	3
	EDPE 330	Principles & Practices of Sport (3)	3
	EDPE 340	Sociological Aspects of Physical Activity and Sport	
	EDPE 350	Exercise Physiology	3
<b>Total Credit Hours in Semester</b>			<b>18</b>
Spring	EDPE 360	Adapted Physical Activity	3
	EDPE 370	Sport Management & Recreation	3
	EDPE 380	Teaching Physical Education in Secondary Schools	3
	EDPE 390	Principles & Practices of Sport (4)	3
		CCP Course	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>FOURTH YEAR (24 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	EDPE 410	Work-based Learning	3
	EDPE 420	Measurement and Evaluation in PE & Sport Studies	3
	EDPE 430	Independent Project in Physical Activity and Sport	3
	EDPE 440	Principles & Practices of Sport (5)	3
	EDPE 450	Principles & Practices of Sport (6)	
		Elective Course	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	EDPE 490	Internship	6
<b>Total Credit Hours in Semester</b>			<b>6</b>



## DEPARTMENT OF PSYCHOLOGICAL SCIENCES

Department of Psychological Sciences, Room 219

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Website: [http://www.qu.edu.qa/education/psychological\\_department/index.php](http://www.qu.edu.qa/education/psychological_department/index.php)

### Head

Prof. Asma Abdullah Al-Attiyah

### Program Coordinators

Dr. Elsayed Elshabrawi (Coordinator of Graduate Programs in the Psychological Sciences)

### Faculty

#### Professor

Maryam Majid Al-Falasi, Hessa Abdulrahman Fakhro, Osamah Mohammad Bataineh, Ahmed Mohammed Megreya, Fatima Yousuf Al-Maadadi, Asma Abdullah Al-Attiyah, Ahmed Abdulrahman Al-Emadi

#### Associate professor

Batoul Muhieddin Khalifa, Diala Abdul Hadi Hamaidi, Elsayed Elshabrawi A. Hassanein, Maha Khalil Al-Hendawi, Tamader Jassim Al-Thani, Abdulnaser A M Fakhrou

#### Assistant Professors

Khalid Mohd Al-Khanji, Alanood Mubarak -Thani, Atef Mosaad Elsherbiny, Taha Rabie Adawi, Mohamed Saad Osman, Aisha Mohammad Al-Ahmad

## BACHELOR OF EDUCATION IN SPECIAL EDUCATION

### Objectives

- Gain the knowledge, skills, and dispositions necessary to become special education teachers.
- Implement student-centered, standards-based pedagogy .
- Participate in the ongoing progress of teaching and learning.
- Contribute to ongoing educational research in Qatar by teaching and modeling inquiry methodologies and data-informed instruction

### Learning Outcomes

Graduates from this major will:

1. Demonstrate understanding of the key theories and concepts of the subject matter.
2. Plan effective instruction to maximize student learning.
3. Use current and emerging technologies in instructionally powerful ways.
4. Foster successful learning experiences for all students by addressing individual differences.

5. Arrive at data-informed decisions by systematically examining a variety of factors and resources.
6. Actively engage in scholarship by learning from and contributing to the knowledge base in education.
7. Apply professional ethics in all educational contexts.
8. Lead positive change in education.

### **Opportunities**

Graduates from the Special Education major are prepared to seek employment in the educational sector, namely private, as well as government- schools for children. Other possible job opportunities are also connected with the educational sector, such as working in international or governmental agencies connected with education. Graduates will have excellent prospects of employment in schools and kindergarten, in Special Education Centers, in Educational Institutions and Education-based Media organizations.

### **Admissions Requirements**

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement.

Detailed Undergraduate admission requirements are available at the following link:

[http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### **Declaring the major**

Students must satisfy the university and college requirements for declaring a major including the need to declare the major before completing 36 credit hours. For more details about the University requirements for declaring the Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document. For more details about the College requirements for declaring the Major, please refer to the paragraph “Declaring the major” in the College section of this Chapter.

### **DEGREE REQUIREMENTS – Major in Special Education**

A minimum of 120 credit hours are required to complete the major in Special Education, including the following:

- A minimum of 33 credit hours in core curriculum requirements.
- A minimum of 39 credit hours in major requirements courses.
- A minimum of 12 credit hours in major electives courses.
- A minimum of 36 credit hours in free elective courses.

### **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills

- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I

- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

- ENGL 250 English for Communication I
- ENGL 251 English for Communication II
- UNIV 100 First Year Seminar

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **Major Requirements Courses (39 CH)**

Students must complete 39 credit hours in the major requirement courses:

- EDUC 310 Foundations of Education in Qatar and School Reform
- EDUC 312 Curriculum and Assessment
- EDUC 313 Developing Literacy in Children
- EDUC 314 Technology for Children
- EDUC 315 Child Development & Learning
- SPED 301 Foundations of Special Education
- SPED 302 Survey of Exceptionalities
- SPED 303 Behavior Management in Special Education
- SPED 304 Collaboration with Families and Professionals
- SPED 305 Inclusive Practices through Special Education
- SPED 306 Educational Psychology
- SPED 307 Assistive Technology
- SPED 308 Promotion of Mental Health in Children and Youth

### **Free Electives Courses (12 CH)**

Students must take minimum of 12 credit hours in the free electives courses:

- EDUC 200 Education and Social Problems
- EDUC 201 Research Methods
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- SOWO 101 Introduction to Social Work
- SOWO 302 Mental Health and Social Work
- SOWO 303 School Social Work
- SOWO 370 Children and Family Practice and Social Work
- PUBH 101 P H S: Principles and Practices
- PUBH 202 Health, Behavior and Society
- PUBH 222 Foundations of Health Education

### **Concentration Requirements (36 CH)**

#### **Early Childhood Special Education Concentration Requirements (36 CH)**

Students who choose the Early Childhood Special Education Concentration must complete a minimum of 36 credit hours by completing the following courses in concentration requirements:

- EDEC 410 Play and the Theory of Movement
- EDEC 411 Health and Safety of Young Children
- EDEC 412 Community Outreach and Resources
- SPED 410 Infants, Toddlers, and Young Children with Disabilities
- SPED 411 Assessment in Early Childhood Special Education
- SPED 412 Curriculum and Methods in Early Childhood Special Education
- SPED 413 Planning and Programming in Early Childhood Special Education
- SPED 414 Early Childhood Language and Communication
- SPED 415 Early Childhood Social and Emotional Development
- SPED 416 Early Childhood Motor Learning
- SPED 481 Student Teaching: Early Childhood Special Education

### **School-Based Special Education Concentration Requirements (36 CH)**

Students who choose the School-Based Special Education Concentration must complete a minimum of 36 credit hours by completing the following courses in concentration requirements:

- EDPR 410 Reading and Writing in All Disciplines
- SPED 420 Children and Youth with Disabilities
- SPED 421 Assessment for School-Based Special Education
- SPED 422 Curriculum and Methods for School-Based Special Education
- SPED 423 Planning and Programming for School-Based Special Education
- SPED 424 Prevention and Early Intervening in Schools
- SPED 425 Special Education Support for General Education
- SPED 426 Interventions for Behavior Problems in School Settings
- SPED 440 Transition Planning
- SPED 482 Student Teaching: School-Based Special Education

### **Severe and Profound Disabilities Concentration Requirements (36 CH)**

Students who choose the Severe and Profound Disabilities Concentration must complete a minimum of 36 credit hours by completing the following courses in concentration requirements:

- EDEC 410 Play and the Theory of Movement
- EDEC 411 Health and Safety of Young Children
- SPED 440 Transition Planning
- SPED 430 Students with Autism and Intellectual Disabilities
- SPED 431 Students with Physical, Health, and Sensory Disabilities
- SPED 432 Assessment Practices for Severe and Profound Disabilities
- SPED 433 Curriculum and Methods for Severe and Profound Disabilities
- SPED 434 Planning and Programming for Severe and Profound Disabilities
- SPED 435 Applied Behavior Analysis for Instruction
- SPED 436 Communication for Severe and Profound Disabilities
- SPED 483 Student Teaching: Severe and Profound Disabilities

**Study Plan****Bachelor of Education in Special Education - Early Childhood Special Education Concentration**

<b>FIRST YEAR (33 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	EDUC 310	Foundations of Education in Qatar and School Reform	3
	ARAB 100	Arabic Language I	3
	ENGL 110	English Language I	3
	UNIV 100	First Year Seminar	3
		Social – Behavioural Science Package	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	EDUC 312	Curriculum and Assessment	3
	EDUC 315	Child Development and Learning	3
	ARAB 200	Arabic Language I	3
	ENGL 111	English Language I	3
	DAWA 111	Islamic Culture	3
		Elective	3
<b>Total Credit Hours in Semester</b>			<b>18</b>

<b>SECOND YEAR (34 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	EDUC 313	Developing Literacy in Children	3
	EDUC 314	Technology for Children	3
	SPED 412	Community Outreach and Resources	2
	SPED 301	Foundations of Special Education	3
	SPED 302	Survey of Exceptionalities	3
		Natural Sciences – Mathematics Package	3
<b>Total Credit Hours in Semester</b>			<b>17</b>



Spring		Elective	3
	EDEC 410	Play and Theory of Movement	3
	SPED 303	Behavior Management in Special	3
	SPED 304	Collaboration with Families and Professionals	2
	ENGL 250	English for Academic Purpose I	3
		Humanities / Fine Arts Package	3
<b>Total Credit Hours in Semester</b>			<b>17</b>

**THIRD YEAR (29 credit hours)**

<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	EDPR 411	Health and Safety of Young Children	3
	SPED 305	Inclusive Practices through Special Education	3
	SPED 306	Educational Psychology	3
	SPED 307	Assistive Technology	3
	SPED 410	Infants, Toddlers, and Young Children with Disabilities	3
<b>Total Credit Hours in Semester</b>			<b>14</b>
Spring	SPED 308	Promotion of Mental Health in Children and Youth	3
	SPED 411	Assessment in Early Childhood Special Education	3
	SPED 412	Curriculum and Methods in Early Childhood Special Education	3
	ENGL 251	English for Academic Purpose II	3
		Electives	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

**FOURTH YEAR (24 credit hours)**

<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
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Fall	SPED 413	Planning and Programming in Early Childhood Special Education	3
	SPED 414	Early Childhood Language and Communication	3
	SPED 415	Early Childhood Social and Emotional Development	3
	SPED 416	Early Childhood Motor Learning	3
		Electives	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	SPED 481	Student Teaching in Secondary Education: early childhood	9
<b>Total Credit Hours in Semester</b>			<b>9</b>

### Bachelor of Education in Special Education - School-Based Special Education Concentration

<b>FIRST YEAR (33 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	EDUC 310	Foundation of Education & School Reform	3
	ARAB 100	Arabic Language I	3
	ENGL 110	English Language I	
	UNIV 100	First Year Seminar	3
		Social – Behavioural Science Package	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	EDUC 312	Curriculum and Assessment	3
	EDUC 315	Child Development and Learning	3
	ARAB 200	Arabic Language I	3
	ENGL 111	English Language I	3
	DAWA 111	Islamic Culture	3
		Elective	
<b>Total Credit Hours in Semester</b>			<b>18</b>

<b>SECOND YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	EDUC 313	Developing Literacy in Children	3
	EDUC 314	Technology for Children	3
	SPED 301	Foundations of Special Education	3
	SPED 302	Survey of Exceptionalities	3
		Natural Sciences – Mathematics Package	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring		Elective	3
	SPED 303	Behavior Management in Special	3
	SPED 304	Collaboration with Families and Professionals	3
	ENGL 250	English for Academic Purpose I	3
		Humanities / Fine Arts Package	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>THIRD YEAR (33 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	EDPR 410	Reading and Writing in All Disciplines	3
	SPED 305	Inclusive Practices through Special Education	3
	SPED 306	Educational Psychology	3
	SPED 307	Assistive Technology	3
	SPED 420	Children and Youth with Disabilities	3
		Electives	3
<b>Total Credit Hours in Semester</b>			<b>18</b>
Spring	SPED 308	Promotion of Mental Health in Children and Youth	3

	SPED 421	Assessment for School-Based Special	3
	SPED 422	Curriculum and Methods for School-Based	3
	SPED 440	Transition Planning	3
	ENGL 251	English for Academic Purpose II	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>FOURTH YEAR (24 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	SPED 423	Planning and Programming for School	3
	SPED 424	Prevention and Early Intervening	3
	SPED 425	Special Education Support for General	3
	SPED 426	Interventions for Behavior Problem	3
		Electives	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	SPED 482	Student Teaching: School Based Special	9
<b>Total Credit Hours in Semester</b>			<b>9</b>

### **Bachelor of Education in Special Education - Severe and Profound Disabilities Concentration**

<b>FIRST YEAR (33 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	EDUC 310	Foundation of Education & School Reform	3
	ARAB 100	Arabic Language I	3
	ENGL 110	English Language I	3
	UNIV 100	First Year Seminar	3
		Social – Behavioural Science Package	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	EDUC 312	Curriculum and Assessment	3

	EDUC 315	Child Development and Learning	3
	ARAB 200	Arabic Language I	3
	ENGL 111	English Language I	3
	DAWA 111	Islamic Culture	3
		Elective	
<b>Total Credit Hours in Semester</b>			<b>18</b>

<b>SECOND YEAR (34 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	EDUC 313	Developing Literacy in Children	3
	EDUC 314	Technology for Children	3
	EDEC 411	Health and Safety of young children	2
	SPED 301	Foundations of Special Education	3
	SPED 302	Survey of Exceptionalities	3
		Natural Sciences – Mathematics Package	3
<b>Total Credit Hours in Semester</b>			<b>17</b>
Spring		Elective	3
	SPED 430	Students with Autism and Intellectual	2
	SPED 303	Behavior Management in Special	3
	SPED 304	Collaboration with Families and Professionals	3
	ENGL 250	English for Academic Purpose I	3
		Humanities / Fine Arts Package	3
<b>Total Credit Hours in Semester</b>			<b>17</b>

<b>THIRD YEAR (29 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	SPED 431	Students with Physical, Health, and Sensory	3

	SPED 305	Inclusive Practices through Special Education	3
	SPED 306	Educational Psychology	3
	SPED 307	Assistive Technology	3
		Electives	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	SPED 308	Promotion of Mental Health in Children and Youth	3
	EDEC 410	Play and Theory of Movement	2
	SPED 432	Assessment Practices for severe	3
	SPED 433	Curriculum and Methods for severe	3
	ENGL 251	English for Academic Purpose II	3
<b>Total Credit Hours in Semester</b>			<b>14</b>

<b>FOURTH YEAR (24 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	SPED 434	Planning and Programming for Severe	3
	SPED 435	Applied Behavior Analysis	3
	SPED 436	Applied Behavior Analysis	3
	SPED 440	Transition Planning	3
		Electives	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	SPED 483	Student Teaching: Severe and Profound	9
<b>Total Credit Hours in Semester</b>			<b>9</b>

## DEPARTMENT OF ART EDUCATION

### BACHELOR OF EDUCATION IN ART EDUCATION

#### Head

Latifa Al Meghaissib

#### Faculty

#### Associate Professors

Mowafaq Alsaggar

#### Assistant Professors

Latifa Al Meghaissib

#### Objectives :

1. To train prospective art teachers according to the highest international standards of art teachers' preparation practices.
2. To embed art advocacy in prospective art teachers, so they become through schools' daily interaction with the community, a link between the art world and the public.
3. Enabling general education student population, from elementary to high schools, with the appropriate training and hence feed university disciplines that require high creativity and artistic talent with the type of students it needs.
4. Appropriately acquaint prospective art teachers with the world of art; nationally and internationally.
5. To motivate prospective art teachers to remain life-long practicing artists in addition to being art teachers.

#### Learning Outcomes

Graduates from this major will:

6. Clarify the impact of art making on children's development.
7. Define theories and paradigms in art education and the rationale behind each one.
8. Explains theories of education; surrounding curriculum and instruction, educational technology, education policy, and educational leadership, and apply these theories to teaching, as well to art education advocacy.
9. Apply knowledge of theories and histories of art education that improve art instruction in the classroom.
10. Demonstrate competency in synthesizing theoretical knowledge and best practices in the field and making use of them within current educational contexts.
11. Evaluates various theories and historical shifts in the historical legacy of art education and possessing the ability to take them to a higher new level.

#### Admission Requirements

Applicants must meet QU and College of Education defined undergraduate minimum admission requirements to be admitted into the university and the program including the minimum high school percentage requirement. Admitted students are not required to complete the Foundation Program and/or satisfy the university minimum competency requirements in Mathematics and English.



### **Declaring the major**

In addition to the university and college requirements for declaring a major including the need to declare the major before completing 36 undergraduate credit hours, students must satisfy the following requirements:

- Successfully Pass an entry test in drawing and design,
- Successfully Pass an Interview.

### **DEGREE REQUIREMENTS - Major in Art Education**

A minimum of 120 credit hours are required to complete the major in Art Education, including the following:

- A minimum of 33 credit hours in core curriculum requirements.
- A minimum of 30 credit hours of core education required courses (EDUC).
- A minimum of 45 credit hours of art required courses (ARTE).
- A minimum of 12 credit hours of major electives courses.

### **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology

- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life

- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

- ENGL 250 English for Communication I
- ENGL 251 English for Communication II
- UNIV 100 First Year Seminar

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **Major Requirements (75 CH)**

Student must complete a minimum of 30 Credit Hours in courses listed in the Core Education Requirements and 45 Credit Hours in courses listed in the Art Education Requirements.

#### **- Core Education Requirements (30 CH)**

Students must complete 30 Credit Hours from courses listed in the following table.

- EUDC 201 Research Methods
- EDUC 310 Foundation of Education in Qatar and School Reform
- EDUC 312 Curriculum & Assessment
- EDUC 314 Technology for Children
- EUDC 315 Child Development and learning
- EDUC 316 Classroom Management
- EDUC 320 Human Development
- EDUC 401 Art Teaching Methods

- EDUC 489 Student Teaching in ART Education

- **Art Education Requirements (45 CH)**

Students must complete a minimum of 45 Credit Hours from courses listed in the following table.

- ARTE 201 Drawing
- ARTE 202 Fundamentals of Design
- ARTE 203 History & Theories of Art Education
- ARTE 204 Ceramics
- ARTE 205 Painting
- ARTE 206 Printmaking & Engraving Art
- ARTE 207 History of Islamic Art
- ARTE 301 Art History
- ARTE 302 Psychology of Art
- ARTE 307 Art for Special Needs
- ARTE 308 Contemporary Arts
- ARTE 309 Advanced Art Studio
- ARTE 402 Art Criticism & Appreciation
- ARTE 404 Digital Art & Media
- ARTE 405 Practice-Based Art Research

**Major Electives Courses (12 CH)**

Student must complete 12 CH of elective courses by choosing:

1.1 Course from the Major Electives Group A package

Student must select one course (3 credit hours) from the table below:

- ARTE 311 Traditional Handcrafts
- ARTE 312 3D Modelling

1.2 Course from the Major Electives Group B package

- ARTE 408 Entrepreneurship & Creative Industries
- ARTE 409 Museum Education

2. Courses from the Educational Electives package

Student must select two courses (6 credit hours) from courses listed in the table below:

- EDUC 200 Education and Social Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology

**Study Plan****Bachelor of Education in Art Education**

<b>FIRST YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	EDUC 310	Foundation of Education & School Reform	3
	EDUC 312	Curriculum & Assessment	3
	ARAB 100	Arabic Language I	3
	ENGL 110	English I	3
	UNIV 100	First Year Seminar	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	EDUC 315	Child Development and Learning	3
	ARAB 200	Arabic Language II	
	ENGL 111	English II	3
	DAWA 111	Islamic Culture	3
	ARAB 200	Core Curriculum Program	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>SECOND YEAR (36 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	ENGL 250	English for Communication I	3
	EDUC 320	Human Development	3
	ARTE 201	Drawing	3
	ARTE 202	Fundamentals of Design	3
	ARTE 203	History & Theories of Art Education	3
	ARTE 204	Ceramics	3
<b>Total Credit Hours in Semester</b>			<b>18</b>
Spring	ENGL 252	English for Communication II	3
	EUDC 201	Research Methods	3

	ARTE 205	Painting	3
	ARTE 206	Printmaking & Engraving Art	3
	ARTE 207	History of Islamic Art	3
		Core Curriculum Program	3
<b>Total Credit Hours in Semester</b>			<b>18</b>

<b>THIRD YEAR (36 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	ARTE 301	Art History	3
	ARTE 302	Psychology of Art	3
	EDUC 314	Technology for Children	3
		Major Elective A	3
		Educational Elective	3
		Core Curriculum Program	3
<b>Total Credit Hours in Semester</b>			<b>18</b>
Spring	EDUC 316	Classroom Management	3
	ARTE 307	Art for Special Needs	2
	ARTE 308	Contemporary Arts	3
	ARTE 309	Advanced Art Studio	3
		Major Elective B	3
		Educational Elective	3
<b>Total Credit Hours in Semester</b>			<b>18</b>

<b>FOURTH YEAR (18 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>

Fall	EDUC 401	Art Teaching Methods	3
	ARTE 402	Art Criticism & Appreciation	3
	ARTE 404	Digital Art & Media	3
	ARTE 405	Practice-Based Art research	3
<b>Total Credit Hours in Semester</b>			<b>12</b>
Spring	EDUC 489	Student Teaching in Art Education	6
<b>Total Credit Hours in Semester</b>			<b>6</b>





## COLLEGE OF BUSINESS AND ECONOMICS

College of Business and Economics Building (Women's Section)

Phone: (+974) 4403-5000/ 4403-5004

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Website: <http://www.qu.edu.qa/business>

### Acting Dean

Professor Adam Fadlalla

### Associate Dean for Academic Affairs

Professor Adam Fadlalla

### Associate Dean for Research and Graduate Studies

Professor Belaid Aouni

### Assistant Dean for Student Affairs

Dr. Maha Al-Thani

## ABOUT THE COLLEGE

The College of Business and Economics provides a high quality, applied business education in a collegial, intellectually stimulating, and supportive learning and working environment. Guided by the university reform plan and committed to innovative curriculum and continuous improvement, the college offers undergraduate and graduate business programs that connect theory to practice, promote critical thinking, and engage students in active and collaborative learning. The College of Business and Economics selects and retains a diverse and talented faculty and staff who uphold the professional standards of their respective area of specialty, consistent with our mission and values thus producing quality applied scholarship, including contributions to practice, teaching and pedagogical research.

## DEGREE OFFERINGS

The College of Business and Economics offers the following undergraduate degree programs:

- Bachelor of Business Administration with a major in Accounting
- Bachelor of Business Administration with a major in Management Information Systems
- Bachelor of Business Administration with a major in Finance
- Bachelor of Business Administration with a major in Economics
- Bachelor of Business Administration with a major in Management
- Bachelor of Business Administration with a major in Marketing

The College of Business and Economics offers the following minors:

- Minor in Accounting
- Minor in Management Information System
- Minor in Economics

- Minor in Finance
- Minor in Management
- Minor in Marketing
- Minor in International Business
- Minor in Entrepreneurship
- Minor in Business for Non-Business Students

**DECLARING THE MAJOR**

College of Business Students should take into consideration the university requirements for declaring a major. For more details about the Major declaration University requirements, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document. Besides, each program may have additional specific requirements (See the paragraph “Declaring the major” at the programs’ level).

**DECLARING THE MINOR**

Students who wish to declare a minor offered by the College of Business must satisfy the university requirements for declaring a minor. For more details about the Minor declaration University requirements, please refer to the paragraph “Declaring the minor” in Chapter 7 – Academic Policies and Regulations of this document.

## DEPARTMENT OF ACCOUNTING AND INFORMATION SYSTEMS

College of Business and Economics Building

Room C123

Phone: (+974) 4403-5051

Email: [accounting@qu.edu.qa](mailto:accounting@qu.edu.qa) / [mis@qu.edu.qa](mailto:mis@qu.edu.qa)

Website: <http://www.qu.edu.qa/business/academic-departments/accounting>

### Head

Mostafa Kamal Hassan

### Faculty

#### Professors

Mostafa Kamal Hassan, Habib Mahama, Emad Abushanab, Khaled AlShare, Adam Fadlalla, Nitham Hindi, Karma Sherif, Ramzi El-Haddadeh, Habibullah Khan.

#### Associate Professors

Khaled Al-Khater, Mohamed-Elmutasim Elbashir, Husam Aldamen, Hani Mohamed, Emad Awadallah, Ahmed Mohammad, Ghassan Mardini, Karim Al-Yafi, Ousama Anam, Mazen El-Masri, Abdulsamad Mohammed, Sameh Ammar, Bassam Abu-Abbas. Osama Mahd.

#### Assistant Professor

Rajab Al-Esmail, Zaki Abu-Shawish, Yaseen Al-Janadi, Shahriar Saadullah, Nader Elsayed, Mustafa Abdulkarim, Issa Dawd, Hazem Ismael, Fethi Saidi, Adel Elgharbawy, Mohammad Alomari, Hend Monjed, Maryam Al Asmakh.

#### Lecturers

Ines Ben Salah

#### Teaching Assistants

Moler Hanna, Fathia Eleuch, Sara Al Dosari, Rula Wadi, Fatema Al Yafei, Bilal Elsalem, Amal Al-Ammari, Aisha Al-Heidous, Ahmad Qotba, Shaimaa Salah.

### ABOUT THE DEPARTMENT

The Department of Accounting and Information Systems offers a major and minor in both Accounting and Management Information Systems. Accounting is commonly known as “the language of business”. Accounting provides the information needed by managers to make business decisions; it generates information about a firm’s resources, the sources of the resources, and how effectively the resources have been utilized. The accountant prepares, communicates, and interprets this information, and thus is an integral member of the leadership team of any organization. The intense pace of technological change has prompted a widespread deployment of information technology throughout the world. The opportunity afforded by this technology, and the demands

placed on management by global competition, generate a premium for those individuals who are able to use information technology. Information Systems professionals design, develop, and use technology to provide organizations with information to solve business problems.

## **BACHELOR OF BUSINESS ADMINISTRATION IN ACCOUNTING**

### **Objectives**

1. Provide students with academic and professional knowledge to pursue a career in accounting.
2. Provide students with the essential technical, analytical, and research skills to solve accounting problems.
3. Prepare ethical and culturally aware accountant in a globalized business environment.

### **Learning Outcomes**

Graduates of the Bachelor of Business Administration in Accounting are expected to:

1. Demonstrate ability to critically analyze accounting issues and to apply accounting knowledge to solve problems
2. Apply global perspective in accounting related issues
3. Utilize information technology in making business decisions.
4. Incorporate the ethical dimensions in business decision-making.
5. Demonstrate understanding of accounting concepts and tools and their application

### **Opportunities**

The Accounting major prepares undergraduate students for careers in business and to pursue for graduate studies. Applied education and our strong industry links provide students with work opportunities in a variety of organizations. Graduates in Accounting may have career in a variety of businesses. Significant employers are accounting and auditing firms, banks, insurance companies, service companies, private businesses, governmental agencies, and energy and oil companies, just to cite a few. An accounting graduate will have the chance to pursue a career as a certified accountant and work as an auditor (external/internal), business advisor, systems analyst, and in some cases, tax advisor.

### **Admissions Requirements**

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement. Detailed Undergraduate admission requirements are available at the following link:  
[http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### **Declaring the major**

Students must satisfy the university requirements for declaring a major. In addition, students should be in good academic standing and obtain approval from their academic advisors, head of department, and associate dean for student affairs. For more details about the University requirements for declaring the Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document.

## **DEGREE REQUIREMENTS - Major in Accounting**

A minimum of 125 credit hours are required to complete the Bachelor of Business Administration, major in Accounting, including the following:

- A minimum of 33 credit hours in core curriculum requirement
- A minimum of 42 credit hours in college core requirement.
- A minimum of 6 credit hours in college supporting requirement.
- A minimum of 15 credit hours in major requirements courses.
- A minimum of 9 credit hours in major electives courses.
- A minimum of 15 credit hours in minor or no minor requirements and electives
- A minimum of 5 credit hours in free elective courses.

## **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts



- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies



- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

- ENGL 250 English for Communication I
- ENGL 251 English for Communication II
- UNIV 100 First Year Seminar

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **College Core Requirements (42 CH)**

Students must complete the following list of courses:

- ACCT 110 Financial Accounting
- ACCT 116 Managerial Accounting
- ECON 111 Principles of Microeconomics
- ECON 112 Principles of Macroeconomics
- MAKT 101 Principles of Marketing
- MIST 201 Introduction to MIS
- FINA 201 Principles of Finance
- MAGT 101 Principles of Management
- MAGT 304 Production & Operations Management
- MAGT 307 Internship in Business
- MAGT 405 Strategic Management
- MATH 221 Business Math II
- STAT 220 Business Statistics I
- STAT 222 Business Statistics II

**College Supporting Requirements (6 CH)**

Students must complete the following list of courses:

- MATH 119 Business Math I
- LAWC 215 Business Law and Ethics

**Major Requirements Courses (15 CH)**

Students must complete the following list of courses:

- ACCT 221 Intermediate Accounting I
- ACCT 222 Intermediate Accounting II
- ACCT 331 Cost & Management Accounting
- ACCT 333 Auditing I
- ACCT 421 Accounting Information Systems

**Major Electives Courses (9 CH)**

Students must complete a minimum of 9 credit hours in major elective courses:

- ACCT 411 Governmental Accounting
- ACCT 413 Auditing II
- ACCT 418 Advanced Accounting
- ACCT 419 Internal Audit I
- ACCT 420 Tax and Zakat Accounting
- ACCT 424 International Accounting
- ACCT 428 Financial Statement Analysis

**Minor or No Minor Requirements (15 CH)**

Students with a major in Accounting may choose a minor in Management Information Systems, in Finance, in Economics, in Management, in Marketing, in International Business, in Entrepreneurship. or the No minor option. Students who choose the No Minor option must complete 15 Credit Hours taken from available courses in any major offered by the CBE excluding the student declared major..

**Free Elective Courses (5 CH)**

Students must complete a minimum of 5 credit hours in free electives courses.

**Study Plan****Bachelor of Business Administration in Accounting**

<b>FIRST YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	ENGL 202	Engl Lang I – Post Foundation	3
	ARAB 100	Arabic Language	3

	XXXX NNN	Humanities/Fine Arts Package	3
	XXXX NNN	Core Knowledge and Skill Package	3
	MATH 103	Intermediate Algebra	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	ENGL 203	Engl Lang II – Post Foundation	3
	DAWA 111	Islamic Culture	3
	ARAB 200	Arabic Language II	3
	MATH 119	Business Math I	3
	MAGT 101	Principles of Management	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>SECOND YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	XXXX NNN	Social/ Behavioral Science Package	3
	STAT 220	Business Stat I	3
	MAKT 101	Principles of Marketing	3
	ECON 111	Microeconomics	3
	ACCT 110	Financial Accounting	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	MIST 201	Introduction to MIS	3
	FINA 201	Principles of Finance	3
	STAT 222	Business Stat II	3
	ACCT 116	Managerial Accounting	3
	ECON 112	Macroeconomics	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

**THIRD YEAR (36 credit hours)**

<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	MATH 221	Business Math II	3
	LAWC	Business Law and Ethics	3
	MAGT 304	Production & Operations Management	3
	ACCT 221	Intermediate Accounting	3
	XXXX NNN	Course from Minor	3
<b>Total Credit Hours in Semester</b>			<b>18</b>
Spring	HIST 121	History of Qatar	3
	ACCT 222	Intermediate Accounting II	3
	ACCT NNN	Accounting Elective	3
	XXXX NNN	Course from Minor	3
	XXXX NNN	Course from Minor	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Summer	MAGT 307	Internship in Business	3

<b>FOURTH YEAR (29 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	XXXX NNN	Free Elective (from outside the college)	2
	MAGT 405	Strategic Management	3
	ACCT 333	Auditing I	3
	ACCT NNN	Accounting Elective	3

	XXXX NNN	Course from Minor	3
<b>Total Credit Hours in Semester</b>			<b>14</b>
Spring	XXXX NNN	Free Elective (from outside the college)	3
	XXXX NNN	Core Knowledge and Skill Package	3
	ACCT 421	Accounting Information Systems	3
	ACCT NNN	Accounting Electiv	3
	XXXX NNN	Course from Minor	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

## MINOR IN ACCOUNTING

### Declaring the minor

Students must satisfy the university requirements for declaring a minor. For more details about the University requirements for declaring the Minor, please refer to the paragraph “Declaring the minor” in Chapter 7 – Academic Policies and Regulations of this document.

### MINOR REQUIREMENTS - Minor in Accounting (15 CH)

Students must complete a minimum of 12 CH in the minor requirements courses and a minimum of 3 CH in the minor electives courses.

#### Minor Requirements Courses (12 CH)

Students seeking a minor in Accounting must complete the following courses:

- ACCT 221 Intermediate Accounting I
- ACCT 222 Intermediate Accounting II
- ACCT 331 Cost & Management Accounting
- ACCT 333 Auditing I

#### Minor Electives Courses (3 CH)

Students seeking a minor in Accounting must complete 3 CH in the minor elective courses:

- ACCT 411 Government Accounting
- ACCT 413 Auditing II
- ACCT 418 Advanced Accounting

- ACCT 419 Internal Audit I
- ACCT 420 Tax and Zakat Accounting
- ACCT 421 Accounting Information Systems
- ACCT 424 International Accounting
- ACCT 428 Financial Statements Analysis

## **4 + 1 ACCOUNTING PROGRAM**

### **Program Overview**

The combined program does not represent a new degree program but rather provides an opportunity for high performing interested students enrolled in the Bachelor level program in accounting to complete the Bachelor Level and Master level programs in Accounting in a shorter period of time. Thus, no new degrees are awarded at the successful completion of this program but rather students will be awarded both existing BBA and MAC degrees.

### **Program Length**

The combined program requires the successful completion of a total of 150 credit hours. A minimum of 30 Credit Hours are to be completed in Master level courses. Students are expected to complete the program degree requirements in five (5) academic years.

### **Program delivery and Language of Instruction**

The program will be delivered face-to-face on QU campus. Undergraduate students admitted in the combined program will be expected to attend their regular undergraduate courses in the accounting major and be able to attend the MAC courses in accordance with the study plan defined for the combined program.

Undergraduate courses will be offered throughout the week at different times while MAC courses are offered in the evening from 6:00 PM to 9:00 PM. Each graduate level course will meet once a week.

The language of instruction is consistent with the adopted language of instruction of each program: English for the MAC courses; Arabic or English for the undergraduate courses depending on the program track students are enrolled in. Students enrolled on the Arabic track of the undergraduate program need to satisfy additional language requirements to be admitted in the combined program as detailed in the admission requirements section.

### **Admissions Requirements**

Only students enrolled in the existing BBA in accounting program offered at the College of Business and Economics at QU are eligible to apply for the combined five-year accounting program. Students enrolled in other majors are not eligible to apply for the program. Previously admitted students who were dropped from the program are also not eligible to re-apply again to the program. Detailed admission requirements are available at the following link:

<http://www.qu.edu.qa/business/programs/graduates/program-general/admission-requirements>

## Program Curriculum

The combined five-year accounting program curriculum consists of the curriculum of both the BBA in accounting program and the MAC program where students may satisfy the university free elective package of the BBA program by completing in their fourth year of study two MAC level courses from any of the MAC offered courses. These two courses will be double counted as they will be counted towards satisfying the degree requirements of the BBA program and also towards satisfying the degree requirements of the MAC program.

The curriculum structure of the combined five-year program is given below:

Curriculum Component	Number of Courses	Total Number of Credit Hours
<b>BBA Level (UG)</b>		
University Core Curriculum	11	33
College Core Requirements	14	42
College Supporting Requirements	02	06
Required & Elective Courses in the Major	08	24
Required & Elective Courses in Minor	05	15
University Free Electives*	02*	05*
<b>Total for BBA (UG Level):</b>	<b>42</b>	<b>125</b>
<b>MAC Level (Graduate)</b>		
Required Courses	07	21
Elective Courses	03	09
<b>Total for MAC (Graduate Level):</b>	<b>10</b>	<b>30</b>
<b>Overall Total**:</b>	<b>50**</b>	<b>150**</b>

\* Students enrolled in 4+1 program do not complete 5 credit hours of the university free electives.

## STUDY PLAN

The five-year accounting program combines the bachelor and master level degrees. Students are to start registering for the master level courses from their fourth year of study in the evening along with the undergraduate courses scheduled during the day. Students should complete all the BBA (Accounting) program courses by the end of their fourth year of study. The two recommended study plan for students (Thesis and Non-Thesis track) enrolled in the combined five-year accounting program is given below:

### Study Plan for 4 + 1 accounting program – Non thesis track:

First Year			
Fall	Hours	Spring	Hours



ENGL 202 English Lang I – Post Foundation	3	ENGL 203 English Lang II – Post Foundation	3
ARAB 100 Arabic Language	3	DAWA Islamic Culture	3
Humanities/Fine Arts Package	3	ARAB 200 Arabic Language	3
Core Knowledge and Skill Package	3	MATH 119 Business Math I	3
Natural Science/ Mathematics Package (MATH103)	3	MAGT 101 Principles of Management	3
	<b>15</b>		<b>15</b>

Second Year			
Fall	Hours	Spring	Hours
General Knowledge and Skills Package	3	HIST 121 History of Qatar	3
Social/Behavioral Science Package	3	MATH 221 Business Math II	3
STAT 220 Business Statistics I	3	STAT 222 Business Statistics II	3
MAKT 101 Principles of Marketing	3	ACCT 116 Managerial Accounting	3
ECON 111 Principles of Microeconomics	3	ECON 112 Principles of Macroeconomics	3
ACCT 110 Financial Accounting	3	FINA 201 Principles of Finance	3
	<b>18</b>		<b>18</b>

Third Year			
Fall	Hours	Spring	Hours
MIST 201 Introduction to MIS	3	Course from Minor - UG*	3
LAWC 215 Business Law	3	Course from Minor - UG	3
MAGT 304 Production and Operations Mgmt.	3	Course from Major - UG	3
Course from Major - UG	3	Course from Major - UG	3
Course from Major - UG	3	Course from Major - UG	3
	<b>15</b>		<b>15</b>

Third Year Summer	Hours
Course from Major - UG	<b>3</b>

Fourth Year			
Fall	Hours	Spring	Hours
MAGT 405 Strategic Management	3	Course from Major - UG	3
Course from Major - UG	3	Course from Minor - UG	3
Course from Major - UG	3	Course from Minor - UG	3
Course from Minor - UG	3	ACCT 623 Advanced Cost/Managerial Acct	3
ACCT 613 Accounting Research Methods	3	ACCT 643 Fraud Detection and Prevention	3
	<b>15</b>		<b>15</b>

Fifth Year			
Fall	Hours	Spring	Hours
ACCT 603 International Accounting	3	ACCT 663 Bus. Information Consulting	3
ACCT 653 Advanced Acct. Information Syst.	3	XXXX NNN Elective Course	3
MIST 613 Information Security	3	XXXX NNN Elective Course	3
XXXX NNN Elective Course	3		
	<b>12</b>		<b>9</b>

**Study Plan for 4 + 1 accounting program – thesis track:**

First Year			
Fall	Hours	Spring	Hours
ENGL 202 English Lang I – Post Foundation	3	ENGL 203 English Lang II – Post Foundation	3
ARAB 200 Arabic Language	3	DAWA Islamic Culture	3
Humanities/Fine Arts Package	3	ARAB 200 Arabic Language	3
Core Knowledge and Skill Packag	3	MATH 119 Business Math I	3
Natural Science/ Mathematics Pakcage (MATH1o3)	3	MAGT 101 Principles of Management	3
	<b>15</b>		<b>15</b>

Second Year			
Fall	Hours	Spring	Hours
Core Knowledge and Skill Packag	3	HIST 121 History of Qatar	3
Social/Behavioral Science Package	3	MATH 221 Business Math II	3
STAT 220 Business Statistics I	3	STAT 222 Business Statistics II	3
MAKT 101 Principles of Marketing	3	ACCT 116 Managerial Accounting	3
ECON 111 Principles of Microeconomics	3	ECON 112 Principles of Macroeconomics	3
ACCT 110 Financial Accounting	3	FINA 201 Principles of Finance	3
	<b>15</b>		<b>15</b>

Third Year			
Fall	Hours	Spring	Hours
MIST 202 Introduction to MIS	3	Course from Minor - UG*	3
LAWC 215 Business Law	3	Course from Minor - UG	3
MAGT 304 Production and Operations Mgmt.	3	Course from Major - UG	3
Course from Major - UG	3	Course from Major - UG	3
Course from Major - UG	3	Course from Major - UG	3
	<b>15</b>		<b>15</b>

Fourth Year			
Fall	Hours	Spring	Hours
MAGT 405 Strategic Management	3	Course from Major - UG	3
Course from Major - UG	3	Course from Minor - UG	3
Course from Major - UG	3	Course from Minor - UG	3
Course from Minor - UG	3	ACCT 623 Advanced cost/managerial Acct	3
ACCT 613 Accounting Research Methods	3	ACCT 643 Fraud detection and prevention	3
	<b>15</b>		<b>15</b>

Fifth Year			
Fall	Hours	Spring	Hours
ACCT 603 International Accounting	3	XXXX NNN Elective Course	3
ACCT 653 Advanced Acct. Information Syst.	3	XXXX NNN Elective Course	3
MIST 613 Information Security	3	ACCT 695 Thesis *	6
	<b>9</b>		<b>12</b>

\* The students should start working on the thesis in the Fall of the 5<sup>th</sup> year and register in ACCT 695 in spring of that year.

## BACHELOR OF BUSINESS ADMINISTRATION IN MANGEMENT INFORMATION SYSTEMS

### Objectives

The Management Information Systems major aims to prepare students for positions of leadership and responsibility in contemporary organizations. More specifically, the major focuses on the following objectives:

- Provide students with knowledge and competencies related to information systems
- Provide students with the essential technical, analytical, and research skills to solve business problems
- Prepare ethical information systems professionals in a globalized business environment

### Learning Outcomes

Graduates of the Bachelor of Business Administration in Management Information Systems are expected to:

1. Demonstrate ability to critically analyze, design, and implement information systems.
2. Define, manage, and use data to make business decisions.
3. Strategic impact of information systems resources to support decision-making
4. Incorporate the ethical dimensions in business decision-making.
5. Apply global perspective in making decisions related to information systems.

### Opportunities

The Management Information Systems major prepares undergraduate students for careers in business and to pursue graduate studies. Applied education and our strong industry links provide students with work opportunities in a variety of organizations. Graduates in Management Information Systems may have career in a variety of businesses. Significant employers are accounting firms, banks, insurance companies, service companies, private

businesses, governmental agencies, and energy and oil companies, just to cite a few. A management information systems graduate will have the chance to pursue a career as a systems analyst, database administrator, software or web developer, network administrator, a consultant, or many other positions.

### **Admissions Requirements**

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement. Detailed Undergraduate admission requirements are available at the following link: [http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### **Declaring the major**

Students must satisfy QU requirements for declaring a major. In addition, students should be in good academic standing and should obtain approval from their academic advisors, head of department, and associate dean for student affairs. For more details about the University requirements for declaring the Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document.

### **DEGREE REQUIREMENTS - Major in Management Information Systems**

A minimum of 125 credit hours are required to complete the Bachelor of Business Administration, major in Management Information Systems, including the following:

- A minimum of 33 credit hours in core curriculum requirement
- A minimum of 42 credit hours in college core requirement.
- A minimum of 6 credit hours in college supporting requirement.
- A minimum of 15 credit hours in major requirements courses.
- A minimum of 9 credit hours in major electives courses.
- A minimum of 15 credit hours in minor or no minor requirements and electives.
- A minimum of 5 credit hours in free elective courses.

### **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II

- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

**Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

**Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

**Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

- UNIV 100 First Year Seminar

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

**College Core Requirements (42 CH)**

Students must complete the following list of courses:

- ACCT 110 Financial Accounting
- ACCT 116 Managerial Accounting
- ECON 111 Principles of Microeconomics
- ECON 112 Principles of Macroeconomics
- MAKT 101 Principles of Marketing
- MIST 201 Introduction to MIS
- FINA 201 Principles of Finance
- MAGT 101 Principles of Management
- MAGT 304 Production & Operations Management
- MAGT 307 Internship in Business
- MAGT 405 Strategic Management
- MATH 221 Business Math II
- STAT 220 Business Statistics I
- STAT 222 Business Statistics II

**College Supporting Requirements (6 CH)**

Students must complete the following list of courses:

- MATH 119 Business Math I
- LAWC 215 Business Law and Ethics

**Major Requirements Courses (15 CH)**

Students must complete the following list of courses:

- MIST 310 Systems Analysis and Design
- MIST 320 Data and Information Management
- MIST 330 IT Infrastructure and Enterprise Architecture
- MIST 360 IS Strategy, Management, and Acquisition
- MIST 460 Information Systems Project Management

**Major Electives Courses (9 CH)**

Students must complete 9 credit hours in major elective courses:

- MIST 331 Enterprise Systems
- MIST 390 Special Topics in Information System
- MIST 420 Business Intelligence
- MIST 440 Applications Development
- MIST 443 Internet Applications Development
- MIST 450 IT Governance and Security

**Minor Requirement for students majoring in MIS (15 CH)**



To complete their degree requirements, students enrolled in the MIS major must complete 15 CH from courses listed in either a minor in Accounting, in Management, in Finance, in Marketing, in Economics, in Entrepreneurship, in International Business, or the no minor requirements.

### Free Elective Courses (5 CH)

Students must complete a minimum of 5 credit hours in free electives courses.

### Study Plan

#### Bachelor of Business Administration in Management Information Systems

FIRST YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ENGL 202	Engl Lang I – Post Foundation	3
	ARAB 100	Arabic Language I	3
	XXXX NNN	Humanities/Fine Arts Package	3
	XXXX NNN	Core Knowledge and Skills Package	3
	MATH 103	Intermediate Algebra	3
Total Credit Hours in Semester			15
Spring	ENGL 203	Engl Lang II – Post Foundation	3
	MATH 119	Business Math I	3
	ARAB 200	Arabic Language II	3
	DAWA 111	Islamic Culture	3
	MAGT 101	Principles of Management	3
Total Credit Hours in Semester			15

SECOND YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall		Social/ Behavioral Sciences Package	3
	STAT 220	Business Stat I	3

	MAKT 101	Principles of Marketing	3
	ECON 111	Principles of Microeconomics	3
	ACCT110	Financial Accounting	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	FINA 201	Principles of Finance	3
	MIST 201	Introduction to MIS	3
	ACCT116	Managerial Accounting	3
	ECON 112	Principle of Macroeconomics	3
	STAT 222	Business Stat II	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>THIRD YEAR (36 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	MATH 221	Business Math II	3
	MIST 310	Systems Analysis and Design	3
	MIST 320	Data and Information Management	3
	MAGT 304	Production and Operations Management	3
	LAWC 215	Business Law and Ethics	3
	XXXX NNN	Course from Minor	3
<b>Total Credit Hours in Semester</b>			<b>18</b>
Spring	HIST 121	History of Qatar	3
	MIST 330	IT Infrastructure and Enterprise Architecture	3
	MIST 360	IS Strategy, Management, and Acquisition	3
	MIST NNN	Management Information System Elective	3
	XXXX NNN	Course from Minor	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

Summer	MAGT 307	Internship in Business	3
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FOURTH YEAR (29 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	XXXX NNN	Free Elective (from outside the college)	2
	MAGT 405	Strategic Management	3
	MIST NNN	Management Information System Elective	3
	XXXX NNN	Course from Minor	3
	XXXX NNN	Course from Minor	3
Total Credit Hours in Semester			14
Spring	XXXX NNN	Free Elective (from outside the college)	3
	XXXX NNN	Core Knowledge and Skills Package	3
	MIST 460	Information Systems Project Management	3
	MIST NNN	Management Information Systems Elective	3
	XXXX NNN	Course from Minor	3
Total Credit Hours in Semester			15

## MINOR IN MANAGEMENT INFORMATION SYSTEMS

### Declaring the minor

Students must satisfy the university requirements for declaring a minor. For more details about the University requirements for declaring the Minor, please refer to the paragraph “Declaring the minor” in Chapter 7 – Academic Policies and Regulations of this document.

### MINOR REQUIREMENTS - Minor in Management Information Systems (15 CH)

Students must complete a minimum of 12 CH in the minor requirements courses and a minimum of 3 CH in the minor electives courses.

**Minor Requirements Courses (12 CH)**

Students seeking a minor in Management Information Systems must complete the following courses:

- MIST 310 Systems Analysis and Design
- MIST 320 Data and Information Management
- MIST 330 IT Infrastructure and Enterprise Architecture
- MIST 460 Information Systems Project Management

**Minor Electives Courses (3 CH)**

Students seeking a minor in Management Information Systems must complete 3 CH from the following courses:

- MIST 331 Enterprise Systems
- MIST 360 IS Strategy, Management, and Acquisition
- MIST 390 Special Topics in Information System
- MIST 420 Business Intelligence
- MIST 440 Applications Development
- MIST 443 Internet Applications Development
- MIST 450 IT Governance and Security

## DEPARTMENT OF FINANCE AND ECONOMICS

College of Business and Economics Building

Room C122 (Women's Section)

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### Head

Mohamed Gaied

### Faculty

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Alanoud Bukashisha, Mohamed Shehata, Khaldah Ahmed, Aliya Al-Khulaifi, Abdulla Al Khatib, Othmane Salih, Mahmoud Karasneh, Diana AlHourani, Moza Al-Kuwari, Lara Tayara, Mouldi Ben Ammar

### ABOUT THE DEPARTMENT

The Department of Finance and Economics is oriented toward addressing Qatar's need for intellectuals and practitioners to serve the sustainable growth of its economy. Given the uniqueness of Qatar and the opportunities afforded by its resources, the mission of the Department is to provide and maintain prominent teaching and research in Economics and Finance, and to offer rigorous programs focusing on relating theory to practice, and addressing issues related to business, economic development and natural resource management.

## BACHELOR OF BUSINESS ADMINISTRATION IN ECONOMICS

### Objectives

The Economics major aims to prepare students for positions of leadership and responsibility in contemporary organizations. More specifically, the major focuses on the following objectives:

- Equip students with rigorous and most up-to-date knowledge in theoretical and applied economics to prepare them for future careers as economists.
- Provide students with relevant quantitative and analytical tools, core competencies, and soft skills to enable them to identify, analyze, and tackle economic problems.
- Enhance students' awareness of ethical issues pertaining to economics with special focus on the local environment and the complexities of an increasingly globalized world.

### Learning Outcomes

Upon the successful completion of a Bachelor of Business and Economics majoring in Economics, a student will be able to:

1. Apply appropriate quantitative skills to analyze and solve economic problems.
2. Demonstrate the ability to apply and explain economic concepts and theories.
3. Recognize and analyze ethical issues in economics and decision-making.
4. Demonstrate an understanding of local and regional issues in economics.
5. Demonstrate an understanding of global issues in economics.

### Opportunities

The Economics major prepares undergraduate students for careers in business and to pursue graduate studies. Graduates in Economics find employment in government agencies, non-governmental organizations, international agencies, and in the private sector. Our graduates from this discipline can work as decision makers, analysts, and designers of business models and as forecasters.

### Admissions Requirements

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement. Detailed Undergraduate admission requirements are available at the following link: [http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### Declaring the major

Students must satisfy QU requirements for declaring a major. In addition, students should be in good academic standing and obtain approval from their academic advisors, head of department, and associate dean for student affairs. For more details about the University requirements for declaring the Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document.

### DEGREE REQUIREMENTS - Major in Economics

Minimum of 125 credit hours are required to complete the Bachelor of Business Administration, major in Economics, including the following:

- A minimum of 33 credit hours in core curriculum requirement.

- A minimum of 42 credit hours in college core requirement.
- A minimum of 6 credit hours in college supporting requirement.
- A minimum of 15 credit hours in major requirements courses.
- A minimum of 9 credit hours in major electives courses.
- A minimum of 15 credit hours in minor or no minor requirements and electives.
- A minimum of 5 credit hours in free elective courses.

### **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology



- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture

- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

- ENGL 250 English for Communication I
- ENGL 251 English for Communication II
- UNIV 100 First Year Seminar

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **College Core Requirements (42 CH)**

Students must complete the following list of courses:

- ACCT 110 Financial Accounting
- ACCT 116 Managerial Accounting
- ECON 111 Principles of Microeconomics
- ECON 112 Principles of Macroeconomics
- MAKT 101 Principles of Marketing
- MIST 201 Introduction to MIS
- FINA 201 Principles of Finance
- MAGT 101 Principles of Management
- MAGT 304 Production & Operations Management
- MAGT 307 Internship in Business
- MAGT 405 Strategic Management
- MATH 221 Business Math II
- STAT 220 Business Statistics I
- STAT 222 Business Statistics II

### **College Supporting Requirements (6 CH)**

Students must complete the following list of courses:

- MATH 119 Business Math I
- LAWC 215 Business Law and Ethics

**Major Requirements Courses (15 CH)**

Students must complete the following list of courses:

- ECON 211 Intermediate Microeconomics
- ECON 212 Intermediate Macroeconomics
- ECON 214 Monetary Policy
- ECON 311 Econometrics
- ECON 453 International Economics

**Major Electives Courses (9 CH)**

Students must complete a minimum of 9 credit hours in courses selected from the following list:

- ECON 451 Economic Development
- ECON 452 Industrial Economics
- ECON 454 Economics of Energy
- ECON 472 Managerial Economics
- ECON 475 Contemporary Topics in Economics

**Minor or No Minor Requirements (15 CH)**

Students with a major in Economics may choose a minor in Finance, in Management Information Systems, in Accounting, in Management, in Marketing, in International Business, in Entrepreneurship, or the No minor option. Students who choose the No Minor option must complete 15 Credit Hours taken from available courses in any major offered by the CBE excluding the student declared major.

**Free Elective Courses (5 CH)**

Students must complete a minimum of 5 credit hours in free electives courses (from outside the college).

**Study Plan****Bachelor of Business Administration in Economics**

<b>FIRST YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	ENGL 202	Engl Lang I – Post Foundation	3
	ARAB 100	Arabic Language	3
	XXXX NNN	Humanities/Fine Arts Package	3
	XXXX NNN	Core Knowledge and Skill Package	3
	MATH 103	Intermediate Algebra	3

<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	ENGL 203	Engl Lang II – Post Foundation	3
	DAWA 111	Islamic Culture	3
	ARAB 200	Arabic Language II	3
	MATH 119	Business Math	3
	MAGT 101	Principles of Management	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>SECOND YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hou</b>
Fall	XXXX NNN	Social/ Behavioral Sciences Package	3
	STAT 220	Business Stat I	3
	ECON 111	Microeconomics	3
	MAKT 101	Principles of Marketing	3
	ACCT 110	Financial Accounting	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	FINA 201	Principles of Finance	3
	STAT 222	Business Stat II	3
	ACCT 116	Managerial Accounting	3
	ECON 112	Macroeconomics	3
	MIST 201	Introduction to MIS	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>THIRD YEAR (36 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	MIST 221	Business Math II	3
	LAWC 215	Buisness Law and Ethics	3

	MAGT 304	Production and Operations Management	3
	ECON 211	Intermediate Microeconomics	3
	ECON NNN	Economics Elective	3
	XXXX NNN	Course from Minor	3
<b>Total Credit Hours in Semester</b>			<b>18</b>
Spring	HIST 121	History of Qatar	3
	ECON 212	Intermediate Macroeconomics	3
	ECON 214	Monetary Policy	3
	XXXX NNN	Course from Minor	3
	XXXX NNN	Course from Minor	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>FOURTH YEAR (29 credit hours)</b>			
Term	Course #	Course Title	Credit Hours
Fall	XXXX NN	Free Elective (from outside the college)	2
	MAGT 405	Strategic Management	3
	ECON 453	International Economics	3
	ECO NNNN	Economics Elective	3
	XXXX NNN	Course from Minor	3
<b>Total Credit Hours in Semester</b>			<b>14</b>
Spring	XXXX NNN	Free Elective (from outside the college)	3
	XXXX NNN	Core Knowledge and Skill Package	3
	ECON 311	Econometrics	3
	ECON NNN	Economics Elective	3

	XXXX NNN	Course from Minor	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

## MINOR IN ECONOMICS

The Minor in Economics is offered for students from the College of Business and Economics (CBE).

### Declaring the minor

Students must satisfy the university requirements for declaring a minor. For more details about the University requirements for declaring the Minor, please refer to the paragraph “Declaring the minor” in Chapter 7 – Academic Policies and Regulations of this document.

### MINOR REQUIREMENTS - Minor in Economics (15 CH)

Students must complete a minimum of 12 CH in the minor requirements courses and a minimum of 3 CH in the minor electives courses

#### Minor Requirements Courses (12CH)

Students seeking a minor in Economics must complete the following courses:

- ECON 211 Intermediate Microeconomics
- ECON 212 Intermediate Macroeconomics
- ECON 214 Monetary Policy
- ECON 453 International Economics

#### Minor Electives Courses (3 CH)

Students seeking a minor in Economics must complete 3 credit hours in minor elective courses:

- ECON 311 Econometrics
- ECON 451 Economic Development
- ECON 452 Industrial Economics
- ECON 454 Economics of Energy
- ECON 472 Managerial Economics
- ECON 475 Contemporary Topics in Economics

## BACHELOR OF BUSINESS ADMINISTRATION IN FINANCE

### Objectives

The Finance major aims to prepare students for positions of leadership and responsibility in contemporary organizations. More specifically, the major focuses on the following objectives:

- Equip students with up-to-date theoretical and practical knowledge to pursue a career in finance.
- Equip students with relevant tools, competencies, and skills to identify, analyze, and solve financial problems.
- Enhance the ethical awareness of students within a global and multicultural environment.

### Learning Outcomes

Upon the successful completion of a Bachelor of Business and Economics majoring in Finance, a student will be able to:

1. Know, understand, analyze, and synthesize the fundamental financial theories in finance.
2. Apply appropriate problem-solving methodologies to analyze and solve financial problems.
3. Recognize and resolve ethical issues in business decisions.
4. Utilize appropriate information and communication technologies in dealing with financial situations.
5. Show understanding of global issues within the financial context.

### Opportunities

The Finance major prepares undergraduate students for careers in business and to pursue graduate studies. Graduates in Finance find employment in government agencies, non-governmental organizations, international agencies, and in the private sector. Our graduates from this discipline can work as decision makers, analysts, and designers of business models and as forecasters.

### Admissions Requirements

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement. Detailed Undergraduate admission requirements are available at the following link: [http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### Declaring the major

Students must satisfy QU requirements for declaring a major. In addition, students should be in good academic standing and obtain approval from their academic advisors, head of department, and associate dean for student affairs. For more details about the University requirements for declaring the Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document.

### DEGREE REQUIREMENTS - Major in Finance

Minimum of 125 credit hours are required to complete the Bachelor of Business Administration, major in Finance, including the following:

- A minimum of 33 credit hours in core curriculum requirement.
- A minimum of 42 credit hours in college core requirement.
- A minimum of 6 credit hours in college supporting requirement.
- A minimum of 15 credit hours in major requirements courses.



- A minimum of 9 credit hours in major electives courses.
- A minimum of 15 credit hours in minor or no minor requirements and electives.
- A minimum of 5 credit hours in free elective courses.

### **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology

- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health

- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

- ENGL 250 English for Communication I
- ENGL 251 English for Communication II
- UNIV 100 First Year Seminar

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **College Core Requirements (42 CH)**

Students must complete the following list of courses:

- ACCT 110 Financial Accounting
- ACCT 116 Managerial Accounting
- ECON 111 Principles of Microeconomics
- ECON 112 Principles of Macroeconomics
- MAKT 101 Principles of Marketing
- MIST 201 Introduction of MIS
- FINA 201 Principles of Finance
- MAGT 101 Principles of Management
- MAGT 304 Production & Operations Management
- MAGT 307 Internship in Business
- MAGT 405 Strategic Management
- MATH 221 Business Math II
- STAT 220 Business Statistics I
- STAT 222 Business Statistics II

### **College Supporting Requirements (6 CH)**

Students must complete the following list of courses:

- MATH 119 Business Math I
- LAWC 215 Business Law and Ethics

### **Major Requirements Courses (15 CH)**

Students must complete the following list of courses:

- FINA 301 Corporate Finance
- FINA 302 Investments
- FINA 303 Financial Markets & Institutions
- FINA 304 International Finance
- FINA 401 Portfolio Management

### Major Electives Courses (9 CH)

Students must complete a minimum of 9 credit hours in major elective courses:

- FINA 402 Personal Finance
- FINA 403 Insurance and Risk Management
- FINA 404 Islamic Banking & Finance
- FINA 405 Financial Derivatives
- FINA 406 Management of Financial Intermediaries
- FINA 425 Financial Modeling

### Minor or No Minor Requirements (15 CH)

Students with a major in Finance may choose a minor in Accounting, in Management Information Systems, in Economics, in Management, in Marketing, in International Business, in Entrepreneurship, or the No minor option. Students who choose the No Minor option must complete 15 Credit Hours taken from available courses in any major offered by the CBE excluding the student declared major.

### Free Elective Courses (5 CH)

Students must complete a minimum of 5 credit hours in free electives courses (from outside the college).

### Study Plan

#### Bachelor of Business Administration in Finance

FIRST YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ENGL 202	Engl Lang I – Post Foundation	3
	ARAB 100	Arabic Language I	3
	XXXX NNN	Humanities/Fine Arts Package	3
	XXXX NNN	Core Knowledge and Skills Package	3
	MATH 103	Intermdiate Alegbra	3

<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	ENGL 203	English Lang II – Post Foundation	3
	DAWA 111	Islamic Culture	3
	ARAB 200	Arabic Language II	3
	MATH 119	Business Math I	3
	MAGT 101	Principles of Management	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>SECOND YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	XXXX NNN	Social/ Behavioral Science Package	3
	STAT 220	Business Stat I	3
	MATH 101	Principles of Marketing	3
	ECON 111	Principle of Microeconomics	3
	ACCT 110	Financial Accounting	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	FINA 201	Principles of Finance	3
	MIST 201	Introduction to MIS	3
	ACCT 116	Managerial Accounting	3
	ECON 112	Principles of Macroeconomics	3
	STAT 222	Business Stat II	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>THIRD YEAR (36 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	MATH 221	Business Math I	3

	LAWC 215	Buisness Law and Ethics	3
	MAGT 304	Production and Operations Mgmt	3
	FINA 301	Corporate Finance	3
	FINA 302	Investments	3
	XXXX NNN	Course from Minor	3
<b>Total Credit Hours in Semester</b>			<b>18</b>
Spring	HIST 121	History of Qatar	3
	FINA NNN	Finance Elective	3
	XXXX NNN	Course from Minor	3
	XXXX NNNN	Course from Minor	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Summ er	MAGT 307	Internship in Business	3

<b>FOURTH YEAR (29 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	XXXX NNN	Free Elective (from outside the college)	2
	XXXX NNN	Course from Minor	3
	FINA 303	Financial Markets & Institutions	3
	FINA NNN	Finance Elective	3
	MAGT 405	Strategic Management	3
<b>Total Credit Hours in Semester</b>			<b>14</b>
Spring	XXXX NNN	Free Elective (from outside the college)	3
	FINA NNN	Finance Elective	3

	FINA 401	Portfolio Management	3
	XXXX NNN	Core Knowledge and Skills Package	3
	XXXX NNN	Course from Minor	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

## MINOR IN FINANCE

The Minor in Finance is offered for students from the College of Business and Economics (CBE).

### Declaring the minor

Students must satisfy the university requirements for declaring a minor. For more details about the University requirements for declaring the Minor, please refer to the paragraph “Declaring the minor” in Chapter 7 – Academic Policies and Regulations of this document.

### MINOR REQUIREMENTS - Minor in Finance (15 CH)

Students must complete a minimum of 12 CH in the minor requirements courses and a minimum of 3 CH in the minor electives courses.

#### Minor Requirements Courses (12 CH)

Students seeking a minor in Finance must complete the following courses:

- FINA 301 Corporate Finance
- FINA 302 Investment
- FINA 303 Financial Markets & Institutions
- FINA 401 Portfolio Management

#### Minor Electives Courses (3 CH)

Students seeking a minor in Finance must complete 3 CH in the minor elective courses:

- FINA 304 International Finance
- FINA 402 Personal Finance
- FINA 403 Insurance and Risk Management
- FINA 404 Islamic Banking & Finance
- FINA 405 Financial Derivatives
- FINA 406 Management of Financial Intermediaries
- FINA 425 Financial Modeling



## DEPARTMENT OF MANAGEMENT AND MARKETING

College of Business and Economics Building

Room C129

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Abdulla H. Fetais

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#### Lecturers

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#### Teaching Assistants

Saeed Hadi, Abdulla Mohammed Haji, Fatima Alansari, Hala Ibrahim, Amna Al-Mohannadi, Raghdah Alnamrooti, Abdulla Saif Al-Sowaidi, Ali Ghonim, Nayla Ajouz, Eya Atalla, Mohammed Abdullah Al Shafei, Olfa Benarfa.

#### Research Assistants Professors

Arsalan Safari, Boumediene Ramadan, Mokter Hossain

## ABOUT THE DEPARTMENT

The Department of Management and Marketing provides students with a solid, innovative and applied education in management and marketing, to prepare them for leadership and responsibility positions in public and private organizations. Management involves the coordination of resources, both human and non-human, to achieve organizational objectives efficiently. It is essential to build market efficiency and sustainable profitability. Marketing is the area of management responsible for anticipating, managing and satisfying customer needs through product and service development and planning, pricing, advertising, promotion and distribution. Marketing is a driving force in creating successful public and private enterprises.

## BACHELOR OF BUSINESS ADMINISTRATION IN MANAGEMENT

### Objectives

The Management major aims to prepare students for positions of leadership and responsibility in contemporary organizations. More specifically, the major focuses on the following objectives:

- Provide students with the behavioral, operational, organizational, and strategic business knowledge to make sound business decisions.
- Foster students' skills and abilities to make strategic, ethical and sustainable business decisions.
- Foster students' skills and abilities to manage organizations at the local, regional and global levels.

### Learning Outcomes

Graduates of the Bachelor of Business Administration in Management are expected to:

1. Understand and apply the relevant management theories and best practices to solve business problems.
2. Make strategic business decisions in response to the changes of business environment.
3. Make ethical decisions in response to the business ethical dilemmas.
4. Make effective sustainable business decisions in response to the ecological, social and economic issues
5. Make effective international business decisions in response to the challenges of global business environment

### Opportunities

The major in Management prepares undergraduate students for careers in business and to pursue graduate studies. Applied education and our strong industry links provide students with work opportunities in a variety of organizations. Our graduates are competitive in the job market and have successfully taken up positions of leadership and responsibility in all areas of business in government and private organizations, both at the local and international levels. Examples of future career opportunities include human resource managers, management consultants, managing directors, leaders of government and private institutions, and other general management and leadership positions.

### Admissions Requirements

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement. Detailed Undergraduate admission requirements are available at the following link: [http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### **Declaring the major**

Students must satisfy QU requirements for declaring a major. In addition, students should be in good academic standing and obtain approval from their academic advisors, head of department, and associate dean for student affairs. For more details about the University requirements for declaring the Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document.

### **DEGREE REQUIREMENTS - Major in Management**

Minimum of 125 credit hours are required to complete the Bachelor of Business Administration, major in Management, including the following:

- A minimum of 33 credit hours in core curriculum requirement.
- A minimum of 42 credit hours in college core requirement.
- A minimum of 6 credit hours in college supporting requirement.
- A minimum of 15 credit hours in major requirements courses.
- A minimum of 9 credit hours in major electives courses.
- A minimum of 15 credit hours in minor or no minor requirements and electives.
- A minimum of 5 credit hours in free elective courses.

### **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

#### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

#### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

#### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

#### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

- ENGL 250 English for Communication I
- ENGL 251 English for Communication II
- UNIV 100 First Year Seminar

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **College Core Requirements (42 CH)**

Students must complete the following list of courses:

- ACCT 110 Financial Accounting
- ACCT 116 Managerial Accounting
- ECON 111 Principles of Microeconomics
- ECON 112 Principles of Macroeconomics
- MAKT 101 Principles of Marketing
- MIST 201 Introduction to MIS
- FINA 201 Principles of Finance

- MAGT 101 Principles of Management
- MAGT 304 Production & Operations Management
- MAGT 307 Internship in Business
- MAGT 405 Strategic Management
- MATH 221 Business Math II
- STAT 220 Business Statistics I
- STAT 222 Business Statistics II

### **College Supporting Requirements (6 CH)**

Students must complete the following list of courses:

- MATH 119 Business Math I
- LAWC 215 Business Law and Ethics

### **Major Requirements Courses (15 CH)**

Students must complete the following list of courses:

- MAGT 301 Organizational Behavior
- MAGT 302 Human Resource Management
- MAGT 303 Entrepreneurship & SBM
- MAGT 306 International Business
- MAGT 406 Total Quality Management

### **Major Electives Courses (9 CH)**

Students must complete a minimum of 9 credit hours minor elective courses:

- MAGT 305 Comparative Management
- MAGT 401 Quantitative Methods
- MAGT 402 Organization Theory
- MAGT 403 E-Business
- MAGT 404 Project Management

### **Minor or No Minor Requirements (15 CH)**

Students with a major in Management may choose a minor in Accounting, in Management Information Systems, in Finance, in Marketing, in Economics, in International Business, in Entrepreneurship, or the No Minor option. Students who choose the No Minor option must complete 15 Credit Hours taken from available courses in any major offered by the CBE excluding the student declared major.

### **Free Elective Courses (5 CH)**

Students must complete a minimum of 5 credit hours in free electives courses.

## **Study Plan**

### **Bachelor of Business Administration in Management**

#### **FIRST YEAR (30 credit hours)**

<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	ENGL 202	Engl Lang I – Post Foundation	3
	ARAB 100	Arabic Language	3
	XXXX NNN	Humanities/Fine Arts Package	3
	XXXX NNN	Core Knowledge and Skill Package	3
	MATH 103	Intermediate Algebra	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	ENGL 111	Engl Lang II – Post Foundation	3
	DAWA 111	Islamic Culture	3
	ARAB 200	Arabic Language II	3
	MATH 119	Businss Math I	3
	MAGT 101	Principles of Management	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>SECOND YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	XXXX NNN	Social/ Behavioral Sciences Package	3
	STAT 220	Business Stat I	3
	ECON 111	Microeconomics	3
	MAKT 101	Principles of Marketing	3
	ACCT 110	Financial Accounting	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	MIST 201	Introduction to MIS	3
	FINA 201	Principles of Finance	3
	ACCT 116	Managerial Accounting	3
	STAT 222	Business Stat II	3



	ECON 112	Macroeconomics	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>THIRD YEAR (36 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hou</b>
Fall	MATH 221	Business Math II	3
	LAWC 215	Business Law and Ethics	3
	MAGT 304	Production and Operations Mgmt	3
	MAGT 301	Organization Behavior	3
	MAGT 302	Human Resource Mgmt	3
	XXXX NNN	Course from Minor	3
<b>Total Credit Hours in Semester</b>			<b>18</b>
Spring	MAGT 306	International Business	3
	MAGT NNN	Management Elective	3
	XXXX NNN	Course from Minor	3
	XXXX NNN	Course from Minor	3
	HIST 121	History of Qatar	3
<b>Total Credit Hours in Semester</b>			<b>18</b>

<b>FOURTH YEAR (29 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	XXXX NNN	Free Elective	2
	MAGT 405	Strategic Management	3
	MAGT 303	Entrepreneurship and Small Business Management	3

	MAGT NNN	Management Elective	3
	XXXX NNN	Course from Minor	3
<b>Total Credit Hours in Semester</b>			<b>14</b>
Spring	XXXX NNN	Free Elective	3
	XXXX NNN	Course from Minor	3
	XXXX NNN	Core Knowledge and Skills Package	3
	MAGT 406	Total Quality Management	3
	MAGT XXX	Management Elective	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

## MINOR IN MANAGEMENT

The Minor in Management is offered for students from the College of Business and Economics (CBE).

### Declaring the minor

Students must satisfy the university requirements for declaring a minor. For more details about the University requirements for declaring the Minor, please refer to the paragraph “Declaring the minor” in Chapter 7 – Academic Policies and Regulations of this document.

### MINOR REQUIREMENTS - Minor in Management (15 CH)

The Minor in Management is offered for students from the College of Business and Economics (CBE).

Students must complete a minimum of 12 CH in the minor core requirements and a minimum of 3 CH in the minor electives.

### Minor Requirements Courses (12CH)

Students seeking a minor in Management must complete the following courses:

- MAGT 302 Human Resource Management
- MAGT 303 Entrepreneurship & Small Business Management
- MAGT 306 International Business
- MAGT 406 Total Quality Management

### Minor Electives Courses (3 CH)

Students seeking a minor in Management must complete 3 credit hours in minor elective courses:

- MAGT 301 Organizational Behavior
- MAGT 305 Comparative Management
- MAGT 401 Quantitative Methods for Decision Making
- MAGT 402 Organization Theory
- MAGT 403 E-Business
- MAGT 404 Project Management

## **BACHELOR OF BUSINESS ADMINISTRATION IN MARKETING**

### **Objectives**

This major aim to prepare students for positions of leadership and responsibility in contemporary organizations. More specifically, the Marketing major focuses on the following objectives:

- Provide students with the latest knowledge of the theories, concepts, and practices specific to the field of marketing
- Develop students' technical, analytical, and research competencies to solve marketing problems and make sound decisions in complex environments
- Prepare culturally aware and ethical marketing professionals to operate in a globalized business environment.

### **Learning Outcomes**

Graduates of the Bachelor of Business Administration in Marketing are expected to:

1. Understand marketing concepts and theories and critically apply them to address real business situations
2. Make informed marketing decisions based on sound analysis of marketing research data
3. Recognize and appropriately address potential ethical ramifications of marketing decisions and actions
4. Understand the determinants and processes of consumer behavior and use them to develop marketing programs and actions
5. Understand and appropriately address marketing challenges specific to organizations operating in a global context

### **Opportunities**

The Marketing major prepares undergraduate students for careers in business and to pursue graduate studies. Applied education and our strong industry links provide students with work opportunities in a variety of organizations. Our graduates are competitive in the job market, and have successfully taken up positions of leadership and responsibility in all areas of business in public and private organizations, at both the local and international level. Examples of future career opportunities include brand managers, marketing consultants, marketing managers and directors, and other general management and leadership positions.

### **Admissions Requirements**

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement. Detailed Undergraduate admission requirements are available at the following link:

[http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### **Declaring the major**

Students must satisfy QU requirements for declaring a major. In addition, students should be in good academic standing and obtain approval from their academic advisors, head of department, and associate dean for student affairs. For more details about the University requirements for declaring the Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document.

### **DEGREE REQUIREMENTS - Major in Marketing**

Minimum of 125 credit hours are required to complete the Bachelor of Business Administration, major in Marketing, including the following:

- A minimum of 33 credit hours in core curriculum requirement.
- A minimum of 42 credit hours in college core requirement.
- A minimum of 6 credit hours in college supporting requirement.
- A minimum of 15 credit hours in major requirements courses.
- A minimum of 9 credit hours in major electives course.
- A minimum of 15 credit hours in minor or no minor requirements and electives.
- A minimum of 5 credit hours in free elective course.

### **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

#### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

- ENGL 250 English for Communication I
- ENGL 251 English for Communication II
- UNIV 100 First Year Seminar

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

#### **College Core Requirements (42 CH)**

Students must complete the following list of courses:

- ACCT 110 Financial Accounting
- ACCT 116 Managerial Accounting
- ECON 111 Principles of Microeconomics
- ECON 112 Principles of Macroeconomics
- MAKT 101 Principles of Marketing
- MIST 201 Introduction to MIS
- FINA 201 Principles of Finance
- MAGT101 Principles of Management

- MAGT 304 Production & Operations Management
- MAGT 307 Internship in Business
- MAGT 405 Strategic Management
- MATH 221 Business Math II
- STAT 220 Business Statistics I
- STAT 222 Business Statistics II

### **College Supporting Requirements (6 CH)**

Students must complete the following list of courses:

- MATH 119 Business Math I
- LAWC 215 Business Law and Ethics

### **Major Requirements Courses (15 CH)**

Students must complete the following list of courses:

- MAKT 300 Marketing Research
- MAKT 301 Consumer Behavior
- MAKT 303 International Marketing
- MAKT 305 Integrated Marketing Communications
- MAKT 410 Strategic Marketing

### **Major Electives Courses (9 CH)**

Students must complete a minimum of 9 credit hours in major elective courses:

- MAKT 402 Sales Management
- MAKT 403 E-Marketing
- MAKT 404 Service Marketing
- MAKT 406 Business-to Business Marketing
- MAKT 407 Brand Management

### **Minor or No Minor Requirements (15 CH)**

Students with a major in Marketing may choose a minor in Management Information Systems, in Finance, in Economics, in Management, in Accounting, in International Business, in Entrepreneurship or the No minor option. The No Minor option is for Students who are not seeking any particular minor and who must then complete 15 Credit Hours taken from available courses in any major offered at CBE excluding the student declared major.

### **Free Elective Courses (5 CH)**

Students must complete a minimum of 5 credit hours in free electives courses.

### **Study Plan**

#### **Bachelor of Business Administration in Marketing**

**FIRST YEAR (30 credit hours)**



<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	ENGL 202	Engl Lang I – Post Foundation	3
	ARAB 100	Arabic Language I	3
	XXXX NNN	Humanities/Fine Arts Package	3
	XXXX NNN	Core Knowledge and Skills Package	3
	MATH 103	Intermediate Algebra	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	ENGL 203	Engl Lang II – Post Foundation	3
	DAWA 111	Islamic Culture	3
	ARAB 200	Arabic Language II	3
	MATH 119	Business Math I	3
	MAGT 101	Principles of Management	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>SECOND YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	XXXX NNN	Social/ Behavioral Science Package	3
	STAT 220	Business Stat I	3
	ECON 111	Principles of Microeconomics	3
	MAKT 101	Principles of Marketing	3
	ACCT 110	Financial Accounting	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	FINA 201	Principles of Finance	3
	STAT 222	Business Stat II	3
	ACCT 116	Managerial Accounting	3

	ECON 112	Principle of Macroeconomics	3
	MIST 201	Introduction to MIS	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>THIRD YEAR (36 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	MATH 221	Business Math II	3
	LAWC 215	Business Law and Ethics	3
	MAGT 304	Production and Operations Mgmt	3
	MAKT 300	Marketing Research	3
	MAKT 301	Consumer Behavior	3
	XXXX NNN	Course from Minor	3
<b>Total Credit Hours in Semester</b>			<b>18</b>
Spring	MAKT 303	International Marketing	3
	MAKT 305	Integrated Marketing Communications	3
	XXXX NNN	Course from Minor	3
	MAKT 215	Marketing Elective	3
	HIST 121	History of Qatar	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Summer	MAGT 307	Internship in Business	3

<b>FOURTH YEAR (29 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	XXXX NNN	Free Elective	2
	MAGT 405	Strategic Management	3

	MAKT NNN	Marketing Elective	3
	XXXX NNN	Course from Minor	3
	XXXX NNN	Course from Minor	3
<b>Total Credit Hours in Semester</b>			<b>14</b>
Spring	XXXX NNN	Free Elective	3
	MAKT NNN	Marketing Elective	3
	XXXX NNN	Course from Minor	3
	MAKT 410	Strategic Management	3
	XXXX NNN	Core Knowledge and Skills Package	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

## MINOR IN MARKETING

The Minor in Marketing is offered for students from the College of Business and Economics (CBE).

### Declaring the minor

Students must satisfy the university requirements for declaring a minor.

For more details about the University requirements for declaring the Minor, please refer to the paragraph “Declaring the minor” in Chapter 7 – Academic Policies and Regulations of this document.

### MINOR REQUIREMENTS - Minor in Marketing (15 CH)

The Minor in Marketing is offered for students from the College of Business and Economics (CBE). Students must complete a minimum of 12 CH in the minor requirements courses and a minimum of 3 CH in the minor electives courses.

### Minor Requirements Courses (12 CH)

Students seeking a minor in Marketing must complete the following courses:

- MAKT 300 Marketing Research
- MAKT 301 Consumer Behavior
- MAKT 303 International Marketing
- MAKT 305 Integrated Marketing Communications

**Minor Electives Courses (3 CH)**

Students seeking a minor in Marketing must complete 3 CH in the minor elective courses:

- MAKT 410 Strategic Marketing
- MAKT 402 Sales Management
- MAKT 403 E-Marketing
- MAKT 406 Business-to Business Marketing
- MAKT 407 Brand Management

**MINOR INTERNATIONAL BUSINESS**

The Minor in International Business is offered for students from the College of Business and Economics (CBE).

**Declaring the minor**

Students must satisfy the university requirements for declaring a minor.

For more details about the Minor declaration University requirements, please refer to the paragraph “Declaring the minor” in Chapter 7 – Academic Policies and Regulations of this document.

**MINOR REQUIREMENTS - Minor in International Business (IB) (15 CH)**

Students must complete a minimum of 12 CH in minor requirements courses and a minimum of 3 CH in the minor electives courses. Students who already completed one or more courses in the minor requirements courses as part of their major must take additional courses from the minor electives courses to complete the minor 15 CH requirement.

**Minor Requirements Courses (12 CH)**

Students seeking a minor in International Business must complete the following courses. Students who already completed one or more of the courses listed below as part of their major must take additional courses from the minor electives to complete the minor 15 CH requirements.

- MAKT 303 International Marketing
- FINA 304 International Finance
- MAGT 306 International Business
- ECON 453 International Economics

**Minor Electives Courses (3 CH)**

Students must complete a minimum of 3 credit hours in minor elective courses:

- ACCT 424 International Accounting
- ECON 214 Monetary Policy
- FINA 303 Financial Markets & Institutions
- MAGT 305 Comparative Management
- MAGT 406 Total Quality Management
- MAKT 300 Marketing Research

## **MINOR IN ENTREPRENEURSHIP**

The Minor in Entrepreneurship is offered for students from the College of Business and Economics (CBE).

### **Declaring the minor**

Students must satisfy the university requirements for declaring a minor. For more details about the University requirements for declaring the Minor, please refer to the paragraph “Declaring the minor” in Chapter 7 – Academic Policies and Regulations of this document.

### **MINOR REQUIREMENTS - Minor in Entrepreneurship (15 CH)**

The Minor in Entrepreneurship is offered for students from the College of Business and Economics (CBE). Students must complete a minimum of 12 CH in the minor requirements courses and a minimum of 3 CH in the minor electives courses.

#### **Minor Requirements Courses (12 CH)**

Students seeking a minor in Marketing must complete the following courses:

- MAGT 303 Entrepreneurship and Small Business Management
- MAGT 328 Business Planning for Entrepreneurs
- FINA 410 Financing for Entrepreneurial Ventures
- MAGT 329 Building & Sustaining Successful Enterprise

#### **Minor Electives Courses (3 CH)**

Students seeking a minor in Entrepreneurship must complete 3 CH in minor elective courses:

- AACT 331 Cost & management Accounting
- ACCT 421 Accounting Information Systems
- FINA 402 Personal Finance
- MAGT 302 Human Resources Management
- MAKT 300 Marketing Research

## **MINOR IN BUSINESS FOR NON-BUSINESS STUDENTS**

This minor is available to all Qatar University students except College of Business and Economics students.

### **Declaring the minor**

Applicants for the minor in Business for Non-Business Students must satisfy QU requirements for declaring a minor. For more details about the University requirements for declaring the Minor, please refer to the paragraph “Declaring the minor” in Chapter 7 – Academic Policies and Regulations of this document.

### **MINOR REQUIREMENTS - Minor in Business for Non-Business Students (24 CH)**

Students must complete the minor core requirements. Students who already completed one or more courses in the minor requirements courses as part of their major must take additional courses to complete the minor 24 CH requirement.

**Minor Requirements Courses (24 CH)**

Students seeking a minor in Business for Non-Business must complete the following courses.

- MAGT 101 Principles of Management
- MAKT 101 Principles of Marketing
- ACCT 110 Financial Accounting
- ECON 111 Principles of Microeconomics
- ECON 112 Principles of Macroeconomics
- MATH 119 Business Mathematics I
- STAT 220 Business Statistics I
- FINA 201 Principles of Finance







## COLLEGE OF ENGINEERING

College of Engineering Research and Graduate Studies Building- B09, Room 117

Phone: (974) 4403-4100/ 4403-4104

Email: dean-eng@qu.edu.qa

Website: <http://www.qu.edu.qa/engineering>

### Dean

Khalid Kamal Naji

### Associate Dean for Academic Affairs

Abdel Magid Hamouda

### Associate Dean for Research and Graduate Studies

Ahmed Massoud

### Assistant Dean for Student Affairs

Waled Abdulla Mukahal

## ABOUT THE COLLEGE

The College of Engineering, established in 1980, serves the State of Qatar by preparing graduates in a wide range of engineering disciplines, as well as in computing and architecture. The College aims to be recognized in the region for its outstanding education, research and community engagement, and for the quality of its socially responsible graduates. The main mission of the college is to prepare globally competent and socially responsible graduates, who can compete in an international working environment while taking into consideration our Islamic and Arabic heritage, as well as the local societal needs.

Graduates of the college have significantly contributed to the huge industrial expansion that the State of Qatar has witnessed. They are currently playing a key role in the transformation of the economy of Qatar to a knowledge-based economy. Most of engineering programs in the College are accredited by the Engineering Accreditation Commission of ABET (<http://www.abet.org>). The Computer Science program is accredited by the Computing Accreditation Commission of ABET. The B.Arch. Architecture program has received the substantial equivalency designation [NAAB SE] from the National Architectural Accrediting Board [NAAB] in 2018.

## DEGREE OFFERINGS

The College of Engineering offers the following undergraduate degree programs:

- Bachelor of Architecture [B.Arch.]
- Bachelor of Science in Chemical Engineering
- Bachelor of Science in Civil Engineering
- Bachelor of Science in Computer Engineering
- Bachelor of Science in Computer Science (with optional Cyber Security Concentration Area)
- Bachelor of Science in Electrical Engineering
- Bachelor of Science in Mechatronics Engineering

- Bachelor of Science in Industrial and Systems Engineering
- Bachelor of Science in Mechanical Engineering

The College of Engineering offers the following minors:

- Minor in Engineering Project Management
- Minor in Computer Science

### **DECLARING THE MAJOR**

College of Engineering Students should take into consideration the university requirements for declaring a major. For more details about the University requirements for declaring a Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document.

In addition, each program may have additional specific requirements for declaring the major (See the paragraph “Declaring the major” in the program section).

### **DECLARING THE MINOR**

Students who wish to declare a minor offered by the College of Engineering must satisfy the university requirements for declaring a minor. For more details about the University requirements for declaring a Minor, please refer to the paragraph “Declaring the minor” in Chapter 7 – Academic Policies and Regulations of this document.

## DEPARTMENT OF ARCHITECTURE AND URBAN PLANNING

College of Engineering Building, C07

Room C07-219 (Women's Section)

Phone: (974) 4403-4340 / 4344

Email: [architecture-urban@qu.edu.qa](mailto:architecture-urban@qu.edu.qa)

Website: <http://www.qu.edu.qa/engineering/academics/architecture>

### Head

Raffaello Furlan

### Faculty

#### Associate Professors:

Hatem Ibrahim, Djamel Boussaa, Djamel Ouahrani, Mohd Faris Khamidi

#### Assistant Professors:

Fodil Fadli, M. Salim Ferwati, Raffaello Furlan, Rashid Saad Al-Matwi, Mark David Major, Madhavi Indraganti, Ahmad Mohammad

## ABOUT THE DEPARTMENT

The Department of Architecture and Urban Planning (DAUP) offers undergraduate and graduate programs committed to graduating professional architects and urban designers with the skills and capabilities of designing, innovating, building, operating and managing sustainable buildings and resilient cities and built environment. These include Bachelor of Architecture (B.Arch.) a five-year undergraduate professional architectural degree, a two-year Master of Urban Planning and Design (MUPD) and a Ph.D. with focus on Architecture/Urban Planning.

The B.Arch. program attempts to strike a balance between knowledge content and delivery, while implementing a “studio-based” architectural design project, hands-on, active, and outcome-based learning approaches consisting of the Architectural Program Admission Test (APAT). Students enjoy close interaction with faculty members and educational facilities, studios, and laboratories that reflect up-to-date instructional technology. Our faculty members are responsive educators with research and professional expertise that foster the effective delivery of our programs.

## BACHELOR OF ARCHITECTURE

### Objectives

The objectives of the program are to integrate knowledge-based and skill-based pedagogies in a balanced manner needed to graduate responsive professional architects. The three main objectives are:

1. **Knowledge:** Striking a balance between the different types of knowledge an architect needs. The objective of the program in this context is to graduate architects who can play multiple roles within Qatari society and can compete with their counterparts, while positioning themselves distinctively in a competitive global market.

2. **Culture & Society:** Striving to graduate architects who are able to, effectively and efficiently, deal with the realities of the Qatari local context exemplified by its culture and society and the regional context of the building industry.
3. **Information Technology:** Striving to graduate architects who are well versed in developing design ideas, and in materializing those ideas into practical design and building solutions while utilizing up to date information technology in design.

### **Learning Outcomes**

Under the general theme of sustainable architecture and built environment, the program learning outcomes are as follows:

1. **Design:** Ability to conceptualize and coordinate designs, addressing social, cultural, environmental and technological aspects of architecture.
2. **People and Equity:** Ability to recognize the dialectic relationship between people and the built environment in the GCC/Arab region in specific and the world in general. Ability to recognize diversity of needs, values, behavioral norms, social patterns as they relate to the creation of the built environment.
3. **Technology:** Ability to utilize innovative building technology in architectural and urban design.
4. **Communication and CAD:** Ability to apply visual and verbal communication skills at various stages of architectural design and project delivery processes. Ability to apply and integrate computer technology in design processes and products.
5. **Critical Thinking:** Ability to critically analyze building designs and conduct post occupancy on buildings, districts and cities.
6. **Research:** Ability to employ architectural research methods including data collection and analysis to assess and propose improvements in existing built environments.
7. **Collaboration:** Ability to work collaboratively with teams of architects and various interdisciplinary design teams involved in the building industry.

The preceding learning outcomes are directly related course content, instruction, and they are derived based on Student Performance Criteria (SPC) specified by the US National Architectural Accrediting Board (NAAB). The National Architectural Accreditation Board has recently awarded the Department Bachelor of Architecture program an International Certification (NAAB Icert) for a full six-years starting January 2018.

### **Opportunities**

Graduates of the (B.Arch.) Architecture program enjoy multiple employment opportunities as architects working in the fields of design and construction of architectural and urban projects. They have opportunities in government agencies, design firms, and Architectural consulting firms and professional practices, real estate development companies, in addition to possibilities of establishing their own design firms. Additionally, graduates of the program may find opportunities to pursue post-graduate studies in architecture, urban design and planning, and built environment related disciplines, and eventually pursue advanced careers in architecture and built environment-related realm.

### **Admissions Requirements**

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement, the Architecture Program Admission Test (APAT) that includes a graphic and written evaluation and a personal interview.

Detailed Undergraduate admission requirements are available at the following link:  
[http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### **Declaring the major**

Students must satisfy QU requirements for declaring a major before completing 36 undergraduate credit hours. For more details about the University requirements for declaring the Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document.

### **Additional Requirements**

In addition to the requirement of completing a program of 160 credit hours, which includes the senior graduation design project, students must go through compulsory practical training in the summers of the last two years of the program. Practical training does not count in the overall credit hours but is mandatory. It requires a minimum of 12 weeks (twice 6 weeks in the last two years summer semesters) of architectural design and practice training in design consulting firms, construction companies, architectural engineering consultancies, or relevant government agencies.

### **DEGREE REQUIREMENTS - Major in Architecture**

A minimum of 160 credit hours are required to complete the major in Architecture, including the following:

- A minimum of 33 credit hours in core curriculum requirements.
- A minimum of 7 credit hours in college requirements.
- A minimum of 6 credit hours in college electives.
- A minimum of 3 credit hours in major supporting electives.
- A minimum of 50 credit hours in graphic communication and architectural design studios.
- A minimum of 15 credit hours in history and theory.
- A minimum of 18 credit hours in building construction, services, and technology.
- A minimum of 16 credit hours in structural engineering and construction management related courses
- A minimum of 12 credit hours in major electives courses.
- A Compulsory non-credited summer practical training (12 weeks over 2 intensive summer 6 weeks/ semester).

### **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I

- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology

- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

- ENGL 250 English for Communication I
- ENGL 251 English for Communication II



- UNIV 100 First Year Seminar

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **College Requirements (7 CH)**

Students must complete a minimum of 7 credit hours in college requirements:

- MATH 102 Calculus II
- PHYS 191 General Physics for Engineering I
- PHYS 192 General Physics for Engineering Laboratory I

### **College Electives (6CH)**

Students must complete a minimum of 6 credit hours in college electives:

- GENG 106 Computer Programming
- GENG 107 Engineering Skills and Ethics
- GENG 360 Engineering Economics
- IENG 330 Operations Research
- MECH 485 Engineering Management

### **Major Supporting Electives (3 CH)**

Students must complete a minimum of 3 credit hours in major supporting electives:

- SOCI 205 Sociology of Gulf Society
- SOCI 467 Globalization

### **Major Requirements Courses (99CH)**

Students must complete 99 credit hours from the sub-packages A, B, C, and D as detailed below:

#### **A) Graphic Communication and Architectural Design Studios (50 CH)**

- ARCT 110 Graphic Communication I
- ARCT 111 Graphic Communication II
- ARCT 120 Introduction to Architecture and Allied Arts
- ARCT 210 Perspective, Shade and Shadow
- ARCT 211 Architectural Design Studio I
- ARCT 212 Architectural Design Studio II
- ARCT 310 Architectural Design Studio III
- ARCT 311 Architectural Design Studio IV
- ARCT 410 Architectural Design Studio V
- ARCT 411 Architectural Design Studio VI
- ARCT 510 Comprehensive Design Studio
- ARCT 511 Senior Project Preparation and Programming

- ARCT 512 Senior Project

#### **B) History and Theory (15 CH)**

- ARCT 220 Climate and Architecture
- ARCT 221 History and Theory of Architecture I-Early and Western Civilizations
- ARCT 222 History and Theory of Architecture II-Islamic/Arab Civilizations
- ARCT 320 Design Methods and Theories
- ARCT 422 Research Methods in Architecture

#### **C) Building Construction, Services, and Technology (18 CH)**

- ARCT 230 Materials and Methods of Building Construction I
- ARCT 330 Materials and methods of Building Construction II
- ARCT 331 Environmental Control Systems I (Acoustics and Lighting)
- ARCT 332 Environmental Control Systems II (Sanitary and HVAC)
- ARCT 333 Construction Drawing and Detailing
- ARCT 531 Ethics and Professional Practice

#### **D) Structural Engineering and Construction Management related courses (16 CH)**

- ARCT 240 Theory of Structures I
- ARCT 241 Theory of Structures II
- ARCT 242 Surveying for Architects
- ARCT 340 Structures and Architectural Form I (Concrete Structures)
- ARCT 341: Structures and Architectural Form II (Steel and Shell Structures)
- ARCT 530 Construction and Project Management

#### **E) Practical Training Courses - Mandatory (0 CH)**

- ARCT 400 Practical Training I
- ARCT 500 Practical Training II

#### **Major Electives Courses (12 CH)**

Students must complete a minimum of 12 credit hours in major elective courses:

- ARCT 100 Independent Study
- ARCT 350 Arts in Architecture
- ARCT 351 Creativity and Innovation
- ARCT 420 Environment-Behavior Studies
- ARCT 421 Introduction to Urban Design and Planning
- ARCT 430 Contract Documents
- ARCT 431 Cost Estimation, Valuation and Qualification
- ARCT 450 Interior Design Workshop
- ARCT 451 Computer Applications in Architecture (Advanced)
- ARCT 452 Contemporary Architecture in the Arab World
- ARCT 453 Criticism in Architecture

- ARCT 520 Landscape Architecture
- ARCT 550 Computer Applications in Urban Planning and G.I.S
- ARCT 551 Historic Preservation and Conservation

## Study Plan

### Bachelor of Architecture

FIRST YEAR (31 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ENGL 202	English Language I Post Foundation	3
	DAWA 111	Islamic Culture	3
	MATH 101	Calculus I	3
	ARCT 120	Introduction to Architecture and Allied Arts	3
	ARCT 110	Graphic Communication (1)	3
Total Credit Hours in Semester			15
Spring	ENGL 203	English Language II Post Foundation	3
	ARAB 100	Arabic Language I	3
	PHYS 191	General Physics for Engineering I	3
	PHYS 192	Experimental General Physics for Engineering	1
	MATH 102	Calculus II	3
	ARCT 111	Graphic Communication (2)	3
Total Credit Hours in Semester			16

SECOND YEAR (32 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ARCT 211	Architectural Design Studio I	4
	ARCT 240	Theory of Structures I	3
	ARCT 210	Perspective, Shade and Shadow	3
	ARCT 221	History and Theory of Architecture I	3
	ARCT 220	Climate and Architecture	3
Total Credit Hours in Semester			16

Spring	ARCT 212	Architectural Design Studio II	4
	ARCT 241	Theory of Structures II	3
	ARCT 230	Materials and Methods of Building Construction I	3
	ARCT 222	History and Theory of Architecture II (Islamic/Arab Civilizations)	3
	ARCT 242	Surveying for Architects	3
<b>Total Credit Hours in Semester</b>			<b>16</b>

<b>THIRD YEAR (36 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	ARCT 310	Architectural Design Studio III	4
	ARCT 330	Materials and Methods of Building Construction II	3
	ARCT 320	Design Methods and Theories	3
	ARCT 331	Environmental Control Systems I (Acoustics and Lighting)	3
	ARCT 340	Structures and Architectural Form I (Concrete Structures)	2
	ARCTXXX	Major Elective I	3
<b>Total Credit Hours in Semester</b>			<b>18</b>
Spring	ARCT 311	Architectural Design Studio IV	4
	ARCT 333	Construction Drawing and Detailing	3
	ARCT 332	Environmental Control Systems II (Sanitary and HVAC)	3
	ARCT 341	Structures and Architectural Form II (Steel and Shell Structures)	2
	ARCTXXX	Major Elective II	3
	ARAB 200	Arabic Language II	3
<b>Total Credit Hours in Semester</b>			<b>18</b>

Summer	ARCT 400	Practical Training I	6 weeks
<b>Total Credit Hours in Semester</b>			<b>18</b>

<b>FOURTH YEAR (34 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	ARCT 410	Architectural Design Studio V	5
	ARCT 530	Construction and Project Management	3
	ARCT XXX	Major Elective III	3
	HIST 121	History of Qatar	3
	XXXX XXX	College Elective	3
<b>Total Credit Hours in Semester</b>			<b>17</b>
Spring	ARCT 411	Architectural Design Studio VI	5
	ARCT 422	Research Methods in Architecture	3
	ARCT XXX	Major Elective IV	3
	XXXX XXX	Core Curriculum Elective (Social/ Behavioral Sciences Package)	3
	XXXX XXX	Core Knowledge and Skills Package	3
<b>Total Credit Hours in Semester</b>			<b>17</b>
Summer	ARCT500	Practical Training II	6 weeks
<b>Total Credit Hours in Semester</b>			<b>17</b>

<b>FIFTH YEAR (27 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	ARCT 510	Comprehensive Design Studio	6
	ARCT 511	Senior Project Preparation and Programming	2

	XXXX XXX	Core Knowledge and Skills Package	3
	SOCI XXX	Major Supporting Electives	3
<b>Total Credit Hours in Semester</b>			<b>14</b>
Spring	ARCT 512	Senior Project	4
	ARCT 531	Ethics and Professional Practice	3
	XXXX XXX	College Elective	3
	XXXX XXX	Core Curriculum Elective (Humanities / Fine Arts Package)	3
<b>Total Credit Hours in Semester</b>			<b>13</b>

## DEPARTMENT OF CIVIL AND ARCHITECTURAL ENGINEERING

College of Engineering - Corridor H, Room H 111 (Men's Section)

Phone: (+974) 4403-4170/ 4403-4173

Email: [civil@qu.edu.qa](mailto:civil@qu.edu.qa)

Website: <http://www.qu.edu.qa/engineering/academics/civil>

### Head

Mohammed Hussein

### Faculty

#### Academics Holding Senior Management Positions:

Hassan Al-Derham (Qatar University President), Omar Al-Ansari (Qatar University Vice-President for Academic Affairs), Khalid Naji (Dean of the College of Engineering), Nasser Al-Nuaimi (Director of the Center for Advanced Materials (CAM)).

#### Professors:

Hisham Eid, Usama Ebead, Murat Gunduz, Mohammed Al-Ansari, Riyadh Al-Raoush, Alaa Al Hawari (Chair of Undergraduate Program Curriculum and Quality Assurance Committee), Okan Sirin

#### Associate Professors:

Mohammed Elshafie (Civil Engineering Graduate Program Coordinator), Wael Al-Nahhal, Evangelos Plevris

#### Assistant Professors:

Mohamed Arselene Ayari

#### Lecturers:

Hamad Al-Nuaimi, Salem Alnaimi

#### Teaching Assistants:

Abdulrahman Abu-Hijleh, Muhammad Shekaib Afzal, Nasser Al-Nohmi, Khaled Rabie, Anas Alsharo

### ABOUT THE DEPARTMENT

The Department of Civil & Architectural Engineering is one of the six departments in the College of Engineering at Qatar University. Teaching and research in the department span the main Civil Engineering disciplines of Structural Engineering, Geotechnical Engineering, Water & Environmental Engineering, Pavement & Transportation Engineering, and Construction Management. The Department has an undergraduate program leading to a bachelor degree in Civil Engineering and graduate programs leading to MSc and PhD in Civil Engineering. The Department is also administrating a Minor in Engineering Project Management. The Minor is available for undergraduate students from all engineering majors. The undergraduate program in Civil



Engineering is accredited by ABET which ensures that the program meets the standards and quality needed by the civil engineering profession.

The Department is proud to have the ISO certification for its laboratory testing in Construction Materials which ensures the right quality and meeting the International Standards in carrying out of experimental work.

The Department of Civil and Architectural Engineering has strong research portfolio in the main disciplines of Civil Engineering. The research supports Qatar national vision 2030 and addresses the priority areas for the country which currently witnesses an unprecedented development. The department benefits from research funding available from Qatar University, the industry, and various funding schemes by Qatar National Research Funds (QNRF). The research portfolio of the Department includes a track record of success in attracting funds and carrying out major projects with a value of about 25 million USD in the last 10 years.

The Department has strong collaboration with a number of research centers in the University. It has strong partnership with Qatar Transportation and Traffic Safety Center (QTTSC), which leads activities in the field of transportation at both national and international levels. The Department has also strong collaboration with the Center for Advanced Materials and the Gas Processing Center at Qatar University.

The Department of Civil and Architectural Engineering has strong interaction with the local community and local and international industry. The department continuously organizes seminars and workshops for the students, academics, and members from the industry with key speakers from both academia and industry to engage all parties in the latest issues and to highlight new advances in the profession of Civil Engineering. The department has strong interaction with the main industrial stakeholders in Qatar such as the Supreme Committee for Delivery & Legacy, Public Works Authority (Ashghal), Qatar Rail, the Ministry of Municipality and Environment (MME), Qatari Diar, the Ministry of Transport and Communications as well as key companies in the private sector. The department also has strong links with the main Civil Engineering institutions, which support various students' activities and development. These include the American Society of Civil Engineers (ASCE), the Institution of Civil Engineers (ICE), and the American Concrete Institute (ACI).

## **BACHELOR OF SCIENCE IN CIVIL ENGINEERING**

### **Objectives**

The expected accomplishments of graduates of the Bachelor of Science in the Civil Engineering Program at Qatar University are as follows.

- Graduates will establish successful civil engineering careers in industrial, governmental, and private sectors, that contribute to the development of the country, the region, and beyond.
- Graduates will contribute effectively to the civil engineering profession and to society by mastering communication skills, using ethical practices, and pursuing lifelong learning.
- Graduates will provide public and private sectors with professional and innovative solutions to civil engineering and interdisciplinary problems.
- Qualified graduates will be prepared to pursue advanced studies if they so desire.

### **Learning Outcomes**

Graduates of the Department of Civil and Architectural Engineering will have:

**SO(1):** An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.

**SO(2):** An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.

**SO(3):** An ability to communicate effectively with a range of audiences.

**SO(4):** An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.

**SO(5):** An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.

**SO(6):** An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.

**SO(7):** An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

### **Opportunities**

The rapid development currently taking place in Qatar has engineering and technology as its main backbone. Civil engineers play a significant role as specialists in building infrastructure, and therefore have an important share in this development. By offering the sole Civil Engineering Program in Qatar, the department has a leading role in all activities in the unprecedented infrastructure development taking place in Qatar, through providing high-quality graduates and consultation services.

### **Admissions Requirements**

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement.

Detailed Undergraduate admission requirements are available at the following link:

[http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### **Declaring the major**

Students must satisfy QU requirements for declaring a major including the need to declare the major before completing 36 undergraduate credit hours.

For more details about the University requirements for declaring the Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document.

### **DEGREE REQUIREMENTS - Major in Civil Engineering**

A minimum of 131 credit hours are required to complete the major in Civil Engineering, including the following:

- A minimum of 33 credit hours in core curriculum requirements.
- A minimum of 27 credit hours in college requirements.
- A minimum of 56 credit hours in major requirements courses.
- A minimum of 12 credit hours in major electives courses.
- A minimum of 3 credit hours in additional science electives.

### **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or

college. The specific courses to be completed by students are identified in the degree requirements of each program.

- PHYS 191 General Physics for Engineering I
- PHYS 192 Experimental General Physics for Engineering I
- PHYS 193 General Physics for Engineering II
- PHYS 194 Experimental General Physics for Engineering II
- CHEM 101 General Chemistry I
- CHEM 103 Experimental General Chemistry I

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **College Requirements (27 CH)**

Students must complete a minimum of 27 credit hours in college requirements:

- MATH 102 Calculus II
- MATH 211 Calculus III
- MATH 217 Mathematics for Engineers
- GENG 106 Computer Programming
- GENG 107 Engineering Skills and Ethics
- GENG 200 Probability and Statistics for Engineers
- GENG 300 Numerical Methods
- GENG 360 Engineering Economics
- GENG 111 Engineering Graphics

### **Major Requirements Courses (56 CH)**

Students must complete a minimum of 56 credit hours in major requirements courses:

- CVEN 210 Properties and Testing of Materials
- CVEN 212 Fluid Mechanics
- CVEN 213 Statics
- CVEN 214 Strength of Materials
- CVEN 220 Analysis of Structures
- CVEN 230 Geotechnical Engineering
- CVEN 270 Surveying for Construction
- CVEN 320 Design of Reinforced Concrete Members
- CVEN 321 Analysis of Indeterminate Structures
- CVEN 330 Foundation Engineering I
- CVEN 340 Analysis and Design of Hydraulic Systems
- CVEN 350 Environmental Engineering
- CVEN 360 Highway Engineering
- CVEN 380 Construction Engineering

- CVEN 381 Contracts, Specifications, and Local Regulations
- CVEN 399 Practical Training
- CVEN 401 Civil Engineering Design Project I
- CVEN 402 Civil Engineering Design Project II
- CVEN 420 Design of Steel Structures

### Major Electives Courses (12 CH)

Students must complete a minimum of 12 credit hours in major elective courses:

- CVEN 422 Design of Reinforced Concrete Structures
- CVEN 423 Selected Topics in Structural Design
- CVEN 424 Structural Matrix Analysis
- CVEN 430 Foundation Engineering II
- CVEN 431 Selected Topics in Geotechnical Engineering
- CVEN 442 Selected Topics in Water Resources
- CVEN 453 Selected Topics in Environmental Engineering
- CVEN 460 Pavement Materials and Design
- CVEN 461 Traffic Engineering
- CVEN 462 Selected Topics in Transportation Engineering
- CVEN 463 Railway Track Engineering
- CVEN 481 Project Planning and Scheduling
- CVEN 482 Selected Topics in Construction Engineering and Management

### Major Additional Science Electives (3 CH)

Students must complete a minimum of 3 credit hours in courses selected from the following list:

- BIOL 101 Biology I
- GEOL 101 Principal of General Geology

### Study Plan

#### Bachelor of Science in Civil Engineering

FIRST YEAR (32 Credit Hours)			
Term	Course #	Course Title	Credit Hours
Fall	ENGL 202	English Language I Post Foundation	3
	GENG 106	Computer Programming	3
	MATH 101	Calculus I	3
	CHEM 101	General Chemistry I	3
	CHEM 103	Experimental General Chemistry I	1

	GENG 107	Engineering Skills and Ethics	3
<b>Total Credit Hours in Semester</b>			<b>16</b>
Spring	ENGL 203	English Language II Post Foundation	3
	MATH 102	Calculus II	3
	PHYS 191	General Physics for Engineering I	3
	PHYS 192	Experimental General Physics for Engineering	1
	DAWA 111	Islamic Culture	3
	GENG 111	Engineering Graphics	3
<b>Total Credit Hours in Semester</b>			<b>16</b>

<b>SECOND YEAR (34 Credit Hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	MATH 211	Calculus III	3
	PHYS 193	General Physics for Engineering II	3
	PHYS 194	Experimental General Physics for Engineering II	1
	GENG 200	Probability and Statistics for Engineers	3
	CVEN 210	Properties and Testing of Materials	3
	CVEN 213	Statics	3
<b>Total Credit Hours in Semester</b>			<b>16</b>
Spring	MATH 217	Mathematics for Engineers	3
	CVEN 214	Strength of Materials	3
	CVEN 230	Geotechnical Engineering	3
	CVEN 220	Analysis of Structures	3
	CVEN 212	Fluid Mechanics	3



		Major Additional-Science Elective	3
<b>Total Credit Hours in Semester</b>			<b>18</b>

<b>THIRD YEAR (39 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	CVEN 320	Design of Reinforced Concrete Members	3
	GENG 300	Numerical Methods	3
	CVEN 321	Analysis of Indeterminate Structures	3
	CVEN 330	Foundation Engineering I	3
	CVEN 270	Surveying for Construction	3
	CVEN 340	Analysis and Design of Hydraulic Systems	3
<b>Total Credit Hours in Semester</b>			<b>18</b>
Spring	GENG 360	Engineering Economics	3
	CVEN 350	Environmental Engineering	3
	CVEN 360	Highway Engineering	3
	CVEN 380	Construction Engineering	3
		Major elective I	3
	HIST 121	History of Qatar	3
<b>Total Credit Hours in Semester</b>			<b>18</b>
Summer	CVEN 399	Practical Training	3
<b>Total Credit Hours in Semester</b>			<b>3</b>

<b>FOURTH YEAR (26 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	CVEN 420	Design of Steel Structures	3
	ARAB 100	Arabic Language I	3
	CVEN 401	Civil Engineering Design Project I	2

		Major Elective II	3
		Major Elective III	3
<b>Total Credit Hours in Semester</b>			<b>14</b>
Spring	CVEN 381	Contracts, Specifications, and Local Regulations	3
	CVEN 402	Civil Engineering Design Project II	3
		Major Elective IV	3
		Core Curriculum Elective*	3
<b>Total Credit Hours in Semester</b>			<b>12</b>

\*Student must complete a minimum of 3 credit hours from the Social/Behavioral Sciences Package

## MINOR IN ENGINEERING PROJECT MANAGEMENT

The mission of the minor in Engineering Project Management is to provide the engineering undergraduate students with education in Engineering Project Management following a comprehensive approach which considers all the aspects required for managing of an engineering project.

### Declaring the minor

Students must satisfy the university requirements for declaring a minor. For more details about the University requirements for declaring a Minor, please refer to the paragraph “Declaring the minor” in Chapter 7 – Academic Policies and Regulations of this document.

### MINOR REQUIREMENTS - Minor in Engineering Project Management (18 CH)

A minimum of 18 credit hours are required to complete the minor in engineering project management, including the following:

- A minimum of 12 credit hours in minor requirements courses.
- A minimum of 6 credit hours of major electives courses.

1. For students joining from all of the college of engineering undergraduate majors except the Civil Engineering major:

#### Minor Requirements Courses (12 CH)

Students must complete a minimum of 12 credit hours in minor requirements courses:

- MECH 471 Selected Topics I: Introduction to Project Management
- CVEN 481 Project Planning and Scheduling
- ACCT 330 Project Cost Accounting and Finance for Engineers
- CVEN 381 Contracts, Specifications, and Local Regulations

#### Minor Electives Courses (6 CH)

Students must complete a minimum of 6 credit hours in minor elective courses.

- CVEN 482 Selected Topics in Construction Engineering and Management
- CVEN 464 Risk and Safety Management
- MECH 472 Selected Topics II: Sustainability and Lifecycle Cost Management
- MAGT 302 Human Resource Management

2. For student joining from the Civil Engineering Major

**Minor Requirements Courses (12 CH)**

Students must complete a minimum of 12 credit hours in minor requirements courses:

- MECH 471 Selected Topics I: Introduction to Project Management
- CVEN 481 Project Planning and Scheduling
- ACCT 330 Project Cost Accounting and Finance for Engineers
- CVEN 482 Selected Topics in Construction Engineering Management

**Minor Electives Courses (6 CH)**

Students must complete a minimum of 6 credit hours in minor elective courses.

- CVEN 464 Risk and Safety Management
- MECH 472 Selected Topics II: Sustainability and Lifecycle Cost Management
- MAGT 302 Human Resource Management

## DEPARTMENT OF CHEMICAL ENGINEERING

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 Email: [che@qu.edu.qa](mailto:che@qu.edu.qa)  
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### Head

Majeda Khraisheh

### Faculty

#### Professors

Ibrahim Abu-Reesh, Fares AlMomani, Shaheen Abdulhafez Al-Muhtaseb, Bassim H. Hammadi, Ramazan Kahraman, Majeda Khraisheh, Hazim Qiblawey

#### Associate Professors

Mohamed Al-Marri, Rahul Bhosale, Fadwa ElJack, Anand Kumar, Saad Ali Al-Sobhi

#### Assistant Professors

Mohammed Ali Saleh Saad, Zeinab Abbas Jawad

### ABOUT THE DEPARTMENT

The Department of Chemical Engineering at Qatar University has 14 highly qualified faculty members and 7 teaching assistants. The Department enjoys a remarkable working relationship with local industry, which supports the chemical engineering program in several ways, including professorial chair positions, student internships, guest lectures, industrially based graduation projects, and process plant design award contest.

The Department of Chemical Engineering has been particularly successful in attracting research funding from Qatar National research fund and from local industry to build an impressive portfolio of research project of national relevance. The research priorities of the Department of Chemical Engineering are aligned with the national priorities of the state of Qatar in terms of research focus. These priorities are compatible with faculty members' expertise and personal development in the areas of water treatment, carbon management, flow assurance and hydrates, natural gas, hydrocarbons processing, renewable energy, desalination, catalysis, membrane systems and materials engineering. The level of funding currently exceeds 42 million US dollars from QNRF under the NPRP and UREP schemes, and industry, to sustain its research activities and train undergraduate students in research methods. Undergraduate students enjoy a remarkable support from the research-active faculty members through UREP projects. The Chemical Engineering Program offered by the department is accredited by the Engineering Accreditation Commission of ABET (<http://www.abet.org>).

## Opportunities

Graduates of the Chemical Engineering Program enjoy a wide range of career opportunities in the oil, gas, petrochemical, desalination, power generation, water treatment, environmental regulations, and government sectors. Graduates can also pursue higher studies in Chemical Engineering or related fields.

## BACHELOR OF SCIENCE IN CHEMICAL ENGINEERING

### Objectives

The graduates of the Qatar University Chemical Engineering Program will:

1. Practice chemical engineering skills in chemical engineering related careers including hydrocarbon processing, power and desalination, and government agencies.
2. Take an active role and participate in their continuous professional development including graduate studies when appropriate to their career goals.
3. Maintain ethical and professional standards in their careers.

### Learning Outcomes

The graduates of the Qatar University Chemical Engineering Program will have:

**SO(1):** An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.

**SO(2):** An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.

**SO(3):** An ability to communicate effectively with a range of audiences.

**SO(4):** An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.

**SO(5):** An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.

**SO(6):** An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.

**SO(7):** An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

### Admissions Requirements

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement.

Detailed Undergraduate admission requirements are available at the following link:

[http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### Declaring the major

Students must satisfy QU requirements for declaring a major including the need to declare the major before completing 36 undergraduate credit hours. For more details about the University requirements for declaring the Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document.

## **DEGREE REQUIREMENTS - Major in Chemical Engineering**

A minimum of 131 credit hours are required to complete the major in Chemical Engineering, including the following:

- A minimum of 33 credit hours in core curriculum requirements.
- A minimum of 27 credit hours of college requirements.
- A minimum of 59 credit hours of major requirements courses.
- A minimum of 12 credit hours of major electives courses.

### **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society

- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods



- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

- PHYS 191 General Physics for Engineering I
- PHYS 192 Experimental General Physics for Engineering I
- PHYS 193 General Physics for Engineering II
- PHYS 194 Experimental General Physics for Engineering II
- CHEM 101 General Chemistry I
- CHEM 103 Experimental General Chemistry I

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **College Requirements (27 CH)**

Students must complete a minimum of 27 credit hours in college requirements:

- MATH 102 Calculus II
- MATH 211 Calculus III
- MATH 217 Mathematics for Engineers
- GENG 106 Computer Programming
- GENG 107 Engineering Skills and Ethics
- GENG 200 Probability and Statistics for Engineers
- GENG 300 Numerical Methods
- GENG 360 Engineering Economics
- GENG 231 Materials Science

### **Major Requirements Courses (59 CH)**

Students must complete a minimum of 59 credit hours in major requirements courses:

- CHEM 102 General Chemistry II
- CHEM 104 Experimental General Chemistry II

- CHEM 209 Fundamentals in Organic Chemistry
- CHME 201 Introduction to Chemical Engineering I
- CHME 202 Introduction to Chemical Engineering II
- CHME 212 Chemical Engineering Thermodynamics I
- CHME 213 Fluid Mechanics
- CHME 235 Physical Chemistry for Chemical Engineers
- CHME 311 Heat Transfer
- CHME 312 Chemical Engineering Thermodynamics II
- CHME 313 Mass Transfer I
- CHME 314 Chemical Reaction Engineering
- CHME 315 Mass Transfer II
- CHME 324 Fluid Mechanics and Heat Transfer Lab
- CHME 325 Unit Operations Lab
- CHME 327 Computer Methods in Chemical Engineering
- CHME 399 Practical Training
- CHME 406 Chemical Process Industries
- CHME 421 Senior Design Project I
- CHME 422 Senior Design Project II
- CHME 423 Process Control
- CHME 426 Reaction Engineering and Process Control Lab
- CHME 458 Process Safety and Hazards Prevention

### **Major Electives Courses (12 CH)**

Students must complete a minimum of 12 credit hours in major elective courses:

- CHME 413 Process Modeling & Simulation
- CHME 431 Petroleum Refining Process
- CHME 433 Petrochemical Technology
- CHME 435 Polymer Engineering
- CHME 445 Desalination
- CHME 451 Introduction to Gas Engineering
- CHME 454 Natural Gas Treatment
- CHME 455 Introduction to Biochemical Engineering
- CHME 462 Pollution Control
- CHME 464 Wastewater Treatment
- CHME 466 Special Topics in Chemical Engineering I
- CHME 467 Special Topics in Chemical Engineering II
- CHME 470 Fund of Petroleum Engineering
- CHME 474 Process Equipment Design
- CHME 477 Process Integration
- CHME 486 Corrosion Engineering
- CHME 488 Undergraduate Research

**Study Plan****Bachelor of Science in Chemical Engineering**

<b>FIRST YEAR (33 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	ENGL 202	English Language I Post Foundation	3
	ARAB 100	Arabic Language I	3
	MATH 101	Calculus I	3
	CHEM 101	General Chemistry I	3
	CHEM 103	Experimental General Chemistry I	1
	GENG 106	Computer Programming	3
<b>Total Credit Hours in Semester</b>			<b>16</b>
Spring	ENGL 203	English Language II Post Foundation	3
	MATH 102	Calculus II	3
	PHYS 191	General Physics for Engineering I	3
	PHYS 192	Experimental General Physics for Engineering I	1
	CHEM 102	General Chemistry II	3
	CHEM 104	Experimental General Chemistry II	1
	GENG 107	Engineering Skills and Ethics	3
<b>Total Credit Hours in Semester</b>			<b>17</b>

<b>SECOND YEAR (34 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	MATH 211	Calculus III	3
	PHYS 193	General Physics for Engineering II	3
	PHYS 194	Experimental General Physics for Engineering II	1
	CHEM 209	Fundamentals in Organic Chemistry	3

	CHEM 235	Physical Chemistry for Chemical Engineers	3
	CHME 201	Introduction to Chemical Engineering I	3
<b>Total Credit Hours in Semester</b>			<b>16</b>
Spring	HIST 121	History of Qatar	3
	GENG 300	Numerical Methods	3
	CHME 202	Introduction to Chemical Engineering II	3
	CHME 212	Chemical Engineering Thermodynamics I	3
	CHME 213	Fluid Mechanics	3
	DAWA 111	Islamic Culture	3
<b>Total Credit Hours in Semester</b>			<b>18</b>

<b>THIRD YEAR (36 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	MATH 217	Mathematics for Engineers	3
	GENG 200	Probability and Statistics for Engineers	3
	CHME 311	Heat Transfer	3
	CHME 312	Chemical Engineering Thermodynamics II	3
	CHME 313	Mass Transfer I	3
	CHME 324	Fluid Mechanics and Heat Transfer Lab	1
<b>Total Credit Hours in Semester</b>			<b>16</b>
Spring	GENG 231	Materials Science	3
	GENG 360	Engineering Economics	3
	CHME 314	Chemical Reaction Engineering	3
	CHME 315	Mass Transfer II	3
	CHME 325	Unit Operations Lab	1
	CHME 327	Computer Methods in Chemical Engineering	1
		Social/Behavioral Sciences Package	3

<b>Total Credit Hours in Semester</b>			<b>17</b>
Summer	CHME 399	Practical Training	3
<b>Total Credit Hours in Semester</b>			<b>3</b>

<b>FOURTH YEAR (28 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	CHME 421	Senior Design Project I	3
	CHME 423	Process Control	3
	CHME 406	Chemical Process Industries	3
		Major Elective I	3
		Major Elective II	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	CHME 422	Senior Design Project II	3
	CHME 426	Reaction Engineering and Process Control Lab	1
		Major Elective III	3
		Major Elective IV	3
	CHME 458	Process Safety and Hazard Prevention	3
<b>Total Credit Hours in Semester</b>			<b>13</b>

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

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Website: <http://www.qu.edu.qa/engineering/academics/computer>

### Head

Abdulla Al-Ali

### Faculty

#### Professors:

Qutaibah Malluhi, Abdelaziz Bouras, Mohsen Guizani, Sumaya Al Maaded, Amr Mohamed, Khaled Shaban

#### Associate Professors:

Mohammad Saleh, Uvais Qidwai, Tamer Elsayed, Abdulla Khalid Al-Ali, Abdelkarim Erradi, Osama Halabi, Noor Al-Maadeed, Elias Yaacoub, Noora Fetais, Cagatay Catal

#### Assistant Professors:

Mohamed Al-Meer, Abdulaziz Khalid Al-Ali, Wadha Labda, Moutaz Saleh

## ABOUT THE DEPARTMENT

The CSE Department offers two distinct undergraduate programs and a minor in Computer Science:

- The Computer Science (CS) program is designed to provide and equip students with the knowledge, training, and skills in the field of computer science. It offers an exciting curriculum that includes a variety of courses such as programming, algorithms, databases, networking, mobile and web development, software engineering, and computer security. This educational experience is culminated by a graduation project where teams are formed to design and develop a novel system to help solve realistic problems using the latest technologies. The program provides creative learning environment with state-of-the-art facilities and interactive training. The graduates of this program are well prepared for a range of careers in Computer Science both in Qatar and internationally. The CS program at Qatar University was first offered in 1989, as the first computer-related undergraduate educational program offered in Qatar. Students acquire the necessary skills for the analysis, design and development of computing solutions to solve challenging problems in a variety of business, scientific and social contexts. In our 21<sup>st</sup> century digital age, computer technology is part of nearly everything nowadays and computer science professionals are highly needed in every type of industry. Cybersecurity concentration was established in 2021 to meet the growing demand for cybersecurity professionals.
- The Computer Engineering (CE) Program that concentrates on the design and development of computing devices and systems. It combines skills from Electrical Engineering, Computer Science, and Mathematics, and applies them in areas like Networking, Data Communication, Instrumentation, Robotics and Intelligent

System Automation. The CE program at Qatar University was first offered in 2002. Graduates of this program are highly demanded in industry, government and academic institutions in Qatar. They have the full ability to work effectively in different sectors and in multidisciplinary areas which include telecommunications, oil and gas, and manufacturing. CE students engage in a broad range of learning and research activities with emphasis on computer architecture and organization, microprocessors, embedded computing, networking, hardware design and interfacing, mobile and wireless communication. This educational experience is culminated by a graduation project where teams are formed to design and engineer innovative hardware and software systems using the latest technologies from robotics, distributed systems, circuit design, networking, and embedded systems to tackle real world problems.

The Computer Engineering Program is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org> and the Computer Science Program is accredited by the Computing Accreditation Commission of ABET, <http://www.abet.org>.

## **BACHELOR OF SCIENCE IN COMPUTER ENGINEERING**

### **Objectives**

The objective of the major is to graduate students who shall be able to achieve most of the following:

1. Establish successful computer or engineering careers in industry and government that will advance the economic development of the country, the region, and beyond.
2. Serve industry and government by contributing professionally to help solve interdisciplinary, open-ended, and optimization problems.
3. Contribute effectively to the computing or engineering profession by fostering effective interaction, ethical practices, and communication skills, while pursuing further education through lifelong learning.
4. Pursue advanced studies if they so desire.

### **Learning Outcomes**

By the time of graduation, students will have:

**SO(1):** An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.

**SO(2):** An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.

**SO(3):** An ability to communicate effectively with a range of audiences.

**SO(4):** An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.

**SO(5):** An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.

**SO(6):** An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.

**SO(7):** An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.



## Opportunities

Computer engineers research, plan, design, develop, modify, evaluate and integrate computer and communication systems. Examples of potential employers are computer and telecommunication hardware manufacturers, telecommunications providers, information technology consulting companies, government agencies, educational and research institutions, and information technology departments throughout the private and public sectors. Sample career titles for Computer Engineering are Computer Engineer, Telecommunications Engineer, Hardware Circuit Designer, Hardware Engineer, Networks Engineer, Systems Engineer, Research Engineer, and Wireless Communication Engineer.

## Admissions Requirements

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement. Students who have not obtained the required admission average in the General Secondary school Certificate or its equivalent may be admitted when the Program's capacity allows more intake, provided that they achieve a score of 61 or higher on the TOEFL iBT Test, as well as achieving 550 or higher in the Mathematics Part of the International SAT I Test and score an average of 75% or higher in math and science courses. Students may be asked to pass an interview.

Detailed Undergraduate admission requirements are available at the following link:

[http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

## Declaring the major

Students must satisfy QU requirements for declaring a major including the need to declare the major before completing 36 undergraduate credit hours. In addition, students must have either successfully completed all requirements of the Foundation Program or satisfied the University's competency requirements.

For more details about the University requirements for declaring the Major, please refer to the paragraph "Declaring the major" in Chapter 7 – Academic Policies and Regulations of this document.

## DEGREE REQUIREMENTS - Major in Computer Engineering

A minimum of 128 credit hours are required to complete the major in Computer Engineering, including the following:

- A minimum of 33 credit hours in core curriculum requirements.
- A minimum of 24 credit hours in college requirements.
- A minimum of 53 credit hours in major requirements courses.
- A minimum of 6 credit hours of senior design project.
- A minimum of 12 credit hours in major electives courses.

## Core Curriculum Program

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

## Identity and Communication Package (15 - 18 CH)

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I

- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

- CHEM 101 General Chemistry I

- CHEM 103 Experimental General Chemistry I
- PHYS 191 General Physics for Engineering I
- PHYS 192 Experimental General Physics for Engineering I
- PHYS 193 General Physics for Engineering II
- PHYS 194 Experimental General Physics for Engineering II

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **College Requirements (24 CH)**

Students must complete a minimum of 24 credit hours in college requirements:

- MATH 102 Calculus II
- MATH 211 Calculus III
- MATH 217 Mathematics for Engineers
- GENG 107 Engineering Skills and Ethics
- GENG 200 Probability and Statistics for Engineers
- GENG 300 Numerical Methods
- GENG 360 Engineering Economics
- ELEC 201 Electric Circuits

### **Major Requirements Courses (53 CH)**

Students must complete a minimum of 53 credit hours in major requirements courses:

- ELEC 231 Fundamentals of Electronics
- ELEC 351 Signals and Systems
- CMPS 151 Programming Concepts
- CMPS 205 Discrete Structures for computing
- CMPS 251 Object-Oriented Programming
- CMPE 261 Digital Logic Design
- CMPE 263 Computer Architecture and Organization I
- CMPS 303 Data Structures
- CMPE 355 Data Communication and Computer Networks I
- CMPE 363 Computer Architecture and Organization II
- CMPE 364 Microprocessors based Design
- CMPE 370 Computer Engineering Practicum
- CMPS 405 Operating Systems
- CMPE 457 Data Communication and Computer Networks II
- CMPE 462 Computer Interfacing
- CMPE 476 Digital Signal Processing

### **Senior Design Project (6 CH)**

Students must select one of the two Design Project Packages namely the Computer Engineering Senior Design Project or the Multidisciplinary Senior Design Project.

### **Computer Engineering Senior Design Project (6 CH)**

Students must complete a minimum of 6 credit hours in the Computer Engineering Design Project courses:

- CMPE 498 Design Project I
- CMPE 499 Design Project II

### **Multidisciplinary Senior Design Project (6 CH)**

Students must complete a minimum of 6 credit hours in the Multidisciplinary Senior Design Project courses:

- GENG 498 Multidisciplinary Senior Design I
- GENG 499 Multidisciplinary Senior Design II

### **Major Electives Courses (12 CH)**

Students must complete a minimum of 12 credit hours in major elective courses by taking a maximum of 3 credit hours in the Common Electives sub-package, and the remaining required credit hours from the CE Electives sub-package:

### **Common Electives Sub-package (0-3 CH)**

Students can take up to 3 credit hours from the following list of courses:

- CMPS 312 Mobile Application Development
- CMPS 385 Computer Security
- CMPE 480 Computer Vision
- CMPE 488 Wireless Networks and Applications

### **Computer Engineering Electives Sub-package (9-12 CH)**

Students must complete a minimum of 9 to 12 CH from the following courses:

- CMPS 460 Machine Learning
- CMPE 399 Practical Training
- CMPE 470 Modern Computer Organization
- CMPE 471 Selected Topics in Computer Engineering
- CMPE 474 Artificial Neural Networks
- CMPE 481 Modeling and Simulation of Digital Systems
- CMPE 482 Multimedia Networks
- CMPE 483 Introduction to Robotics
- CMPE 485 Fundamentals of Digital Image Processing
- CMPE 487 Hardware Software Co-Design

## **Study Plan**

### **Bachelor of Science in Computer Engineering**

#### **FIRST YEAR (33 credit hours)**

<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	CMPS 151	Programming Concepts	3
	GENG 107	Engineering Skills and Ethics	3
	CHEM 101	General Chemistry I	3
	CHEM 103	Experimental General Chemistry I	1
	MATH 101	Calculus I	3
	ENGL 202	English Language I Post Foundation	3
<b>Total Credit Hours in Semester</b>			<b>16</b>
Spring	CMPS 205	Discrete Structures for Computing	3
	CMPS 251	Object-Oriented Programming	4
	MATH 102	Calculus II	3
	PHYS 191	General Physics for Engineering I	3
	PHYS 192	Experimental General Physics for Engineering I	1
	ENGL 203	English Language II Post Foundation	3
<b>Total Credit Hours in Semester</b>			<b>17</b>

<b>SECOND YEAR (33 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	CMPE 261	Digital Logic Design	4
	ELEC 201	Electric Circuits	3
	MATH 211	Calculus III	3
	PHYS 193	General Physics for Engineering II	3
	PHYS 194	Experimental General Physics for Engineering II	1
	ARAB 100	Arabic Language I	3
<b>Total Credit Hours in Semester</b>			<b>17</b>

Spring	ELEC 351	Signals and Systems	3
	ELEC 231	Fundamentals of Electronics	3
	CMPE 263	Computer Architecture and Organization I	3
	CMPS 303	Data Structures	4
	GENG 200	Probability and Statistics for Engineers	3
<b>Total Credit Hours in Semester</b>			<b>16</b>

<b>THIRD YEAR (32 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	CMPE 355	Data Communication and Computer Networks I	4
	CMPE 363	Computer Architecture and Organization II	3
	CMPE 370	Computer Engineering Practicum	1
	CMPS 405	Operating Systems	4
	MATH 217	Mathematics for Engineers	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	CMPE 364	Microprocessor Based Design	4
	CMPE 457	Data Communication and Computer Networks II	3
	CMPE 476	Digital Signal Processing	4
	GENG 360	Engineering Economics	3
	GENG 300	Numerical Methods	3
<b>Total Credit Hours in Semester</b>			<b>17</b>

<b>FOURTH YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	CMPE 498 <b>OR</b>	Design Project I <b>OR</b> Multidisciplinary Senior Design I	3



	GENG 498		
	CMPE 462	Computer Interfacing	3
		Social/ Behavioral Sciences Package	3
		Major Elective I	3
		Major Elective II	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	CMPE 499 <b>OR</b> GENG 499	Design Project II <b>OR</b> Multidisciplinary Senior Design II	3
	DAWA 111	Islamic culture	3
	HIST 121	History of Qatar	3
		Major Elective III	3
		Major Elective IV	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

\*Student must complete a minimum of 3 credit hours from Social/Behavioral Sciences package

## BACHELOR OF SCIENCE IN COMPUTER SCIENCE

### Objectives

The expected accomplishments of graduates of the Bachelor of Science in Computer Science program at Qatar University are:

1. Establish successful computing careers in business, industry, and government that will contribute to the economic development of the country, the region, and beyond.
2. Apply analytical, design, and implementation skills to formulate and to innovatively solve computing, business, and interdisciplinary problems.
3. Contribute effectively to society and the computing profession by fostering effective interaction, ethical practices, and communication skills, while pursuing further education through lifelong learning.
4. Pursue advanced studies if they so desire.

### Learning Outcomes

By the time of graduation, students will be able to:

**SO(1):** Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.

**SO(2):** Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.

**SO(3):** Communicate effectively in a variety of professional contexts.

**SO(4):** Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.

**SO(5):** Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.

**SO(6):** Apply computer science theory and software development fundamentals to produce computing-based solutions.

### Opportunities

Computer Science is a very versatile field. Therefore, the program gives graduates a wide range of distinguished career opportunities. Computer Science graduates are sought after by almost all kinds of industries, including oil and gas, telecommunications, media, finance, government, and many others within Qatar, the region, and beyond. Examples of job titles for computer science include Software Engineer, System Administrator, Web Developer, Mobile Application Developer, System Analyst, Cybersecurity Specialist, Network Administrator, Database Administrator, IT Consultant, Multimedia Specialist, Business Intelligence Analyst, and Information Systems Security Manager.

### Admissions Requirements

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement. Students who have not obtained the required admission average in the General Secondary school Certificate or its equivalent may be admitted when the Program's capacity allows more intake, provided that they achieve a score of 61 or higher on the TOEFL Test, as well as achieving 550 or higher in the Mathematics Part of the International SAT I Test and score an average of 75% or higher in math and science courses.

Students may be asked to pass an interview. Detailed Undergraduate admission requirements are available at the following link:

[http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### **Declaring the major**

Students must satisfy QU requirements for declaring a major including the need to declare the major before completing 36 undergraduate credit hours. In addition, students must have either successfully completed all requirements of the Foundation Program or satisfied the University's competency requirements. For more details about the University requirements for declaring the Major, please refer to the paragraph "Declaring the major" in Chapter 7 – Academic Policies and Regulations of this document.

### **DEGREE REQUIREMENTS - Major in Computer Science**

A minimum of 120 credit hours are required to complete the major in Computer Science, including the following:

- A minimum of 33 credit hours in core curriculum requirements.
- A minimum of 21 credit hours of college requirements.
- A minimum of 43 credit hours in major requirements courses.
- A minimum of 6 credit hours of Senior Project.
- A minimum of 12 credit hours of major electives courses.
- A minimum of 5 credit hours of additional compulsory courses.

### **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

**Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

**Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

**Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

- MATH 101 Calculus I
- MATH 102 Calculus II

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **College Requirements (21 CH)**

Students must complete a minimum of 21 credit hours in college requirements:

- MATH 231 Linear Algebra
- PHYS 191 General Physics for Engineering I
- PHYS 192 Experimental General Physics for Engineering I
- PHYS 193 General Physics for Engineering II
- PHYS 194 Experimental General Physics for Engineering II
- CHEM 101 General Chemistry I
- CHEM 103 Experimental General Chemistry I
- GENG 200 Probability and Statistics for Engineers

- GENG 300 Numerical Methods

### **Major Requirements Courses (43 CH)**

Students must complete a minimum of 43 credit hours in major requirements courses:

- CMPS 151 Programming Concepts
- CMPS 200 Computer Ethics
- CMPS 205 Discrete Structures for Computing
- CMPS 251 Object-Oriented Programming
- CMPE 263 Computer Architecture and Organization I
- CMPS 303 Data Structures
- CMPS 310 Software Engineering
- CMPS 323 Design and Analysis of Algorithms
- CMPS 350 Web development Fundamentals
- CMPS 351 Fundamentals of Database Systems
- CMPE 355 Data Communication and Computer Networks I
- CMPS 385 Computer Security
- CMPS 405 Operating Systems

### **Senior Project Package (6 CH)**

Students must select one of the two Senior Project Packages namely the Computer Science Senior Project or the Multidisciplinary Senior Design Project.

#### **Computer Science Senior Project (6 CH)**

Students must complete a minimum of 6 credit hours in the Computer Science Project courses:

- CMPS 493 Senior Project I
- CMPS 499 Senior Project II

#### **Multidisciplinary Senior Design Project (6 CH)**

Students must complete a minimum of 6 credit hours in the Multidisciplinary Senior Design Project courses:

- GENG 498 Multidisciplinary Senior Design I
- GENG 499 Multidisciplinary Senior Design II

### **Major Electives Courses (12 CH)**

Students must complete a minimum of 12 credit hours in major elective courses.

- CMPS 312 Mobile Application Development
- CMPS 356 Web Application Design and Development
- CMPS 360 Data Science Fundamentals
- CMPS 373 Computer Graphics
- CMPS 393 Modeling and Simulation
- CMPS 399 Practical Training
- CMPS 403 Artificial Intelligence
- CMPS 433 Multimedia Systems

- CMPS 434 Game Design and Development
- CMPS 445 Compiler Construction
- CMPS 451 Database Management Systems
- CMPS 453 Data Mining
- CMPS 460 Machine Learning
- CMPS 465 Parallel Computing
- CMPS 466 Information Retrieval
- CMPE 480 Computer Vision
- CMPE 488 Wireless Networks and Applications
- CMPS 497 Special Topics in Computing

### Major Supporting Requirements (5 CH)

Students must complete a minimum of 5 credit hours in additional required courses including:

- MAGT 101 Principles of Management
- CMPS 307 Introduction to Project Management and Entrepreneurship

### Study Plan

#### Bachelor of Science in Computer Science

FIRST YEAR (33 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	CMPS 151	Programming Concepts	3
	CHEM 101	General Chemistry I	3
	CHEM 103	Experimental General Chemistry I	1
	MATH 101	Calculus I	3
	ENGL 202	English Language I Post Foundation	3
	HIST 121	History of Qatar	3
Total Credit Hours in Semester			16
Spring	MATH 231	Linear Algebra	3
	CMPS 251	Object-Oriented Programming	4
	PHYS 191	General Physics for Engineering I	3
	PHYS 192	Experimental General Physics for Engineering I	1
	MATH 102	Calculus II	3
	ENGL 203	English Language II Post Foundation	3



<b>Total Credit Hours in Semester</b>	<b>17</b>
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<b>SECOND YEAR (31 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	CMPS 200	Computer Ethics	1
	CMPS 303	Data Structures	4
	PHYS 193	General Physics for Engineering II	3
	PHYS 194	Experimental General Physics for Engineering II	1
	CMPS 205	Discrete Structures for Computing	
	ARAB 100	Arabic Language I	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	CMPS 323	Design and Analysis of Algorithms	3
	CMPS 351	Fundamentals of Database Systems	4
	CMPE 263	Computer Architecture and Organization I	3
	GENG 200	Probability and Statistics for Engineers	3
	ARAB 200	Arabic Language II	3
<b>Total Credit Hours in Semester</b>			<b>16</b>

<b>THIRD YEAR (33 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	CMPS 310	Software Engineering	4
	CMPE 355	Data Communication and Computer Networks I	4
	GENG 300	Numerical Methods	3
		Major Elective I	3
		Natural Science/ Mathematics Package	3
<b>Total Credit Hours in Semester</b>			<b>17</b>

Spring	CMPS 350	Web Development Fundamentals	3
	CMPS 385	Computer Security	3
	CMPS 405	Operating Systems	4
	DAWA 111	Islamic Culture	3
		Major Elective II	3
<b>Total Credit Hours in Semester</b>			<b>16</b>

<b>FOURTH YEAR (23 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	CMPS 493 <b>OR</b> GENG 498	Senior Project I <b>OR</b> Multidisciplinary Senior Design I	3
	CMPS 307	Introduction to Project Management and Entrepreneurship	2
		Humanities/ Fine Arts Package	3
		Major Elective III	3
<b>Total Credit Hours in Semester</b>			<b>11</b>
Spring	CMPS 499 <b>OR</b> GENG 499	Senior Project II <b>OR</b> Multidisciplinary Senior Design II	3
	MAGT 101	Principles of Management	3
		Social/ Behavioral Sciences Package	3
		Major Elective IV	3
<b>Total Credit Hours in Semester</b>			<b>12</b>

## CONCENTRATION IN CYBERSECURITY

### Objectives

- Contribute to the security of individuals, organizations and the society by applying cybersecurity skills, policies and best practices for securing information technology environments.

### Student Outcomes

By the time of graduation, students will be able to:

SO(7): Analyze and evaluate systems with respect to maintaining operations in the presence of risks and threats.

SO(8): Apply security principles and practices to the environment, hardware, software, and human aspects of a system.

### Opportunities

The Bachelor of Science in Computer Science - Cybersecurity Concentration Area gives graduates a wide range of distinguished career opportunities to protect organizations from digital attacks, detect vulnerabilities, mitigate risks, keep data and networks safe, and develop policies and procedures for maintaining security. Examples of job titles include information security analyst, chief information security officer, security architect, and security engineer.

### Admissions Requirements

1. Only Computer Science students can apply for the Bachelor of Science in Computer Science - Cybersecurity Concentration Area
2. Must complete 45 credit hours before applying to the new concentration
3. Admission is decided by the department based on the student's academic performance.

### CONCENTRATION REQUIREMENTS - Concentration in Cybersecurity (12 CH)

A minimum of 12 credit hours are required to complete the concentration in cybersecurity, including the following:

- A minimum of 9 credit hours in concentration requirements courses.
- A minimum of 3 credit hours of concentration electives courses.

### Concentration Requirements Courses (9 CH)

Students must complete a minimum of 9 credit hours in concentration requirements courses:

- CMPS 381 Applied Cryptography
- CMPS 481 Enterprise Cybersecurity
- CMPS 485 Network Security

### Concentration Electives Courses (3 CH)

Students must complete a minimum of 3 credit hours in concentration elective courses.

- CMPS 482 Cyber-Physical System Security
- CMPS 483 Digital Forensics
- CMPS 489 Special Topics in Cybersecurity

## **MINOR IN COMPUTER SCIENCE**

The minor in Computer Science is designed to provide students in other fields of study with a solid foundation in fundamentals of computer science in order to analyze and solve computing problems.

### **Declaring the minor**

Students must satisfy the university requirements for declaring a minor. For more details about the University requirements for declaring a Minor, please refer to the paragraph “Declaring the minor” in Chapter 7 – Academic Policies and Regulations of this document.

### **MINOR REQUIREMENTS - Minor in Computer Science (24 CH)**

A minimum of 24 credit hours are required to complete the minor in Computer Science, including the following:

- A minimum of 21 credit hours in major requirements courses.
- A minimum of 3 credit hours of major electives courses.

### **Minor Requirements Courses (21 CH)**

Students must complete a minimum of 21 credit hours in major requirements courses:

- CMPS 151 Programming Concepts
- CMPS 205 Discrete Structures for Computing
- CMPS 251 Object-Oriented Programming
- CMPS 303 Data Structures
- CMPS 350 Web development Fundamentals
- CMPS 351 Fundamentals of Database Systems

### **Minor Electives Courses (3 CH)**

Students must complete a minimum of 3 credit hours in major elective courses.

- CMPE 355 Data Communication and Computer Networks I
- CMPS 310 Software Engineering
- CMPS 312 Mobile Application Development
- CMPS 323 Design and Analysis of Algorithms
- CMPS 356 Web Applications Design and Development
- CMPS 360 Data Science Fundamentals
- CMPS 373 Computer Graphics
- CMPS 385 Computer Security
- CMPS 393 Modeling and Simulation
- CMPS 403 Artificial Intelligence
- CMPS 405 Operating Systems
- CMPS 433 Multimedia Systems
- CMPS 434 Game Design and Development
- CMPS 445 Compiler Construction
- CMPS 451 Database Management Systems
- CMPS 453 Data Mining
- CMPS 460 Machine Learning

- CMPS 465 Parallel Computing
- CMPS 466 Information Retrieval
- CMPS 497 Special Topics in Computing

## DEPARTMENT OF ELECTRICAL ENGINEERING

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### Head

Mohammed Al-Hitmi

### Faculty

#### Professors

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#### Associate Professors

Nader Meskin, Mohammed Al-Hitmi, Hasan Mehrjerdi

## ABOUT THE DEPARTMENT

The Department of Electrical Engineering offers two undergraduate programs- Bachelors of Science in Electrical and Bachelors of Science in Mechatronics Engineering. The Mechatronics Engineering program is offered only for female students. The Electrical Engineering program is for both male and female students and is accredited by the Engineering Accreditation Commission of ABET (<http://www.abet.org>). Both programs are four-year program. Through their solid structure, the programs strike a balance between theory, practical knowledge, hardware and software skills. In addition, the programs foster a broad awareness of social, cultural, and ethical issues together with a good understanding of the role of engineering in society. In addition to the core courses, students are allowed to choose from a large number of major elective courses that cover several Electrical and Mechatronics Engineering areas such as Signal Processing, Communication Systems, Power Systems, Electric Drive Systems, Industrial Electronics, Intelligent Manufacturing, Robotics, Automation. All areas are strengthened by project-based learning experience and enriched with many laboratory experiments. The success of the programs is ensured by the high quality and commitment of a world-class team of academics, adequate state-of-the-art facilities, and strong ties with stakeholders.

## BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING

### Objectives

Graduates of the Electrical Engineering Program will:

- Apply effectively their technical, communication, and teamwork skills in modern work environment as well as graduate studies.
- Act professionally and ethically.

- Adapt to emerging technologies, social development, and contemporary issues.

### **Learning Outcomes**

By the time of graduation, students will have:

**SO(1):** An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.

**SO(2):** An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.

**SO(3):** An ability to communicate effectively with a range of audiences.

**SO(4):** An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.

**SO(5):** An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.

**SO(6):** An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.

**SO(7):** An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

### **Opportunities**

Electrical engineers play a vital role in any modern society. In Qatar, the need for highly qualified electrical engineering graduates has been stressed by the huge economic growth and social development the country is witnessing through its 2030 National Vision. These graduates who will contribute in designing and implementing phases of this vision and beyond must be trained at institutions of higher education. The electrical engineering graduates are being hired by prestigious partners such as Qatar Petroleum, Ooredoo, Qatar Gas, Shell, Kahramaa, QEWC, Siemens, GE, Al-Jazeera, and QF. Some of them choose to pursue doctoral studies in leading universities in USA, Finland, UK, KSA, others. All program Alumni maintain a close relationship with the electrical engineering department.

### **Admissions Requirements**

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement. Detailed Undergraduate admission requirements are available at the following link: [http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### **Declaring the major**

Students must satisfy QU requirements for declaring a major including the need to declare the major before completing 36 undergraduate credit hours. For more details about the University requirements for declaring the Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document.

### **DEGREE REQUIREMENTS - Major in Electrical Engineering**

A minimum of 131 credit hours are required to complete the major in Electrical Engineering, including the following:



- A minimum of 33 credit hours in core curriculum requirements.
- A minimum of 27 credit hours of college requirements.
- A minimum of 53 credit hours of major requirements courses.
- A minimum of 6 credit hours of Senior Design Project requirements.
- A minimum of 12 credit hours of major electives courses.

### **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology

- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights

- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

- PHYS 191 General Physics for Engineering I
- PHYS 192 Experimental General Physics for Engineering I
- PHYS 193 General Physics for Engineering II
- PHYS 194 Experimental General Physics for Engineering II
- CHEM 101 General Chemistry I
- CHEM 103 Experimental General Chemistry I

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **College Requirement (27 CH)**

Students must complete a minimum of 27 credit hours in college requirements:

- MATH 102 Calculus II
- MATH 211 Calculus III
- MATH 231 Linear Algebra
- GENG 106 Computer Programming
- GENG 107 Engineering Skills and Ethics
- GENG 200 Probability and Statistics for Engineers
- GENG 300 Numerical Methods
- GENG 360 Engineering Economics
- ELEC 201 Electric Circuits

### **Major Requirements Courses (53 CH)**

Students must complete a minimum of 53 credit hours in major requirements courses:

- MATH 285 Mathematics for Electrical Engineering
- ELEC 202 Electric Circuits II
- ELEC 203 Electric Circuits II Lab
- ELEC 231 Fundamentals of Electronics
- ELEC 261 Digital Systems Design

- ELEC 262 Digital Systems Design Lab
- ELEC 311 Electromagnetics
- ELEC 312 Electric Machines
- ELEC 313 Electric Machines Lab
- ELEC 321 Power Systems Analysis
- ELEC 325 Power Electronics
- ELEC 341 Communications Engineering
- ELEC 342 Communications Engineering Lab
- ELEC 351 Signals and Systems
- ELEC 352 Control Systems
- ELEC 353 Signal Analysis & Filtering
- ELEC 366 Embedded Systems
- ELEC 367 Embedded Systems Lab
- ELEC 371 Sensors and Instrumentation
- ELEC 399 Practical Training
- ELEC 428 Electrical Engineering Design

### **Senior Design Project Requirements (6 CH)**

Students must select one of the two Design Project Packages namely the Electrical Engineering Design Project Package or the Multidisciplinary Senior Design Package.

### **Electrical Engineering Design Project (6 CH)**

Students must complete a minimum of 6 credit hours in the Electrical Engineering Design Project courses:

- ELEC 498 Senior Design Project I
- ELEC 499 Senior Design Project II

### **Multidisciplinary Senior Design Project (6 CH)**

Students must complete a minimum of 6 credit hours in the Multidisciplinary Senior Design Project courses:

- GENG 498 Multidisciplinary Senior Design I
- GENG 499 Multidisciplinary Senior Design II

### **Major Electives Courses (12 CH)**

Students must complete a minimum of 12 credit hours in major elective courses.

- ELEC 420 Renewable Energy Sources
- ELEC 421 Solar Electricity System Design
- ELEC 423 Electric Power Distribution Systems
- ELEC 424 Operation of Power Systems
- ELEC 426 Protection of Power Systems
- ELEC 427 Transportation Electrical Systems
- ELEC 429 Selected Topics in Electric Mechanics and Drives
- ELEC 438 Selected Topics in Electronics
- ELEC 441 Fundamentals of Secure Communications

- ELEC 442 Satellite Communications
- ELEC 446 Selected Topics in Communication Engineering
- ELEC 449 Optimization and Machine Learning
- ELEC 448 Digital wireless communication
- ELEC 453 Advanced Control Systems
- ELEC 455 Selected Topics in Signal Processing
- ELEC 469 Communication Networks and Applications
- ELEC 473 Biomedical Instrumentation
- ELEC 474 Optical Electronics in Modern Communications
- ELEC 475 Smart Grid
- ELEC 480 Selected Topics in Power Electronics
- ELEC 484 Industrial Control
- ELEC 485 Introduction to Robotics
- ELEC 489 RF Communication Electronics
- ELEC 495 Independent Study

### Study Plan

#### Bachelor of Science in Electrical Engineering

FIRST YEAR (32 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	MATH 101	Calculus I	3
	ARAB 100	Arabic Language I	3
	GENG 107	Engineering Skills and Ethics	3
	ENGL 202	English Language I Post Foundation	3
	CHEM 101	General Chemistry I	3
	CHEM 103	Experimental General Chemistry I	1
Total Credit Hours in Semester			16
Spring	MATH 102	Calculus II	3
	PHYS 191	General Physics for Engineering I	3
	PHYS 192	Experimental General Physics for Engineering I	1
	GENG 106	Computer Programming	3
	MATH 231	Linear Algebra	3

	ENGL 203	English Language II Post Foundation	3
<b>Total Credit Hours in Semester</b>			<b>16</b>

**SECOND YEAR (33 credit hours)**

<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	MATH 211	Calculus III	3
	PHYS 193	General Physics for Engineering II	3
	PHYS 194	Experimental General Physics for Engineering II	1
	MATH 285	Mathematics for Electrical Engineering	3
	ELEC 201	Electric Circuits	3
	DAWA 111	Islamic Culture	3
<b>Total Credit Hours in Semester</b>			<b>16</b>
Spring	GENG 200	Probability and Statistics for Engineers	3
	GENG 300	Numerical Methods	3
	ELEC 202	Electric Circuits II	3
	ELEC 203	Electric Circuits II Laboratory	1
	ELEC 231	Fundamentals of Electronics	3
	ELEC 261	Digital Systems Design	3
	ELEC 262	Digital Systems Design Lab	1
<b>Total Credit Hours in Semester</b>			<b>17</b>

**THIRD YEAR (36 credit hours)**

<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	ELEC 311	Electromagnetics	3
	ELEC 312	Electric Machines	3
	ELEC 313	Electric Machines Lab	1

	ELEC 371	Sensors and Instrumentation	3
	ELEC 351	Signals & Systems	3
	ELEC 366	Embedded Systems	3
	ELEC 367	Embedded Systems Lab	1
<b>Total Credit Hours in Semester</b>			<b>17</b>
Spring	ELEC 341	Communication Engineering	3
	ELEC 342	Communication Engineering Lab	1
	ELEC 352	Control Systems	3
	ELEC 321	Power Systems Analysis	3
	ELEC 325	Power Electronics	3
	ELEC 353	Signal Analysis & Filtering	3
<b>Total Credit Hours in Semester</b>			<b>16</b>
Summer	ELEC 399	Practical Training	3
<b>Total Credit Hours in Semester</b>			<b>3</b>

<b>FOURTH YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	ELEC 4XX	Major Elective I	3
	ELEC 4XX	Major Elective II	3
	GENG 360	Engineering Economics	3
	ELEC 498 OR GENG 498	Senior Design Project I OR Multidisciplinary Senior Design I	3
	ELEC 428	Electrical Engineering Design	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	ELEC 4XX	Major Elective III	3
	ELEC 4XX	Major Elective IV	3



	ELEC 499 OR GENG 499	Senior Design Project II OR Multidisciplinary Senior Design II	3
	HIST 121	History of Qatar	3
		Core Curriculum Elective *	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

\* Student must complete a minimum of 3 credit hours from Social/Behavioral Sciences package and a minimum of 3 credit hours from Humanities /Fine Arts package.

## BACHELOR OF SCIENCE IN MECHATRONICS ENGINEERING

### Objectives

Graduates of the Mechatronics Engineering Program will:

- Contribute to the advancement of the mechatronics engineering profession in ethical and professional manners.
- Apply effectively their technical, communication, teamwork, and leadership skills in modern and diverse work environment as well as while pursuing graduate studies.
- Adapt to emerging technologies, social development, and contemporary issues and experience entrepreneurial mindset.

### Learning Outcomes

By the time of graduation, students will have:

1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. An ability to communicate effectively with a range of audiences.
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

### Opportunities

Mechatronics engineering is a versatile discipline that offers a wide range of employment opportunities. Almost every industry and every company needs the services of Mechatronics Engineers. The skills gained by the

mechatronics engineering students will allow them to work in a variety of fields and be well prepared for Industry 4.0. The program is the amalgamation of the EE, MIE and CSE disciplines. Mechatronics engineering graduates find employment in Qatar in booming industries like gas and petroleum, chemical and material processing, energy production, automation and robotics, transportation systems, defense systems, biomedicine, and many others. The opportunities outside Qatar are in similar industries and beyond.

### **Admissions Requirements**

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement. Detailed Undergraduate admission requirements are available at the following link: [http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### **Declaring the major**

Students must satisfy QU requirements for declaring a major including the need to declare the major before completing 36 undergraduate credit hours. For more details about the University requirements for declaring the Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document.

### **DEGREE REQUIREMENTS - Major in Mechatronics Engineering**

A minimum of 131 credit hours are required to complete the major in Mechatronics Engineering, including the following:

- A minimum of 33 credit hours in core curriculum requirements.
- A minimum of 27 credit hours of college requirements.
- A minimum of 53 credit hours of major requirements courses.
- A minimum of 6 credit hours of Senior Design Project requirements.
- A minimum of 12 credit hours of major electives courses.

### **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II

- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

- PHYS 191 General Physics for Engineering I
- PHYS 192 Experimental General Physics for Engineering I
- PHYS 193 General Physics for Engineering II
- PHYS 194 Experimental General Physics for Engineering II
- CHEM 101 General Chemistry I
- CHEM 103 Experimental General Chemistry I

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences

(excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **College Requirement (27 CH)**

Students must complete a minimum of 27 credit hours in college requirements:

- MATH 102 Calculus II
- MATH 211 Calculus III
- GENG 111 Computer Graphics
- GENG 106 Computer Programming
- GENG 107 Engineering Skills and Ethics
- GENG 200 Probability and Statistics for Engineers
- GENG 231 Material Science
- GENG 300 Numerical Methods
- GENG 360 Engineering Economics

### **Major Requirements Courses (53 CH)**

Students must complete a minimum of 53 credit hours in major requirements courses:

- ELEC 201 Electric Circuits
- MECH 210 Statics & Dynamics
- MATH 217 Mathematics for Engineers
- MECH 223 Solid Mechanics
- MECE 212 Electromechanical Syst. & Actuators
- ELEC 231 Fundamentals of Electronics
- ELEC 261 Digital Systems Design
- ELEC 262 Digital Systems Design Lab.
- MECH 241 Thermofluids
- MECE 321 Mechanical Mechanisms
- MECE 352 Control Systems
- ELEC 371 Sensors & Instrumentation
- ELEC 366 Embedded Systems
- ELEC 367 Embedded Systems Lab
- MECE 361 Industrial Automation & Robotics
- MECE 325 Power Electronics & Drives
- MECE 350 Intelligent Manufacturing Process
- MECE 428 Mechatronics Engineering Design
- MECE 399 Practical Training

**Senior Design Project Requirements (6 CH)**

Students must select one of the two Design Project Packages namely the Mechatronics Engineering Design Project Package or the Multidisciplinary Senior Design Package.

**Electrical Engineering Design Project (6 CH)**

Students must complete a minimum of 6 credit hours in the Mechatronics Engineering Design Project courses:

- MECE 498 Senior Design Project I
- MECE 499 Senior Design Project II

**Multidisciplinary Senior Design Project (6 CH)**

Students must complete a minimum of 6 credit hours in the Multidisciplinary Senior Design Project courses:

- GENG 498 Multidisciplinary Senior Design I
- GENG 499 Multidisciplinary Senior Design II

**Major Electives Courses (12 CH)**

Students must complete a minimum of 12 credit hours in major elective courses.

- MECE 450 Selected Topics in Mechatronic Transportation Systems
- MECE 460 Motion Dynamics and Control
- MECE 462 Sustainable Energy Systems
- MECE 463 Design of Medical Devices
- MECE 464 Material Fatigue & Ageing
- MECE 465 Artificial Intelligence & Intelligent System
- MECH 425 Finite Element Method
- MECH 433 Modern Machining Technique
- MECH 485 Engineering Management
- MECH 486 Quality Analysis and Control
- ELEC 453 Advanced Control Systems
- ELEC 375 Biomedical Engineering
- ELEC 486 Advance Biomedical System Engineering
- ELEC 471 Selected Topics in Computer Engineering

**Study Plan****Bachelor of Science in Mechatronics Engineering**

<b>FIRST YEAR (32 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	MATH 101	Calculus I	3
	ARAB 100	Arabic Language I	3

	GENG 107	Engineering Skills and Ethics	3
	ENGL 202	English Language I Post Foundation	3
	CHEM 101	General Chemistry I	3
	CHEM 103	Experimental General Chemistry I	1
<b>Total Credit Hours in Semester</b>			<b>16</b>
Spring	MATH 102	Calculus II	3
	PHYS 191	General Physics for Engineering I	3
	PHYS 192	Experimental General Physics for Engineering I	1
	GENG 106	Computer Programming	3
	GENG 111	Engineering Graphics	3
	ENGL 203	English Language II Post Foundation	3
<b>Total Credit Hours in Semester</b>			<b>16</b>

## SECOND YEAR (32 credit hours)

Term	Course #	Course Title	Credit Hours
Fall	MATH 211	Calculus III	3
	PHYS 193	General Physics for Engineering II	3
	PHYS 194	Experimental General Physics for Engineering II	1
	GENG 231	Material Science	3
	ELEC 201	Electric Circuits	3
	MECH 210	Statics & Dynamics	3
<b>Total Credit Hours in Semester</b>			<b>16</b>
Spring	MECH 223	Solid Mechanics	3
	MATH 217	Mathematics for Engineers	3
	MECE 212	Electromechanical systems & actuators	3



	ELEC 231	Fundamentals of Electronics	3
	ELEC 261	Digital Systems Design	3
	ELEC 262	Digital Systems Design Lab	1
<b>Total Credit Hours in Semester</b>			<b>16</b>

<b>THIRD YEAR (37 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	MECH 241	Thermofluids	3
	ELEC 366	Embedded Systems	3
	ELEC 367	Embedded Systems Laboratory	1
	ELEC 371	Sensors and Instrumentation	3
	MECE 352	Control Systems	3
	MECE 321	Mechanical Mechanisms	3
<b>Total Credit Hours in Semester</b>			<b>16</b>
Spring	GENG 200	Probability & Statistics for Engineers	3
	GENG 300	Numerical Methods	3
	MECE 361	Industrial Automation & Control	3
	MECE 325	Power Electronics & Drives	3
	MECE 350	Intelligent Manufacturing Process	3
	DAWA 111	Islamic Culture	3
<b>Total Credit Hours in Semester</b>			<b>18</b>
Summer	MECE 399	Practical Training	3
<b>Total Credit Hours in Semester</b>			<b>3</b>

<b>FOURTH YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall		Major Elective I	3
		Major Elective II	3
	GENG 360	Engineering Economics	3

	MECE 498 OR GENG 498	Senior Design Project I OR Multidisciplinary Senior I	3
	MECE 428	Mechatronics Engineering Design	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring		Major Elective III	3
		Major Elective IV	3
	MECE 499 OR GENG 499	Senior Design Project II OR Multidisciplinary Senior Design II	3
	HIST 121	History of Qatar	3
		Core Curriculum Elective *	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

\*Students must complete a minimum of 3 credit hours from Social/Behavioral Sciences package.

## DEPARTMENT OF MECHANICAL AND INDUSTRIAL ENGINEERING

College of Engineering – Corridor F, Room F121(Men's Section)

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Website: <http://www.qu.edu.qa/engineering/academics/mie>

### Head

El-Sadig Mahdi Ahmed Saad

### Faculty

#### Professors

Abdul Magid Salem Hamouda, Shaligram Pokharel, El-Sadig Mahdi Saad, Tarik Y. ElMekkawy, Faris Tarlochan, Mohammed Al-Salem, Mohamed Al-Khawaja, Mohamed Haouari, Saud Ghani, Samer Fikry, Sadok Sassi, Ahmad Khalaf Sleiti, Mohammad Ahmed Moh'd Al-Nimr, Khalifa Nasser M N Al-Khalif

#### Associate Professors

John-John Cabibihan, Farayi Musharavati, Pilsung Choe, Mohammad Roshun Paurobally, Mohamed Al-Qaradawi, Asan Gani Bin Abdul Muthalif, MD. Anwarul Hassan, Murat Kucukvar, Jamil Renno

#### Assistant Professors

Galal M. Abdella

#### Lecturers

Samer Gowid, Waled Mukahal, AlJazzi Fetais, Faisal Al-Jaber, Shaikha Al Saud, Khaled Al-Jaidah

### ABOUT THE DEPARTMENT

The Department of Mechanical and Industrial Engineering is committed to excellence in teaching, research, and providing service to the community. The Department offers two undergraduate majors; Industrial and Systems Engineering and Mechanical Engineering. The Department has excellent specialized laboratories, workshops, and computing facilities in various disciplines and is comprised of an outstanding team of faculty members and supporting staff. Faculty members are actively engaged in both scholarly activities as well as creating a conducive and creative environment suitable for engaging student learning and teaching experience.

The faculty members are focused on student-centered learning. Frequently, faculty members include students in research projects and interactions with industry. Students get the opportunity to gain first-hand exposure to real-world engineering problems, which, along with their classroom and laboratory work, prepare them with the skills that make them attractive recruits to many employers after graduation. The Students in the Department enjoy participation in many out of class activities like the Shell Eco-Marathon competition and Life is Engineering program. The department students also enjoy participating in many international conferences and visits to other

international universities. Both the Industrial and Systems and Mechanical Engineering programs are accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

## **BACHELOR OF SCIENCE IN INDUSTRIAL AND SYSTEMS ENGINEERING**

### **Objectives**

Graduates from the program are expected to achieve the following by 3-5 years after graduation:

1. Establish a successful career in the broad areas of Industrial engineering and or entrepreneurship.
2. Maintain competency in systems design, development, implementation, and improvement of integrated systems.
3. Develop into well-rounded citizens with responsibility towards society.
4. Advance technically and professionally through continued learning pursued graduate studies.

### **Learning Outcomes**

By the time of graduation, students will have:

**SO(1):** An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.

**SO(2):** An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.

**SO(3):** An ability to communicate effectively with a range of audiences.

**SO(4):** An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.

**SO(5):** An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.

**SO(6):** An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.

**SO(7):** An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

### **Opportunities**

Industrial Engineers make systems work better, safer, cost-effectively, and more efficient. With its diversity, industrial engineering is used virtually in all sectors, including manufacturing, distribution, supply chain, government, energy, health care, services, and finance. A distinguishing feature of the ISE discipline is the integration of people, machines, process flow, materials, and information. ISE graduates aim to optimize the performance of such systems using available resources in the most efficient way without degrading social and physical environments. Unlike other engineering disciplines that focus their attention purely on the technical aspects of a system, the ISE graduates incorporate human and economic considerations in system design. This offers a broad range of career opportunities for our graduates. The need for high-quality Industrial Engineers in a fast-growing economy like Qatar is vital to create and maintain growth.

The Department also supports a Ph.D. and Master in Engineering Management as well as a Ph.D. in Industrial Engineering offered by the College of Engineering. Students are encouraged to set their academic goals high

enough to pursue advanced studies in industrial and systems engineering. Students are encouraged to closely follow their course study plan roadmap in order to be able to fulfill the course requirements on time.

### **Admissions Requirements**

Applicants must satisfy QU defined College and Program requirements, including the minimum high school percentage requirement. Detailed Undergraduate admission requirements are available at the following link: [http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### **Declaring the major**

Students must satisfy QU requirements for declaring a major, including the need to declare the major before completing 36 undergraduate credit hours. For more details about the University requirements for declaring the Major, please refer to the paragraph "Declaring the major" in Chapter 7 – Academic Policies and Regulations of this document.

### **DEGREE REQUIREMENTS - Major in Industrial and Systems Engineering**

A minimum of 128 credit hours are required to complete the major in Industrial and Systems Engineering, including the following:

- A minimum of 33 credit hours in core curriculum requirements.
- A minimum of 30 credit hours of college requirements.
- A minimum of 56 credit hours of major requirements courses.
- A minimum of 9 credit hours of major electives courses.

### **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation

- HIST 121 History of Qatar

### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar

- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

- PHYS 191 General Physics for Engineering I
- PHYS 192 Experimental General Physics for Engineering I
- PHYS 193 General Physics for Engineering II
- PHYS 194 Experimental General Physics for Engineering II
- CHEM 101 General Chemistry I
- CHEM 103 Experimental General Chemistry I

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **College Requirements (30 CH)**

Students must complete a minimum of 30 credit hours in college requirements:



- MATH 102 Calculus II
- MATH 211 Calculus III
- MATH 217 Mathematics for Engineers
- GENG 106 Computer Programming
- GENG 107 Engineering Skills and Ethics
- GENG 111 Engineering Graphics
- MATH 231 Linear Algebra
- GENG 200 Probability and Statistics for Engineers
- GENG 300 Numerical Methods
- GENG 360 Engineering Economics

### **Major Requirements Courses (56 CH)**

Students must complete a minimum of 56 credit hours in major requirements courses:

- MECH 210 Statics & Dynamics
- GENG 231 Materials Science
- MECH 223 Solid Mechanics
- MECH 230 Manufacturing Processes
- IENG 210 Work Methods and Measurements
- IENG 260 Thermodynamics
- IENG 310 Facility Planning and Layout
- IENG 311 Quality Design and Control
- IENG 330 Operations Research
- IENG 337 Production Planning and Inventory Control
- IENG 350 Computer Simulation Systems
- IENG 325 Ergonomics and Safety Engineering
- IENG 357 Quality Management
- IENG 360 Production Automation
- IENG 452 Information Systems Engineering
- IENG 460 Manufacturing Systems Design
- IENG 481 Project Engineering
- IENG 496 Industrial Systems Design I
- IENG 497 Industrial Systems Design II

### **Major Electives Courses(9 CH)**

Students must complete a minimum of 9 credit hours as follows:

#### **Option 1: Students can take 9 CH from the courses listed below:**

- IENG 315 Introduction to Systems Engineering
- IENG 331 Advanced Operations Research
- IENG 399 Practical Training
- IENG 411 Maintenance Planning & Control
- IENG 421 Decision Analysis

- IENG 423 Design of Experiments
- IENG 425 Reliability Engineering
- IENG 441 Concurrent Engineering
- IENG 451 Expert Systems
- IENG 453 Container and Air Cargo Management
- IENG 454 Human-Computer Interaction and User Experience
- IENG 455 Sustainable Industrial Systems
- IENG 478 Innovation & Entrepreneurship
- IENG 479 Special Topics
- IENG 484 Supply Chain Management
- IENG 485 Financial Engineering & Risk Management
- IENG 486 Service Operation Management

**Option 2: Students can take 6 CH from the courses listed above in option 1 and 3 CH from the following courses offered by the College of Business and Economics:**

- ECON 452 Industrial Economics
- ECON 472 Managerial Economics
- ACCT 331 Cost and Management Accounting
- ACCT 421 Accounting Information Systems
- MAGT 405 Strategic Management

### Study Plan

#### Bachelor of Science in Industrial and Systems Engineering

FIRST YEAR (32 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ENGL 202	English Language I Post Foundation	3
	CHEM 101	General Chemistry 1	3
	CHEM 103	Experimental General Chemistry I	1
	GENG 106	Computer Programming	3
	GENG 107	Engineering Skills and Ethics	3
	MATH 101	Calculus I	3
<b>Total Credit Hours in Semester</b>			<b>16</b>
Spring	GENG 111	Engineering Graphics	3
	MATH 102	Calculus II	3

	PHYS 191	General Physics for Engineering I	3
	PHYS 192	Experimental General Physics for Engineering I	1
	ENGL 203	English Language II Post Foundation	3
	DAWA 111	Islamic Culture	3
<b>Total Credit Hours in Semester</b>			<b>16</b>

**SECOND YEAR (33 credit hours)**

<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	MATH 211	Calculus III	3
	PHYS 193	General Physics for Engineering II	3
	PHYS 194	Experimental General Physics for Engineering II	1
	GENG 231	Materials Science	3
	GENG 200	Probability and Statistics for Engineers	3
	MECH 210	Statics and Dynamics	3
<b>Total Credit Hours in Semester</b>			<b>16</b>
Spring	MATH 217	Mathematics for Engineers	3
	MECH 223	Solid Mechanics	3
	IENG 210	Work Methods and Measurements	3
	MECH 230	Manufacturing Processes	3
	MATH 231	Linear Algebra	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

**THIRD YEAR (30 credit hours)**

<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	GENG 300	Numerical Methods	3
	GENG 360	Engineering Economics	3

	IENG 260	Thermodynamics	3
	IENG 330	Operations Research	3
	IENG 311	Quality Control and Design	3
	IENG 350	Computers Simulation Systems	3
<b>Total Credit Hours in Semester</b>			<b>18</b>
Spring	IENG 310	Facility Planning and Layout	3
	IENG 337	Production Planning and Inventory Control	3
	IENG 360	Production Automation	3
	IENG 325	Ergonomics and Safety	3
	IENG 357	Quality Management	3
	ARAB 101	Arabic Language I	3
<b>Total Credit Hours in Semester</b>			<b>18</b>

<b>FOURTH YEAR (33 credit hours)</b>			
Term	Course #	Course Title	Credit Hours
Fall	IENG 460	Manufacturing Systems Design	3
	IENG 481	Project Engineering	3
	IENG 496	Industrial Systems Design I	2
	IENG 452	Information Systems Engineering	3
		Major Elective 2	3
<b>Total Credit Hours in Semester</b>			<b>14</b>
Spring	IENG 497	Industrial Systems Design II	3
		Major Elective 3	3
		Major Elective 4	3
	HIST 121	History of Qatar	3
		Core Curriculum Elective *	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

\* Students must complete a minimum of 3 credit hours from Social/Behavioral Sciences package and a minimum of 3 credit hours from Humanities /Fine Arts package.

## **BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING**

### **Objectives**

Graduates of the major are expected to achieve most of the following objectives:

- Establish a successful career as mechanical engineers in sectors such as Oil and Gas, Petrochemicals, Construction, and other Public and Private sectors, as well as demonstrate professional engineering competence by progressing through positions of increasing responsibility.
- Develop into well-rounded engineers with responsibility towards society.
- Advance technically and professionally through continued learning and have the ability to pursue graduate studies.

### **Learning Outcomes**

By the time of graduation, students will have:

**SO(1):** An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.

**SO(2):** An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.

**SO(3):** An ability to communicate effectively with a range of audiences.

**SO(4):** An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.

**SO(5):** An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.

**SO(6):** An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.

**SO(7):** An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

### **Opportunities**

Since 1985, the Department has produced a large number of outstanding engineers who have continued to excel in their chosen fields of work. Our graduates work with engineers and professionals from other disciplines to provide the fuel that drives this nation's industries and government operations. They are also employed in different sectors and other varied professions in Qatar and across the world.

The Department supports the Master of Science in Mechanical Engineering and the Ph.D. The program offered by the College of Engineering and students is encouraged to set their academic goals high enough to obtain advanced degrees in mechanical engineering.

### **Admissions Requirements**

Applicants must satisfy QU defined College and Program requirements, including the minimum high school percentage requirement. Detailed Undergraduate admission requirements are available at the following link: [http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### **Declaring the major**

Students must satisfy QU requirements for declaring a major, including the need to declare the major before completing 36 undergraduate credit hours. For more details about the University requirements for declaring the Major, please refer to the paragraph "Declaring the major" in Chapter 7 – Academic Policies and Regulations of this document.

### **DEGREE REQUIREMENTS - Major in Mechanical Engineering**

A minimum of 131 credit hours are required to complete the major in Mechanical Engineering, including the following:

- A minimum of 33 credit hours in core curriculum requirements.
- A minimum of 27 credit hours of college requirements.
- A minimum of 56 credit hours of major requirements courses.
- A minimum of 6 credit hours of Senior Design Project requirements.
- A minimum of 9 credit hours of major electives courses.

### **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

#### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

#### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

#### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

#### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy



### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

- PHYS 191 General Physics for Engineering I
- PHYS 192 Experimental General Physics for Engineering I
- PHYS 193 General Physics for Engineering II
- PHYS 194 Experimental General Physics for Engineering II
- CHEM 101 General Chemistry I
- CHEM 103 Experimental General Chemistry I

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **College Requirements (27 CH)**

Students must complete a minimum of 27 credit hours in college requirements:

- MATH 102 Calculus II
- MATH 211 Calculus III
- MATH 217 Mathematics for Engineers
- GENG 106 Computer Programming

- GENG 107 Engineering Skills and Ethics
- GENG 111 Engineering Graphics
- GENG 200 Probability and Statistics for Engineers
- GENG 300 Numerical Methods
- GENG 360 Engineering Economics

### **Major Requirements (56 CH)**

Students must complete a minimum of 56 credit hours in major requirements courses:

- MECH 221 Engineering Mechanics I, Statics
- MECH 222 Engineering Mechanics II, Dynamics
- GENG 231 Material Science
- MATH 231 Linear Algebra
- MECH 213 Engineering Measurements
- MECH 223 Solid Mechanics
- MECH 224 Introduction to Design
- MECH 230 Manufacturing Processes
- MECH 241 Thermofluids
- MECH 321 Mechanical Mechanisms
- MECH 322 Mechanical Vibrations
- MECH 330 Machine Design
- MECH 333 Introduction to Mechatronics and Measurement Systems
- MECH 342 Thermodynamics
- MECH 343 Fluid Mechanics
- MECH 344 Heat Transfer
- MECH 361 Control Systems
- MECH 399 Practical Training
- MECH 441 Energy Systems Laboratory
- MECH 448 Design of Energy Systems

### **Senior Design Project (6 CH)**

Students must select one of the two Design Project Packages, namely the Mechanical Engineering Senior Design Package or the Multidisciplinary Senior Design Package.

#### **Mechanical Engineering Senior Design Project (6 CH)**

Students must complete a minimum of 6 credit hours in the Mechanical Engineering Design Project courses:

- MECH 487 Senior Design I
- MECH 488 Senior Design II

#### **Multidisciplinary Senior Design Project (6 CH)**

Students must complete a minimum of 6 credit hours in the Multidisciplinary Senior Design Project courses:

- GENG 498 Multidisciplinary Senior Design I
- GENG 499 Multidisciplinary Senior Design II

### Major Electives Courses (9 CH)

Students must complete a minimum of 9 credit hours in major elective courses:

- MECH 331 Machining and Forming Processes
- MECH 410 Fire Protection Science Technology
- MECH 425 Finite Element Method
- MECH 426 Computer-Aided Design
- MECH 427 Mechanics of Composite Materials
- MECH 428 Acoustical Engineering
- MECH 429 Structural Vibration
- MECH 430 Machine Condition Monitoring
- MECH 431 Failure Analysis
- MECH 432 Welding and Casting Technologies
- MECH 433 Modern Machining Techniques
- MECH 434 Biomaterials and Tissue Engineering
- MECH 435 Corrosion Engineering
- MECH 438 3D Printing: Theory and Application
- MECH 442 Refrigeration and Air conditioning
- MECH 443 Heat Transfer Systems
- MECH 445 Fluid Systems
- MECH 446 Turbo Machinery
- MECH 447 Heat Engines
- MECH 463 Mechatronics System Design
- MECH 464 Introduction to Robotics
- MECH 471 Selected Topics I
- MECH 472 Selected Topics II
- MECH 483 Operations Management
- MECH 485 Engineering Management
- MECH 486 Quality Analysis and Control
- MECH 499 Independent Study

### Study Plan

#### Bachelor of Science in Mechanical Engineering

FIRST YEAR (32 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ENGL 202	English Language I Post Foundation	3
	MATH 101	Calculus I	3
	GENG 107	Engineering Skills and Ethics	3

	GENG 106	Computer Programming	3
	CHEM 101	General Chemistry I	3
	CHEM 103	Experimental General Chemistry I	1
<b>Total Credit Hours in Semester</b>			<b>16</b>
Spring	GENG 111	Engineering Graphics	3
	MATH 102	Calculus II	3
	PHYS 191	General Physics for Engineering I	3
	PHYS 192	Experimental General Physics for Engineering I	1
	ENGL 203	English Language II Post Foundation	3
	ARAB 100	Arabic Language I	3
<b>Total Credit Hours in Semester</b>			<b>16</b>

<b>SECOND YEAR (34 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	MATH 211	Calculus III	3
	PHYS 193	General Physics for Engineering II	3
	PHYS 194	Experimental General Physics for Engineering II	1
	MECH 221	Engineering Mechanics I: Statics	3
	GENG 200	Probability and Statistics for Engineers	3
	MECH 241	Thermofluids	3
<b>Total Credit Hours in Semester</b>			<b>16</b>
Spring	MATH 217	Mathematics for Engineers	3
	MECH 222	Engineering Mechanics II: Dynamics	3
	MECH 224	Introduction to Design	3
	MECH 223	Solid Mechanics	3
	MATH 231	Linear Algebra	3

	GENG 231	Material Science	3
<b>Total Credit Hours in Semester</b>			<b>18</b>

<b>THIRD YEAR (32 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	MECH 321	Mechanical Mechanisms	3
	MECH 333	Introduction to Mechatronics and Measurement Systems	3
	MECH 342	Thermodynamics	3
	MECH 343	Fluid Mechanics	3
	MECH 230	Manufacturing Processes	3
	MECH 213	Engineering Measurements	1
<b>Total Credit Hours in Semester</b>			<b>16</b>
Spring	GENG 300	Numerical Methods	3
	GENG 360	Engineering Economics	3
	MECH 330	Machine Design	3
	MECH 344	Heat Transfer	3
	MECH 322	Mechanical Vibrations	3
	MECH 441	Energy Systems Laboratory	1
<b>Total Credit Hours in Semester</b>			<b>16</b>
Summer	MECH 399	Practical Training	3
<b>Total Credit Hours in Semester</b>			<b>3</b>

<b>FOURTH YEAR (30 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	MECH 360	Control Systems	3

	MECH 448	Design of Energy Systems	3
	MECH 487 <b>OR</b> GENG 498	Senior Design I <b>OR</b> Multidisciplinary Senior Design I	3
		Major Elective I	3
	DAWA 111	Islamic Culture	3
	HIST 121	History of Qatar	3
<b>Total Credit Hours in Semester</b>			<b>18</b>
Spring	MECH 488 <b>OR</b> GENG 499	Senior Design II <b>OR</b> Multidisciplinary Senior Design II	3
		Core Curriculum Elective *	3
		Major Elective II	3
		Major Elective III	3
<b>Total Credit Hours in Semester</b>			<b>12</b>

\* Students must complete a minimum of 3 credit hours from Social/Behavioral Sciences package







## COLLEGE OF LAW

College of Law Building

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Email: law@qu.edu.qa

Website: <http://www.qu.edu.qa/law>

### Dean

Mohammed Abdel Aziz Al Khulaifi

### Associate Dean for Academic Affairs

Khalid Al Shamari

### Associate Dean for Research and Graduate Studies

Nisrine Salamah Mahasneh

### Assistant Dean for Student Affairs

Aisha Al – Ammari

### Departments Head

#### Head of Public Law Department

Ahmed Samir

#### Head of Private Law Department

Imad Kattan

#### Head of Legal Skills Department

Mohamed Mattar

### Coordinators

Ayed Haroon- Graduate Program Coordinator

### Faculty

#### Professors

Gaber Mahjoub, Fawzi Bel Kanani, Sonia Mallak, Ghanam Mohammed, Ibrahim Al- Anani, Mohammed Mattar, Paula Young. Nader Mohammed Ibrahim, Nisrene Salamah Mahasneh, Mohammed Fawzi, Abdelnaser Hayajneh, Salah Zain Eddine, Hassan Al – Sayed, Francis Botchway, Sami Rawashdeh, Mohanned Nouh Moukhtar, Abdullah Abdullah, Ahmed Ben Taleb, Benedict Tendayi Chigara, Rana Alatori

#### Associate Professors

Hassan Elbarrawy, Abdel Hafez El Shemy, Husam Botosh, Mohammed Al-Khulaifi, Ahmed El Mohtadybellah, Ahmed Sayed Ahmed Mahmoud, Mohamed Ammar, Imad Kattan, Jon Truby, Fatten Hawwa, Mohamed Salem Abou El Farag, Tarek Rashed, Ahmed Samir, Chaker Mzoughi, Enas Amouri, Yassir Al Eiftaihat, Ezieddin Elmahjub

### **Assistant Professors**

Basher Saad Zaghloul, Yassin Al Shazly, Talal Al Emadi, Aaron Harmon, Andrew Dahdal, Conrad Sturm, Islam Shiha, Melissa Deehring, Mohammed Fares, Rafael Brown, Muna Marzouqi, Ayed Haroon Mohammed, Khalid Al Shamari, Ioannis Konstantinidis, Nasser Mehsin Al-Adba, Faisal Al Hababi, Abdulmohssin Al Marri, Mahmoud Dodeen, Ahisha Al Ammari, Noora Al Sahlawi, Essalhin Mohammed Aboubaker, Mohammed Al Kaabi, Hamad Alhababi, Osayd Awawda, Hamad Al Hababi

### **Lecturers**

Charles Michael Schnurman, Saqer Al-Sulaiti, Khaloud Alqahtani, Mohsin Al-Marri, Noora Al-Saai, Abdulla Al-Mulla, Zahiya Abu-Khadija, Dana Ahan

### **Teaching Assistants**

Zohra Mahmoud, Saber Gdiri, Abdelsalam Al Achaal, Amina Zainal, Mariam Abu Shareeda, Sara Al-Mohannadi, Aljazi Al-Marri, Sara Al-Qarah, Hessa Al Kuwari, Noor Al-Mulla, Buthaina Al-Kuwari, Muna Al-Anzi, Shaikha Al-Muraikhi, Nizar Mannai, Dhoha Al – Malki, Abdelrahman Albaker

## **ABOUT THE COLLEGE**

### **Vision Statement**

The College of Law aspires to be the premier college of law in the region in recognition of the quality of its academic program, the achievements of its faculty and graduates, and its service to the local and the international community.

### **Mission Statement**

The mission of Qatar University College of Law is to be committed to providing its students with the finest legal education that shall equip them to unparalleled professional success. The mission of Qatar University College of Law shall extend as well to the production of the highest quality of legal scholarship and the provision of distinctive service to the local and the international community.

## **DEGREE OFFERINGS**

The College of Law offers the following undergraduate degree program:

- Bachelor of Law (LL.B)

## **DECLARING THE MAJOR**

College of Law should take into consideration the university requirements for declaring a major. For more details about the Major declaration University requirements, please refer to the paragraph “Declaring the major” in

Chapter 7 – Academic Policies and Regulations of this document. Besides, each program may have additional specific requirements (See the paragraph “Declaring the major” at the programs’ level).

### **DECLARING THE MINOR**

The college of Law does not offer any minor.

### **ACCREDITATION**

In April 2016, the Bachelor of Law at the College of Law has been accredited for five years by the High Council for Evaluation of Research and Higher Education (HCERES) in France. The College of Law as an educational institution has also been accredited for four years by the British Accreditation Council (BAC) in the UK in July 2016. The accreditation agency conducts annual inspections at the College of Law to make sure that all its recommendations are being considered by the College. These two accreditations are a strong indicator of the quality of legal education offered at the College of Law. The period of academic accreditation is being extended.

### **BACHELOR OF LAW (LL.B)**

#### **ABOUT THE LAW PROGRAM**

The law program at Qatar University has an outstanding tradition of uniquely blending knowledge and legal expertise with the acquirement and practice of applicable field skills. In addition to the courses required for students to build their legal capabilities, the program provides many other elective modern and international legal courses, including intellectual property, foreign investments, labor law, international humanitarian law, human rights, international trade law and international criminal law.

#### **Objectives**

The major in Law intends to:

- Enable students to acquire basic legal facts, concepts, principles and theories.
- Uphold students’ conception of rights at both national and international levels.
- Prepare students to understand, interpret, analyze and apply legal rules.
- Enable students to acquire drafting and pleading skills.
- Deepen students’ commitment to professional legal ethics and values.
- Develop students’ ability to practice legal critical thinking and solve problems.

#### **Law Faculty**

Courses offered by the College of Law are instructed by an esteemed group of faculty members who have received their degrees from prominent universities in the Arab Countries in addition to Foreign Countries like U.S.A, UK and France. These professionals have undertaken a vast amount of personal research, preparing and publishing various modern studies that have appeared in many law journals. It is a longstanding tradition of the College to reflect such caliber and ingenuity of our faculty members in the superiority of our students.

The College of Law also benefits from the legal experience of many specialists when it comes to practical matters, particularly in teaching practical requisites, such as law of criminal procedures, civil and commercial contracts, in addition to oil, gas and intellectual property contracts.

Presently, the College of Law is expanding its resources through performing recruitments for new faculty members and staff to support the requirements of increasing number of students.

### **Learning Outcomes**

The Bachelor of Laws offered by the College of Law at Qatar University seeks to achieve a set of learning outcomes necessary for the practice of law, whether at the local or at the international level.

These learning outcomes reflect knowledge, skills and core values that must be acquired by all graduating students completing the Bachelor of Laws at the College of Law.

Every course undertaken by students as part of their required program of study for the Bachelor of Laws, aims to incorporate and realize the learning outcomes. Although not every course incorporates every learning outcome, by the end of their years of study, students who complete the Bachelor of Laws will have mastered all of the program learning outcomes.

The first learning outcome focusses upon knowledge, the second, third and fourth learning outcomes are focused upon skills, whilst finally, the fifth and sixth learning outcomes are focused upon professional values and conduct.

#### **The First Learning Outcome: Knowledge**

Graduates of the Bachelor of Laws will be able to:

1. Recognize the historical foundations of legal rules and the evolution of the Qatari legal system.
2. Explain the core principles of the Qatari legal system and its substantive and procedural rules.
3. Demonstrate Knowledge of comparative legal perspectives and the foundations of International law.

#### **The Second Learning Outcome: Legal Thinking**

Graduates of the Bachelor of Laws will be able to:

1. Identify legal issues raised by a given set of facts and distinguish between relevant and irrelevant facts.
2. Analyze the provisions of laws, court rulings and the perspectives of scholars in order to identify the applicable legal rule.
3. Apply legal rules to a given set of facts in order to reach (appropriate) conclusions.
4. Assess, weigh and reconcile the provisions of laws, court rulings and the perspectives of scholars, or provide alternative perspectives.

#### **The Third Learning Outcome: Scholarly Research**

Graduates of the Bachelor of Laws will be able to:

1. Collate legal research materials from both traditional and electronic sources, and categorize them according to their importance and relevance.
2. Prepare a coherent and balanced research plan.
3. Assess, weigh and reconcile legal research materials or provide alternative perspectives.
4. Write a comprehensive legal research report (essay) that embodies established linguistic rules, the logical presentation of arguments, and accurately cites sources and references.

#### **The Fourth Learning Outcome: Communication**

Graduates of the Bachelor of Laws will be able to:

1. Communicate effectively orally with peers (lawyers) and others (non-lawyers) within the framework of a legal debate by demonstrating careful listening and the ability to respond to legal arguments in a clear and convincing manner that respects alternative views.
2. Communicate effectively in written form through the drafting of various legal documents, specifically contracts, court memoranda and legislation.

### **The Fifth Learning Outcome: Ethics and Professionalism**

Graduates of the Bachelor of Laws will be able to:

1. Recognize the basic ethical rules that govern the legal profession.
2. Apply ethical rules when making decisions that pertain to ethical issues likely to arise in the course of professional life.
3. Demonstrate a substantial commitment to the pivotal role of the legal profession in serving the Qatari community as a whole, specifically through their commitment to the values of justice and legal assistance.

### **The Sixth Learning Outcome: Self-Management and Co-operation**

Graduates of the Bachelor of Laws will be able to:

1. Perform independently assigned legal tasks effectively, specifically by exhibiting an ability to learn independently and manage time.
2. Assess their own capabilities and performance in order to identify points of strength and weakness.
3. Develop professionally in light of feedback given.
4. Co-operate effectively with colleagues within the framework of a team, whilst respecting others and possessing the requirements for successful leadership

### **Opportunities**

Graduates from the College of Law may expect to find engaging work opportunities in both the private and public sectors. They have the chance to become judges, to work in the public prosecution, or to be legal researchers for the State's ministries. They are free to pursue status and success in shareholding companies, banks, insurance and investment firms, oil and gas companies, and many other institutions that may fulfill their personal and academic ambitions. Alternatively, they may choose to start their own law and consulting offices and work independently. There is never a limitation of opportunities available, so that students may continue expanding their focus and expertise, and join the best international universities to pursue their higher studies, or to work as law professors at Qatar University and many other educational institutions.

### **Admissions Requirements**

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement. Detailed Undergraduate admission requirements are available at the following link:  
[http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### **Declaring the major**

Students must satisfy QU requirements for declaring a major including the need to declare the major before completing 36 undergraduate credit hours For more details about the University requirements for declaring a

Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document.

### **DEGREE REQUIREMENTS - Major in Law**

A minimum of 123 credit hours are required to complete the major in Law, including the following:

- A minimum of 33 credit hours in core curriculum requirements.
- A minimum of 66 credit hours of major requirements courses.
- A minimum of 24 credit hours of major electives courses.

### **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization

- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations



- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

- ENGL 250 English for Communication I
- ENGL 253 “English Communication for Law”
- UNIV 100 First Year Seminar

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **Major Requirements Courses (66 CH)**

Students must a minimum of 66 credit hours in major requirement courses:

- LAWC 101 Introduction to Law
- LAWC 213 Sources of Obligations
- LAWC 214 Effects of Obligations
- LAWC 217 Commercial Law
- LAWC 222 Constitutional Law
- LAWC 200 Principles of Legal Research
- LAWC 250 Family Law
- LAWC 301 Legal Skills and Methodology
- LAWC 314 Law of Civil Contracts I
- LAWC 315 Labor Law
- LAWC 316 Law of Procedures in Civil and Commercial Matters I
- LAWC 321 Administrative Law
- LAWC 323 Criminal Law I (General Part)
- LAWC 324 Criminal Law II (Special Part)
- LAWC 329 Commercial Papers and Banking Transactions
- LAWC 339 Public International Law

- LAWC 348 Corporate Law
- LAWC 409 Externship
- LAWC 411 Real Rights
- LAWC 413 Private International Law
- LAWC 422 Law of Criminal Procedures
- LAWC 450 Law of Procedures in Civil and Commercial Matters II

### **Major Electives (24 CH)**

Students must complete a minimum of 24 credit hours in courses where the language of instruction is either Arabic or English, to be selected from the following:

#### **Elective Law Courses Taught in Arabic:**

- LAWC 112 Science of Crimes and Penalties
- LAWC 202 Public Finance and Taxation
- LAWC 203 Law Clinic
- ISLA 201 Principles of Islamic Jurisprudence
- LAWC 204 International Law of the Sea
- LAWC 330 Judgements and Criminal Appealing Means
- LAWC 350 Maritime Law
- LAWC 351 Administrative Judiciary
- LAWC 352 Anti-Corruption Law
- LAWC 353 Real and Personal Securities
- LAWC 354 Law of Public Service
- LAWC 355 Economic Crimes Law
- LAWC 414 Law of Civil Contracts II
- LAWC 430 Practical Criminal Investigation
- FIQH 403 Fiqh of Inheritance and Bequest
- LAWC 484 GCC Law
- LAWC 499 Legal Ethics
- LAWC 407 Special Topics I

#### **Elective Law Courses Taught in English**

- LAWC 302 Advocacy Skills
- LAWC 433 Oil and Gas Law
- LAWC 102 Human Rights
- LAWC 113 International Humanitarian Law
- LAWC 253 Anglo-American Legal System
- LAWC 333 Law of Electronic Commerce
- LAWC 335 Intellectual Property
- LAWC 345 International Trade Law
- LAWC 443 International Criminal Law
- LAWC 449 Environment Laws and Regulations

- LAWC 451 Alternative Dispute Resolutions
- LAWC 459 Drafting of Business Contract
- LAWC 460 Moot Court I
- LAWC 464 International Investment Law
- LAWC 480 Moot Court II
- LAWC 408 Special Topics I

### Study Plan

#### Bachelor of Law

FIRST YEAR (30 credit hours)				
Term	Course #	Course Title	Credit Hours	Prerequisite
Fall	LAWC 101	Introduction to Law	3	—
	ARAB 100	Arabic Language I	3	—
	ENGL 110	English Language I	3	—
	UNIV 100	First Year Seminar	3	—
	LAWC 250	Family Law	3	—
Total Credit Hours in Semester			15	
Spring	LAWC 213	Sources of Obligations	3	LAWC 101
	LAWC 217	Commercial Law	3	LAWC 101
	LAWC 222	Constitutional Law	3	—
	ENGL 111	English Language II	1	ENGL 110
		Core Curriculum Course	3	—
Total Credit Hours in Semester			15	

SECOND YEAR (30 credit hours)				
Term	Course #	Course Title	Credit Hours	Prerequisite
Fall	LAWC 214	Effects of Obligations	3	LAWC 213

	LAWC 348	Corporate Law	3	LAWC 217
	LAWC 323	Law of Criminal Procedure: (General Part)	3	LAWC 101
	ENGL 250	English Communication I	3	ENGL 111
	ARAB 200	Arabic Language II	3	ARAB 100
<b>Total Credit Hours in Semester</b>			<b>15</b>	
Spring	LAWC 314	Law of Civil Contracts I	3	LAWC 214
		Core Curriculum Course	3	–
	LAWC 324	Law of Criminal Procedure: (Special Part)	1	LAWC 323
	ENGL 253	English for Communication /law	3	ENGL 250
	-	Elective Course in Major	3	–
<b>Total Credit Hours in Semester</b>			<b>15</b>	

<b>THIRD YEAR (30 credit hours)</b>				
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>	<b>Prerequisite</b>
Fall	LAWC 316	Law of Procedures in Civil and Commercial Matters I	3	LAWC 214
	LAWC 321	Administrative Law	3	LAWC 101
	LAWC 301	Legal Skills and Methodology	3	ENGL 250
	LAWC 329	Commercial Papers & Banking Transaction	3	LAWC 217
	–	Elective Course in Major	3	–
<b>Total Credit Hours in Semester</b>			<b>15</b>	
Spring	LAWC 339	Public International Law	3	
		Core Curriculum Course	3	–

	LAWC 200	Principles of Legal Research	3	Complete minimum 45 CH
	-	Elective Course in Major	3	—
	-	Elective Course in Major	3	—
<b>Total Credit Hours in Semester</b>			<b>15</b>	

<b>FOURTH YEAR (33 credit hours)</b>				
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>	<b>Prerequisite</b>
Fall	LAWC 450	Law of Procedures in Civil & Commercial Matters II	3	LAWC 316
	LAWC 413	Private International Law	3	LAWC 213
	LAWC 315	Labor Law	3	LAWC 213
	-	Core Curriculum Course	3	—
	-	Elective Course in Major	3	—
		Elective Course in Major	3	—
<b>Total Credit Hours in Semester</b>			<b>18</b>	
Spring	LAWC 411	Real Rights	3	LAWC 214
	LAWC 409	Externship	3	LAWC 111 OR LAW 300
	-	Elective Course in Major	3	—
	-	Elective Course in Major	3	—
	LAWC 422	Law of Criminal Procedures	3	LAWC 324
<b>Total Credit Hours in Semester</b>			<b>15</b>	





## COLLEGE OF SHARIA AND ISLAMIC STUDIES

College of Sharia and Islamic Studies/ Women Section C11

Phone: (+974) 4403-4400

Email: Shariadean@qu.edu.qa

Website: <http://www.qu.edu.qa/ar/sharia/index.php>

College of Sharia and Islamic Studies/ Men Section B05

Phone: (+974) 4403-4400

Email: Shariadean@qu.edu.qa

Website: <http://www.qu.edu.qa/ar/sharia/index.php>

### Dean

Ibrahim Abdulla I Al-Ansari

### Associate Dean for Academic Affairs

Mohamed Abubakr A Al-Musleh

### Associate Dean for Research and Graduate Studies

Mohammad Khazer Saleh Al-Majali

### Assistant Dean for Student Affairs

Abdullah Hamad M Al-Meraikhi

## DEPARTMENTS

The college has three departments:

- Quran and Sunnah Department
- Creed and Dawa Department
- Fiqh and Usul AlFiqh Department

## DEGREE OFFERINGS

The College of Sharia and Islamic Studies offers the following undergraduate degree program:

- Bachelor of Quran and Sunnah
- Bachelor of Creed and Dawa
- Bachelor of Islamic Studies
- Bachelor of Fiqh and Usul AlFiqh

## DECLARING THE MAJOR

College of Law should take into consideration the university requirements for declaring a major. For more details about the Major declaration University requirements, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document.



Besides, each program may have additional specific requirements (See the paragraph “Declaring the major” at the programs’ level).

**DECLARING THE MINOR**

The college of Sharia and Islamic Studies does not offer any minor.

## DEPARTMENT OF QURAN AND SUNNAH

College of Sharia and Islamic Studies/ Women Section C11

Phone: (+974) 4403-4400

Email: Shariadean@qu.edu.qa

Website: <http://www.qu.edu.qa/ar/sharia/index.php>

### Head

Abdel Jabbar Ahmad Mohammad Said

### Faculty

#### Professors

Abdel Jabbar Ahmad Mohammad Said, Muhammed Aydin, Hissa A.Aziz M Al-Sowaidi, Hissa Ahmad A Algazal, Mohamed Abdellatif Abdelaati, Abdala El Khatib, Ahmad Khaled Yousef Shukri, Hamid Goufi, Adnan Al-Hamwi Al-Olabi, Abdulsalam Moqbel Abdo Ghaleb

#### Associate Professors

Ramadan Khamis Zaky Abdeltawab, Nama' Mohammad Eshaq Albanna, Abdel karim A Y Al Wreikat

#### Assistant Professors

Fatma Saad B A Al-Naimi, Mehmet Berat Reyen, Saeed Mohd H M Al Marri, Wafa' A. Y. Azzam

#### Teaching Assistance

Mohammed Abdurashid Sufi, Abada Abdulrahiem Tahhan, Nada Hussain Thabet Alyahri, Samia Baggash Mohammed Al-Hammadi, Wisal Mohamed

## BACHELOR OF QURAN AND SUNNAH

### Admissions Requirements

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement. Detailed Undergraduate admission requirements are available at the following link:

[http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### Declaring the major

Students must satisfy QU requirements for declaring a major including the need to declare the major before completing 36 undergraduate credit hours. For more details about the University requirements for declaring a Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document.

### DEGREE REQUIREMENTS - Major in Quran and Sunnah

Students have to complete a minimum of 126 CH to graduate from the program. That includes:

- A minimum of 33 credit hours of core curriculum requirements.
- A minimum of 42 credit hours of college requirements.
- A minimum of 39 credit hours of major requirements courses.
- A minimum of 12 credit hours of elective courses:
  - 6 credit hours from major elective courses.
  - 3 credit hours from major elective courses in Fiqh and Usual AlFiqh.
  - 3 credit hours from major elective courses in Creed and Dawa.

### **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society

- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods

- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **College Requirements Courses (42 CH)**

Students must a minimum of 42 credit hours in college requirements courses:

- QURS 101 Quranic Studies
- QURS 201 Quran (1)
- QURS 202 Quranic Syntax (1)
- QURS 203 Hadith studies
- QURS 204 Analytical Exegesis (1))
- QURS 205 Hadith analysis (1)
- QURS 301 Quran (2)
- DAWA 118 Introduction to Islamic Creed
- DAWA 203 Principles & Methodology of Dawa
- DAWA 210 Philosophy of Sirah
- DAWA 308 Studies in Is. Civilization
- DAWA 315 Research Methodology
- FIQH 108 Introduction to Islamic Fiqh
- FIQH 205 Fiqh of Worship (1)
- FIQH 206 Fiqh of Financial Affairs
- FIQH 333 The Islamic Family Law (1)

### **Major Requirements Courses (39 CH)**

Students must a minimum of 39 credit hours in major requirement courses:

- QURS 303 Analytical Exegesis (2)

- QURS 304 Introduction Quiraat
- QURS 305 Hadith Analysis (2)
- QURS 306 Methodology of Hadith Scholars (1)
- QURS 308 Principles of Exegesis
- QURS 310 Legislative Hadith
- QURS 401 Legislative ayat
- QURS 402 Quranic miracles
- QURS 403 Methodologies of Exegetes
- QURS 404 Textual criticism of hadith
- QURS 405 Hadith Referencing
- QURS 407 Thematic Quranic Exegesis
- QURS 408 Textual criticism of hadith

### **Elective Courses (12 CH)**

Students must a minimum of 12 credit hours in elective courses:

- **Major electives courses (6 CH)**
  - QURS 302 Contemp. Qur & hdth studies
  - QURS 307 Divine Sunan in Qur & Hdth
  - QURS 406 Quranic Syntax (2)
  - QURS 400 Internship
- **Major elective courses from Fiqh and Usul al Fiqh (3 CH)**
  - FIQH 307 Fundamentals of Fiqh: General Studies
  - FIQH 412 Intents of Shari'ah
  - FIQH 433 Contemporary issues of Fiqh
- **Major elective courses from Creed and Dawa (3 CH)**
  - DAWA 407 Belief & excommunication
  - DAWA 415 Comparative Religions
  - DAWA 414 Imam Skills

## DEPARTMENT OF CREED AND DAWA

College of Sharia and Islamic Studies/ Women Section C11

Phone: (+974) 4403-4470

Email: [creed.sharia@qu.edu.qa](mailto:creed.sharia@qu.edu.qa)

Website: <http://www.qu.edu.qa/ar/sharia/index.php>

### Head

Abdelkader Bekhouche

### Faculty

#### Professors

Muhammad Khalifa Hasan Ahmad Khalifa, Hasan Al Khattaf, Shafi Safar K A Al-Hajri, Hassan Hamed Obead Obead, Mohammed Amezzian, A.hakeem Yousuf A Alkhelaifi

#### Associate Professors

Abubaker Mohamed Ahmed Mohamed Ibrahim, Ahmed Mohamed Zayed, Shafi Safar K A Al-Hajri, Azzeddine Mamiche, Mohammed Iqbal Ahmed Farhat, Ala' Saleh Abdelna'eem Hailat, Essa Abdulla A Kahoni, Aziz Elbittoui, Youssef Ban El Mahdi, Moh'dKhair Hasan Moh'd Al-Omari, Mahrous Mohamed Mahrous Basuny, Mohammed Aieash Mutlak

#### Assistant Professors

Amina A.Aziz A Al-Ansari, Hessah Mohammed M Y AlKhater, Ramadan Mohamed Ali Mab Matarid, Mohamed Abubakr A Al-Musleh, Samir Kaddouri, Mohammed Rashid S S Al-Marri, Hasan Yousef Hasan Dari, Amar Benboudina

#### Lecturer

Alkori Salem El Moctar El Hadj, Omar Othman M I Alkhtib

#### Teaching Assistance

Mokhtar Badri, Fatema Elzahraa Elsied Aly Mohammed Ismail, Ahmed Ibrahim A M Janahi, Abdulaziz Abdulla A.H Al-Thani, Hassan Abdulla H A Al Rumaihi

#### About the Department

The department offers two bachelor degrees:

- Bachelor of Creed and Dawa
- Bachelor of Islamic Studies



## BACHELOR OF CREED AND DAWA

### Admissions Requirements

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement. Detailed Undergraduate admission requirements are available at the following link: [http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### Declaring the major

Students must satisfy QU requirements for declaring a major including the need to declare the major before completing 36 undergraduate credit hours. For more details about the University requirements for declaring a Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document.

### DEGREE REQUIREMENTS - Major in Creed and Dawa

Students have to complete a minimum of 126 CH to graduate from the program. That includes:

- A minimum of 33 credit hours of core curriculum requirements.
- A minimum of 42 credit hours of college requirements.
- A minimum of 39 credit hours of major requirements courses.
- A minimum of 12 credit hours of elective courses:
  - 6 credit hours from major elective courses.
  - 3 credit hours from major elective courses in Fiqh and Usual AlFiqh.
  - 3 credit hours from major elective courses in Quran and Sunnah.

### Core Curriculum Program

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

### Identity and Communication Package (15 - 18 CH)

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation

- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography

- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **College Requirements Courses (42 CH)**

Students must a minimum of 42 credit hours in college requirements courses:

- QURS 101 Quranic Studies
- QURS 201 Quran (1)
- QURS 202 Quran Syntax (1)
- QURS 203 Hadith Studies

- QURS 204 Analytical Exegesis (1)
- QURS 205 Hadith Analysis (1)
- QURS 301 Quran (2)
- FIQH 108 Introduction to Islamic Fiqh
- FIQH 205 Fiqh of Worship (1)
- FIQH 206 Fiqh of Financial Affairs
- FIQH 333 The Islamic Family Law (1)
- DAWA 118 Introduction to Islamic Creed
- DAWA 203 Principles & Methodology of Dawa
- DAWA 210 Philosophy of Sirah
- DAWA 308 Studies in Is. Civilization
- DAWA 315 Research Methodology

### **Major Requirements Courses (39 CH)**

Students must a minimum of 39 credit hours in major requirement courses:

- DAWA 222 Dialogue of Civilizations
- DAWA 307 Logic & ethics of debate
- DAWA 309 Theology
- DAWA 310 Contemporary M.logies in Is Sc
- DAWA 313 Biblical Religions
- DAWA 314 Contemporary Groups & Sects
- DAWA 316 Non- Abrahamic religions
- DAWA 318 Prophecy and Revelation
- DAWA 406 Modern Islamic Movements
- DAWA 407 Belief & excommunication
- DAWA 408 Society & Religion
- DAWA 413 Dawa and dialogue in the Quran
- DAWA 414 Imam Skills

### **Elective Courses (12 CH)**

Students must a minimum of 12 credit hours in elective courses:

- **Major electives courses (6 CH)**

- DAWA 320 Sufism & Spirituality
- DAWA 322 Intro to Islamic Philosophy
- DAWA 400 Internship
- DAWA 401 Area Studies
- DAWA 412 Contemporary Western Thought
- DAWA 117 Ethics

- **Major elective courses from Fiqh and Usul al Fiqh (3 CH)**

- FIQH 433 Contemporary issues of Fiqh
- FIQH 412 Intents of Shari'ah
- FIQH 307 Fundamentals of Fiqh: General Studies

- **Major elective courses from Quran and Sunnah (3 CH)**
- QURS 307 Divine Sunan in Qur & Hdth
- QURS 407 Thematic Quranic Exegesis
- QURS 408 Textual Criticism of hadith

## **BACHELOR OF ISLAMIC STUDIES**

### **Admissions Requirements**

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement. Detailed Undergraduate admission requirements are available at the following link:

[http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### **Declaring the major**

Students must satisfy QU requirements for declaring a major including the need to declare the major before completing 36 undergraduate credit hours. For more details about the University requirements for declaring a Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document.

### **DEGREE REQUIREMENTS - Major in Islamic Studies**

Students have to complete a minimum of 126 CH to graduate from the program. That includes:

- A minimum of 33 credit hours of core curriculum requirements.
- A minimum of 42 credit hours of college requirements.
- A minimum of 12 credit hours of major requirements courses.
- A minimum of 15 credit hours of major elective courses
- A minimum of 24 credit hours in minor requirements courses.

### **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I

- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

**Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

**Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

**Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

**College Requirements Courses (42 CH)**

Students must a minimum of 42 credit hours in college requirements courses:



- QURS 101 Quranic Studies
- QURS 201 Quran (1)
- QURS 202 Quran Syntax (1)
- QURS 203 Hadith Studies
- QURS 204 Analytical Exegesis (1)
- QURS 205 Hadith Analysis (1)
- QURS 301 Quran (2)
- FIQH 108 Introduction to Islamic Fiqh
- FIQH 205 Fiqh of Worship (1)
- FIQH 206 Fiqh of Financial Affairs
- FIQH 333 The Islamic Family Law (1)
- DAWA 118 Introduction to Islamic Creed
- DAWA 203 Principles & Methodology of Dawa
- DAWA 210 Philosophy of Sirah
- DAWA 308 Studies in Is. Civilization
- DAWA 315 Research Methodology

### **Major Requirements Courses (12 CH)**

Students must a minimum of 12 credit hours in major requirement courses:

- DAWA 117 Ethics
- DAWA 407 Belief & excommunication
- FIQH 302 Islamic Systems
- FIQH 307 Fundamentals of Fiqh: General Studies

### **Major Elective Courses (15 CH)**

Students must a minimum of 15 credit hours in major elective courses:

- DAWA 222 Dialogue of Civilizations
- DAWA 307 Logic & Ethics of Debate
- DAWA 310 Contemporary M.logies in Science
- DAWA 314 Contemporary Groups & Sects
- DAWA 401 Area Studies
- DAWA 406 Modern Islamic Movements
- DAWA 408 Society & Religion
- DAWA 412 Contemporary Western Thought
- DAWA 414 Imam Skills
- DAWA 415 Comparative Religions
- FIQH 424 Islamic Politics
- FIQH 426 International Relations
- FIQH 433 Contemporary Issues of Fiqh
- QURS 401 Legislative Ayat
- QURS 402 Quranic Miracles
- ISLA 400 Internship

**Minor Requirements Courses (24 CH)**

Students must a minimum of 24 credit hours in minor requirements courses in one of the following offered minor programs by the university colleges. If the credit hours of the selected minor programs is less than 24 credit hours, then the student needs to take more free elective courses to complete 24 credit hours. The college of sharia and islamic studies recommends the students to take one of the following minor programs:

1. Minor in Arabic Language (24 CH)
2. Minor in English Language (24 CH)
3. Minor in International Affairs (24 CH)
4. Minor in Policy, Planning and Development
5. Minor in Mass Communication
6. Minor in Sociology
7. Minor in Psychology
8. Minor in Business for Non-Business Students

## DEPARTMENT OF FIQH AND USUA ALFIQH

College of Sharia and Islamic Studies/ Women Section C11

Phone: (+974) 4403-4449

Email: [FIQH.sharia@qu.edu.qa](mailto:FIQH.sharia@qu.edu.qa)

Website: <http://www.qu.edu.qa/ar/sharia/index.php>

### Head

Salih K Karim

### Faculty

#### Professors

Ahmed Raissouni, Ayman Ali Saleh, Djeddi Abdelkader, Ali Mohammed Y Almohammadi, Abdulhakeem Abdulrahman Asa Alsaadi Ali Muhyealdin Alquradaghi

#### Associate Professors

Fadhl Abdullah Abdo Murad, Iyad Abdul Hameed Nemer Abdulrahman, Mahroof Athambawa, Saad-Eddine Dedeche,

#### Assistant Professors

Fatima Abdallah Yousef Azzam, Hassan Yachou, Mourad Boudaia, Sultan Ibrahim S K Al-Hashmi, Turki Obaid S A Al-Marri, Yahya Hamad B H Al-Naemi

#### Lecturer

Hamad Sulaiman H J Al-Sayed, Hamda Mohammed R S Al-Sharim,

#### Teaching Assistance

Mohammed Abdulla Al-Saei,

## BACHELOR OF FIQH AND USUL ALFIQH

### Admissions Requirements

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement. Detailed Undergraduate admission requirements are available at the following link: [http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### Declaring the major

Students must satisfy QU requirements for declaring a major including the need to declare the major before completing 36 undergraduate credit hours For more details about the University requirements for declaring a

Major, please refer to the paragraph “Declaring the major” in Chapter 7 – Academic Policies and Regulations of this document.

### **DEGREE REQUIREMENTS - Major in Fiqh and Usul AlFiqh**

Student have to complete a minimum of 126 CH to graduate from the program. That includes:

- A minimum of 33 credit hours of core curriculum requirements.
- A minimum of 42 credit hours of college requirements.
- A minimum of 39 credit hours of major requirements courses.
- A minimum of 12 credit hours of elective courses:
  - 6 credit hours from major elective courses.
  - 3 credit hours from major elective courses in Creed and Dawa
  - 3 credit hours from major elective courses in Quran and Sunnah.

### **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

#### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

#### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology

- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity

- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **College Requirements Courses (42 CH)**

Students must a minimum of 42 credit hours in college requirements courses:

- QURS 101 Quranic Studies
- QURS 201 Quran (1)
- QURS 202 Quran Syntax (1)
- QURS 203 Hadith Studies
- QURS 204 Analytical Exegesis (1)
- QURS 205 Hadith Analysis (1)
- QURS 301 Quran (2)
- FIQH 108 Introduction to Islamic Fiqh
- FIQH 205 Fiqh of Worship (1)
- FIQH 206 Fiqh of Financial Affairs
- FIQH 333 The Islamic Family Law (1)
- DAWA 118 Introduction to Islamic Creed
- DAWA 203 Principles & Methodology of Dawa
- DAWA 210 Philosophy of Sirah
- DAWA 308 Studies in Is. Civilization

- DAWA 315 Research Methodology

### **Major Requirements Courses (39 CH)**

Students must a minimum of 39 credit hours in major requirement courses:

- FIQH 306 Jurisprudence & Evidence & Arguments
- FIQH 310 Fiqh of Tradeoffs and Bindings
- FIQH 323 Fundamentals of Fiqh (1)
- FIQH 324 Fundamentals of Fiqh (2)
- FIQH 328 Doctrinal Rules
- FIQH 331 Fiqh of Worship (2)
- FIQH 336 The Islamic Family Law (2)
- FIQH 401 Fundamentals of Fiqh (3)
- FIQH 405 Corporate Jurisprudence and Donations
- FIQH 406 Penal Code
- FIQH 409 Fiqh of Wills and Succession
- FIQH 410 Comparative Fiqh
- FIQH 412 Intents of Shari'ah

### **Elective Courses (12 CH)**

Students must a minimum of 12 credit hours in elective courses:

- **Major electives courses (6 CH)**
  - FIQH 424 Islamic Politics
  - FIQH 426 International Relations
  - FIQH 430 Vows, Expiations & Foods
  - FIQH 431 Fundamentals of Fiqh (3)
  - FIQH 400 Internship
  - FIQH 412 Intents of Shari'ah
- **Major elective courses from Creed and Dawa (3 CH)**
  - DAWA 222 Dialogue of Civilizations
  - DAWA 307 Logic & Ethics of Debate
  - DAWA 407 Belief & Excommunication
- **Major elective courses from Quran and Sunnah (3 CH)**
  - QURS 302 Contemp. Qur & Hdth Studies
  - QURS 307 Divine Sunan in Qur & Hdth
  - QURS 405 Hadith Referencing





## COLLEGE OF HEALTH SCIENCES

Ibn Al Bitar, building number I06

Phone: (+974) 4403-4800

Email: [health@qu.edu.qa](mailto:health@qu.edu.qa)

Website: <http://www.qu.edu.qa/chs/>

### Dean

Hanan Abdul Rahim

### Associate Dean for Academic Affairs

Ahmed Malki

### Assistant Dean for Students Affairs

Nada Al-Kubaisi

## ABOUT THE COLLEGE

The college of Health Sciences is established in 2016, upon the cornerstone of a perpetual pursuit of knowledge and academic excellence, it's the first college of its kind in Qatar and one of the leading academic foundations for healthcare which fosters learning and scholastic excellence

The college of Health Sciences is comprised of four departments namely:

- Biomedical Science (BSc., MSc., Ph.D.) and MSc in genetic counseling
- Public Health (BSc. & MPH),
- Human Nutrition (BSc. & MSc.)
- Physical therapy and Rehabilitation Sciences (BSc.).

The CHS is committed to fostering a student-centric learning environment that emphasizes scholarship through research and life-long learning to cultivate leaders in the field of Health Sciences with the highest national and international standards. The standardized services the CHS provides students, in combination with state-of-the-art well- equipped laboratories; modernized, easily accessible facilities; and a dynamically talented and diverse faculty create an unparalleled atmosphere of innovativeness and academic rigor.

Within a culture of collaboration with other healthcare institutes in Qatar, the CHS is also committed to graduating the most knowledgeable and highly skilled professionals. These professionals have the capacity to develop creative new solutions to major health problems faced by the citizens of Qatar, thereby significantly enhancing the quality of the healthcare sector in Qatar, as well as the quality of life for the great people of Qatar.

## DEPARTMENT OF BIOMEDICAL SCIENCE

### Head

Maha Al-Asmakh

### Program Director

Marawan Abu Madi

### Professors

Asma Al-Thani, Ahmed Malki,

### Associate Professors

Marwan Abu Madi, Nasser Rizk, Houssein Khodjet Elkhil, Gheyath Nasrallah, Asem Alkhateeb, Hatem Zayed, Sapha Shibeeb

### Assistant Professors

Elham Sherif, Maha Al-Asmakh, Mashael Nedham Alshafai, Layla Kamareddine, Atiyeh Abdallah, Wisam Nabeel Ibrahim, Amal Ahmad Al-Haidose, Rozaimi Razali

### Teaching Assistants

Amna Al-Thani, Hala Bargal, Maria Ali, Sumbul Bushra, Taghreed H. A. Abunada, Tameem Hadwan, Nada Al-Emadi, Hissa Al-Thani, Sawsan Said, Wafa Tagi

### Technicians

Abdelrahma ElGamal, Aisha Al-Sheeb, Amal Ibrahim, Ovelia Masoud

## BACHELOR OF SCIENCE IN BIOMEDICAL SCIENCE

### Mission

The mission of the Biomedical Science Department is to provide quality education that prepares competent Biomedical Scientists, equipping them with theoretical and practical knowledge, critical thinking and analytical skills, scientific research abilities, and communication skills, while also emphasizing ethical practice within the healthcare industry.

### Objectives

Our graduates are committed to life-long learning and adapt to the changing needs of the society. The goals of the Biomedical Sciences major are to help students to:

- Acquire knowledge related to the field of biomedical science.
- Gain practical skills related to the laboratory field.
- Develop communication skills.
- Enhance critical thinking skills.
- Employ modern information technology related to the health field.



- Sustain high professional ethics and behavior.
- Conduct research related to biomedical science.
- Maintain an interest in lifelong learning and career development.

### **Learning Outcomes**

1. Demonstrate conceptual knowledge in biomedical field.
2. Perform basic laboratory techniques in biomedical labs.
3. Comply with safety regulations and universal precaution.
4. Communicate effectively with colleagues and clients.
5. Solve problems related to test results discrepancy.
6. Integrate patient data for evaluation of validity of laboratory test results.
7. Apply computer technology in clinical laboratory data processing, data reporting and information retrieval.
8. Maintain strong professional ethics.
9. Adjust effectively in team working
10. Conduct research related to Biomedical Sciences

### **Opportunities**

A biomedical scientist is an individual who performs and evaluates laboratory tests using a variety of methods. The results of these tests provide the necessary information to physician who diagnose disease or monitor the treatment of patients. It has been estimated that approximately 60 to 70% of the necessary information needed to treat the patients sourced from the clinical laboratory.

Most clinical laboratory scientists begin their professional careers working in a laboratory in an acute care or community hospital. However, job opportunities also exist in public health laboratories, reference laboratories, research laboratories, and forensic laboratories. Opportunities for employment exist also in industries that requires laboratory procedures and health applications. In this type of setting, a biomedical scientist may be involved in research and development for the production of pharmaceuticals, reagents, or other biological products.

Biomedical Science is appropriate for someone with a strong interest in science who wants a health career with minimal patient contact. You should enjoy “hands on” laboratory work. You should be a team player who is self-motivated and willing to work well under pressure. Additionally, one should have good manual dexterity, good attention to detail and enjoy doing precise work.

### **Accreditation**

The Biomedical Science Program is accredited by the US National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) for the period from April 2020 to April 2030. It is the first academic program outside of the US to receive accreditation by NAACLS.

National Accrediting Agency for Clinical Laboratory Sciences

5600 N. River Rd.

Suite 720

Rosemont, IL 60018-5119

773.714.8880

773.714.8886 (FAX)

[www.naacls.org](http://www.naacls.org)

### **Admissions Requirements**

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement.

Detailed Undergraduate admission requirements are available at the following link:

[http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### **Declaring the major**

Students must satisfy QU requirements for declaring a major including the need to declare the major before completing 36 undergraduate credit hours. In addition, students declaring a major in biomedical science must have completed a minimum of 16 CH including CHEM 101/103, MEDI 102, PUBH 151 with a minimum GPA of 2.00 to include the MEDI 101 course with a minimum grade of D.

### **Additional Requirements**

Students must complete a capstone research project prior to their last semester in the program. The Biomedical Science program also requires students to complete clinical rotations in area hospital laboratories. These clinical practice rotations will be coordinated by the program and comprise the clinical courses in the student's last semester of study.

### **DEGREE REQUIREMENTS - Major in Biomedical Science**

A minimum of 135 credit hours (CH) are required to complete the major in Biomedical Science, including the following:

- A minimum of 33 credit hours in core curriculum requirements
- A minimum of 61 credit hours in major requirements courses
- A minimum of 24 credit hours in major supporting requirements
- A minimum of 13 credit hours in college requirements
- A minimum of 4 credit hours in major electives courses

### **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.

- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

**Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

**Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

**Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

**Major Requirements Courses (61 CH)**

Students must complete a minimum of 61 credit hours in major requirements courses:



- BIOM 301 Lab Management and QC
- BIOM 320 Medical Molecular Biology
- BIOM 322 Medical Microbiology
- BIOM 323 Medical Parasitology
- BIOM 324 Medical Virology
- BIOM 346 Clinical Chemistry
- BIOM 418 Pharmacology and Toxicology
- BIOM 422 Diagnostic Microbiology
- BIOM 426 Clinical Immunology
- BIOM 444 Histopathology
- BIOM 446 Urine Analysis and Body Fluids
- BIOM 451 Hematology and Hemostasis
- BIOM 452 Immunohematology & Blood Bank
- BIOM 463 Endocrinology
- BIOM 491 Clinical Practice in Chemistry
- BIOM 492 Clinical Practice in Hematology
- BIOM 493 Clinical Practice in Immunology
- BIOM 494 Clinical Practice in Microbiology
- BIOM 495 Clinical Practice in Immunohematology
- BIOM 496 Professional Development
- BIOM 497 Research Project

### **Major Supporting Requirements (24 CH)**

Students must complete a minimum of 24 credit hours in major supporting requirements:

- MEDI 103 Human Structure & Function II
- BIOL 241 Microbiology
- BIOM 212 Human Histology
- BIOM 217 Human Genetics
- BIOM 243 Introduction to Pathology
- CHEM 209 Fundamentals in Organic Chemistry
- BIOM 201 Medical Biochemistry
- CMPS 101 Introduction to Computer Science

### **College Requirements (13 CH)**

Students must complete a minimum of 13 credit hours in college requirements:

- MEDI 101 Human Structure & Function I
- MEDI 102 Health Professions Education
- CHEM 101 General Chemistry I
- CHEM 103 Exp. General Chemistry
- PUBH 151 Biostatistics for Health Sciences

### **Major Electives Courses (4 CH)**

Students must complete a minimum of 4 credit hours in major elective courses:

- BIOM 213 Human Embryology
- BIOM 400 Seminar
- BIOM 401 Special Topics
- BIOM 402 Special Topics
- BIOM 411 Forensic Science
- CHEM 237 Analytical Chemistry I
- CHEM 238 Experimental Analytical Chemistry I
- PHYS 110 General Physics for Biology
- PHYS 111 Practical Physics for Biology
- PUBH 200 International and Global Health

### Study Plan

#### Bachelor of Science in Biomedical Sciences - students joining the program in Fall

Fall 1st Semester		
Code	Course	Credit Hours
	English 202 (Core requirement)	3
MEDI 102	Health Professions Education	3
CHEM 101	General Chemistry I	3
CHEM 103	Exp. General Chemistry I	1
PUBH 151	Biostatistics for Health Sciences	3
MEDI 101	Human Structures and Function I	3
	Total	16
Spring 2nd Semester		
	English 203 (Core requirement)	3
MEDI 103	Human Structures and Function II	3
BIOM 212	Human Histology	3
CHEM 209	Fundamentals of Organic Chemistry	3
	Core courses	6
	Total	18
Fall 3rd Semester		
	Core courses	9

BIOM 217	Human Genetics	3
CMPS 101	Introduction to Computer	3
BIOL 241	Microbiology	3
	<b>Total</b>	<b>18</b>
<b>Spring 4th Semester</b>		
BIOM 320	Medical Molecular Biology	3
BIOM 243	Introduction to Pathology	2
BIOM 201	Medical Biochemistry	4
	Core	9
	<b>Total</b>	<b>18</b>
<b>Fall 5th Semester</b>		
BIOM 324	Medical Virology	2
BIOM 346	Clinical Chemistry	4
BIOM 426	Clinical Immunology	3
BIOM 463	Endocrinology	3
BIOM 402	Special Topics	2
	Core Courses	3
	<b>Total</b>	<b>17</b>
<b>Spring 6th Semester</b>		
BIOM 418	Pharmacology & Toxicology	2
BIOM 446	Urine Analysis & Body Fluids	2
BIOM 322	Medical Microbiology	4
BIOM 451	Hematology & Hemostasis	4
BIOM 323	Medical Parasitology	3
	<b>Total</b>	<b>15</b>
<b>Fall 7th Semester</b>		
BIOM 301	Laboratory Management	3
BIOM 444	Histopathology	2
BIOM 422	Diagnostic Microbiology	2

BIOM 452	Immunohematology. & Blood Bank	3
BIOM 497	Research Project 1	3
	BIOM 411 Forensic Science (or Electives)	2
	<b>Total</b>	<b>15</b>
<b>Spring 8th Semester</b>		
BIOM 491	CP in Chemistry	3
BIOM 492	CP in Hematology	3
BIOM 493	CP in Immunology	3
BIOM 494	CP in Microbiology	3
BIOM 495	CP in Immunohematology	3
BIOM 496	Professional Development	3
	<b>Total</b>	<b>18</b>

### Bachelor of Science in Biomedical Sciences - students joining the program in Spring

<b>Spring 1st Semester</b>		
<b>Code</b>	<b>Course</b>	<b>Credit Hours</b>
	English 202 (Core requirement)	3
MEDI 102	Health Professions Education	3
CHEM 101	General Chemistry I	3
CHEM 103	Exp. General Chemistry I	1
PUBH 151	Biostatistics for Health Sciences	3
MEDI 101	Human Structures and Function I	3
	<b>Total</b>	<b>16</b>
<b>Fall 2nd Semester</b>		
	English 203 (Core requirement)	3
MEDI 103	Human Structures and Function II	3
BIOM 212	Human Histology	3
CHEM 209	Fundamentals of Organic Chemistry	3
	Core courses	6

	Total	<b>18</b>
<b>Spring 3rd Semester</b>		
	Core courses	9
BIOM 217	Human Genetics	3
BIOM 201	Medical Biochemistry	4
BIOM 243	Introduction to Pathology	2
	Total	<b>18</b>
<b>Fall 4th Semester</b>		
	Core courses	9
BIOL 241	Microbiology	3
CMPS 101	Introduction to Computer	3
BIOM402	Special Topics	2
	Total	<b>17</b>
<b>Spring 5th Semester</b>		
BIOM 320	Medical Molecular Biology	3
BIOM 322	Medical Microbiology	4
BIOM 451	Hematology & Hemostasis	4
BIOM 323	Medical Parasitology	3
	Core Courses	3
	<b>Total</b>	<b>17</b>
<b>Fall 6th Semester</b>		
BIOM 324	Medical Virology	2
BIOM 346	Clinical Chemistry	4
BIOM 426	Clinical Immunology	3
BIOM 422	Diagnostic Microbiology	2
BIOM 463	Endocrinology	3
BIOM 452	Immunohematology & Blood Bank	3
	<b>Total</b>	<b>17</b>
<b>Spring 7th Semester</b>		

BIOM 301	Laboratory Management	3
BIOM 444	Histopathology	2
BIOM 497	Research Project I	3
BIOM 418	Pharmacology & Toxicology	2
BIOM 446	Urine Analysis & Body Fluids	2
	BIOM213 Human Embryology (or Electives)	3
	<b>Total</b>	<b>15</b>
<b>Fall 8th Semester</b>		
BIOM 491	CP in Chemistry	3
BIOM 492	CP in Hematology	3
BIOM 493	CP in Immunology	3
BIOM 494	CP in Microbiology	3
BIOM 495	CP in Immunohematology	3
BIOM 496	Professional Development	3
	<b>Total</b>	<b>18</b>

## DEPARTMENT OF HUMAN NUTRITION DEPARTMENT

### Head

Tahra El-Obeid

### Professors

Hiba Bawadi, Vijay Gangi, Zumin Shi, Reema Tayeem

### Associate Professors

Tahra El-Obeid, Abdelhamid Kerkadi

### Lecturers

Tamara Al-Abdi

### Teaching Assistants

Maria AlAnzi, Joyce Moawad, Grace Attieh,, AlJazi Al-Qahtani, Aya Hamdan

### Laboratory Technologist

Jaafar Pakari

## BACHELOR OF SCIENCE IN HUMAN NUTRITION

### Objectives

The Human Nutrition Department aims to graduate competent dietetics professionals with a strong foundation in biological sciences, applied nutrition sciences, research methodologies, and evidenced based professional dietetic practice. The department supports the development of professional competence and prepares graduates for careers in clinical and community dietetics, health and wellness, public health, and Foodservice management. The current academic plan includes a supervised professional practice component was launched in 2010.

### Competencies

The Human Nutrition Department curriculum must prepare students with the following core knowledge and competencies based on ACEND Standards 2017 and upon completion of the program, graduates are able to fulfil all the domains below.

### Domain 1. Scientific and Evidence Base of Practice: Integration of scientific information and translation of research into practice.

#### Knowledge

Upon completion of the program, graduates are able to:

KRDN 1.1 Demonstrate how to locate, interpret, evaluate and use professional literature to make ethical, evidence-based practice decisions.

KRDN 1.2 Use current information technologies to locate and apply evidence-based guidelines and protocols.



KRDN 1.3 Apply critical thinking skills.

### **Competencies**

Upon completion of the program, graduates are able to:

CRDN 1.1 Select indicators of program quality and/or customer service and measure achievement of objectives.

CRDN 1.2 Apply evidence-based guidelines, systematic reviews and scientific literature.

CRDN 1.3 Justify programs, products, services and care using appropriate evidence or data.

CRDN 1.4 Evaluate emerging research for application in nutrition and dietetics practice.

CRDN 1.5 Conduct projects using appropriate research methods, ethical procedures and data analysis.

CRDN 1.6 Incorporate critical-thinking skills in overall practice.

## **Domain 2. Professional Practice Expectations: Beliefs, values, attitudes and behaviors for the professional dietitian nutritionist level of practice.**

### **Knowledge**

Upon completion of the program, graduates are able to:

KRDN 2.1 Demonstrate effective and professional oral and written communication and documentation.

KRDN 2.2 Describe the governance of nutrition and dietetics practice, such as the Scope of Nutrition and Dietetics Practice and the Code of Ethics for the Profession of Nutrition and Dietetics; and describe interprofessional relationships in various practice settings.

KRDN 2.3 Assess the impact of a public policy position on nutrition and dietetics practice.

KRDN 2.4 Discuss the impact of health care policy and different health care delivery systems on food and nutrition services.

KRDN 2.5 Identify and describe the work of interprofessional teams and the roles of others with whom the registered dietitian nutritionist collaborates in the delivery of food and nutrition services.

KRDN 2.6 Demonstrate an understanding of cultural competence/sensitivity.

KRDN 2.7 Demonstrate identification with the nutrition and dietetics profession through activities such as participation in professional organizations and advocating for issues impacting the nutrition and dietetics profession.

KRDN 2.8 Demonstrate an understanding of the importance and expectations of a professional in mentoring and precepting others.

### **Competencies**

Upon completion of the program, graduates are able to:

CRDN 2.1 Practice in compliance with current federal regulations and state statutes and rules, as applicable, and in accordance with accreditation standards and the Scope of Nutrition and Dietetics Practice and Code of Ethics for the Profession of Nutrition and Dietetics.

CRDN 2.2 Demonstrate professional writing skills in preparing professional communications.

CRDN 2.3 Demonstrate active participation, teamwork and contributions in-group settings.

CRDN 2.4 Function as a member of inter-professional teams.

CRDN 2.5 Assign duties to NDTRs and/or support personnel as appropriate.

CRDN 2.6 Refer clients and patients to other professionals and services when needs are beyond individual scope of practice.

CRDN 2.7 Apply leadership skills to achieve desired outcomes.

CRDN 2.8 Demonstrate negotiation skills.

CRDN 2.9 Participate in professional and community organizations.

CRDN 2.10 Demonstrate professional attributes in all areas of practice.

CRDN 2.11 Show cultural competence/sensitivity in interactions with clients, colleagues and staff.

CRDN 2.12 Perform self-assessment and develop goals for self-improvement throughout the program.

CRDN 2.13 Prepare a plan for professional development according to Commission on Dietetic Registration guidelines.

CRDN 2.14 Demonstrate advocacy on local, state or national legislative and regulatory issues or policies impacting the nutrition and dietetics profession.

CRDN 2.15 Practice and/or role-play mentoring and precepting others.

### **Domain 3: Clinical and Customer Services: Development and delivery of information, products and services to individuals, groups and populations.**

#### **Knowledge**

Upon completion of the program, graduates are able to:

KRDN 3.1 Use the Nutrition Care Process to make decisions, identify nutrition-related problems and determine and evaluate nutrition interventions.

KRDN 3.2 Develop an educational session or program/educational strategy for a target population.

KRDN 3.3 Demonstrate counseling and education methods to facilitate behavior change and enhance wellness for diverse individuals and groups.

KRDN 3.4 Explain the processes involved in delivering quality food and nutrition services.

KRDN 3.5 Describe basic concepts of nutritional genomics.

#### **Competencies**

Upon completion of the program, graduates are able to:

CRDN 3.1 Perform the Nutrition Care Process and use standardized nutrition language for individuals, groups and populations of differing ages and health status, in a variety of settings.

CRDN 3.2 Conduct nutrition focused physical exams.

CRDN 3.3 Demonstrate effective communications skills for clinical and customer services in a variety of formats and settings.

CRDN 3.4 Design, implement and evaluate presentations to a target audience

CRDN 3.5 Develop nutrition education materials that are culturally and age appropriate and designed for the literacy level of the audience.

CRDN 3.6 Use effective education and counseling skills to facilitate behavior change.

CRDN 3.7 Develop and deliver products, programs or services that promote consumer health, wellness and lifestyle management.

CRDN 3.8 Deliver respectful, science-based answers to client questions concerning emerging trends.

CRDN 3.9 Coordinate procurement, production, distribution and service of goods and services, demonstrating and promoting responsible use of resources.

CRDN 3.10 Develop and evaluate recipes, formulas and menus for acceptability and affordability that accommodate the cultural diversity and health needs of various populations, groups and individuals.

#### **Domain 4. Practice Management and Use of Resources: Strategic application of principles of management and systems in the provision of services to individuals and organizations.**

##### **Knowledge**

Upon completion of the program, graduates are able to:

KRDN 4.1 Apply management theories to the development of programs or services.

KRDN 4.2 Evaluate a budget and interpret financial data.

KRDN 4.3 Describe the regulation system related to billing and coding, what services are reimbursable by third party payers and how reimbursement may be obtained.

KRDN 4.4 Apply the principles of human resource management to different situations.

KRDN 4.5 Describe safety principles related to food, personnel and consumers.

KRDN 4.6 Analyze data for assessment and evaluate data to be used in decision-making for continuous quality improvement.

##### **Competencies**

Upon completion of the program, graduates are able to:

CRDN 4.1 Participate in management of human resources.

CRDN 4.2 Perform management functions related to safety, security and sanitation that affect employees, customers, patients, facilities and food.

CRDN 4.3 Conduct clinical and customer service quality management activities.

CRDN 4.4 Apply current nutrition informatics to develop, store, retrieve and disseminate information and data.

CRDN 4.5 Analyze quality, financial and productivity data for use in planning.

CRDN 4.6 Propose and use procedures as appropriate to the practice setting to promote sustainability, reduce waste and protect the environment.

CRDN 4.7 Conduct feasibility studies for products, programs or services with consideration of costs and benefits.

CRDN 4.8 Develop a plan to provide or develop a product, program or service that includes a budget, staffing needs, equipment and supplies.

CRDN 4.9 Explain the process for coding and billing for nutrition and dietetics services to obtain reimbursement from public or private payers, fee-for-service and value-based payment systems.

CRDN 4.10 Analyze risk in nutrition and dietetics practice.

##### **Opportunities**

As a Human Nutrition graduate, you have many career opportunities. The combined courses in social sciences and biological sciences, and integration of these in human nutrition courses prepare you for many career options.

As a dietitian, the primary career opportunities are in clinical dietetics, community nutrition or food service management.

An example of institutions with positions for HN graduates:

- Ministry of Public Health
- Hamad Medical Corporation hospitals
- Primary health care centers
- Qatar Foundation hospitals & research centers (SIDRA)
- Qatar Diabetes Association
- Private hospitals & Clinics
- ASPIRE & ASPETAR
- Ministry of Education
- Sports clubs and nutrition clinics
- Food service industry
- Hotel food service
- Health spas & Gyms

### **Admissions Requirements**

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement. Detailed Undergraduate admission requirements are available at the following link: [http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### **Declaring the major**

Students must satisfy QU requirements for declaring a major including the need to declare the major before completing 36 undergraduate credit hours. In addition, students declaring a major in Human Nutrition must have completed a minimum of 16 CH including CHEM 101/103, MEDI 102, PUBH 151 with a minimum GPA of 2.00 to include the MEDI 101 course with a minimum grade of D.

### **Requirements for Continuance in the Human Nutrition Program**

Students must complete a capstone research project prior to their last year in the program. The Human Nutrition program also requires students to complete and pass a supervised professional practice and professional development courses of a total of 20 credit hours before graduation.

### **DEGREE REQUIREMENTS - Major in Human Nutrition**

A minimum of 132 credit hours (CH) are required to complete the major in Human Nutrition, including the following:

- A minimum of 33 credit hours in core curriculum requirements
- A minimum of 29 credit hours in major supporting requirements
- A minimum of 9 credit hours in major core requirements courses
- A minimum of 52 credit hours in nutrition & dietetics requirements
- A minimum of 9 credit hours in food sciences & technology requirements

### **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
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- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
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- DAWA 111 Islamic Culture
- ENGL 110 English I
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A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

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- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or

college. The specific courses to be completed by students are identified in the degree requirements of each program.

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **Major Requirements Courses (70 CH)**

Students must complete a minimum of 70 CH in Major requirements courses including 9 CH in major core requirements, 52 CH in Nutrition & Dietetics package requirements, and 9 CH in Food Sciences & Technology Package Requirements.

### **Major Core Requirements (9 CH)**

Students must complete a minimum of 9 CH in major core requirements including:

- NUTR 231 Human Nutrition
- NUTR 321 Food Chemistry
- NUTR 352 Nutritional Metabolism

### **Nutrition & Dietetics Requirements (52 CH)**

Students must complete a minimum of 52 CH in Nutrition & Dietetics requirements:

- NUTR 223 Introduction to Dietetic Profession
- NUTR 353 Nutrition Education and Communication
- NUTR 338 Nutrition through the Lifespan
- NUTR 340 Assessment of Nutritional Status
- NUTR 439 Meal Planning & Evaluation
- NUTR 450 Medical Nutrition Therapy I
- NUTR 451 Medical Nutrition Therapy II
- NUTR 457 Public Health Nutrition
- NUTR 470 Clinical Pediatric Nutrition
- NUTR 490 Capstone Course
- NUTR 492 Research Methodologies in Human Nutrition
- NUTR 494 Supervised Dietetic Practice I (15 weeks)
- NUTR 495 Supervised Dietetic Practice II (15 Weeks)
- NUTR 496 Professional Development I
- NUTR 497 Professional Development II

### **Food Sciences & Technology Requirements (9 CH)**

Students must complete a minimum of 9 CH in Food Sciences and Technology requirements:

- NUTR 319 Quantity of Food Production & Equipment
- NUTR 441 Food Safety and Quality Control
- NUTR 460 Food Service Operations



**Major Supporting Requirements (29 CH)**

Students must complete a minimum of 29 credit hours in major supporting courses:

- MEDI101 Human Structure & Function I
- MEDI 103 Human Structure & Function II
- PUBH 151 Biostatistics for health sciences
- MED1 Health professions education
- BIOL 241 Microbiology
- BIOM 217 Human Genetics
- CHEM 101 General Chemistry I
- CHEM 103 Experimental General Chemistry I
- CHEM 209 Fundamentals in Organic Chemistry
- BIOM 201 Medical Biochemistry

**Study Plan****Bachelor of Sciences in Human Nutrition**

<b>FIRST YEAR (31 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	CHEM 101	General Chemistry	3
	CHEM 103	Exp. General Chemistry	1
	MEDI 101	Human Structure & Function I	3
	PUBH 151	Biostatistics for health sciences	3
	MED102	Health professions education	3
	English 202	Core Curriculum Course	3
<b>Total Credit Hours in Semester</b>			<b>16</b>
Spring	CHEM 209	Fundamentals in Organic Chemistry	3
	MEDI103	Human Structure & Function II	3
	BIOM 217	Human genetics	3
	English 203	Core Curriculum Course	3
		Core Curriculum Course	3
		Core Curriculum Course	3
<b>Total Credit Hours in Semester</b>			<b>18</b>

**SECOND YEAR (33 credit hours)**

<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	BIOM 241	Microbiology	3
	BIOM 201	Medical Biochemistry	4
	NUTR 223	Introduction to Dietetic Profession	2
		Core Curriculum Course	3
		Core Curriculum Course	3
		Core Curriculum Course	3
<b>Total Credit Hours in Semester</b>			<b>18</b>
Spring	NUTR 231	Human Nutrition	3
	NUTR 321	Food Chemistry	3
	NUTR 352	Nutritional metabolism	3
		Core Curriculum Course	3
		Core Curriculum Course	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>THIRD YEAR (34 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	NUTR 439	Meal Planning & Evaluation	2
	NUTR 340	Assessment of Nutritional Status	3
	NUTR 338	Nutrition through the Lifespan	3
	NUTR 319	Quantity Food Production & Equipment	3
		Core Curriculum course	3
		Core Curriculum course	3
<b>Total Credit Hours in Semester</b>			<b>17</b>
Spring	NUTR 353	Nutrition Education and Communication	3
	NUTR 450	Medical Nutrition Therapy 1	4
	NUTR 457	Public Health Nutrition	3
	NUTR 492	Research Methodologies in Human Nutrition	2

	NUTR 441	Food safety and Quality	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>FOURTH YEAR (24 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
	NUTR 451	Medical Nutrition Therapy 2	4
	NUTR 460	Food Service Operations	3
	NUTR 470	Clinical Pediatric Nutrition	3
	NUTR 490	Capstone Course	3
<b>Total Credit Hours in Semester</b>			<b>13</b>
Spring	NUTR 494	Supervised Dietetic Practice I	7
	NUTR 496	Professional Development I	3
<b>Total Credit Hours in Semester</b>			<b>10</b>

<b>FIFTH YEAR (10 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	NUTR 495	Supervised Dietetic Practice II	7
	NUTR 497	Professional Development II	3
	<b>Total Credit Hours in Semester</b>		<b>10</b>

### **MINOR IN HUMAN NUTRITION**

The minor in Human Nutrition will provide students with knowledge of nutritional biochemistry, digestion, absorption and metabolism. Students will have opportunities to examine the role of nutrition throughout the life cycle, as well as study of the social and economic influences on nutrition. The minor also introduces student to food science and its applications in food industry.

#### **Minor in Human Nutrition (18 CH)**

Students seeking a minor in Human Nutrition must complete a minimum of 18 CH including the following:

- A minimum of 9 CH in minor requirements courses
- A minimum of 9 CH in minor electives courses

#### **Minor Requirements Courses (9 CH)**

Students must complete a minimum of 9 CH in minor requirements courses:

- NUTR 231 Human Nutrition
- NUTR 321 Food Chemistry
- NUTR 338 Nutrition through the Lifespan

**Minor Electives Courses (9 CH)**

Students must complete a minimum of 9 CH in minor elective courses:

- NUTR 319 Quantity of Food Production & Equipment
- NUTR 352 Nutritional Metabolism
- NUTR 353 Nutrition Education and Communication
- NUTR 441 Food Safety and Quality Control

## DEPARTMENT OF PUBLIC HEALTH

### Head

Manar ElSheikh Abdelrahman Elhassan

### Professors

Maria Isabel Ferreira de Sousa

### Associate Professors

Hanan F. Abdul Rahim (Dean) Manar Elsheikh Abdelrahman Elhassan, Lily O'Hara, Marguerite Claire Sendall

### Assistant Professors

Karam I.I. Adawi, Mohammed Fasihul Alam, Mujahid M. Shraim, Diana Alsayed Hasan, Ahsan Sethi, Ghadir Al Jayyousi Alsalim

### Lecturers

Rana Kurdi, Dima A. Arafeh (on study leave), Farah Marwan Abu-Hijleh, Zahraa Beydoun

### Teaching Assistants

Nazmul Islam, Sawsan Awada (part-time)

## BACHELOR OF SCIENCE IN PUBLIC HEALTH

### ABOUT THE PROGRAM

The Bachelor of Science in Public Health was designed to promote the development of public policies, programs and services that support a healthy and fulfilling life for the population in Qatar. This degree prepares students to join the interdisciplinary field of Public Health, which addresses the distribution and determinants of health and disease states in the population as well as the appropriate and effective interventions to address them. Crucially, the public health approach reaches beyond the individual-level focus of clinical medicine by addressing a broad range of preventive health factors and by developing public policies that positively impact human health on both a national and regional level.

Students in this program will take courses covering the core knowledge areas of Public Health, namely Epidemiology, Biostatistics, Environmental Health Sciences, Health Services Administration, and Social and Behavioral Sciences. Undergraduate students of the Public Health Program will also be well prepared to pursue graduate work in a Master of Public Health program and/or other related disciplines.

Committed to providing an innovative curriculum which will be continuously updated in line with local needs and international trends in the discipline, the Program is differentiated into two concentrations:

1. Health Management
2. Health Education

## **Mission**

The mission of the Public Health program is to provide leadership in public health education and to facilitate the development of effective public health policies on both national and regional levels. Through high-quality experiential learning and relevant research, the program will promote the concepts and practice of health promotion, disease prevention, rational policy making, and effective and efficient management of preventive and curative health services and programs.

## **Objectives**

The objectives of the Public Health Program are to:

1. Provide students with comprehensive instruction in the international standards for public health.
2. Teach students the concepts and practices of health promotion and disease prevention and the complexities of eliminating health disparities in human populations.
3. Cultivate within students the ability to analyze public health policies and interventions, assessing their effectiveness and proposing possible alternatives.
4. Teach students the basics of health service organization, financing, delivery and evaluation.

## **Learning Outcomes**

The key learning outcomes for the Program are as follows:

Core Learning Outcomes (common to all concentrations):

1. Apply public health concepts as a broad and complex domain of professional practice and inquiry, with specific reference to the local context.
2. Analyze local and international public health problems with inferences from history and milestones in the evolution of the public health field.
3. Examine ethical issues relevant to public health practice, especially as they apply to local specificities, and justify proposed courses of action.
4. Apply research skills to generate well-formed questions and approaches to answering them – including research questions, data sources, and appropriate methodologies.
5. Assess evidence used to implement and evaluate public health interventions.
6. Communicate effectively about public health issues.

In addition to the learning outcomes common to all concentrations, students in the Health Education concentration will develop the ability to:

- Design health education strategies and interventions.
- Assess the appropriateness and impact of health education strategies and interventions.

In addition to the learning outcomes common to all concentrations, students in the Health Management concentration will develop the ability to:

- Demonstrate leadership skills in public health.
- Apply management theories and concepts to public health issues.
- Demonstrate knowledge of effective management of public health programs and interventions.
- Demonstrate knowledge of effective management of public health services.

## Opportunities

The Bachelor of Science in Public Health will prepare students both for further graduate work and for careers in the area of public health. Given the specific concentrations of the program, graduates of the program are expected to find employment opportunities in health care organizations as well as in organizations outside the health sector (such as schools and non-governmental organizations) in capacities related to health research, health program planning, policy formulation and assessment, management, program evaluation and health education.

### Graduates of the Public Health program can work in:

- Public and private health care settings
- Schools and universities
- Research centers
- Non-governmental health-oriented associations
- National and International Development Organizations

## Admissions Requirements

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement.

Detailed Undergraduate admission requirements are available at the following link:

[http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

## Declaring the major

Students must satisfy QU requirements for declaring a major including the need to declare the major before completing 36 undergraduate credit hours. In addition, students declaring a major in public health must have completed a minimum of 16 CH including CHEM 101/103, MEDI 102, PUBH 151 with a minimum GPA of 2.00 to include the MEDI 101 course with a minimum grade of D.

## DEGREE REQUIREMENTS - Major in Public Health

A minimum of 120 credit hours are required to complete the major in Public Health, including the following:

- A minimum of 33 credit hours in core curriculum requirements
- A minimum of 16 credit hours in college requirements
- A minimum of 35 credit hours in major requirements courses
- A minimum of 12 credit hours in major supporting requirements
- A minimum of 3 credit hours in major electives courses
- A minimum of 15 credit hours in concentration requirements
- A minimum of 6 credit hours in free electives courses

## Core Curriculum Program

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.



### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or

college. The specific courses to be completed by students are identified in the degree requirements of each program.

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **College Requirements (16 CH)**

Students must complete 16 credit hours in college requirements:

- MEDI 101 Human Structure and Function 1
- MEDI 102 Health professions education
- MEDI 103 Human Structure and Function 2
- CHEM 101 General Chemistry 1
- CHEM 103 Experimental General Chemistry
- PUBH 151 Biostatistics for Health Sciences

### **Major Requirements Course (35 CH)**

Students must complete 35 credit hours in major requirements courses:

- PUBH 101 Public Health Sciences: Principles and Practice
- PUBH 201 Environmental Health and Disease
- PUBH 202 Health, Behaviour and Society
- PUBH 205 Research Methods for Public Health
- PUBH 300 Public Health Professional Practice
- PUBH 301 Public Health Ethics
- PUBH 303 Epidemiology
- PUBH 306 Public Health Systems, Management, and Policy Development
- PUBH 310 Needs Assessment and Planning for Health Education Programs
- PUBH 320 Health Communication
- PUBH 341 Public Health Data Analysis
- PUBH 499 Capstone

### **Major Supporting Requirements (12 CH)**

Students must complete a minimum of 12 credit hours in major supporting requirements:

- BIOM 201 Medical Biochemistry
- BIOM 217 Human Genetics
- BIOM 243 Introduction to Pathology
- PHAR 250 Microbiology for Health Sciences

### **Major Electives Courses (3 CH)**

Students must complete a minimum of 3 credit hours in major elective courses:

- POPL 300 Principles and Tools for Evidence-Based Policy Decision Making

- POPL 340 Organizational Behavior and Management in Public Service Agencies
- PUBH 200 International Health and Global Society
- PUBH 206 Classification of Diseases
- PUBH 208 Quality of Health Care
- PUBH 221 Contemporary Health Issues
- PUBH 305 Air Pollution and Human Health
- PUBH 420 Design of Program Evaluation Systems
- PUBH 421 Health Promotion and Disease Prevention for Women Across the Lifespan
- PUBH 426 Disease-specific Health Education and Promotion
- PUBH 439 Public Health Preparedness

### **Concentration in Health Education (15 CH)**

Students must complete a minimum of 15 credit hours in the Health Education concentration requirements package.

### **Health Education Concentration Requirements (15 CH)**

Students must complete the following courses:

- PUBH 222 Foundations of Health Education
- PUBH 314 Health Education Practicum
- PUBH 325 Nutritional Epidemiology
- PUBH 421 Health Promotion and Disease Prevention for Women Across the Lifespan
- PUBH 426 Disease-specific Health Education and Promotion

### **Concentration in Health Management (15 CH)**

Students must complete a minimum of 15 credit hours in the Health Management concentration requirements package.

### **Health Management Concentration Requirements (15 CH)**

Students must complete the following courses:

- PUBH 230 Strategic Planning and Marketing
- PUBH 390 Field Experience
- PUBH 420 Design of Program Evaluation Systems
- PUBH 430 Health Economics
- PUBH 439 Public Health Preparedness

### **Free Electives Courses (6 CH)**

Students must complete a minimum of 6 credit hours in free elective courses outside the Public Health major.

### **Study Plan**

#### **Bachelor of Sciences in Public Health – Health Education Concentration**

#### **FIRST YEAR (32 credit hours)**

<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	CHEM 101	General Chem I	3
	CHEM 103	Experimental General Chem	1
	PUBH 151	Biostatistics for Health Sciences	3
	MEDI 101	Human Structure and Function-1	3
	MEDI 102	Health professions education	3
		Core Curriculum1-English 202	3
<b>Total Credit Hours in Semester</b>			<b>16</b>
Spring	MEDI 103	Human Structure and Function-2	3
	PUBH 101	PBHSC: Principles and Practice	3
	BIOM 201	Medical Biochemistry	4
		Core Curriculum 2- English 203	3
		Core Curriculum Elective-3	3
<b>Total Credit Hours in Semester</b>			<b>16</b>

<b>SECOND YEAR (29 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	BIOM 217	Human Genetics	3
	PUBH 202	Health Behavior and Society	3
	BIOM 243	Introduction to Pathology	2
		Core curriculum Elective 4	3
		Core curriculum Elective 5	3
<b>Total Credit Hours in Semester</b>			<b>14</b>
Spring	PHAR 250	Microbiology for Health Sciences	3
	PUBH 201	Environmental Health and Disease	3
	PUBH 205	Research Methods for Public Health	3
		Core curriculum Elective 6	3
		Core curriculum Elective 7	3

<b>Total Credit Hours in Semester</b>	<b>15</b>
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<b>THIRD YEAR (32 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	PUBH 301	Public Health Ethics	3
	PUBH 303	Epidemiology	3
	PUBH 300	Public Health Professional Practice	1
		Core curriculum Elective 8	3
		Core curriculum Elective 9	3
		Core curriculum Elective 10	3
<b>Total Credit Hours in Semester</b>			<b>16</b>
Spring	PUBH 320	Health Communication	3
	PUBH 310	Needs Assessment and Planning for HEP	4
	PUBH 222	Foundations of Health	3
	PUBH 306	Public Health Systems, Mgt, and Policy	3
		Core curriculum Elective 11	3
<b>Total Credit Hours in Semester</b>			<b>16</b>

<b>FOURTH YEAR (27 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	PUBH 314	Practicum	4
	PUBH 325	Nutritional Epidemiology	3
	PUBH 421	Health Promotion for Women	2
	PUBH 426	Disease-specific Health Ed and Promotion	3
		Major Elective	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	PUBH 341	Public Health Data Analysis	3

		Free Elective 1	3
		Free Elective 2	3
	PUBH 499	Capstone	3
<b>Total Credit Hours in Semester</b>			<b>12</b>

### Bachelor of Sciences in Public Health – Health Management Concentration

<b>FIRST YEAR (32 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	CHEM 101	General Chem I	3
	CHEM 103	Experimental General Chem	1
	PUBH 151	Biostatistics for Health Sciences	3
	MEDI 101	Human Structure and Function-1	3
	MEDI 102	Health professions education	3
		Core Curriculum1-English 202	3
<b>Total Credit Hours in Semester</b>			<b>16</b>
Spring	MEDI 103	Human Structure and Function-2	3
	PUBH 101	PBHSC: Principles and Practice	3
	BIOM 201	Medical Biochemistry	4
		Core Curriculum 2- English 203	3
		Core Curriculum Elective-3	3
<b>Total Credit Hours in Semester</b>			<b>16</b>

<b>SECOND YEAR (29 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	BIOM 217	Human Genetics	3
	PUBH 202	Health Behavior and Society	3
	BIOM 243	Introduction to Pathology	2



		Core curriculum Elective 4	3
		Core curriculum Elective 5	3
<b>Total Credit Hours in Semester</b>			<b>14</b>
Spring	PHAR 250	Microbiology for Health sciences	3
	PUBH 201	Environmental Health and Disease	3
	PUBH 205	Research Methods for Public Health	3
		Core curriculum Elective 6	3
		Core curriculum Elective 7	3
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>THIRD YEAR (32 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	PUBH 301	Public Health Ethics	3
	PUBH 303	Epidemiology	3
	PUBH 300	Public Health Professional Practice	1
		Core curriculum Elective 8	3
		Core curriculum Elective 9	3
		Core curriculum Elective 10	3
<b>Total Credit Hours in Semester</b>			<b>16</b>
Spring	PUBH 320	Health Communication	3
	PUBH 310	Needs Assessment and Planning for HEP	4
	PUBH 230	Strategic Planning	3
	PUBH 306	Public Health Systems, Mgt, and Policy	3
		Core curriculum Elective 11	3
<b>Total Credit Hours in Semester</b>			<b>16</b>

**FOURTH YEAR (27 credit hours)**

<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	PUBH 390	Field Experience	3
	PUBH 430	Health Economics	3
	PUBH 420	Design of Program Evaluation Systems	3
	PUBH 439	Public Health Preparedness	3
		Major Elective	3
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	PUBH 341	Public Health Data Analysis	3
		Free Elective 1	3
		Free Elective 2	3
	PUBH 499	Capstone	3
<b>Total Credit Hours in Semester</b>			<b>12</b>

## DEPARTMENT OF PHYSICAL THERAPY AND REHABILITATION SCIENCE

### Head

Emma K. Stokes

### Associate Professor

Emma K. Stokes

### Assistant Professor

Linzette D. Morris, Anna Mason – Mackay

### Teaching Assistant

Mariem S. Latrous, Michelle O'Brien

## BACHELOR OF SCIENCE IN PHYSICAL THERAPY AND REHABILITATION SCIENCES

### Our vision

Our vision is to educate the next generation of physiotherapist leaders and our curriculum aligns with the core values described in the Qatar University's Strategic Plan: **excellence, academic freedom, innovation, integrity, diversity, and social responsibility**. Our graduates will be responsible, courageous, and imaginative.

### The professional context

This is the first academic entry to practice program for the profession of physiotherapy in the State of Qatar. The program has been established to contribute to the building of the healthcare workforce consistent with the National Development Strategy. It will educate Qatari and resident students in Qatar to become physiotherapists who are capable of autonomous practice taking into account the cultural and religious specificities of Qatar. It will work collaboratively with the professional community and promote the development of the profession in Qatar.

### Undergraduate Degree

The degree is a 4-year Bachelor of Science in Physical Therapy. Accreditation will be sought from the World Confederation for Physical Therapy. The first year is part of the Health Cluster's common year. In years 2, 3 and 4 the focus will be on courses related to the core aspects of the practice of physiotherapy –as well as developing professional skills, critical enquiry and research. Movement science, behavioural sciences, exercise prescription all inform the education of physiotherapists whose practice includes working with patients and clients across the lifespan. Students are expected to complete 800-1000 supervised hours in their degree and this practice education will take place in various sites in Doha in their third and final year.

### Opportunities

Physiotherapists provide services that develop, maintain and restore people's maximum movement and functional ability. They can help people at any stage of life, when movement and function are threatened by ageing, injury, diseases, disorders, conditions or environmental factors.

Physiotherapists help people maximise their quality of life, looking at physical, psychological, emotional and social wellbeing.

They work in the health spheres of promotion, prevention, treatment/intervention, habilitation and rehabilitation in many different sectors in Qatar including but not limited to

- Hamad Medical Corporation Hospitals & Services
- Sidra Medicine
- Aspetar
- The Primary Health Care Corporation

Job opportunities also exist in different other fields such as education and research.

### **Admissions Requirements**

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement and the minimum English and Mathematics competency requirements. Detailed Undergraduate admission requirements are available at the following link: [http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### **Declaring the major**

Students must satisfy QU requirements for declaring a major including the need to declare the major before completing 36 undergraduate credit hours. In addition, students declaring a major in physical therapy must obtain a minimum GPA 2.00 and have completed a minimum of 16 CH including CHEM 101/103, MEDI 102, PUBH151 and MEDI 101 with minimum grade D.

### **DEGREE REQUIREMENTS - Major in Physical Therapy and Rehabilitation Sciences**

A minimum of 139 credit hours (CH) are required to complete the major in Physical Therapy and Rehabilitation Sciences, including the following:

- A minimum of 33 credit hours in core curriculum requirements
- A minimum of 97 credit hours in major requirements courses
- A minimum of 3 credit hours in major supporting requirements

### **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.

- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

**Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

**Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

**Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

- MEDI 101 Human Structure & Function I
- MEDI 102 Health Professions Education
- PUBH 151 Biostatistics for Health Sciences

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### Major Requirements Courses (97CH)

Students must complete a minimum of 97 credit hours in major requirements courses:

- PTRS 210 Movement Science I
- PTRS 220 Movement Science II
- PTRS 214 Professional Issues, Practice, and Perspectives I
- PTRS 212 Critical Inquiry and Innovations I
- PTRS 213 Health: The Lived Experience I
- PTRS 211 Rehabilitation: Exercise and Function I
- PTRS 216 Integration Lab I
- PTRS 230 Movement Science III
- PTRS 240 Movement Science IV
- PTRS 250 Movement Science V
- PTRS 224 Professional Issues, Practice, and Perspectives II
- PTRS 222 Critical Inquiry and Innovation II
- PTRS 215 Practice Education I
- PTRS 226 Integration Lab II
- PTRS 360 Movement Science VI
- PTRS 370 Movement Science VII
- PTRS 321 Rehabilitation: Exercise and Function II
- PTRS 331 Rehabilitation: Exercise and Function III
- PTRS 323 Health: The Lived Experience II
- PTRS 332 Critical Inquiry and Innovation III
- PTRS 336 Integration Lab III
- PTRS 341 Rehabilitation: Exercise and Function IV
- PTRS 317 Clinical Reasoning and Complexity I
- PTRS 334 Professional Issues, Practice, and Perspectives III
- PTRS 325 Practice Education II
- PTRS 335 Practice Education III
- PTRS 346 Integration Lab IV
- PTRS 444 Professional Issues, Practice, and Perspectives IV
- PTRS 442 Critical Inquiry and Innovation IV
- PTRS 433 Health: The Lived Experience III
- PTRS 427 Clinical Reasoning and Complexity II
- PTRS 445 Practice Education IV
- PTRS 455 Practice Education V
- PTRS 454 Professional Issues, Practice, and Perspectives V
- PTRS 452 Critical Inquiry and Innovation V
- PTRS 437 Clinical Reasoning and Complexity III
- PTRS 465 Practice Education VI

### Major Supporting Requirements (9 CH)

Students must complete a minimum of 9 credit hours in Major Supporting courses:



- CHEM 103 Exp. General Chemistry
- MEDI 101 Human Structure & Function II
- PHYS 110 Physics for Biology
- BIOM 243 Introduction to pathology

### Program Learning Outcomes (PLOs)

The Department of Physiotherapy & Rehabilitation Science will produce graduates who demonstrate:

PLO1. Excellence in clinical practice through safe, ethical, competent, and compassionate care.

PLO2. Emotional and cultural intelligence in their professional behaviors.

PLO3. Commitment to the development of the profession of physiotherapy and healthcare in Qatar.

The program will produce graduates who are:

PLO4. Patient-centered practitioners committed to shared decision-making with patients and clients.

PLO5. Critical consumers of research and evidence-informed practitioners

PLO6. Innovative and entrepreneurial in their thinking.

PLO7. Excellent communicators and team participants.

PLO8. Capable and confident advocates for their patients and communities.

The program will produce graduates who:

PLO9. Embrace the wider influences on the lived experience of health.

PLO10. Empower and facilitate health behavior changes.

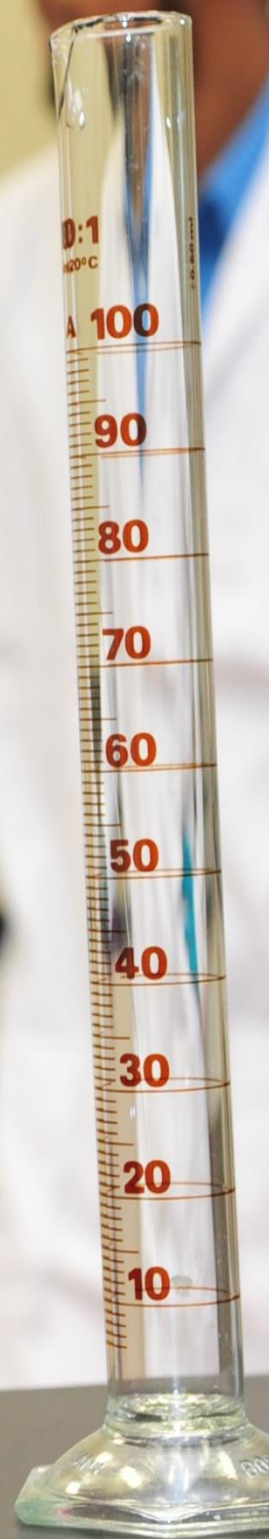
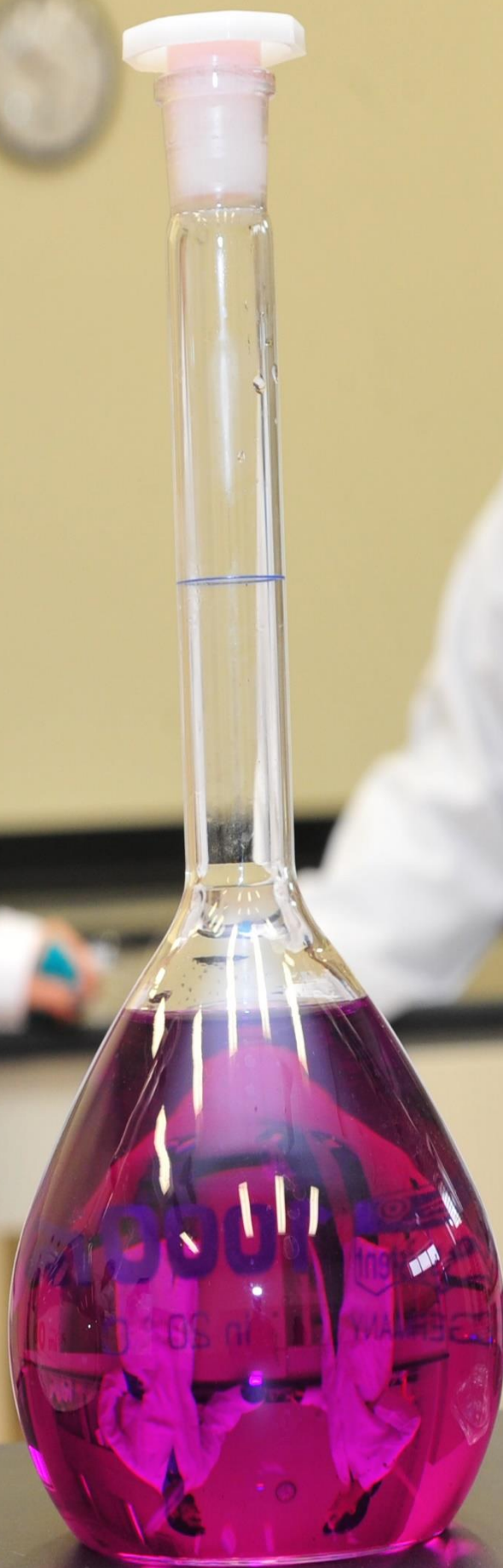
PLO11. Value diversity as individuals and professionals.

PLO12. Establish themselves as the next generation of leaders in the way they think and act.

	Course ID	Course title	Credit hours
Year 1 Common Year Fall semester	MEDI 101	Human Structure and Function 1	3
	MEDI 102	Health Professions Education	3
	CHEM 101	General Chemistry	3
	CHEM103	Experimental General Chemistry	1
	PUPH151	Biostatistics for Health sciences	3
		Core Curriculum [ENG 202 or ENG 203]	3
	<b>Declare major</b>		<b>16</b>
Year 1 Spring semester	MEDI103	Human Structure & Function 2	3
	BIOM245	Introduction to Pathology	2
	PHYS111	General Physics for Biology	3
		Core Curriculum [to include ENG 203 if not completed]	9

			<b>17</b>
Year 2 Fall semester	PTRS 210	Movement Science I	4
	PTRS 220	Movement Science II	3
	PTRS 214	Professional Issues, Practice, and Perspectives I	2
	PTRS 212	Critical Inquiry and Innovations I	2
	PTRS 213	Health: The Lived Experience I	2
	PTRS 211	Rehabilitation: Exercise and Function I	2
	PTRS 216	Integration Lab I	1
			<b>16</b>
Year 2 Spring semester	PTRS 230	Movement Science III	3
	PTRS 240	Movement Science IV	3
	PTRS 250	Movement Science V	3
	PTRS 224	Professional Issues, Practice, and Perspectives II	2
	PTRS 222	Critical Inquiry and Innovation II	2
	PTRS 215	Practice Education I	2
	PTRS 226	Integration Lab II	1
			<b>16</b>
Year 3 Fall semester	PTRS 360	Movement Science VI	2
	PTRS 370	Movement Science VII	1
	PTRS 321	Rehabilitation: Exercise and Function II	7
	PTRS 331	Rehabilitation: Exercise and Function III	2
	PTRS 323	Health: The Lived Experience II	2
	PTRS 332	Critical Inquiry and Innovation III	1
	PTRS 336	Integration Lab III	1
			<b>16</b>
Year 3 Spring semester	PTRS 341	Rehabilitation: Exercise and Function IV	4
	PTRS 317	Clinical Reasoning and Complexity I	3
	PTRS 334	Professional Issues, Practice, and Perspectives III	2
	PTRS 325	Practice Education II	4
	PTRS 335	Practice Education III	4
	PTRS 346	Integration Lab IV	1
			<b>18</b>

Year 4 Fall semester	PTRS 444	Professional Issues, Practice, and Perspectives IV	2
	PTRS 442	Critical Inquiry and Innovation IV	2
	PTRS 433	Health: The Lived Experience III	2
	PTRS 427	Clinical Reasoning and Complexity II	3
	PTRS 445	Practice Education IV	4
	PTRS 455	Practice Education V	4
			<b>17</b>
Year 4 Spring semester	PTRS 454	Professional Issues, Practice, and Perspectives V	3
	PTRS 452	Critical Inquiry and Innovation V	4
	PTRS 437	Clinical Reasoning and Complexity III	3
	PTRS 465	Practice Education VI	4
			<b>14</b>



## COLLEGE OF PHARMACY

New College of Pharmacy Building I06 (Ibn Al Bitar)

Email: [pharmacy@qu.edu.qa](mailto:pharmacy@qu.edu.qa)

Website: [www.qu.edu.qa/pharmacy](http://www.qu.edu.qa/pharmacy)

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### Associate Dean for Academic Affairs

Maguy El Hajj

### Assistant Dean for Student Affairs

Alla El-Awaisi

### Director, Doctor of Pharmacy Program

Bridget Javed

### Pharmaceutical Sciences Head

Ashraf Khalil

### Head of Research and Graduate Studies

Fatima Mraiche

### Clinical Pharmacy and Practice Section Head

Ahmed Awaisu

### Head of Clinical Training

Hazem Elewa

### Faculty

#### Professors

Mohamed Ibrahim, Feras Alali, Hesham Korashy, Abdelbary Elhissi, Derek Stewart, Nashiru Billa, Ashraf Khalil, Ahmed Awaisu

#### Associate Professors

Maguy El Hajj, Abdelali Agouni, Fatima Mraiche, Daoud Al Badriyeh, Bridget Javed, Monica Zolezzi, Hazem Elewa, Kazeem Yusuff, Mohammad Diab, Hassaan Rathore

**Assistant Professors**

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**Lecturers**

Muna Al-Ismaail, Anis Daou

**Teaching Assistants**

Reem Al Mannai, Hager El-Geed, Farhat Hussein, Myriam ElJaam, Stephanie Atwe, Reem El Hage

**ABOUT THE COLLEGE**

The mission of the College is to prepare our students to provide optimal pharmaceutical care and advance health care outcomes, to promote research and scholarly activity, and to serve as a pharmacy resource for Qatar, the Middle East and the world. Our vision is advancing healthcare in Qatar and the world through excellence and innovation in pharmacy education, research and service.

**DEGREE OFFERINGS**

The College of Pharmacy offers the following undergraduate degree program:

- Bachelor of Science in Pharmacy—BSc (Pharm)

**BACHELOR OF SCIENCE IN PHARMACY****Objectives**

The specific objectives of the Pharmacy major are:

- To foster integration of knowledge and skills, and to develop our student's general and professional abilities in a systematic, ability-based curricula that incorporates the following areas: biomedical sciences; pharmaceutical sciences; behavioral, social, and administrative pharmacy sciences; pharmacy practice; and clinical pharmacy.
- To integrate knowledge with practical experience to enhance career path and development.
- To contribute to the professional education of practitioners.
- To advance pharmaceutical and health outcomes by the conduct of internally and externally funded independent and collaborative research, and to disseminate the results of these efforts at well-recognized local, regional, and international conferences and in high-quality, peer-reviewed journals.
- To provide an intellectual and academic atmosphere that is conducive to recruitment and development of qualified faculty.

**Learning Outcomes**

Graduates of the major in Pharmacy will foster student achievement and mastery of the desired educational outcomes specific to the pharmacy degree, including:

1. **Care Provider:** Pharmacy graduates use their knowledge, skills and professional judgment to provide pharmaceutical care and to facilitate management of patient's medication and overall health needs.



2. **Communicator:** Pharmacy graduates communicate with diverse audiences, using a variety of strategies that take into account the situation, intended outcomes of the communication and the target audience.
3. **Collaborator:** Pharmacy graduates work collaboratively with teams to provide effective, quality health care and to fulfill their professional obligations to the community and society at large.
4. **Leader/Manager:** Pharmacy graduates use management skills in their daily practice to optimize the care of patients, to ensure the safe and effective distribution of medications, and to make efficient use of health resources.
5. **Health Advocate:** Pharmacy graduates use their expertise and influence to advance the health and well-being of individual patients, communities, and populations, and to support pharmacist's professional roles.
6. **Scholar:** Pharmacy graduates have and can apply the core knowledge and skills required to be a medication therapy expert, and are able to master, generate, interpret and disseminate pharmaceutical and pharmacy practice knowledge.
7. **Professional:** Pharmacy graduates honor their roles as self-regulated professionals through both individual patient care and fulfillment of their professional obligations to the profession, the community and society at large. Adopted for the purposes of CCAPP Accreditation from the Association of Faculties of Pharmacy of Canada Educational Outcomes for a Baccalaureate Pharmacy Graduate in Canada.

### Opportunities

Career opportunities for graduates of the major in Pharmacy are diverse and widely available. The BSc (Pharm) curriculum is designed to prepare first-degree-to-practice graduates for careers primarily in community and hospital settings. Graduates are also expected to be prepared for careers in the pharmaceutical industry, health sciences research, government, pharmacy organizations, and academia. The accredited curricular design represents a hybrid of programs offered in North America, the U.K. and the Middle East.

Graduates of the major in Pharmacy are eligible to apply for the Doctor of Pharmacy (PharmD) program which commenced in 2011. The PharmD curriculum is designed to prepare advanced practitioners, researchers and academicians for virtually any health care setting. BSc (Pharm) graduates who wish a research and academia focused career will also be eligible to apply for the MSc (Pharm) program which also commenced in 2011. The MSc (Pharm) degree is intended to provide an opportunity for students to advance their knowledge in specific areas of interest within the pharmaceutical sciences, and clinical Pharmacy and practices, in order to prepare them for future research and teaching positions in this discipline. The program is designed to prepare young scientists for careers in pharmaceutical education, research, industry, and related areas of specialized practice. In January 2018, a PhD program in Pharmaceutical Sciences was approved. The program provides students with a foundation of biomedical, clinical and pharmacy related interdisciplinary training, followed by intensive training in the advanced aspects of Pharmaceutical sciences, research philosophy and techniques. The duration of the curriculum and program of study is four years with a total of 60 credit hours (CH).

For further information, visit our website at [www.qu.edu.qa/pharmacy](http://www.qu.edu.qa/pharmacy)

### Admissions Requirements

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement. Detailed Undergraduate admission requirements are available at the following link: [http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)



### **Declaring the major**

Students must satisfy QU requirements for declaring a major including the need to declare the major before completing 36 undergraduate credit hours. In addition, applicants must satisfy program requirements including English proficiency, completed Foundation Program requirements (if applicable), completed prerequisite core curriculum and QU Health common year courses (minimum of 32 credit hours total) prior to application. Admission is competitive and a limited number of seats are available.

BSc Admission Committee takes a number of factors into consideration during the review process. These factors include academic performance (course grades and credit-hours), TOEFL (or IELTS) scores, structured interview outcomes, letters of recommendation, personal statements, pharmacy experience (if applicable), leadership potential, emotional maturity, knowledge of the profession, and related academic and non-academic criteria. The College of Pharmacy selects the applicants it considers best qualified for the study and practice of the profession from the pool of applicants. In particular, the college will select for admission those students who demonstrate academic potential, a motivation to study pharmacy, and the qualities and skills necessary to be a competent and caring health care professional.

Details can be found on the college website at <http://www.qu.edu.qa/pharmacy/departments/programs/bachelor-Pharmacy/admission>

### **Additional Requirements**

Completion of the major in Pharmacy (BSc (Pharm)) requires successful completion of 165 credit-hours of courses as outlined in the study plan. This includes six 4 credit-hour experiential training rotations in select hospital, primary care and community pharmacy settings.

### **DEGREE REQUIREMENTS - Major in Pharmacy**

A minimum of 165 credit hours are required to complete the major in pharmacy, including the following:

- A minimum of 33 credit hours in core curriculum requirements.
- A minimum of 111 credit hours in major requirements courses.
- A minimum of 14 credit hours in college core requirements.
- A minimum of 7 credit hours in major elective courses.

### **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.

- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology
- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

**Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

**Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights
- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

**Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

- CHEM 351 Basic Biochemistry
- CHEM 240 Physical Chemistry for the Life Sciences
- CHEM 101 General Chemistry I
- CHEM 209 Fundamentals in Organic Chemistry

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(excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **College Core Requirements (14 CH)**

Students must complete a minimum of 14 credit hours in college core requirements, 6 of which in supporting courses and the remaining 8 credit hours in General Science courses, as detailed below.

### **Supporting Courses package (6 CH)**

Students must complete a minimum of 6 credit hours in supporting courses:

- PUBH 151 Biostatistics for Health Science
- MEDI 102 Medical Education

### **General Science package (8 CH)**

Students must complete a minimum of 8 credit hours in general science:

- MEDI 101 Human Structure and Function I
- MEDI 103 Human Structure and Function II
- CHEM 103 Experimental General Chemistry I
- CHEM 352 Experimental Biochemistry

### **Major Requirements Courses (111 CH)**

A minimum of 111 credit hours in major requirements courses:

- PHAR 200 Medicinal Chemistry I
- PHAR 201 Medicinal Chemistry II
- PHAR 210 Pharmaceutics I
- PHAR 220 Foundations of Pharmacology & Pharmacotherapeutics
- PHAR 230 Pharmacy and Health Care
- PHAR 240 Professional Skills I
- PHAR 241 Professional Skills II
- PHAR 250 Microbiology for Pharmacy
- PHAR 305 Pharmacy Research, Evaluation and Presentation Skills I (PREP skills I)
- PHAR 306 Pharmacy Research, Evaluation and Presentation Skills II (PREP skills II)
- PHAR 310 Pharmaceutics II
- PHAR 311 Pharmaceutics III
- PHAR 316 Basic Pharmacokinetics
- PHAR 317 Clinical Pharmacokinetics
- PHAR 330 Structured Practical Experiences in Pharmacy I
- PHAR 331 Disease/Medication Management (DMM I)
- PHAR 332 Disease/Medication Management (DMM II)
- PHAR 333 Disease/Medication Management (DMM III)
- PHAR 334 Disease/Medication Management (DMM IV)
- PHAR 340 Professional Skills III
- PHAR 341 Professional Skills IV

- PHAR 405 Pharmacy Research, Evaluation and Presentation Skills III (PREP skills III)
- PHAR 410 Pharmaceuticals IV
- PHAR 430 Structured Practical Experiences in Pharmacy II
- PHAR 435 Disease/Medications Management (DMM V)
- PHAR 436 Disease/Medications Management (DMM VI)
- PHAR 437 Disease/Medications Management (DMM VII)
- PHAR 438 Disease/Medications Management (DMM VIII)
- PHAR 440 Professional Skills V
- PHAR 441 Professional Skills VI
- PHAR 451 Patient Law Ethics and Patient Safety
- PHAR 461 Patient Assessment Lab
- PHAR 525 Pharmacoeconomics
- PHAR 530 Structured Practical Experiences in Pharmacy III
- PHAR 531 Structured Practical Experiences in Pharmacy IV
- PHAR 532 Structured Practical Experiences in Pharmacy V
- PHAR 533 Structured Practical Experiences in Pharmacy VI
- PHAR 535 Pharmacy Leadership Management, and Marketing
- PHAR 565 Basic and Clinical Toxicology

### Major Electives Courses (7 CH)

A minimum of 7 credit hours in major elective courses:

- PHAR 444 Drugs in Sport
- PHAR 445 Research in Pharmacy I
- PHAR 545 Research in Pharmacy II
- PHAR 488 Pharmacogenomics & Precision Medicine
- PHAR 499 Industrial &Regulatory Pharmacy

### Study Plan

#### General /Common Year

Fall		Spring		Summer	
Course (Code)	CrH	Course (Code)	CrH	Course (Code)	CrH
General Chemistry I (CHEM101)	3	Fundamentals in Organic Chemistry with lab (CHEM209)	3	Optional to complete a core subject in this semester.	3
Experimental General Chemistry I (CHEM103)	1	Physical Chemistry with lab (CHEM240)	3		
Human Structure and Function I (MEDI 101)	3	Human Structure and Function II (MEDI103)	3		
Medical Education (MEDI 102)	3	English Language II Post Foundation (ENGL203)	3		

Biostatistics for Health Science ( <b>PUBH151</b> )	<b>3</b>	<b>One core subject</b>	<b>3</b>		
English Language I Post Foundation ( <b>ENGL202</b> )	<b>3</b>	<b>One core subject</b>	<b>3</b>		
<b>Total Credit Hours Per Semester</b>	<b>16</b>		<b>18</b>		<b>3</b>

<b>FIRST YEAR (29 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	PHAR 200	Medicinal Chemistry I	3
	MATH 101	Calculus	3
	CHEM 351	Basic Biochemistry	3
	CHEM 352	Experimental Biochemistry	1
	PHAR 230	Pharmacy and Health Care	2
	PHAR 240	Professional Skills I	2
<b>Total Credit Hours in Semester</b>			<b>14</b>
Spring	PHAR 250	Microbiology for Health Sciences	3
		One core subject	3
	PHAR 201	Medicinal Chemistry II	3
	PHAR 210	Pharmaceutics I	3
	PHAR 220	Foundations of Pharmacology & Pharmacotherapeutics	2
	PHAR 241	Professional Skills II	2
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>SECOND YEAR (37 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	PHAR 310	Pharmaceutics II	2
	PHAR 331	Disease/Medication Management (DMM I)	4

	PHAR 332	Disease/Medication Management (DMM II)	4
	PHAR 316	Basic Pharmacokinetics	2
	PHAR 340	Professional Skills III	2
	PHAR 305	Pharmacy Research, Evaluation and Presentation Skills I	1
<b>Total Credit Hours in Semester</b>			<b>16</b>
Spring	PHAR 333	Disease/Medication Management (DMM III)	4
	PHAR 317	Clinical Pharmacokinetics	2
	PHAR 334	Disease/Medication Management (DMM IV)	4
	PHAR 311	Pharmaceutics III	2
	PHAR 341	Professional Skills IV	2
	PHAR 306	Pharmacy Research, Evaluation and Presentation Skills II	2
<b>Total Credit Hours in Semester</b>			<b>16</b>
Summer	PHAR 330	Structured Practical Experiences in Pharmacy I	4
<b>Total Credit Hours in Semester</b>			<b>4</b>

<b>THIRD YEAR (37 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	PHAR 410	Pharmaceutics IV	2
	PHAR 435	Disease/Medication Management (DMM V)	4
	PHAR 436	Disease/Medication Management (DMM VI)	4
	PHAR 440	Professional Skills V	2
	PHAR 405	Pharmacy Research, Evaluation and Presentation Skills III	2
	PHAR 488 OR PHAR 499 OR	Pharmacogenomics and Precision Medicine OR Industrial and Regulatory Pharmacy OR	3



	PHAR 444	Drug in Sport	
<b>Total Credit Hours in Semester</b>			<b>17</b>
Spring	PHAR 445	Research in Pharmacy I	2
	PHAR 461	Patient Assessment Lab	2
	PHAR 451	Patient Law Ethics and Patient Safety	2
	PHAR 437	Disease/Medication Management (DMM VII)	4
	PHAR 438	Disease/Medication Management (DMM VIII)	4
	PHAR 441	Professional Skills VI	2
<b>Total Credit Hours in Semester</b>			<b>16</b>
Summer	PHAR 430	Structured Practical Experiences in Pharmacy II	4
<b>Total Credit Hours in Semester</b>			<b>4</b>

<b>FOURTH YEAR (29 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Spring	PHAR 530	Structured Practical Experiences In Pharmacy III	4
	PHAR 531	Structured Practical Experiences In Pharmacy IV	4
	PHAR 532	Structured Practical Experiences In Pharmacy V	4
	PHAR 533	Structured Practical Experiences In Pharmacy VI	4
<b>Total Credit Hours in Semester</b>			<b>16</b>
Fall	PHAR 535	Pharmacy Leadership Management, and Marketing	2
	PHAR 525	Pharmacoeconomics	2
	PHAR 555	Phytotherapy	2
	PHAR 565	Basic and Clinical Toxicology	2
	PHAR 545	Research in Pharmacy II	3

		Core Curriculum Course	3
<b>Total Credit Hours in Semester</b>			<b>13</b>



## COLLEGE OF MEDICINE

College of Medicine Building

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Website: <http://www.qu.edu.qa/medicine>

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Egon Toft

### Associate Dean for Academic Affairs

Mubarak Bidmos

### Associate Dean for Clinical Affairs

Alison Carr

### Assistant Dean of Student Affairs

Halema Alfarsi

## MEDICAL DOCTOR (MD)

### ABOUT THE COLLEGE

The College of Medicine is the 8th college at Qatar University. It was established in 2014, following an Emiri Directive and a thorough feasibility study as a joint initiative by Qatar University and Hamad Medical Corporation. It is rooted in the specific needs of the Qatari society, and well-aligned with national strategies and priorities in healthcare education.

### DEGREE OFFERINGS

Building on best practice models from Europe and the United States, the College of Medicine offers the following undergraduate 6-year degree program:

- Medical Doctor (MD)

### About the Program

The Medical Doctor (MD) program is a 6-year program that offers a competency-based, integrated, team- and problem-based (TBL, PBL) curriculum. The competency-based curriculum is designed to allow horizontal and vertical integration between basic medical sciences and clinical sciences throughout the curriculum. This will ensure early introduction of clinical skills training, while emphasizing relevance and application of biomedical science knowledge to patient care. From year 2 onwards, the MD program will use both the credit hour and the European credit transfer system (ECTS) to calculate students' workload. In addition, students study 33 credit hours of general university education.

Students will develop their skills actively by learning about all major organ systems in an integrated way through patient cases, studying in small groups guided by experienced physicians, and developing clinical and communication skills from the beginning, all while using the most innovative technologies available. At the same time, they will learn to appreciate and navigate the specific context of Qatar's culture as a physician.

The MD program is structured in three distinct phases: the Transition phase; the Pre-Clerkship phase, and the Clerkship phase. Students enrolled in the MD program are required to maintain a certain level of achievement and to satisfy a number of student progression requirements in order to maintain their enrollment in the program. To successfully complete the program and earn the MD degree, student must satisfy the university and the MD program graduation requirements.

### **Objectives**

1. To graduate medical doctors who are competent as professionals, caring as practitioners, and equipped, as life-long learners, with the knowledge, skills and attitudes necessary for practicing medicine in the 21st century at the highest level of ethical values and professional standards.
2. To promote population health with a focus on disease prevention through healthy lifestyle
3. To uphold the practice of medicine in a cost effective and efficient way within the specificities of Qatar's healthcare delivery system.

### **Student Learning Outcomes and Competency Domains**

The MD program defines six competency domains each with specific student learning outcomes that should be acquired and mastered by the program graduates. These competency domains and student learning outcomes are adopted and adapted with sensitivity to the cultural context of medical practice in Qatar and the Gulf region. Following international standards, the six competency domains are:

- A. Patient & Population Care
- B. Knowledge for Practice
- C. Evidence-Based Practice and Lifelong Learning
- D. Interpersonal and Communication Skills
- E. Ethics & Professionalism
- F. Healthcare Systems and Cost-Effective Practice

Within these domains, specific competencies or student learning outcomes were defined as follows:

#### **A. Patient & Population Care**

A-O1. Obtain an accurate holistic medical history that covers all essential aspects of a patient and his/her problem, including issues related to age, gender and socio-economic status.

A-O2. Reason deductively in solving clinical problems.

A-O3. Perform both a complete and a focused organ system specific examination, including a mental status examination.

A-O4. Perform routine technical procedures at a level suitable to medical students.

A-O5. Construct basic appropriate management strategies (both diagnostic and therapeutic) for patients with common conditions related to different age groups and genders, both acute and chronic, including medical, psychiatric, and surgical conditions, and those requiring short- and long-term rehabilitation.

A-O6. Formulate a treatment plan, demonstrating the ability to take action by balancing the relative risks and benefits of outcomes and treatment options.

A-O7. Recognize patients with immediately life threatening cardiac, pulmonary, or neurological conditions regardless of etiology, and to institute appropriate initial therapy applying Basic Life Support and Advanced Life Support principles.

A-O8. Outline an initial course of management for patients with serious conditions requiring critical care.

A-O9. Identify factors that place individuals at risk for disease or injury, to select appropriate tests for detecting patients at risk for specific diseases or in the early stage of disease, and to determine strategies for responding appropriately (screening).

A-O10. Interpret laboratory tests, demonstrating knowledge of the limitations of standard laboratory measurements and integrate clinical and laboratory findings in the diagnosis and management of a patient problem.

A-O11. Document and share patient-specific information, demonstrating the ability to use information systems specific findings about a patient and orders directing the further care of the patient.

A-O12. Define and describe a population, to include its demography, cultural and socioeconomic constitution, circumstances of living, and health status, and to understand the relevance of these factors to the health and healthcare of individuals, families and administrators.

#### B. Knowledge for Practice

B-O1. Apply the knowledge about the normal structure and function of the body (as an intact organism) and of each of its major organ systems in understanding the abnormal pathology, symptoms and signs of diseases.

B-O2. Understand the molecular, biochemical, and cellular mechanisms that are important in maintaining the body's homeostasis.

B-O3. Recognize the various causes (genetic, developmental, metabolic, toxic, microbiologic, autoimmune, neoplastic, degenerative, and traumatic) of illness/disease and the ways in which they operate on the body (pathogenesis).

B-O4. Knowledge of the altered structure and function (pathology and pathophysiology) of the body and its major organ systems that are seen in various diseases and conditions.

B-O5. Apply the knowledge of the most frequent clinical, laboratory, radiological, and pathologic manifestations of common diseases in diagnosis and management.

B-O6. Understand of the power of the scientific method in establishing the causation of disease and efficacy of traditional and non-traditional therapies.

B-O7. Apply the principles of disease prevention and behavior change appropriate for specific population health problems.

B-O8. Recognize the importance of non-biological determinants of (poor) health and of the economic, psychological, social, and cultural factors that contribute to the development and/or continuation of diseases.

B-O9. Knowledge of the epidemiology of common diseases within a defined population, and the systematic approaches useful in reducing the incidence and prevalence of those diseases.

#### C. Evidence-Based Practice and Lifelong Learning

C-O1. Determine what data exist relative to a clinical question or formal hypothesis, demonstrating knowledge of data sources (including medical records, and online data) at one's own institution by identifying how these might be used to address a specific clinical question.



C-O2. Execute a plan for data collection and organize data for analysis, demonstrating the ability to properly represent data from a study in a form that is useful and supports computer-based analysis.

C-O3. Plan, analyze, interpret and report findings, demonstrating the ability to select the appropriate computer software tool for analysis of data.

C-O4. Demonstrate knowledge of the information resources and tools available to support life-long learning. Knowledge includes awareness of these resources, their content, and the information needs that they can address. Relevant resources include MEDLINE and other bibliographic databases, textbooks and reference sources, diagnostic expert systems, and medical internet resources.

C-O5. Retrieve information, demonstrating the ability to refine search strategies to improve relevance and completeness of retrieved items.

C-O6. Filter, evaluate, and reconcile information, demonstrating the ability to discriminate between types of information sources in terms of their currency, format (for example a review vs. an original article), authority, relevance and availability.

#### D. Interpersonal and Communication Skills

D-O1. Use effective communication skills to elicit and provide information using values and attitudes and effective verbal, nonverbal (explanatory, questioning) writing skills.

D-O2. Use effective writing skills to transmit information, express concerns, help etc.

D-O3. Listen to and respect the view of patients and their supporters

D-O4. Listen to and respect the view of other members of the team involved in the patient's care

D-O5. Recognize and respect the varying needs of patients for information and explanation

D-O6. Encourage patients to discuss the proposed treatment with their supporter

D-O7. Fully inform the patient, and their supporter of progress during treatment

D-O8. Explain any complications of treatment as they occur and explain the possible solution

D-O9. Act immediately when patients have suffered harm and apologize when appropriate

D-O10. Work effectively as an individual, in interprofessional groups, and as a member of a complex healthcare system, demonstrating knowledge of online resources for legislation, political advocacy and local healthcare policy setting.

#### E. Ethics and Professionalism

E-O1. Apply the theories and principles that govern ethical decision making in understanding major ethical dilemmas in medicine, particularly those that arise at the beginning and end of life and those that arise from the rapid expansion of knowledge of genetics.

E-O2. Compassionate treatment of patients, and respect for their privacy and dignity.

E-O3. Honesty and integrity in all interactions with patients' families, colleagues, and others with whom physicians must interact in their professional lives.

E-O4. An understanding of, and respect for, the roles of other healthcare professionals, and of the need to collaborate with others in caring for individual patients and in promoting the health of defined populations.

E-O5. A commitment to advocate at all times the interest of one's patients over one's own interests.

E-O6. An understanding of the threats to medical professionalism posed by the conflicts of interest inherent in various financial and organizational arrangements for the practice of medicine.

E-O7. The capacity to recognize and accept limitations in one's knowledge and clinical skills, and a commitment to continuously improve one's knowledge and ability.



E-O8. Respect patient (and physician) confidentiality, demonstrating knowledge of the legal, ethical, and medical issues surrounding patient documentation, including confidentiality and data security.

#### F. Healthcare Systems and Cost-Effective Practice

F-O1. Formulate and make decisions for individuals and groups, demonstrating knowledge of cost/benefit issues in healthcare.

F-O2. Knowledge about how local healthcare systems deliver patient care to different kinds of patients.

### OPPORTUNITIES

After successful completion of the study program, students will be awarded a Medical Doctor (MD) degree and be prepared for taking one of the international medical licensing examinations accepted in Qatar. While the licensing exams are independent from the study plan, the program will prepare graduating students for them, including completion of the International Foundation of Medicine (IFOM) examination before graduation.

Work and graduate study opportunities are ample for medical school graduates, both in Qatar and abroad. Some students may wish to go on to complete their specialization or graduate studies abroad or in Qatar. Others will go into residency programs at HMC or one of the many other public or private healthcare providers.

### Admissions Requirements

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement. Detailed Undergraduate admission requirements are available at the following link:

[http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

### Declaring the major

Students must satisfy QU requirements for declaring a major including the need to declare the major before completing 36 undergraduate credit hours. In addition, applicants to the Medical Doctor program should satisfy the following:

- Complete two out of 3 Sciences subject matters in School: Biology, Chemistry or Physics.
- Provide a brief statement (around 350 words) to describe the candidate's motivation to study medicine.
- Support evidence of previous volunteering experience in the healthcare sector, medical or scientific internships, or community work (recommended).

### Progression Requirements

- The decision for progression from a year to the following year will be made only at the end of the year.
- Students are allowed to repeat the year only once.
- A grade of 'IP' (In Progress) will be allocated for a student who fails in any course in semester 1 to allow them to register in semester 2 and to repeat the year if the student fails in more than 2 courses.
- A student who fails in any course will be allowed to take a resit examination for one attempt.
- A student who repeats a year in phase I or phase II of the program will repeat ALL the courses of that year.
- A grade of 65% in all courses is required for moving from year to year, except for the year 1 to year 2, where the average percentage in the courses for the year is set at 75%.
- Passing a course will be considered only for students who registered in the college of medicine courses.

### DEGREE REQUIREMENTS – Medical Doctor (MD)

A minimum of 190 credit hours are required to complete the major in Medical Doctor, including the following:

- A minimum of 33 credit hours in core curriculum requirements
- A minimum of 7 credit hours in medical program general requirements
- A minimum of 75 credit hours (150 ECTS) in Pre-Clerkship Phase requirements
- A minimum of 75 credit hours (150 ECTS) in Clerkship Phase requirements

### **Core Curriculum Program**

A minimum of 33 credit hours are required to complete the Core Curriculum Program as detailed below.

#### **Identity and Communication Package (15 - 18 CH)**

The number of credit hours required for this package ranges from 15 to 18, depending on the program. The specific courses to be completed by students are identified in the degree requirements of each program and consist of some combination of the courses listed below.

- ARAB 100 Arabic I
- ARAB 107 Arabic Language Basics
- ARAB 109 Language Skills
- ARAB 110 Introduction to Literature and Language
- ARAB 200 Arabic II
- ARAB 201 Arabic Language Basics Adv.
- DAWA 111 Islamic Culture
- ENGL 110 English I
- ENGL 111 English II
- ENGL 150 Essay Writing I
- ENGL 151 Advanced Reading Comprehension
- ENGL 202 English Language I – Post Foundation
- ENGL 203 English Language II – Post Foundation
- HIST 121 History of Qatar

#### **Social/Behavioral Sciences package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Social/Behavioral Sciences package including:

- EDUC 200 Education and Societal Problems
- EDUC 203 Family Relationships
- EPSY 201 Introduction to Psychology
- EPSY 205 Social Psychology
- HONS 102 Introduction to Honors
- INTA 101 Political and Social Thoughts
- INTA 103 Introduction to International Relations
- INTA 206 Globalization
- MCOM 103 Media and Society
- PSYC 201 Fundamentals of Psychology
- PSYC 206 Introduction to Social Psychology

- SOCI 120 Introduction to Sociology
- SOCI 121 Introduction to Anthropology
- SOWO 101 Introduction to Social Work and Welfare
- SOWO 361 Society and Human Rights
- UNIV 200 Innovation, Leadership and Civic Engagement

### **Natural Science/Mathematics package (3 CH)**

A minimum of 3 credit hours from courses listed in the CCP defined Natural Science/Mathematics package including:

- BIOL 101 Biology I
- BIOL 110 Human Biology
- CHEM 101 General Chemistry I
- GEOL 101 Principles of Geology
- GSCN 100 Science for Life
- MATH 101 Calculus I
- MATH 103 Intermediate Algebra
- MATH 104 Basic Geometry and Measures
- MATH 105 Mathematics in Society

### **Humanities /Fine Arts package (0 - 3 CH)**

The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, programs require the completion of 3 credit hours from courses listed in the CCP defined Humanities / Fine Arts package, including:

- GEOG 110 General Geography
- GEOG 241 Geography of Qatar
- HIST 217 Islamic Civilization
- HIST 222 The Gulf in Modern Period
- PHIL 110 Introduction to Philosophy

### **Core Knowledge and Skills Package (0 - 6 CH)**

The number of credit hours required for this package range from 0 to 6, depending on the program. When applicable, the 6 credit hours can be taken from courses listed in the CCP defined Core Knowledge and Skills package, including:

- CHME 100 Energy for Life
- CMPS 185 Fundamentals of Cybersecurity
- DAWA 117 Ethics
- DAWA 118 Introduction to Islamic Creed Studies
- DAWA 210 Philosophy of Sirah
- DAWA 222 Dialogue of Civilizations
- EDUC 201 Research Methods
- LAWC 100 Legal Culture
- LAWC 102 Human Rights

- MAGT 101 Principles of Management
- PUBH 100 Your Health
- SOCI 200 Sustainable Development
- SPSC 101 Traditional and New Games
- STAT 101 Statistics I

### **Supplemental College/Program Package (0 - 12 CH)**

The number of credit hours required for this package ranges from 0 to 12, depending on the program. When applicable, the required number of credit hours can be taken from a list of courses specific to each program and/or college. The specific courses to be completed by students are identified in the degree requirements of each program.

- MEDI 101 Human Structure & Function I
- MEDI 103 Human Structure & Function II
- PUBH 151 Biostatistics for Health Sciences
- MEDI 104 Molecular Biology and Genetics

UNIV 100 First Year Seminar is part of the CCP Supplemental College / Program Core Requirements package for concerned colleges. It is a Core Curriculum requirement of all programs offered at the College of Arts and Sciences, the College of Business and Economics, the College of Education, the College of Health Sciences (excluding Major of Physical Therapy), the College of Law and the College of Sharia and Islamic Studies. All mentioned students in these colleges are required to complete a total of 3 CHs by completing UNIV 100.

### **Medical Program General Requirements (7 CH)**

Student must complete 7 CH from courses listed below.

- MEDI 102 Health Professions Education
- BIOM 201 Medical Biochemistry

### **Pre-Clerkship Phase Requirements (75 credit hours/ 150 ECTS)**

Students must complete a minimum of **75 credit hours/150 ECTS** in Pre-Clerkship Requirements by completing the course requirements of the Pre-Clerkship I Requirements package (**28 credit hours /57 ECTS**), the Pre-Clerkship II Requirements package (**29 credit hours/ 57 ECTS**), and the Pre-Clerkship III Requirements package (**15 credit hours/ 30 ECTS**) and the Pre-Clerkship Electives package (**3 credit hours/ 6 ECTS**) as detailed below.

### **Pre-Clerkship I Requirements Package (28 credit hours/ 57 ECTS – Year Two)**

Students must complete **28 credit hours/ 57 ECTS** from courses listed in the Pre-Clerkship I Requirements package as detailed below.

- MEDI 201 Introduction to Problem Based Learning
- MEDI 202 Genes to community
- MEDI 203 Body Defense
- MEDI 204 Cardiovascular System
- MEDI 205 Blood
- MEDI 206 Respiratory System

**Pre-Clerkship II Requirements Package (29 credit hours/ 57 ECTS – Year Three)**

Students must complete **29 credit hours/ 57 ECTS** from courses listed in the Pre-Clerkship II Requirements package as detailed below.

- MEDI 301 Gastrointestinal System & Nutrition
- MEDI 302 Renal System
- MEDI 303 Endocrine System
- MEDI 304 Reproductive System
- MEDI 305 Musculoskeletal System & Neuroscience I

**Pre-Clerkship III Requirements Package (15 credit hours/ 30 ECTS - Year Four, 1st Semester)**

Students must complete **15 credit hours/ 30 ECTS** from courses listed in the Pre-Clerkship III Requirements package as detailed below.

- MEDI 401 Neuroscience II & Mental Health I
- MEDI 402 Multi-System

**Pre-Clerkship Electives (3 credit hours/ 6 ECTS)**

Student must complete a minimum of 6 ECTS from courses listed below.

- MEDI 207 Medicine and The Arts
- MEDI 208 Clinical Elective Course – Pre-Clerkship
- MEDI 209 Research Elective Course – Pre-Clerkship
- SOWO 301 Medical Social Work
- SOWO 302 Mental Health Social Work
- PSYC 201 Fundamental of Psychology
- SOCI 121 Introduction to anthropology
- SPSC 349 Developmental Psychology
- BIOM 301 Laboratory Management, Safety and Quality Control
- PUBH 101 Public Health Sciences: Principles and practice
- PUBH 200 International Health and Global Society
- PUBH 201 Environmental Health and Disease
- PUBH 202 Health, Behavior, and Society
- PUBH 208 Quality of Health Care
- PUBH 221 Contemporary Health Issues
- PUBH 222 Foundations of Health Education

**Clerkship Phase Requirements (75 credit hours/ 150 ECTS)**

Students must complete a total of **75 credit hours/150 ECTS** in clerkship requirements by completing the course requirements of the Clerkship I Requirements package (**14 credit hours/ 28 ECTS**), the Clerkship II Requirements package (**28 credit hours/ 56 ECTS**), and the Clerkship III Requirements package (**30 credit hours/ 60 ECTS**) and the Clerkship Electives package (**3 credit hours/ 6 ECTS**).

**Clerkship I Requirements Package (14 credit hours/ 28 ECTS – Year Four, 2nd Semester)**

Students must complete **14 credit hours/ 28 ECTS** from courses listed in the Clerkship I Requirements Package as detailed below.

- MEDI 403 Surgery I
- MEDI 404 Medicine-1

### **Clerkship II Requirements Package (28 credit hours/ 56 ECTS – Year Five)**

Students must complete **28 credit hours/ 56 ECTS** from courses listed in the Clerkship II Requirements Package as detailed below.

- MEDI 501 Surgery II
- MEDI 502 Medicine II
- MEDI 503 Obstetrics and Gynecology
- MEDI 504 Pediatrics

### **Clerkship III Requirements Package (30 credit hours/ 60 ECTS– Year Six)**

Students must complete **30 credit hours/ 60 ECTS** from courses listed in the Clerkship III Requirements package as detailed below

- MEDI 601 Emergency Medicine
- MEDI 602 Selected Clinical Clerkships
- MEDI 603 Family Medicine
- MEDI 604 Mental Health and Psychiatry II

### **Clerkship Electives (3 credit hours/ 6 ECTS)**

Student must complete a minimum of **3 credit hours/ 6 ECTS** from Elective courses offered by the program.

- MEDI 405 Clinical Elective Course –Clerkship
- MEDI 406 Research Elective Course –Clerkship

## **Study Plan**

### **Medical Doctor**

<b>Year</b>	<b>Fall</b>	<b>Spring</b>
<b>Transition phase</b>		
<b>Year 1</b>	Human Structure & Function I (3 Cr.H.)	Human Structure & Function II (3 Cr.H.)
	General Chemistry & Exp. General Chemistry (4. Cr.H.)	Medical Biochemistry (4 Cr.H.)
	Medical Education (3 Cr.H.)	Molecular Biology and Genetics 2 Cr.H.
	English Post Foundation I (3 Cr.H.)	English Post Foundation II (3 Cr.H.)
	Biostatistics for Health Sciences (3 Cr.H.)	

	Additional Core Curriculum (3 Cr.H.)	Additional Core Curriculum in second semester or at later stage (9 Cr.H.)
<b>Pre-Clerkship phase</b>		
Year 2	Induction (0 C.H. /1 ECTS)	Cardiovascular System (5 Cr.H. /10 ECTS)
	Genes to community (7 Cr.H. /14 ECTS)	Blood (4 Cr.H. /8 ECTS)
	Body Defense (7 Cr.H. /15 ECTS)	Respiratory System (5 Cr.H. /9 ECTS)
		Elective (3 Cr.H. /6 ECTS) in year 2 or in year 3
<b>Pre-Clerkship phase</b>		
Year 3	Gastrointestinal System/ Nutrition (6 Cr.H. /13 ECTS)	Reproductive System (5 Cr.H. /9 ECTS)
	Renal System (5 Cr.H. /9 ECTS)	Musculoskeletal System & Neuroscience I (9 Cr.H. /17 ECTS)
	Endocrine System (4 Cr.H. /9 ECTS)	
		Elective (3 Cr.H. /6 ECTS) in year 2 or in year 3
<b>Pre-Clerkship phase</b>		<b>Clerkship phase</b>
Year 4	Neuroscience II & Mental Health I (10 Cr.H. /20 ECTS)	Surgery I (7 Cr.H. /14 ECTS)
	Multi-System (5 Cr.H. /10 ECTS)	Medicine 1 (7 Cr.H. /14 ECTS)
		Elective (3 Cr.H. /6 ECTS) in year 4 or in year 5
<b>Clerkship phase</b>		
Year 5	Surgery II (7 Cr.H. /14 ECTS)	Obstetrics & Gynecology (7 Cr.H. /14 ECTS)
	Medicine II (7 Cr.H. /14 ECTS)	Pediatrics (7 Cr.H. /14 ECTS)
		Elective (3 Cr.H. /6 ECTS) in year 4 or in year 5
<b>Clerkship phase</b>		
Year 6	Emergency Medicine (8 Cr.H. /16 ECTS)	Family Medicine (8 Cr.H. /16 ECTS)



	Selected clinical clerkships (7 Cr.H. /14 ECTS)	Mental Health and Psychiatry II (7 Cr.H. /14 ECTS)
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## COLLEGE OF DENTAL MEDICINE

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 Phone: +974 4403 7876  
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 Website: <http://www.qu.edu.qa/dentistry>

### Dean

Mandeep Singh Duggal

### Associate Dean for Academic Affairs

Faleh Tamimi

### Assistant Dean for Student Affairs

Najah Al-Hashimi

## ABOUT THE COLLEGE

The College of Dental Medicine is the newest college at Qatar University. It was established in 2019, following an Emiri Directive and a thorough feasibility study as a joint initiative by Qatar University and Hamad Medical Corporation. It is rooted in the specific needs of the Qatari society, and well-aligned with national strategies and priorities in healthcare education.

## DEGREE OFFERINGS

The College of Dental Medicine offers the following degree programs:

Building on best practice models from Europe, Australia and North America, the College of Dental Medicine offers the following undergraduate 6-year degree program:

- Doctor of Dental Medicine

### About the Program

The Doctor of Dental Medicine (DDM) program is a 6-year program that offers a competency-based, integrated, team- and problem-based (TBL, PBL) curriculum. The competency-based curriculum is designed to allow horizontal and vertical integration between basic and clinical dental sciences throughout the curriculum. This will ensure early introduction of clinical skills training, while emphasizing relevance and application of biomedical science knowledge to patient care. From year 2 onwards, the DDM program will use the European credit transfer system (ECTS) to calculate students' workload. In addition, students study 33 credit hours of core in addition to 7 credit hours of medical program general requirements. Students will develop their skills actively by learning about all major organ systems in an integrated way through patient cases, studying in small groups guided by experienced dentists, and developing clinical and communication skills from the beginning, all while using the most innovative technologies available. At the same time, they will learn to appreciate and navigate the specific

context of Qatar's culture as a dentist. The DDM program is structured in three distinct phases: The Transition phase; the Pre-Clerkship phase, and the Clerkship phase. Students enrolled in the DDM program are required to maintain a certain level of achievement and to satisfy a number of student progression requirements in order to maintain their enrollment in the program. To successfully complete the program and earn the DDM degree, student must satisfy the university and the DDM program graduation requirements.

## DOCTOR OF DENTAL MEDICINE

### Objectives

1. To graduate dental doctors who are competent as professionals, caring as practitioners, and equipped, as lifelong learners, with the knowledge, skills and attitudes necessary for practicing Dentistry in the 21st century at the highest level of ethical values and professional standards.
2. To promote population health with a focus on disease prevention through healthy lifestyle
3. To uphold the practice of Dentistry in a cost effective and efficient way within the specificities of Qatar's healthcare delivery system.

### Learning Outcomes

DDM (Doctor of Dental Medicine) program defines six competency domains each with specific student learning outcomes that should be acquired and mastered by the program graduates. These competency domains and student learning outcomes are adopted and adapted with sensitivity to the cultural context of Dental practice in Qatar and the Gulf region.

Following international standards (**Australian Dental Council, Australian accreditation**), the six competency domains are:

1. Critical Thinking: cover covers personal values, attitudes and behaviours
2. Communication and Leadership covers the ability to work cooperatively and to communicate effectively
3. Critical Thinking: covers the acquisition and application of knowledge
4. Health Promotion: covers health education and the promotion of health in the community
5. Scientific and Clinical Knowledge: covers the underlying knowledge base required by dental practitioners
6. Patient Care:

*Within these domains, specific competencies or student learning outcomes were defined as follows:*

- 6.1 Clinical Information Gathering: covers the collection and recording of information that is necessary and relevant
- 6.2 Diagnosis and Management Planning: covers the identification of disease or abnormalities that require treatment or investigation
- 6.3 Clinical Treatment and Evaluation: covers the provision of evidence based patient-centered care

Domain	Description
<b>1. Critical Thinking: covers personal values, attitudes and behaviours</b>	<b>On graduation a dental practitioner must be able to:</b>

1.1	demonstrate that patient safety is paramount in all decisions and actions
1.2	demonstrate appropriate caring behaviour towards patients and respect professional boundaries between themselves and patients, patient's families and members of the community
1.3	demonstrate that all interactions focus on the patient's best interests and provide patient-centred care, respect patients' dignity, rights and choices
1.4	recognise professional and individual scopes of practice
1.5	recognise the importance of continuing professional development for all members of the dental team
1.6	understand the ethical principles and their application underpinning the provision of dental care
1.7	understand legislation relevant to practise as a dental practitioner
1.8	understand the principles of efficient, effective and equitable utilisation of resources, and recognise national needs in health care and service delivery in Qatar.
1.9	provide culturally safe and culturally competent practice that includes recognition of the distinct needs of people of Qatar in relation to oral health care provision
<b>2.Communication and Leadership: covers the ability to work cooperatively and to communicate effectively</b>	<b>On graduation a dental practitioner must be able to:</b>
2.1	communicate and engage with patients, patient's families and communities in relation to oral health
2.2	present clear information in a timely manner that ensures patients are advised of and understand care and treatment options to be provided
2.3	communicate with other health professionals involved in patients' care
2.4	engage in mentor/mentee activities and leadership within a health care team
2.5	recognise the importance of one's own, colleagues' and team members' health to occupational risks and its impact on the ability to practise
2.6	understand the importance of intra and interprofessional approaches to health care
2.7	understand effective information management
2.8	understand the principles of dispute resolution
2.9	communicate responsibly and professionally when using media

<b>3.Critical Thinking:</b> covers the acquisition and application of knowledge	<b>On graduation a dental practitioner must be able to:</b>
3.1	locate and evaluate evidence in a critical and scientific manner to support oral health care
3.2	apply clinical reasoning and judgement in a reflective practice approach to oral health care
3.3	understand scientific method and the role of research in advancing knowledge and clinical practice
<b>4. Health Promotion:</b> covers health education and the promotion of health in the community	<b>On graduation a dental practitioner must be able to:</b>
4.1	understand the determinants of health, risk factors and behaviours that influence health
4.2	understand the theories and principles of health promotion
4.3	understand health promotion strategies to promote oral and general health
4.4	understand the design, implementation and evaluation of evidence-based health promotion
<b>5.Scientific and Clinical Knowledge:</b> covers the underlying knowledge base required by dental practitioners	<b>On graduation a dental practitioner must be able to:</b>
5.1	understand the biomedical, physical and behavioural sciences in relation to oral health and disease
5.2	understand the theories and principles of population oral health
5.3	understand the scientific principles and application of infection prevention and control
5.4	understand the scientific basis, application and risks of using ionising radiation
5.5	understand the scientific basis, application, limitations and risks of using dental materials

5.6	understand the principles of pharmacology, the risks and limitations in using therapeutic agents and the implication of the Prescribing Competencies Framework on dental practice
5.7	understand the principles of risk management and quality improvement
<b>6. Patient Care</b>	
<b>6.1 Clinical Information Gathering: covers the collection and recording of information that is necessary and relevant</b>	<b>On graduation a dental practitioner must be able to:</b>
6.1.1	obtain and record a relevant history of the patient's medical, social and oral health status
6.1.2	perform an examination for health, disease and abnormalities of the dentition, mouth and associated structures
6.1.3	select necessary clinical, pathology and other diagnostic procedures and interpret results
6.1.4	take radiographs relevant to dental practice
6.1.5	evaluate individual patient risk factors for oral disease
6.1.6	maintain accurate, consistent, legible and contemporaneous records of patient management and protect patient privacy
<b>6.2 Diagnosis and Management Planning: covers the identification of disease or abnormalities that require treatment or investigation</b>	<b>On graduation a dental practitioner must be able to:</b>
6.2.1	recognise health as it relates to the individual
6.2.2	diagnose disease or abnormalities of the dentition, mouth and associated structures and identify conditions which require management
6.2.3	determine the impact of risk factors, systemic disease and medications on oral health and treatment planning
6.2.4	formulate and record a comprehensive, patient-centred, evidence-based oral health treatment plan



6.2.5	determine when and how to refer patients to the appropriate health professional
6.2.6	obtain and record patient informed consent and financial consent for treatment
<b>6.3 Clinical Treatment and Evaluation: covers the provision of evidence-based patient-centred care</b>	<b>On graduation a dental practitioner must be able to:</b>
6.3.1	apply the principles of disease and trauma prevention and early intervention in the management of the dentition, mouth and associated structures
6.3.2	apply the principles of behaviour management
6.3.3	manage a patient's anxiety and pain related to the dentition, mouth and associated structures
6.3.4	manage surgical and non-surgical treatment of diseases and conditions of the periodontium and supporting tissues of the teeth or their replacements
6.3.5	manage surgical and non-surgical treatment of pulp and periapical diseases and conditions with endodontic treatment
6.3.6	manage the loss of tooth structure by restoring the dentition with direct and indirect restoration
6.3.7	utilise patient removable prostheses to rehabilitate, restore appearance and function, prevent injury and stabilise the occlusion
6.3.8	utilise fixed prostheses to rehabilitate, restore appearance and function and stabilise the occlusion
6.3.9	manage oral conditions, pathology and medically related disorders and diseases associated with the dentition, mouth and associated structures
6.3.10	manage skeletal and dental occlusal discrepancies
6.3.11	manage the removal of teeth and oral surgical procedures
6.3.12	administer, apply and/or prescribe pharmaceutical agents
6.3.13	evaluate and monitor the progress of treatment and oral health outcomes
6.3.14	manage dental emergencies
6.3.15	manage medical emergencies

## Opportunities

After successful completion of the study program, students will be awarded a Doctor in Dental Medicine (DDM) degree and be prepared for taking one of the international dental licensing examinations accepted in Qatar. Work and graduate study opportunities are ample for dental school graduates, both in Qatar and abroad. Some students may wish to go on to complete their specialization or graduate studies abroad or in Qatar. Others will go into residency programs at HMC or one of the many other public or private healthcare providers.

## Admissions Requirements

Applicants must satisfy QU defined College and Program requirements including the minimum high school percentage requirement. Detailed Undergraduate admission requirements are available at the following link:

[http://www.qu.edu.qa/sites/en\\_US/students/admission/undergraduate](http://www.qu.edu.qa/sites/en_US/students/admission/undergraduate)

Admission to the College of Dental Medicine is competitive for Qatari and Non-Qatari applicants and only the most qualified applicants will be admitted to the program offered at the newly established College of Dental Medicine. Applicants will be selected based on the program capacity and on the merit of their qualifications. Due to the limited number of available seats, admission is competitive. To be admitted into the DDM program, applicants must meet QU defined undergraduate minimum admission requirements:

- Minimum of 90% high-school GPA (or equivalent). For international schools, letter grades will be equalize to a percentage by the Qatar University Admissions Department. Please refer to Qatar University Admissions Department for more information.
- Completed the Foundation Program (FP) or satisfy the FP exemption requirements:
  - English competency (IELTS: 6.0, iBT:60) and,
  - Mathematics competency (ACT: 21; SAT (general math component): 530; QU Math Placer: 200) and,
  - Completion of a minimum of two out of three sciences subject matters in high school (Biology, Chemistry or Physics).

As admission is competitive, the admission decision might take into account the evaluation of supporting documents, including the following:

- Evidence of previous volunteering experience in the healthcare sector, dental, medical or scientific internships, or community work (recommended, not necessary).
- An interview with pre-selected applicants who fulfill the above requirements (if required).

Admission into the program is open for recent high school graduates and for transfer students who at the time of application are enrolled in other academic programs.

The selection of students to be admitted into the program will be made by the program's Admission Committee using an evaluation process that follows a two-step approach:

1. Applicants will be shortlisted based on a numeric score taking quantitative admission criteria such as high school GPA, English, Mathematics, and Science competency into account (SAT or ACT scorers as well as English proficiency will be factored in the ranking of students).
2. The second step of the evaluation process is a qualitative assessment of supporting documents demonstrating their interest in studying dentistry (e.g., volunteer work, internships, etc.) through the Admission Committee.

The Admission Committee will make the final decision on each admission.

### Declaring the major

Students must satisfy QU requirements for declaring a major including the need to declare the major before completing 36 undergraduate credit hours. In addition, applicants to the Doctor in Dental Medicine program should satisfy the following:

- Complete two out of 3 Sciences subject matters in School: Biology, Chemistry or Physics.
- Provide a brief statement (around 350 words) to describe the candidate's motivation to study dentistry.
- Support evidence of previous volunteering experience in the healthcare sector, medical, dental or scientific internships, or community work (recommended).

### Progression Requirements

- The decision for progression from a year to the following year will be made by the "Progression Committee" at the end of the academic year
- Students are allowed to repeat an academic year only once.
- In year 1 and 2 only, a grade of 'IP' (In Progress) will be allocated for a student who fails in any course in semester 1 to allow them to register in semester 2.
- A grade of 60% in all courses is required for moving from year to year, except for the year 1 to year 2, where the percentage is set at 75%.

### Study Plan

#### Doctor of Dental Medicine

FIRST YEAR (32 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	MEDI 101	Human Structure and Function I	3
	CHEM 101	General Chemistry	3
	CHEM 103	Experimental General Chemistry	1
	MEDI 102	Medical Education	3
	ENG 202	English Post-Foundation I	3
	PUBH 151	Biostatistics for Health Sciences	3
Total Credit Hours in Semester			16
Spring	MEDI 103	Human Structure and Function II	3
	BIOM 201	Medical Biochemistry	4
	ENG 203	English Post-Foundation II	3
	MEDI 104	Molecular Biology and Genetics	2
		Core Curriculum Courses *	12

<b>Total Credit Hours in Semester</b>	<b>24</b>
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<b>SECOND YEAR (29 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	MEDI 201	Induction to Problem Based Learning	-
	MEDI 202	Genes to community	7
	MEDI 203	Body Defense	8
<b>Total Credit Hours in Semester</b>			<b>15</b>
Spring	DEMD 201	Dentistry and Diseases 1	7
	DEMD 202	Research Methodology and Evidence based dentistry 1	1
	DEMD 203	Foundation of Dental Practice	7
<b>Total Credit Hours in Semester</b>			<b>15</b>

<b>THIRD YEAR (34 credit hours)</b>			
<b>Term</b>	<b>Course #</b>	<b>Course Title</b>	<b>Credit Hours</b>
Fall	DEMD 301	Dentistry and Diseases 2	8
	DEMD 302	Dental procedural skills 1	8
	DEMD 303	Child and Adolescent Oral Health 1	1
<b>Total Credit Hours in Semester</b>			<b>17</b>
Spring	DEMD 304	Dental procedural skills 2	7
	DEMD 305	Oral Structure and function	7
	DEMD 306	Primary care and Community Dentistry 1	2
	DEMD 307	Research Methodology and Evidence based dentistry 2	1
<b>Total Credit Hours in Semester</b>			<b>17</b>





## CHAPTER 11 - COURSE LISTING

### **ACCT 110 Financial Accounting**

#### **Credit Hours: 3**

This course introduces financial accounting for various business entities. Topics covered include accounting concepts and principles based on generally accepted accounting principles (GAAP). Emphasis will be on analyzing, recording, classifying, and communicating information, including the preparation of financial statements.

Prerequisite:

MATH 103 OR MATH 101 OR Mathematics Placement Test 180 OR ACT 21 OR SAT 500 OR MATH 021 OR MATH F014 OR MATH004 OR MATH 002 OR MATH 119

### **ACCT 111 Principles of Accounting I**

#### **Credit Hours: 3**

Principles of accounting and the relationship between accounting and other disciplines are introduced. Topics examined include accounting concepts, principles, and policies according to generally accepted accounting principles (GAAP). The approach of the balance sheet equation will be introduced as well as types of journals, ledgers, and financial reports.

Prerequisite:

ENGL 198 AND MATH 119

### **ACCT 116 Managerial Accounting**

#### **Credit Hours: 3**

This course focuses on the principles of management accounting as it applies to the use of accounting information in planning and controlling business operations. Students are introduced to cost terms and concepts, cost behavior, cost-volume-profit analysis, variable costing, budgeting, and relevant costs for decision-making.

Prerequisite:

ACCT 110 OR ACCT 111

### **ACCT 221 Intermediate Accounting I**

#### **Credit Hours: 3**

This course is the second in the sequence of financial accounting courses. It mainly focuses on essential financial accounting concepts and standards related to corporate financial reporting with more emphasis on preparation of financial statements. Primary concern is with asset measurement and income determination.

Prerequisite:

ACCT 116 OR ACCT 112

**ACCT 222 Intermediate Accounting II****Credit Hours: 3**

This course is the third in the sequence of financial accounting courses. It provides an advanced exposure to the theory and application of generally accepted accounting principles (GAAP), with particular emphasis on the areas of liability and equity accounts as well as financial reporting.

Prerequisite:

ACCT 221

**ACCT 330 Project Cost Accounting and Finance for Engineers****Credit Hours: 3**

This course develops essential skills for construction project managers and cost accountants. It focuses on the activities of the construction management team, including the project manager, jobsite cost engineers and cost accountants. This course links cost accounting and construction project management from the management and cost accounting perspective. It also provides topics such as time value of money, financial statements, budgets, ratios, cost control, equipment depreciation, cash flow, supply chain management, activity-based accounting and lean construction techniques.

Co-requisite:

MECH 471

**ACCT 331 Cost & Management Accounting****Credit Hours: 3**

This course provides an in-depth study of cost/management accounting concepts and principles as they apply to manufacturing and service environments. Students are introduced to cost accumulations and assignments using traditional and contemporary cost accounting approaches, and budgeting. The use of accounting information in planning, controlling, and evaluating business decisions both short- and long-term to be covered.

Prerequisite:

ACCT 116 OR ACCT 112

**ACCT 333 Auditing I****Credit Hours: 3**

This course introduces basic concepts of auditing attestation and assurance. Areas studied include the quality control standards and the code of professional ethics, regulation and legal liabilities audit evidence and audit programs, assessment of risks and materiality, and audit reports.

Prerequisite:

ACCT 116 OR ACCT 112



**ACCT 411 Government Accounting****Credit Hours: 3**

This course provides an overview of the concepts and procedures of fund accounting. The general framework of State Budget will be addressed in addition to the accompanying detailed timetable needed for its special preparation. Accounting for not-for-profits, such as hospitals and universities to be addressed.

Prerequisite:

ACCT 116 OR ACCT 112

**ACCT 412 Managerial Accounting****Credit Hours: 3**

Use of accounting information in a rational decision-making process in both the short term and the long run. Marginal contribution, cost-volume-profit (CVP), divisional performance analysis, and budgeting planning and control will be addressed.

Prerequisite:

ACCT 325

**ACCT 413 Auditing II****Credit Hours: 3**

This course provides the continuation of concepts of auditing attestation and assurance studied in Auditing I. Areas to be studied include test of controls and substantive audit testing for various cycles and balances, statistical sampling for control testing and substantive testing, and in-depth audit reports.

Prerequisite:

ACCT 333

**ACCT 415 Cost Accounting II****Credit Hours: 3**

Cost accounting process systems, cost accounting reports, calculating the costs of each process, and the average cost per cost element (raw material, labor, and overhead). Additional topics examined are the standard cost system, variance analysis for all cost elements, the cost of byproducts and how to split the common cost among different products. The cost construction system, as well as preparing the cost's reports will also be addressed.

Prerequisite:

ACCT 325

**ACCT 418 Advanced Accounting****Credit Hours: 3**

This course focuses on accounting for business combinations and consolidated financial statements. International accounting and foreign exchange translation, accounting for partnership formation and liquidation and interim reporting is addressed.

Prerequisite:

ACCT 221

### **ACCT 419 Internal Audit I**

#### **Credit Hours: 3**

This course provides an introduction to the principles of the internal audit profession and the internal audit process. The course introduces the students to various topics including the definition of internal auditing and its standards, corporate governance and control issues, fraud risks and auditing techniques, conducting internal audit engagements, and more.

Prerequisite:

ACCT 333

### **ACCT 420 Tax and Zakat Accounting**

#### **Credit Hours: 3**

The course exposes students to the fundamentals of tax accounting, including taxation in Qatar, the principles of zakat, and international taxation. The concepts of tax and zakat, their methods of valuation, measurement, and accounting treatment will be discussed. Corporate tax calculation as well as zakat calculation will also be introduced. Similarities and differences between conventional tax and zakat will be highlighted. The course will cover the international taxation system and provide a comparison between tax in Qatar and other countries.

Prerequisite:

ACCT 221

### **ACCT 421 Accounting Information Systems**

#### **Credit Hours: 3**

This course focuses on concepts and procedures related to accounting information systems. Areas studied include system design and implementation, relationship between accounting information systems and other information systems within the organization, flowcharts, and computer applications and tools.

Prerequisite:

ACCT 116 OR ACCT 112

### **ACCT 424 International Accounting**

#### **Credit Hours: 3**

This course focuses on accounting issues related to international business transactions, harmonization of accounting principles, and comparative accounting systems. The course introduces the students to various topics including changes of the accounting environments, accounting of changing prices, international financial statement analysis, auditing for global operations, taxation, managerial accounting issues, and the International Accounting Standards (IAS).

Prerequisite:

**ACCT 116****ACCT 428 Financial Statements Analysis****Credit Hours: 3**

This course examines performance evaluation of projects from accounting and financial perspectives. Areas studied include trend analysis, ratio analysis, vertical and horizontal analysis for different financial statements, and statement of cash flow analysis.

Prerequisite:

ACCT 116 OR ACCT 112

**ARAB 100 Arabic Language I****Credit Hours: 3**

The course aims to provide students the important skills to communicate in Arabic; listening, speaking and reading, with attention to writing skills in relation to each. This is done through content that includes a variety of topics related to Contemporary Arabic, through deep analysis of linguistics and literary texts. The course has been introduced in an interactive learning environment based on: 1) student activities, 2) Developing student skills, 3) learning and collaborative methods, 4) Communication skills for self-expression and ideas in different ways, 5) Solving problems through critical thinking skills and creativity, and 6) The absorption of ideas in different contexts. The assessment process uses a variety of tools to measure the attainment of student learning outcomes.

**ARAB 107 Arabic Language Basics****Credit Hours: 3**

This course is designed to introduce learners of Arabic as a second/foreign language to the basic structures of Arabic and to its uses in common situations of everyday communication; through a content which relates to every-day familiar situations and some apparent aspects of the Arab culture. The course aims to enable the Non-Native Speaker student to acquire fundamental working knowledge of the Arabic Language through interactive exercises and drills. This is done within a framework of the essentials of syntax and morphology in a student-centered learning environment, in order to be able to successfully handle a number of interactive, task-oriented, and social situations.

**ARAB 109 Language Skills****Credit Hours: 3**

This course aims to enable the student acquire the four language skills (listening, speaking, reading and writing), i.e. to develop the skill of speaking sound Arabic; enhance communication with others; master the skills of reading, sending / receiving and understanding oral and written communications; and to master correct writing skills and identify proper ways of usage. All this is achieved through content which focuses on the functional aspect of the language, with attention to acquiring the knowledge of types of speech and signs of each type; differentiating inflected and uninflected forms and knowing the signs of both; and recognizing the two types of the Arabic sentence and their components, in an active-learning student-centered atmosphere, utilizing various learning activities, including readings of quality linguistic and literary source books to enable

them employ their language skills in absorbing source texts, with a relative weight of up to 80% of the skill, employing var

### **ARAB 110 Introduction to Literature & Language**

#### **Credit Hours: 3**

This course aims at building students' familiarity with and competence in Arabic literature in its various genres, so as to increase their ability to appreciate literature and to develop their awareness of its concepts through the study of poetry and short story.

Prerequisite:

(ARAB 239 Concur. AND ARAB 106 Concur.) OR (ARAB 105 Concur. OR ARAB 100 Concur.) OR ARAB 109

### **ARAB 200 Arabic Language II**

#### **Credit Hours: 3**

The course aims at enabling the student to master the skill of the Arabic writing, and scientific and professional communication. These aims will be realized by the course content, which combines the basics of the language and linguistic rules to regulate the methods of writing, and experience on the skills of the Arabic writing in the following forms: 1) Functionally and creatively, 2) Traditionally and contemporary, and 3) Descriptively and analytically. Furthermore, the course aims at handling written problems by self-learning and collaborative environments that develop creative skill, dialogue, discussion, and critical thinking. It will also promote methods of written expression toward both the self and career, including help in the acquisition of knowledge, and building cultural awareness and good citizenship. The performance of the student will be evaluated through the various assessment tools that focus on the students' writing skills, in order to achieve the desired learning ou

Prerequisite:

ARAB 100 OR (ARAB 105 AND ARAB 106)

### **ARAB 201 Arabic Language Basics - Advanced**

#### **Credit Hours: 3**

This course aims to enable the students of non-speakers of Arabic to acquire the core skills in Contemporary Arabic, represented by listening, speaking, reading, and writing. These skills at this level are expected to qualify them to communicate in the daily life situations. This course also helps students to express themselves orally and in writing on familiar topics. This course is based on an active learning environment, through authentic sources, audio-visual, educational and culture material. A variety of assessment tools will be implemented.

Prerequisite:

ARAB 107 OR ARAB 043

**ARAB 213 Grammar I****Credit Hours: 3**

This course aims to provide students with the functional rules of some Arabic grammar sections; addressing the provisions of the nominal sentence, and supplementary substitutes; explaining the provisions of the verbal sentence, acquainting students with the provisions of the subject and subject of the predicate; explaining the direct object and its association with to the subject in terms of precedence, announcement and/or omission; completing the other types of objects, identifying their synthetic forms; and finally, explaining the sections of semi-objects, such as circumstantial, differential, and exceptional. All this is done in an active learning atmosphere, employing various assessment tools (presentations, tests, etc.).

**ARAB 218 Morphology****Credit Hours: 3**

This course deals with science of morphology in the Arabic language, providing the historical context surrounding the emergence of this science, its importance, subject matter and concept; studying its sections starting with the morphological scale and its forms, analyzing verb classifications into abstract, true, augmented and weak; explaining the attribution of all verb forms to pronouns; addressing derivatives such as active participle, intensive form, passive participle, parable adjective, adverbs of time and place, comparative adjective, instrumental noun; also explaining infinitive forms and types; explaining the ascribed noun, diminutive noun, broken plural; and explaining phonological symptoms of weakening or substitution, giving special care to exercises and linking forms to semantics and generating forms to denote novelties. All this is done in an active learning atmosphere, employing various assessment tools (research papers, presentations, tests, etc.)

**ARAB 220 Writing Registers: types and rules of use****Credit Hours: 3**

This course enhances students writing skills. It support their ability of writing scientific, critical, philosophical, literary and functional texts. The course benefits from textbooks that blend theoretical knowledge with practice in and out the study room. Students will learn how to compose simple and long compound sentences, paragraphs, articles and other writing genres. Students will also learn how to develop their ideas and points of view along with expressing them clearly and efficiently.

The students will also learn how to write functional text genres such as reports, articles, messages, news stories and autobiography. They will enhance their writing skills through correcting their grammatical mistakes, spelling errors and vocabulary misuse.

The course will be taught in an interactive learning environment that emphasize the role of students and acknowledge their differences and tendencies. This course uses various evaluation tools to evaluate the various aspects of writing skills.

**ARAB 221 Classical Arabic Poetry I****Credit Hours: 3**

Arabic poem in pre-Islamic and the Umayyad eras: The course covers poetry of Pendants (“Mu’allaqat”), tramp and knight poets of the pre-Islamic era. It also addresses the romantic and political poetry during the Umayyad era. The focus in this course is on explaining the structural and conceptual characteristics achieved by poem in

both the pre-Islamic and the Umayyad eras. All this is done in an active learning atmosphere, employing various assessment tools (research papers, presentations, tests, etc.) This course aims to enable the student to re-examine the old Arabic poetry, by focusing on the path of transformations witnessed throughout the two eras mentioned above.

### **ARAB 223 Classical Arabic Poetry II**

#### **Credit Hours: 3**

This course aims to make the student assess the changes that Arabic poem had gone through during the Abbasid era and in the Arabian Maghreb (Northwest African) and Andalusia regions. Therefore, the focus is on the Originators' ("Moualledin") poetry, and explaining the contributions they've made to Arabic poetry. Focus is also placed on the successive authentication process by poets of the likes of Abu Tammam, Al-Bohtori, Al-Mutanabbi and Al-M'arri. The course aims also to make the students aware of the contributions accomplished by Morocco and Andalusia poets; all this in an active learning atmosphere, employing various assessment tools (poetry readings, research papers, presentations, tests, etc.)

Prerequisite:

ARAB 221

### **ARAB 224 Classical Arabic Prose**

#### **Credit Hours: 3**

The purpose of this course is to make the student make re-consider all knowledge they acquired on prose in the Arab culture, in the light of the theory of genres and its provisions. Learning will be on the theoretical; looking into the emergence of prose genres in the Arab culture, its development and inter-generation. Some examples are the news, the rhythmic prose "Maqama", the story, the biography, the letter, the public speech, etc... The applied part shall be based analyzing samples of those prose genres, studying them and identifying their intellectual and aesthetic characteristics. All this is done in an active learning atmosphere, employing various assessment tools (research papers, presentations, tests, etc.)

### **ARAB 225 Qatari Folklore in Literature**

#### **Credit Hours: 3**

This course attempts to introduce students to the concept of folklore, its definitions, features and genres. Students will explore the social functions of folklore which fulfil societies' aesthetical needs in general and the Qatari society in particular. This will be achieved by studying a rich repertoire includes popular poetry, folktales, proverbs, folksongs extended over different historical periods. Such repertoire enhances artistic and social values related deeply to the Qatari society. To achieve its goals, the course employs different teaching means and methods including presentations, lectures and discussions. It will give a great attention to analysis and applications. Hence, various selected data will be analyzed carefully to illustrate their aesthetical and social significance which will justify the importance of folklore. Through this engagement with various texts, students will be encouraged to involve in an active learning environment.

**ARAB 261 Rethorics****Credit Hours: 3**

This course aims to know the three branches of Rhetoric science, recognize their aesthetic aspects, and develop the creative, analytical and critical ability of the student. Based on this, the course covers the science of Eloquence with its different sections: simile, metaphors, antonomasia and metonymy; the science of Connotation and the science of Figurative speech (literal and conceptual). The course concludes with a poem or a Quranic verse for the students to apply the rhetorical arts which they have learned. All this is done in an active learning atmosphere, employing various assessment tools (applied presentations, tests, critical reading of rhetorical texts, etc.)

**ARAB 262 Prosody and Metrics****Credit Hours: 3**

This course aims to enable the student to know the basic terminology in the prosody and rhyme, distinguish between the various poetry metrics, read poetic text correctly, and differentiate between measured poetry vs. non-measured. Accordingly, the course covers the various metrics of prosody in ancient poetry, stanzas and free-style poetry, by relying on scansion and modern methods that depend on selected musical tunes to distinguish between the different metrics. All this is done in an active learning atmosphere, employing various assessment tools (including musical prosodic reading with a relative weight of 20%, research paper with a relative weight of 15%, presentations, tests, etc.)

**ARAB 271 Persian Language I****Credit Hours: 3**

This course aims to enable the student to grasp the basics of Persian language on the level of the alphabet, phonetics, verbs and sentences and their formations, attached and detached pronouns, masculine and feminine word forms, definite and indefinite articles, adjuncts, adverbs, etc., as well as a number of Persian texts to apply these rules on. Students will get acquainted with a base of vocabulary to enable them to form simple Persian sentences. All this is done in an active learning atmosphere, employing various assessment tools.

**ARAB 273 Hebrew****Credit Hours: 3**

This course aims to provide students with a general introduction to the principles of Hebrew language, addressing its historical development among Semitic languages??, then explaining the general principles of writing, reading and speaking, by teaching the pronunciation and writing its letters, composition and structure of words, and building a simple sentence in Hebrew, in addition to teaching the students the most commonly used words to gain enough knowledge to conduct a basic dialogue in Hebrew, accompanied with various exercises: phonetic, textual and linguistic.

**ARAB 319 Grammar II****Credit Hours: 3**

This course complements the functional grammar purpose of the previous course. It continues with studying of the provisions of prepositions and adjuncts, providing suitable traditional and modern applications for each. This is followed by studying the riders and their significations and provisions. After that, the students are



introduced to how infinitives, derivatives and verbal nouns act as verbs, then explains the vocative representations. The course also includes the phrase styles of praise, slander, exclamation, negation, reception, request, alerting, and commencement. The course ends with a collection of parsable and non-parsable phrase forms in a separate lesson. Course contents are accompanied with examples suitable for the situation, and various exercises to enhance applicable grammatical knowledge. All this is done in an active learning atmosphere, employing various assessment tools (research paper on some functional grammar issues, presentations, tests, etc.)

Prerequisite:

ARAB 213 AND ARAB 218

### **ARAB 326 Literary Text Analysis**

#### **Credit Hours: 3**

The purpose of this course is to enable the students apply the modern methods acquired in the Modern Literary Criticism course, which dealt with the literary text analysis, and identify the achieved contributions and failures of such methodologies. The analysis focuses on the historical, social, structural, psychological, semiotic, hermeneutical, and deconstructive approaches to analyze texts. Hence the student becomes familiar with the application of these approaches in the analysis of literary text with emphasis on the applied models. All this is done in an active learning atmosphere, employing various assessment tools (applied presentations on the literary analysis [with a relative weight of up to 10%], and analytical readings of literary texts [10%], then a research paper and tests, etc.)

### **ARAB 327 Readings in Literary Tradition**

#### **Credit Hours: 3**

The objective of this course is to make the student aware of the paradox of tradition and modernization in the Arabic culture. Therefore, the theoretical part of the course deals with the intellectual projects, whose owners re-explored their Arabic heritage in order to question and modernize it, such as: Taha Hussein's project, in both his books "In the pre-Islamic Poetry" and "The Wednesday Interview", and Adonis, in his book "The Constant and The Variable", etc. The focus of the practical part is to research those projects, discuss them and analyze some selected texts which embody the most important problems which faced the contemporary Arabic thought in regards to the paradox of tradition and modernization. All this is done in an active learning atmosphere, employing various assessment tools (applying modern theories in relation to literary tradition [20%], a research paper [10%], presentations and tests, etc.)

### **ARAB 331 Classical Arabic Criticism**

#### **Credit Hours: 3**

This course aims to provide the student with a set of knowledge, skills and standards that enable him/her to develop his/her ability to think critically. The course starts with the most important sources of classical Arabic criticism, and its famous symbols since Al-djahez through Hazem Alqirtagni. It then moves to address important criticism issues, such as: the poetry column, the form, the content, poetry thefts, etc., and the importance of these issues in the analysis and critique of the literary text. All this is done in an active learning

atmosphere, employing various assessment tools (research paper, presentations and tests, etc.)

### **ARAB 351 Introduction to Linguistics**

#### **Credit Hours: 3**

This course aims to enable students to learn the basic principles in the science of linguistics, including the concept of linguistics, methods of linguistic research, and the levels of the general science of linguistics. The goal of the course is achieved by introducing students to the theories of linguistics and its modern applications on the Arabic language. The course also aims at helping students acquire the skills of applying theories and programs of modern linguistic analysis over different language levels (phonetic level, phonological level, morphological level, syntax level, and meaning level). The course provides a variety of methods centered around the application activities for students and the use of modern methods such as educational and analytical phonetics programs; all this in an active learning atmosphere, employing various assessment tools (research paper, presentations and tests, etc.)

### **ARAB 352 Philology**

#### **Credit Hours: 3**

The course aims to enable students to understand the basic principles of the Arabic philology, particularly the concepts of language and philology and the difference between philology and the science of language, and the most important characteristics of the Arabic language and its dialects and manifestations, which Arab linguists studied thoroughly, as well as the history of the Arabic language and its Semitic roots, its relationship with the Holy Quran, ending with contemporary Arabic language issues. The course offers different approaches, centered around the students' individual activities, such as training students on how to study the modern Arabic dialects and compare them to the characteristics of old Arabic dialects, and training them on the skills of scientific research; and at the group level, engaging in activities such as participating in panel discussions and dialogues. Throughout the course there are ongoing assessments of student performance and activities, using various

### **ARAB 354 Semantics**

#### **Credit Hours: 3**

The course aims to enable students to understand the modern semantic theories and know their roots in the Arabic heritage; study the levels of semantics, types of meaning and the evolution of semantics. It also aims to provide students with the skills to understand semantics and differentiate between different meanings. The course further seeks to introduce students to the Arabic dictionary and make them acquire necessary skills for searching for the meanings of words in various Arabic dictionaries. Different approaches are centered around student activities, such as participating in panel discussions and dialogues and scientific research, using various assessment tools such as assignments, presentations, participation in classroom discussions and blackboard forums, testing and scientific research - all in an active learning atmosphere.

### **ARAB 355 Applied Linguistics**

#### **Credit Hours: 3**

This course aims to enable students to learn the basic principles of Applied Linguistics, including the concept of applied linguistics, and linguistic research methods, and applied linguistics issues. This goal is achieved through

introducing students to the requirements of linguistic research in the areas of applied linguistics. It also seeks provide the students with the skills of applying linguistic analysis to solve the problems of applied linguistics, in light of the experimental analytical studies (for example: acquiring native language, learning a second language, computers and the language). The course offers different approaches centered around the engagement of teacher and student during the lecture, and student applied activities, such as field research inside and outside the campus, individual contributions inside the classroom, introducing modern methods such as machine translation software, and morphological analysis using the Internet.

Prerequisite:

ARAB 351

### **ARAB 372 Persian Language II**

#### **Credit Hours: 3**

This course aims to combine theory and application in the study of Persian texts, to help the student acquire the ability to produce a speech in the Persian language. This is done through reference content which sheds light on profound rules provided throughout the texts of selected masterpieces of Persian literature by: Mtughari, Al-Ferdowsi, Omar Al-Khayyam, and Saiid Shirazi, with special care for the methods of modern prose in particular with translation and commentary, which works towards improving the climate of individual and cooperative active learning.

Prerequisite:

ARAB 271 OR ARAB 244

### **ARAB 375 Phonology**

#### **Credit Hours: 3**

This course aims to help the students acquire the skills of Arabic phonological analysis, as one of the levels of Linguistics, through the identification of physiological physical characteristics of sounds, and train the student on the International Phonetic Alphabet (IPA), and the classification Arabic phonemes according to points of articulation, then training them on international phonemic writing. The course also links the levels phonetics and phonology in terms of studying phonemic changes in the context of theories of the basics of phonological analysis on the syllabic and para-syllabic levels, and the focus of this course is to highlight the importance of the level of phonology in linguistic analysis and its overlapping with other levels such as the morphological level (words) and the syntax level (sentences). The course is conducted in an active learning atmosphere, focusing on the role of the student and the development of his/her applied skills, employing a variety of assessment.

Prerequisite:

ARAB 218

**ARAB 381 Modern and Contemporary Arabic Poetry****Credit Hours: 3**

The purpose of this course is to help the students know about contemporary poetry practices, transformation paths, and their achievements. The theoretical part of the course will focus on the modern schools of poetry (restoration, romance, realism, and symbolism), and will also look into the styles of poetry (structured, free style, and prose). Furthermore, the theoretical part will study the relationship between these schools and poetry styles and classical traditional Arabic poetry, and how they drew from it or contradicted with it. Also, focus will be placed on the relationship of modern Arabic poetry with the achievements of the flags of western poets, especially the achievements of William Blake, Coleridge, Wordsworth, Shelly, Keats, Lamartine, and T.S. Elliott. As for the practical part, it will focus on the analysis of texts representing those schools and their achievements to assimilate the questions proposed to the Arabic poetic taste, and uncover their aesthetic achievements

Prerequisite:

ARAB 221 AND ARAB 223

**ARAB 382 Modern Narratives****Credit Hours: 3**

The purpose of this course is to acquaint students with the modern narrative arts which were developed in the contemporary Arabic culture. The theoretical part deals with the emergence of the arts of novel, story and resume; and the qualitative development in every literary genre, taking into account the role played by the acculturation with western cultures in the consolidation of such genres into the Arabic culture and literature. As for the practical part, focus will be on analyzing selected texts to reveal the phenomenon of selective quotation from the West, then the phenomenon of immanence that took place after that, as well as to highlight aspects of development and experimentation in the content of modern Arabic narratives. All this is done in an active learning atmosphere, employing various assessment tools (research paper, presentations and tests, etc.)

**ARAB 391 Research Resources & Methods in Language and Literature****Credit Hours: 3**

This course aims to enable the student become skilled in the field of literary research and its methodologies, through accessing fundamental sources and references that are indispensable in academic research, such as: encyclopedias, dictionaries, book directories, states and cities books, biographies of language and grammar scholars, biographies of writers, Quranic sciences books, as well as knowing the scientific methodology which serves in researching in the sources, represented by the set of curricula employed in the study and analysis of sources, and taking into account the evolution in the field of literary curriculum. All this is done so as to constitute an active learning atmosphere, employing various assessment tools (research paper, presentations and tests, etc.)

**ARAB 392 Arabic Syntax****Credit Hours: 3**

This course aims to introduce the principles of modern syntax, in particular the generative theory and how it addresses the Arabic language, with a focus on fundamentals of the studies, including: the ranking of words,

grammatical statements, sentence structure, matching, parsing, and transformational processes, and whatever would highlight the influence of non-Arabic sentence on the structure of the Arabic sentence, in addition to other changes. Also, dealing with language samples from different sources, collecting them via various methods and ways, and focusing on field experimental research. All this is done so as to constitute an active learning atmosphere, employing various assessment tools (research paper, presentations and tests, etc.)

Prerequisite:

ARAB 351

### **ARAB 412 Readings in Arabic Linguistics Traditions**

#### **Credit Hours: 3**

The course is based on readings in the Arab linguistic traditional heritage through selected texts representing the most important theoretical and applied milestones in the course of linguistic studies; texts from the books of Sibawayh, Al-Mubarrad, Ibn Jinni, Ibn Al-Shajari, Ibn Hisham, Ibn Malik, and Ibn Rashid – profoundly addressing linguistic issues in a singular, excellent and pioneering fashion, if any. This course acquaints the student with the methodological depth, the way of treatment, and the style of reasoning, weighing, discussing and persuading. It also enables students to compare between Arabic linguistic schools on one side and their Western counterpart on the other, relating traditional linguistic perceptions of the language to what has been accomplished in the field of linguistics. This course aims to create a linguistic bridge between the traditional and the modern, between the genuine and the contemporary at the level of texts, perceptions and methods, capitalizing on

### **ARAB 419 Comparative Linguistics**

#### **Credit Hours: 3**

This course aims to enable the student to make practical comparisons between Semitic and non-Semitic languages?, including the aspects of phonetics, syntax, morphology and semantics, in order to know the characteristics shared by natural languages, being specific to some languages, or linguistic groups, due to the inheritance relationships, or as a result of social, cultural, geographical or historical factors. The practical part includes each student comparing the Arabic language to another language, as well as depending on various research methodologies to assess student performance according to learning outcomes.

Prerequisite:

ARAB 351

### **ARAB 434 Orientalism & its Criticism**

#### **Credit Hours: 3**

The objective of this course is to acquaint students with the movement of Orientalism, its scholars and symbols, and reveal the achievements of orientalist (examination of many ancient Arabic texts, translation many references, studying Arabic literature and the Arab society from an orientalist perspective). The focus is on the achievements of the most important symbols of English, Russian, French and German orientalism, so that the student may know about the various manifestations of Orientalist thought. The theoretical part also includes addressing the issue of criticism of Orientalism based on books by Edward Saïid in particular, so that students

may realize the dimension of predicaments indicating the deterioration of the Orientalist speech, and observe the ways orientalist infiltration; also researching some orientalist projects, whether English, German, French or Russian; all this in an active learning atmosphere, employing various assessment tools (research paper, presentations)

### **ARAB 464 Socio Linguistics**

Credit Hours: 3

This course aims at studying language in a social context. This includes the concept of sociolinguistics and its fields, and studying the outcomes of language-society relationships, such as: language and social interaction; bilingualism; the distinction between language and dialect; linguistic graduation; linguistic planning; the relationship between structure, function, language, and age; and linguistic borrowing. The course also addresses the reviewing of existing sociolinguistic differences in the Arab world and the Qatari society and explaining how to read various types of graphs in Social Linguistics and ways of interpretation. This course reinforces students' ability to apply sociolinguistic research skills in describing and analyzing the structure of the dialects in Qatar and the Gulf region. All this is done in an active learning atmosphere, employing various assessment tools (research paper, presentations and tests, etc.)

Prerequisite:

ARAB 351

### **ARAB 481 Modern Literary Criticism**

**Credit Hours: 3**

This course aims to familiarize students with the most important modern western criticism schools, and inform them of how contemporary Arab criticism benefited from those schools, and how it benefited from the heritage of traditional Arabic criticism, where the comparison will be historical and theoretical in the beginning. Then, the students will be trained to write a critical article and to complete applied research. The target is for the students to become well-rounded in the terminology, concepts, and schools of modern criticism, and be able to approach the texts in the light of the aforementioned, so that they may have a critical vision in their possession. All this is done in an active learning atmosphere, employing various assessment tools (research paper, presentations and tests, etc.)

Prerequisite:

ARAB 331

### **ARAB 482 Contemporary Gulf Literature**

**Credit Hours: 3**

This course aims to introduce contemporary literature in the Arabian Gulf region and identify the technical characteristics of its poetry and prose. The focus is to highlight the complementary relationships between this literature and its counterparts in other Arab countries, whether in terms of aesthetic and artistic values, or in terms of intellectual values ??and issues posed. This course is based on the analysis of examples of contemporary literature in the Gulf region, in light of the modern criticism educational courses and the comparative historical methodology. All this is done in an active learning atmosphere, employing various



assessment tools (research paper, presentations and tests, etc.)

### **ARAB 483 Comparative Literature**

#### **Credit Hours: 3**

This course aims to introduce comparative literature and acquaint the students with its history, schools, and research methodologies. Students use the knowledge gained in their Arabic literature classes, and compare the texts of Arabic literature with other Western literature (English, French or Persian), so they become aware of how genres migrate, how intellectual thesis and aesthetic values get transferred from one culture to another. The course also addresses the issue of mutual influence and conscious and unconscious acculturation between peoples, cultures and arts; all this in an active learning atmosphere, employing various assessment tools (research paper, presentations and tests, etc.)

### **ARAB 484 Sociology of Literature**

#### **Credit Hours: 3**

This course aims for students to become experienced in the sociology of Literature, be able to read literature from a social perspective through acquainting them with the theoretical arguments and conceptual terminology and the outcomes of Western studies in this area, relying on the writings of Georg Lukatch, Lucien Goldman, Robert Escarpit, and others. The practical part of the course addresses some literary texts and studies them in light of knowledge gained during theory-focused lessons. All this is done in an active learning atmosphere, employing various assessment tools (research paper, presentations and tests, etc.)

### **ARAB 490 Field practical training**

#### **Credit Hours: 3**

This course is a bridge between the theoretical knowledge of Arabic to its practical and professional practice. The students will enhance his abilities in Arabic through applying his knowledge in institutions such as the Ministry of Education, the Ministry of Culture and written Media. The course enables students of practicing his language skills and proves his qualifications in contexts that require enhanced Arabic skills.

The course is based on two pillars; (1) finding internships in a ministry, institution, newspaper, research center to enhance students' practical skills; (2) supervising and following student performance during his/her internship. Three reports should be written during this course made by the student him/herself, his supervisor and the institution to evaluate the outcomes of the field training. A departmental committee will review these reports to ensure that each student acquired the target practice.

### **ARAB 491 Topics in contemporary Arab thought**

#### **Credit Hours: 3**

This course aims to make the student represents the major issues that preoccupied the contemporary Arabic thought since the Renaissance till today, including modernization of the traditional heritage, the cause of women, and the issue of originality and genuineness, the issue of relationships with the other, acculturation paradox with Western cultures and learning from their experience, and the issue of identity and its transformations. The practical part of the course is about analyzing selected texts addressing these issues with analysis and studies; all this in an active learning atmosphere, employing various assessment tools (critical readings of intellectual projects [20%], research paper, presentations and tests, etc.)



**ARAB 492 Capstone on Arabic Literature****Credit Hours: 3**

This course aims to help the students benefit from their previous experience gained from literature courses (classical and modern literature, and criticism) in order for the students to deepen their expertise in literature in terms of knowledge and methodology on both levels, theoretical and practical. Also, it will help them have the ability to solve problems and move on from receiving knowledge to participation in its production. The course is keen to train students on the methodology of scientific research, and the preparation of a literature research paper shall serve as a graduation project, in which the student adheres to the conditions of academic research. All this is done in an active learning atmosphere, employing various assessment tools (research paper, presentations and tests, etc.)

**ARAB 493 Capstone project on linguistics and Literature****Credit Hours: 3**

This course aims to achieve a kind of knowledge-and-methodology integration, theoretical and practical, between linguistic studies, and the refinement of language skills (reading, writing, speaking and listening) through a learning environment that develops the skills of self-learning and focuses on student activities; instilling the values of creativity, dialogue, critical thinking, and problem solving, and reinforcing methods of linguistic expression. It also aims to activate the research skills in one branch of linguistic studies through the completion of a scientific research paper, which adheres to these scientific rules and academic conditions of design, processing, analysis, critique, documentation and indexing. All this is done in an active learning atmosphere, employing various assessment tools (research paper, presentations and tests, etc.)

**Prerequisite:**

Complete minimum 39 credit hours in common required courses AND ARAB 391

**ARCT 100 Independent Study****Credit Hours: 3**

Skill development and training in various topics according to student progress. Topics may include theoretical issues and or exercises and projects performed individually in which the student develops critical thinking and technical writing in architecture, and research skills.

**ARCT 110 Graphic Communication I****Credit Hours: 3**

Introduction to graphics, skill development in manual architectural drawing, and related principles of architectural graphics; spatial relationships of points, lines, planes, and solids and voids; architectural drafting conventions; orthographic projections; principles of shades, shadows and perspective techniques. A series of exercises is introduced to advance basic graphic skills and emphasize two- and three-dimensional thinking, including drawings of floor plans, cross sections, graphic diagrams; free hand sketching; model making techniques.

**ARCT 111 Graphic Communication II****Credit Hours: 3**

Introduction to procedures in computer-aided design and graphics used in producing 2D plans and sections, and three-dimensional electronic models associated with architectural design and building construction; series of exercises develops skills in CAD drafting in 2D and 3D, and image processing; presentation packages are utilized for the production, management, rendering and presentation.

Prerequisite:

ARCT 110

**ARCT 120 Introduction to Architecture & Allied Arts****Credit Hours: 3**

Introduction to architecture and allied arts. It involves theory and exercise applications of basic design and visual principles, including architectural form, painting, graphics, sculpture, music, drama, visual culture. Topics include the ontology of architecture; Composition: design and elements of composition. Form: Gestalt perception, visual properties of form, regular and irregular. Space: definition, elements defining space, organization of form & space. Photography: technical and architectural aspects. Proportion and Scale in architecture and art forms. Fundamentals of architecture: convenience, durability, aesthetics.

**ARCT 210 Perspective, Shade and Shadow****Credit Hours: 3**

Introduction to sciagraphy and definition of shade and shadow in architecture. Shadow of planes, Shadow of volumes “Application of shade and shadow on the Architectural Drawings”. Introduction to perspectography. Drawing perspective with two vanishing points; Drawing perspective using measuring points; Presentation techniques of perspective; Application for a fully presented perspective; Interior perspective and Sectional perspective; exercises involve manual and computer applications.

Prerequisite:

ARCT 110

**ARCT 211 Architectural Design Studio I****Credit Hours: 4**

Introduction to project design; simple but complete architectural design projects that place emphasis on programmatic aspects: space, order, context, and form; projects are hypothetical in nature in real sites; concept development; space definition; spatial requirements; adjacency requirements; contextual aspects.

Prerequisite:

ARCT 120 AND ARCT 110

**ARCT 212 Architectural Design Studio II****Credit Hours: 4**

Designing simple but complete architectural design projects; involves analytical thinking in design; response to site constraints; site design; architectural programming; materials; technology; explorations of functional, aesthetic, and structural aspects of buildings; developing a complete a set of graphics for architectural design projects.

Prerequisite:

ARCT 211

**ARCT 220 Climate and Architecture****Credit Hours: 3**

Introduction to the various forces that shape the human environment with a particular focus on ecological determinants; Integration and internalization of environmental considerations aimed toward sustainable environments; Various issues are studied, including derelict land (brown fields), successful use of open spaces, indoor environmental qualities, as well as economic derivatives and human health matters; Natural Elements (air, sun and water) are examined as they interact with human needs within buildings or building complexes.

**ARCT 221 History and Theory of Architecture I Early and Western Civilizations****Credit Hours: 3**

Chronological development of architecture. The first part includes pre-history, Egyptian, Greek, Byzantine and the modern times; the development of structural systems, materials, construction and other building systems in the civilizations of the Middle and Near East; the path of the principal architectural thoughts and events which led to the development of major architectural and town planning theories; starting with Vitruvius' "ten Books of Architecture", to the European Art Nouveau movement (1890-1910) and the early influence of reinforced concrete. The second part of the course includes evolution from the Early Christian period through the Gothic, to the Renaissance and Baroque periods; the Industrial Revolution to the Modern movements; theoretical foundations of 20th century trends in architecture; Concepts of architectural space, form and vocabulary, as well as major town planning concepts and theories from these periods are discussed and critically analyzed.

Prerequisite:

ARCT 120

**ARCT 222 History & Theory of Architecture II Islamic/Arab Civilizations****Credit Hours: 3**

This course emphasizes chronological development of Islamic civilization and architecture from Umayyad in Syria and Iraq, through the classical and late classical periods in Spain, North Africa, the Middle East, including Mesopotamia, Fatimid, Ayyubid, Mamluk, and Ottoman architecture; influences of Islamic architecture on other architectural styles of the same periods and vice versa; Islamic art, geometry, calligraphy and variations in cultural attitudes in architectural styles; development and evaluation of contemporary architecture in Muslim communities is introduced.

Prerequisite:

ARCT 120

### **ARCT 230 Material & Methods of Building Construction I**

**Credit Hours: 3**

Introduction to the principles and fundamentals of building construction; the basic concepts of structural systems and foundations according to building loads and soil characteristics; the basic units of wall construction systems; the different methods of building insulation; the basic elements of buildings (Walls, Roofs and Floors); the use of different materials (Reinforced concrete, Wood and Steel) for both construction and finishing of these elements; the relation between the used materials and the related adequate construction system or systems.

Prerequisite:

ARCT 111

### **ARCT 240 Theory of Structures I**

**Credit Hours: 3**

Introduction to analysis of structures. Fundamental concepts and principles of mechanics and force systems; Centroids and centers of gravity, moments of inertia; concepts of free-body-diagram; principles of equilibrium of particles and rigid bodies in two and three dimensions; external forces and concept of stress; stresses and strains; axial loading and axial deformation; Hook's law, stresses due to temperature; torsion; pure bending; transverse loading and shear stresses in beams and thin walled members; principal stresses and strains.

Prerequisite:

MATH 102

### **ARCT 241 Theory of Structures II**

**Credit Hours: 3**

Structural engineering; calculation of reactions for statically determinate beams, frames, trusses, and composite structures; force calculation in trusses; shear and moment diagrams for beams and frames; deflection calculations; introduction to arches.

Prerequisite:

ARCT 240

### **ARCT 242 Surveying for Architects**

**Credit Hours: 3**

Introduction to surveying; measuring units, significant figures, direct distance measurements with tapes, tape corrections; electronic distance measurements; levels and leveling; longitudinal profiles and cross sections; contouring; area and volume computations; the theodolite and angular measurements; optical distance measurements; rectangular coordinates; traverse surveys and computations; mapping.

Prerequisite:

**MATH 101****ARCT 310 Architectural Design Studio III****Credit Hours: 4**

Conducting design projects that involve complex functions and activities; introduction to systematic design procedures; complex architectural design projects that place emphasis on conceptual thinking and the analysis of contextual constraints, programmatic requirements, and problem solving processes in architectural design; projects attempt to simulate real life conditions with real visit-able sites; activities and objectives, problem definition.

Prerequisite:

ARCT 212

**ARCT 311 Architectural Design Studio 4****Credit Hours: 4**

Continuation of Architectural Design Studio (3) with emphasis on addressing the relationship between concept and context, idea generation and alternative solutions; evaluation; selection of solution and communication of project design; considerations of behavioral and cultural aspects, user requirements, building function and activities, construction materials and systems, environmental constraints and climatic influences are also addressed.

Prerequisite:

ARCT 310

**ARCT 320 Design Methods and Theories****Credit Hours: 3**

Introduction to design methods and theories since the fifties, as they apply to different design professions, design creativity, design management, pre-design studies, design processes, mandates of design processes set by professional organizations, the changing role of the architect, participatory architecture, architectural programming, design briefing, post occupancy evaluation.

Prerequisite:

ARCT 221

**ARCT 330 Materials & Methods of Building Construction II****Credit Hours: 3**

Continuation of elements and properties of construction materials and components; fabrication and construction technologies, methods, and processes of different types of materials. Labs place emphasis on developing construction drawings and details of small buildings. Lab assignments involve the utilization of Computer Aided Design and Drafting software packages.

Prerequisite:

ARCT 230 ARCT 230

### **ARCT 331 Environmental Control Systems I (Acoustics and Lighting)**

#### **Credit Hours: 3**

Appreciation and understanding of the physical requirements of buildings, and the acoustics and lighting systems involved, exposure to indicators of smart technologies is provided. The first component of the course involves exposure to acoustical design for good hearing conditions and noise control; construction details, materials, acoustical properties of space shapes and forms; sound absorption and transmission and sound insulation. The second component introduces electrical systems, illuminations, daylighting, electric light sources and related equipment circuitry; illumination design procedures. Both components involve training on the use of modeling software packages, utilizing computers in lighting analysis and design, and room acoustics evaluation.

Prerequisite:

ARCT 230 AND PHYS 191

### **ARCT 332 Environmental Control System II (Sanitary and HVAC)**

#### **Credit Hours: 3**

Appreciation and understanding of the physical requirements of buildings and the sanitary and HVAC systems involved. The first component involves water supply and draining systems, fixtures, and private sewerage systems. The Second component involves the study of Heating, Ventilation and Air Conditioning (HVAC), central heating and cooling systems, distribution media, delivery devices, HVAC system characteristics; psychrometric use applications; system and equipment selection; duct design and layout. Both components address applications in different building scales and types. Attention is given to energy and resource conservation techniques and computer applications.

Prerequisite:

ARCT 230 AND PHYS 191

### **ARCT 333 Construction, Drawing and Detailing**

#### **Credit Hours: 3**

Training on mastering execution documents for large scale projects. Detailed execution drawings of floor plans, sections, and building facades; materials and finishes. Detailing of staircases, selected accessories, and outdoor complementary elements. Understanding of how a complete of execution drawings can be developed in an integrated manner (building architectural elements and components/building systems).

Prerequisite:

ARCT 330

**ARCT 340 Structures and Architectural Form I (Concrete Structures)****Credit Hours: 2**

Introduction to material properties involved in RC, behavior of RC sections, design of RC beams, slabs, columns, selection of suitable RC structural systems for different areas and purposes, detailing of RC structures, selection of appropriate system according to different area and span requirements and different building functions. A research project for a real-life RC structure is conducted coupled with site visits.

Prerequisite:

ARCT 241

**ARCT 341 Structures and Architectural Form II (Steel and Shell Structures)****Credit Hours: 2**

Introduction to steel structures. The study of steel member behavior, design of tension members, compression members, steel beams, steel trusses, connections, plates, and bracing, analysis of combined RC and SS shell structures. Impact on developing architectural forms for relevant functions is addressed. A research project for a real life RC structure is conducted coupled with site visits.

Prerequisite:

ARCT 241

**ARCT 350 Arts in Architecture****Credit Hours: 3**

Acquaintance with arts that are involved in architectural works such as: all kinds of: mosaics, stained glass, fresco painting, colored reliefs and other techniques; research techniques of different ancient and modern architectural styles. Analysis and assessment of color utilization in building facades and building interiors. Series of exercise and project applications on the use of color in architecture.

Prerequisite:

ARCT 120

**ARCT 351 Creativity and Innovation****Credit Hours: 3**

Introduction to creativity and creative problem-solving techniques, innovation strategies, collective thinking. Types of thinking; convergent, and divergent. Creative mental abilities, whole brain thinking. Group projects involve applications of brainstorming, synetics, and delphi techniques.

Prerequisite:

ARCT 120

**ARCT 400 Practical Training 1****Credit Hours: 0**

6-week compulsory practical training in the summer. This does not count in the overall program credit hours.



Students undertake professional training in an architectural office, consulting firm, construction company, or a relevant government agency. Upon completion, students submit portfolios, technical reports, and presentations on their training and the experience gained.

### **ARCT 410 Architectural Design Studio 5**

#### **Credit Hours: 5**

Introduction to community design theories and techniques, participatory design; collaborative design processes; community involvement in decision making; understanding community needs and resources; housing types; new understandings in neighborhood planning and design theories; gated communities; housing design; housing types; community support; design projects involve the use of community information in establishing collaborative design processes; and developing solutions based on community needs, preferences, and other contextual constraints.

Prerequisite:

ARCT 311

### **ARCT 411 Architectural Design Studio 6**

#### **Credit Hours: 5**

Emphasis is placed on sustainable design and project delivery processes. A major project incorporating a number of factors influencing the full spectrum of built environments from the urban scale to the minor detail. Sustainability is the major driver of the project addressing different parameters including lighting, sound, energy conservation strategies, construction systems, structural aspects, and indoor environmental quality.

Prerequisite:

ARCT 410

### **ARCT 420 Environment-Behavior Studies**

#### **Credit Hours: 3**

Appreciation and understanding of cultural, social, and psychological issues in architectural and urban design, and their value toward successful design practices. An overview and analysis of the literature of major scholars, researchers, and practitioners. Critical discussion of human behavior in different building types and urban environments. Intensive discussion of issues that pertain to ways in which information about socio-cultural factors and environment-behavior knowledge can be applied to design projects.

Prerequisite:

ARCT 221

### **ARCT 421 Introduction. to Urban Design & Plan**

#### **Credit Hours: 3**

Introduction to history of urban planning and design; history and evolution of public spaces in different contexts, diversity, integration into buildings and landscape; urban and regional theory and analysis; smart growth; new urbanism; land use planning methods; urban engineering, Infrastructure, transportation, and

environmental planning and assessment; sustainable urban development; Urban design issues.

Prerequisite:

ARCT 221

### **ARCT 422 Research Methods in Arch.**

#### **Credit Hours: 3**

Understanding of basic principles of research techniques. Emphasis is placed on methodological and presentational aspects of architectural and built environment research. Fundamental aspects of communicating research are introduced, including writing and presenting research findings and concluding statements.

Knowledge of differentiating between research, reports, articles and essays; an investigation of various methods for descriptive, analytical, explanatory, and critical research. Research projects focus on applying research techniques and tools in visual, social and technical terms.

Prerequisite:

ARCT 320

### **ARCT 430 Contract Documents**

#### **Credit Hours: 3**

Continuation of construction drawing and detailing, introduction to laws of contracts; formation principles; performance of breach of contract obligation; termination of agreement; pre-qualification; contract for construction and engineering services; specifications; professional liability; insurance and bonds; legal aspects in construction and construction claims; arbitration of disputes; local regulations, selected project applications.

Prerequisite:

ARCT 333

### **ARCT 431 Cost Estimation, Valuation & Qualification**

#### **Credit Hours: 3**

Appreciation and understanding of the economics of building. Primary methods for cost estimation needed in systems development, including line item estimation, parametric estimation, level-of-effort, front- and rear-loaded estimation, and probabilistic loading. The estimation methods are placed in context of a Work Breakdown Structure and program schedules, while explaining the entire estimation process.

Prerequisite:

ARCT 333

### **ARCT 450 Interior Design Workshop**

#### **Credit Hours: 3**

Understanding and practicing theory and practical application in the design of interior spaces, and how different factors affect the integration of functional requirements into the spatial quality of a space, including day-lighting, artificial lighting, furniture, wall design, color application, and human comfort. Exercise and small-

scale projects are integral components of this course.

Prerequisite:

ARCT 221

### **ARCT 451 Computer Applications in Architecture (advanced)**

#### **Credit Hours: 3**

Theories and projects relating to the new and future possibilities of the architectural design process, explored through the digital medium; concepts, metaphors, techniques and expressions available to the designer in the virtual world, are discussed and exemplified – the new applications and opportunities that the digital world has to offer “digital architects” of the future are explored, together with functional and aesthetic concepts that physical architecture may take on board.

Prerequisite:

ARCT 111

### **ARCT 452 Contemporary Architecture in the Arab World**

#### **Credit Hours: 3**

Comprehensive understanding of latest developments in the architecture of the Arab world, with special focus on GCC countries; highlights of traditional local architecture; relationship to developments in the region and their global context; impact of trans-national practices; architectural practices in different countries; series of research projects on current undertakings and interviews with principals of regional architects.

Prerequisite:

ARCT 221

### **ARCT 453 Criticism in Architecture**

#### **Credit Hours: 3**

Introduction to the basics and fundamentals of architectural criticism; discussion of the act of creating architecture, and its “what and why”; reviews of architectural movements and the various directions of criticism they engendered. Emphasis is placed on the conceptions of criticism; different types and rhetoric of criticism are discussed in detail, with a view to develop the student’s ability to understand, analyze and interpret architectural works, as well as the meanings and intentions associated with them. Ideological and philosophical trends underlying selected architectural movements are cross-examined through selected examples.

Prerequisite:

ARCT 320

### **ARCT 500 Practical Training 2**

#### **Credit Hours: 0**

6-week compulsory practical training in the summer. This does not count in the overall program credit hours. Students undertake professional training in an architectural office, consulting firm, construction company, or a

relevant government agency. Upon completion, students submit portfolios, technical reports, and presentations on their training and the experience gained.

### **ARCT 510 Comprehensive Design Studio**

#### **Credit Hours: 6**

The comprehensive nature of architectural design is the driver of the studio; A complex and challenging architectural and/or urban design project that involves a real, visitable site, and possibly real clients. The project emphasizes program development; definition of client needs; comprehensive site analysis of real urban context; introducing infill complex projects that serve a community; developing criteria for design and intervention strategies; generating alternatives; evaluation of alternatives; selecting and developing a final solution; considerations of project contextual constraints and all factors (social, formal, and technical) involved in trade-off thinking processes.

Prerequisite:

ARCT 411

### **ARCT 511 Senior Project Preparation & Programming**

#### **Credit Hours: 2**

Understanding and training in design management and the practice of pre-design studies. Emphasis is placed upon program development, response to contextual constraints; and deep involvement in articulating a complete program and pre-design document, reaching a high degree of practicality and implementation.

Prerequisite:

ARCT 411

### **ARCT 512 Senior Project**

#### **Credit Hours: 4**

Amalgamating the different types of knowledge acquired in the previous courses into a comprehensive design project. Continuation of senior project programming and transforming the program and pre-design knowledge into a complete project that illustrates a deep understanding of design as an intellectual endeavor, including a consideration of socio-cultural, formal, technical, and contextual aspects.

Prerequisite:

ARCT 511

### **ARCT 520 Landscape Architecture**

#### **Credit Hours: 3**

Introduction to the fundamentals of landscape architecture, study of the relation between landscape and architectural design; design of exterior spaces as they relate to and complement building designs; theoretical and historical background of landscape design, site analysis, environmental issues, and plant materials; landscape elements and classification; landform, plant life, microclimate; land use and land preservation,

elements and methods of landscape design; study of aesthetic and functional values.

Prerequisite:

ARCT 221

### **ARCT 530 Construction & Project Management**

#### **Credit Hours: 3**

Introduction to the construction industry; local and international, project life cycle and organization, project contract types and delivery methods, project scope management, project time and cost management (project controls), project quality management, project resource and procurement management, project communications management, management and leadership; soft skills and emotional intelligence, project risk management, project HSE (health, safety, and environment) management, project budgeting and financial management, project claim management, computer applications in construction management.

Prerequisite:

ARCT 333

### **ARCT 531 Ethics & Professional Practice**

#### **Credit Hours: 3**

Different aspects of professional practice; People and organizations involved in building industry; Professional services during different phases of building projects are introduced and clarified; Different practical problems of economic decisions. Different types of professional fees during the project implementation are highlighted. Specifying professional ethics; clarifying the different professional relationships between involved parties in the profession. Ethics of professional practice are emphasized, and students learn ethical and legal responsibilities for public health, safety and welfare, property rights, accessibility and other factors affecting design, as well as construction and architectural practice.

Prerequisite:

ARCT 422

### **ARCT 550 Computer Applications in Urban Planning and G.I.S**

#### **Credit Hours: 3**

Computer aided planning processes, computer-based geographic information handling--GIS and desktop mapping technology; fundamental concepts and structure of GIS in the context of other related disciplines such as cartography, remote sensing and urban planning. Topics include basic GIS concepts such as map characteristics, spatial data models, relational databases, and spatial analysis; sources of data, data quality and database management.

Prerequisite:

ARCT 111

**ARCT 551 Historic Preservation. & Conservation****Credit Hours: 3**

Introduction to historic preservation in an architectural context with a focus on building materials, properties and technologies of conservation and restoration. Topics include the history of the field, the development of its theories, the different levels of intervention, an overview of the technical conservation matters including traditional building techniques, and the relevant compatible approaches to conserve historic buildings, discussion on the means to enhance and to appropriate conservation methods according to selected cases.

Prerequisite:

ARCT 222

**BIOL 100 Introduction to Life Science****Credit Hours: 3**

This course offers an introduction to Scientific methods and skills, Macromolecules, Microscopy, Cell Structure and functions, Respiration and photosynthesis. Body Organization, Organ Systems of human body. Reproductive biology of living organisms. Plant structure and function. Diversity of life: Microorganisms, Plants and animals. Habitats and adaptations of living organisms. Ecosystem concept, ecosystem components, food chains and webs, biotic interactions, aquatic and terrestrial biomes, deteriorations of habitats, pollution, species extinction, waste management and natural reserves.

Prerequisite:

ENGL 111 OR ENGL 151

**BIOL 101 Biology I****Credit Hours: 3**

Biology 101 is the first introductory course for biology majors and minors, covering important biological concepts, including biochemistry, cell structure and function, photosynthesis, cellular respiration, cellular reproduction, genetics, and biotechnology. The laboratory introduces basic laboratory skills such as safety, microscope use, measurement, and reinforces concepts discussed in lecture. There are two hours of lecture and three hours of laboratory per week.

Prerequisite:

(( ENGL 040 OR ENGL C002 OR Total for Integrated Core 400) AND (ENGL 041 OR ENGL R002 OR ESL Reading Skills 100) AND (ENGL 042 OR ENGL W002 OR APL for Writing Workshop 225) ) OR ( Total for Integrated Core 400 AND ESL Reading Skills 100 AND ESL Language Use 100) OR TOEFL\_Inst Testing Prog 500 OR TOEFL Internet-based Test 061 OR TOEFL Computer-based Test 173 OR Int Eng Lang Test Syst-IELTS 5.5 OR ENGL 004 OR ENGL 111 OR ENGL 250 OR ENGL 201 OR ENGL 202

**BIOL 102 Biology II****Credit Hours: 3**

This course is designed to enable the students achieving a good knowledge about the biodiversity and principles of classification of living organisms which started from the most microscopic (micro- ) organisms like Bacteria

and Protozoa passing through Algae and Fungi up to Plants and Animals. The course covers the biological interactions between living organisms including the beneficial relations like symbiosis up to the most harmful one such as parasitism.

Prerequisite:

BIOL 101

### **BIOL 103 Freshman Seminar**

**Credit Hours: 0**

The course is given in the first semester of the freshman year. Faculty involved in the program, as well as invited external speakers (including stakeholders), provide “snapshot” general overview presentations of selected topics of relevance to the core curriculum. The course is attended by students and all faculty associated with the program. As such, this course provides a forum, very early in the program, for students, faculty, and stakeholders to interact. In addition, students have the opportunity to develop a broad holistic appreciation of the scope of the program and its relevance, before they become involved with other coursework.

### **BIOL 110 Human Biology**

**Credit Hours: 3**

An introductory course to human biology, it covers principles of structure and function of human body; nutrition & digestion, the circulatory system, the blood, the immune system, respiration, the urinary system, the nervous system, the sense, the skeleton & muscles, the endocrine system. Principles of human genetics, human development and aging. These systems are approached through an understanding of their functioning in the healthful condition followed by examples of the common disease conditions resulting from their dysfunction.

Prerequisite:

(( ENGL 040 OR ENGL C002 OR Total for Integrated Core 400) AND (ENGL 041 OR ENGL R002 OR ESL Reading Skills 100) AND (ENGL 042 OR ENGL W002 OR APL for Writing Workshop 225) ) OR ( Total for Integrated Core 400 AND ESL Reading Skills 100 AND ESL Language Use 100) OR TOEFL\_Inst Testing Prog 500 OR TOEFL Internet-based Test 061 OR TOEFL Computer-based Test 173 OR Int Eng Lang Test Syst-IELTS 5.5 OR ENGL 004 OR ENGL 111 OR ENGL 250 OR ENGL 201 OR ENGL 202

### **BIOL 211 Cell Biology**

**Credit Hours: 3**

Cell theory and cellular types. Molecular basis of cell membranes. Intercellular junctions. Receptors, Cell structure and functions. Nucleus, Nucleolus. RER. Ribosomes. SER. Golgi Complex Secretory granules. Lysosomes. Phagosomes. Pinocytosis. Exocytosis, Endocytosis. Peroxisomes. Protein synthesis. Mitochondria. Plastids. Cytoskeleton Cellular motility. Microfilaments.

Prerequisite:

BIOL 101



**BIOL 212 Genetics****Credit Hours: 3**

Chromosomes and genes, Mendelian inheritance Modification of Mendelian inheritance; Gene interaction, Inheritance and environment; Sex determination. Sex linkage, Sex-limited and sex-influenced characters. Linkage and crossing over. Chromosome mapping. Mutation. Cytoplasmic inheritance. Quantitative inheritance. Gene action. Genetic engineering.

Prerequisite:

BIOL 101

**BIOL 221 Basic Ecology****Credit Hours: 3**

Principles of ecosystems. Energy flow in ecological systems. Food chain and the food web. Production and ecological efficiency. Development and evolution of the ecosystem. Natural ecosystems. Biogeochemical cycles. Limiting factors and tolerance level. Population ecology. Community ecology. Biological interrelationships. Overview of the ecology of Qatar.

Prerequisite:

BIOL 102

**BIOL 241 Microbiology****Credit Hours: 3**

This course gives an overview of the aspects of history and classification of microorganisms (bacteria, fungi, algae, and viruses). Functional anatomy of prokaryotic. Microbial growth, nutrition and metabolism, and genetics. It also covers medical, environmental, and industrial microbiology. Culture media and microorganisms; Growth and control of microorganisms.

Prerequisite:

BIOL 101 Concur.

**BIOL 310 Molecular Cell Biology****Credit Hours: 3**

This course focuses on current knowledge of cell structure and function at the cellular, sub-cellular and molecular levels. Topics include: molecular components of cell membranes; membrane-bound organelles; microtubules; cytoskeletal components; extracellular matrix; membrane transport; electrical properties of cells; intracellular compartments and protein sorting; intracellular vesicular traffic; cell communication; signaling and signal transduction; regulated proteolysis; cell cycle and programmed cell death (apoptosis); cancer. A laboratory course in cell biology, taken concurrently with the lecture course, emphasizes protein chemistry, gel electrophoresis, Western blotting, immunoanalysis, in vitro translation, transfection, subcellular fractionation, and microscopy techniques.

Prerequisite:

BIOL 241

### **BIOL 311 Molecular Biology**

**Credit Hours: 3**

This course helps students to understand Nucleic Acids as the genetic material, how was DNA proven to be the Genetic Material, Chemical and Physical Properties of Nucleic Acids, Central Dogma of Molecular Biology, DNA replication, Gene Expression: Transcription and Translation, Types of RNA, RNA Processing. The Genetic Code; with a comparison between Prokaryotes and Eukaryotes in all these aspects and processes.

Prerequisite:

BIOL 241

### **BIOL 312 Animal Histology**

**Credit Hours: 3**

Types of tissue, epithelial, connective, muscular and nervous tissues. Structure and basic function of organs and systems, circulatory, respiratory, urinary, immune and reproductive systems. Digestive system and its glands. Nervous system and sense organs.

Prerequisite:

BIOL 101

### **BIOL 321 Principles of Environmental Biology**

**Credit Hours: 3**

Environmental Biology deals with interaction of biotic and physical components of the environment. However, as defined by specialists, the field of study lies between ecology and environmental science. Since the former deals with the study of nature while the latter concentrates on the impact of human activities on the environment, Environmental Biology creates the link between the two; while conceptual ecology is highlighted, the inevitable human presences and influence is taken into consideration. The approach is therefore more restorational than the old-fashioned conservational outlook.

Prerequisite:

BIOL 221

### **BIOL 322 Desert Biology**

**Credit Hours: 3**

World desert formations. Desert environments. Limiting physical factors. Desert ecosystems. Structure and function. Diversity of desert flora, fauna, and soil organisms. Plant morphological and physiological adaptations. Animal morphological, physiological and behavioral adaptations. Living strategies of desert organisms. The problem of desertification and its control. Overview of the desert wildlife in Qatar.

Prerequisite:

BIOL 221

**BIOL 344 General Parasitology****Credit Hours: 3**

This course covers the scope of parasitology, particularly the basic concepts related to hosts, specificity, parasite populations and their interactions, infections and diseases. It covers also the types and the taxonomy of animal parasites and host-parasite relationship. In addition, Zoonose Biology, Pathogenecity and epideminology of representatives of animal parasites and their relationships with man, animals and plants are treated. Finally, the general principles of control methods of parasitic disease and their limitations are explained.

Prerequisite:

BIOL 102

**BIOL 345 Health, Safety & Environment****Credit Hours: 3**

This course considers the key aspects of a health and safety management system; risk assessment and monitoring, and the roles and responsibilities of individuals within a management system and how they can affect the safety of that organization. The course provides the basics of health and safety in the laboratory setting, but focuses specifically on relevant health, safety and environment issues for stakeholders in the Gulf region, including passport control (permit to work), offshore safety and survival, fire fighting, search rescue, gas testing, accident investigation, and environmental awareness.

**BIOL 346 Environmental Health****Credit Hours: 3**

This course covers topics concerned with both the natural and built environment that affect human health, taking in consideration the impact of physical, chemical and biological factors on human health. Emphasis on ecosystem status or function will be covered.

**BIOL 351 Plant Anatomy & Physiology****Credit Hours: 3**

This course covers the principles of plant physiology, particularly energy flow through plant systems, enzymes, water relations, water transport, mineral nutrition, photosynthesis, respiration, metabolism of carbohydrates, proteins, lipids and Growth hormone functions.

Prerequisite:

BIOL 102 AND CHEM 351

**BIOL 362 Animal Anatomy & Physiology****Credit Hours: 3**

This course provides students with the fundamental knowledge of functional anatomy and physiology. Focus will be on the organization of the mammalian body in a comprehensive way to cover the physiology of organs and systems with emphasizes on the underlying biophysical and biochemical principles of organ function. The laboratory sessions provide experiences in physiological testing and data analysis skills that apply to the concepts and topics covered in lectures.

Prerequisite:

BIOL 102 AND CHEM 351

### **BIOL 399 Internship**

**Credit Hours: 0**

Should be completed during the senior year with departmental approval. Typically, they are of 6 weeks duration and involve on-site training and work with a stakeholder.

### **BIOL 412 Genetic Engineering & DNA Technology**

**Credit Hours: 3**

This course focuses on how biotechnology is revolutionizing medicine, agriculture and biomedical, pharmaceutical, environmental and food industries. Specific topics such as recombinant DNA technology, plant genetic engineering, gene therapy, forensic DNA analysis, patents and technology transfer related to the human genome project will be discussed. Projects include DNA isolation and purification, gel electrophoresis, and prokaryotic and eukaryotic cell transfection.

Prerequisite:

BIOL 311

### **BIOL 420 Special Topics**

**Credit Hours: 3**

This course offers selected topics from areas related to Biological sciences aimed at broadening and deepening students' knowledge and skills. The specific contents of the course may change every semester.

### **BIOL 421 Ecophysiology**

**Credit Hours: 3**

The environment of living organisms. Extreme Environments. Morphological, structural, physiological, and biochemical responses to temperature, water, light, drought, salinity. Mechanisms of adaptation and resistance.

Prerequisite:

BIOL 362 Concur. AND BIOL 351 Concur.

### **BIOL 422 Environmental Management & Conservation**

**Credit Hours: 3**

Concepts of conservation of natural resources. Case studies: Endangered species, Fragile communities, ecosystems, marine and terrestrial habitats. Agricultural and industrial pollution. Land contamination and deterioration. Reclamation, restoration, management and practical conservation. Environmental monitoring. Policies and economics of natural resources. Environmental legislation. Conservation and management in Qatar.

Prerequisite:

**BIOL 221****BIOL 433 Monitoring and Toxicology****Credit Hours: 3**

It studies environmental monitoring and assessment with emphasis on the Gulf region; principles in the design of monitoring systems; use of monitoring data in assessing the consequences of natural resource management and pollution risks; monitoring systems designed to estimate exposure both at the individual and population levels; development of monitoring systems for management of renewable natural resources in agriculture, fisheries and coastal and desert ecosystems.

Prerequisite:

BIOL 310

**BIOL 442 Biotechnology****Credit Hours: 3**

The concept of biotechnology, Recent advances and trends in biotechnology. The principles of genetic engineering and strain selection and maintenance. Separation of bio-production. Plant & Animal biotechnology. Animal cell cultivation systems. Fermentation technology using microorganisms. Biotechnology processing of pharmaceuticals, chemicals and biological factors. The ethical aspects of biotechnology and society. Animal, plant, medical and environmental biotechnology application. Biotechnology potential and activities in Qatar.

Prerequisite:

BIOL 311

**BIOL 443 Biotechnology & Bioremediation****Credit Hours: 3**

This course covers the use of organisms to alleviate environmental problems. Topics include the biology of the organisms involved and their bioremediation processes. Plants act to absorb and concentrate heavy metals from soils whereas micro-organisms, invertebrates and plants degrade organic toxins and remove excess nutrients from soils, substrates and water. The processes include extraction, absorption, concentration, and degradation of contaminants. Examples cross- reference courses involving engineering principles such as the design and use of immobilized bacteria in trickling filter design for sewage gas purification.

Prerequisite:

BIOL 310

**BIOL 444 Immunology****Credit Hours: 3**

Basic concepts. Innate immunity: determinants and mechanisms. Acquired immunity, types, antigens and antibodies. Immune response. Immunoglobulins, Monoclonal antibodies. Anatomical, cellular and genetic basis of immunity. Complement proteins and their role in immunity. Antigen, antibody reactions. Immunopathology. Immunodeficiency, hypersensitivity and auto immunity. Histocompatibility and organ transplantation.

Immunogenetics.

Prerequisite:

BIOL 362 Concur.

### **BIOL 451 Cell & Tissue Culture**

#### **Credit Hours: 3**

Cell and tissue culture are major tools for biotechnology applications, testing and improvement. These are an essential step in the production of genetically modified organisms(GMOs) which have received much national and international attention in recent years, interfacing with society in ways that few would have imagined a decade ago. As the scientific capabilities to engineer plants, animals, insects, and microorganisms for applications that could pose great benefits to society grow rapidly, so do the number of potential challenges and concerns. Many issues associated with cell and tissue culture pervade other areas of scientific pursuit, and there seem to be more commonalities than differences. In light of this, this course concentrates on the different uses of tissue culture both in animal and plant studies; the establishment and requirements of both plant tissue culture lab and animal tissue culture lab. The basic concepts of totipotency, organized growth, growth regulators types a

Prerequisite:

(BIOL 351 Concur. OR BIOL 310 AND BIOL 362 Concur.)

### **BIOL 452 Molecular Analytical Techniques**

#### **Credit Hours: 3**

It uses a combination of lecture and hands-on laboratory exercises to acquaint students with advanced laboratory skills. Students are taught the essentials of how to maintain a detailed laboratory notebook. The course is writing intensive and implements Excel spreadsheets. Topics include multitasking, hands-on experience with analytical equipment, strategies that can be used in experimental design, troubleshooting experiments and outcomes.

Prerequisite:

BIOL 310

### **BIOL 493 Special Topics**

#### **Credit Hours: 3**

Course content is not definite and subjected to change each time the course is offered, according to area of interest of faculty and students.

### **BIOL 496 Senior Project**

#### **Credit Hours: 3**

It is undertaken by students in their senior year after completing 90 hours of credit. Graduation projects are selected with departmental approval and may involve one or more supervisors. Students submit the graduation project that documents their work.

**BIOL 497 Senior Project****Credit Hours: 3**

It is undertaken by students in their senior year after completing 90 hours of credit. Graduation projects are selected with departmental approval and may involve one or more supervisors. Students submit the graduation project that documents their work

**BIOM 211 Human Anatomy****Credit Hours: 3**

Body organization, anatomical position and terminology, skeletal system, skeleton, Joints, muscles, digestive system, cardiovascular system and lymphatic system, respiratory system, urinary system, female and male genital systems, endocrine system, nervous system. Surface anatomy of the organs, X-ray, ultrasound and applied anatomy.

Prerequisite:

BIOL 101

**BIOM 212 Human Histology****Credit Hours: 3**

Different types of microscope, the cell, epithelial tissue, connective tissue proper, cartilage, bone, muscular tissue, blood, vascular system, lymphatic system, lymphatic tissue, digestive system, respiratory system, urinary system, female genital system, male genital system, central nervous system, special sense organ and endocrine system.

Prerequisite:

BIOL 101

**BIOM 213 Human Embryology****Credit Hours: 3**

Gametogenesis, ovulation, fertilization, implantation, bilaminar germ disc, trilaminar germ disc, embryonic period, fetal period, fetal membranes, placenta and congenital malformations. Assisted reproductive techniques, development of urogenital, cardiovascular and gastrointestinal systems.

Prerequisite:

BIOM 211

**BIOM 215 Human Physiology****Credit Hours: 3**

Physiology is the study of the normal functions of body systems within the human body. The major aim of this course is to acquire an improved understanding of the mechanisms of different body tissues and organs. The cross talk between different organs and systems will be discussed in terms of the integration of all body systems and homeostasis. In Human Physiology BIOM-215 you will study cell physiology, cardiovascular, respiratory,



renal, and, gastrointestinal and related systems to accomplish homeostasis.

Prerequisite:

BIOL 101

### **BIOM 217 Human Genetics**

#### **Credit Hours: 3**

Principles of medical genetics and their application in pathology. Chromosome structure and function. Mendelian pattern of inheritance. Mitochondrial diseases and multifactorial inheritance and its role in human variation and human diseases. Cytogenetic disorders. Gene mapping and molecular structure of the gene. Hemoglobinopathies. Biochemical genetics. Immunogenetics. Cancer genetics. Genetic counseling. Tissue culture techniques. Chromosome preparation from different tissue.

Prerequisite:

BIOL 101

### **BIOM 243 Introduction to Pathology**

#### **Credit Hours: 2**

The basic pathology of immunology and how the immune system can cause disease. The principles and mechanism of pathological processes (cell injury, necrosis, wound healing, acute and chronic inflammations). Basic clinical immunology by looking at clinical assessment of the patient presenting with an immunological complaint.

### **BIOM 301 Lab Management, Safety & Quality Control**

#### **Credit Hours: 3**

This course is designed as a team-taught course to introduce students with clinical laboratory regulations, including quality control, laboratory safety, basic safe use of equipment, and quality assurance. Basic knowledge of motivation, commitment, and human needs; management theory; organizational forms and cultures; power in organizations. Communication skills, education methods and training; decision making; groups and teams. Total quality management, laboratory accreditation and audit; efficiency and effectiveness. Health, safety and welfare of the workforce; work safety legislation, hazards of the workplace, risk assessment, safety policies, safety audits and inspection.

### **BIOM 322 Medical Microbiology**

#### **Credit Hours: 4**

Relationships between the hosts' and pathogens' epidemiological aspects, and mode of transmission of microbial diseases. Zoonotic diseases. Microbial pathogenicity and mechanism of virulence. The role of pathogenic bacteria and viruses in causing disease laboratory diagnosis, methods of prevention and treatment.

Prerequisite:

BIOL 241

**BIOM 323 Medical Parasitology****Credit Hours: 3**

Medical parasitology. Biomedical sciences and tropical medicine. Nomenclature and taxonomy of animal parasites. Position of parasitism amongst other biological associations. General structure and ultra-structure. Classification, biology, life cycle, epidemiology, pathogenicity and diagnosis of selected medically important examples of the following groups: Protozoa, platy- helminthes, acanthocephalan and zoonosis. Control of parasitic diseases.

Prerequisite:

BIOL 241

**BIOM 324 Medical Virology****Credit Hours: 2**

This course is a comprehensive presentation of all the families of human viruses. Course coverage will focus almost entirely on viruses that cause serious infections with specific emphasis on pathogenesis mechanisms of virus infection and virus-cell interactions, at cellular and molecular level. Classes include lectures, as well as reading and discussion of primary papers cover in topics such as virus entry, viral DNA or RNA replication, transcription, translation, virus assembly and release, persistence, latency, cell lysis and interference. Practical assessments that include classical virological techniques, such as basic cell culture, serology, and modern molecular tests such as RT-PCR and multiplex PCR.

Prerequisite:

BIOM 243

**BIOM 346 Clinical Chemistry****Credit Hours: 4**

This is a lecture and laboratory course covering most areas of Clinical Chemistry. General principles of chemical analysis and clinical utility are reviewed. Analyses performed in the clinical chemistry laboratory are grouped according to function or organ system. Major groupings include carbohydrates, proteins, renal testing, liver/cardiac function, enzymology, and electrolytes/acid-base balance. The principles of testing methods and the physiologic and biochemical changes that occur in disease states are covered. General laboratory principles, laboratory safety, laboratory quality assessment will also be applied to the course.

Prerequisite:

CHEM 351

**BIOM 401 Special Topics****Credit Hours: 1**

This is a professor guided course designed for special studies students who were pre 2008 graduates of the program. The content covers educational methodologies, international accreditation, certification and licensure concepts and practices. Other course content is included to satisfy coverage of required NAACLS content.

**BIOM 402 Special Topics****Credit Hours: 2**

This professor guided course is designed to introduce students to the principles of critical thinking and to provide instructional and learning opportunities for them to apply critical thinking strategies to given specified content areas within biomedical science. It incorporates self-directed learning and teamwork in an atmosphere of active learning.

**BIOM 411 Forensic Science****Credit Hours: 2**

The course includes the legal importance of forensic medicine and its contribution to justice. It includes penology and criminology as a science, as well as all the aspects related to death and the cadaver. Traumatology, including criminal injuries, different types of wounds, traffic accidents, burns, and the concept of the forensic medicine prognosis. In addition, asphyxiology receives a broad and in-depth attention so that the students may distinguish the juridical causes of death. Sexology and legal obstetrics are highlighted due to their frequency in the practice of forensic medicine.

**BIOM 418 Pharmacology & Toxicology****Credit Hours: 2**

This course, which is a continuation of clinical chemistry, is designed to introduce the students to more advanced topics in clinical chemistry, including aspects of therapeutic drug monitoring TDM in clinical chemistry medicine and the most popular drugs tested now a days, toxicology and poisoning with specific agents. It will also covers porphyrins and disease, clinical chemistry of the geriatric patient, clinical chemistry of the pediatric patient, clinical nutrition including vitamins and minerals. Instrumentation in clinical chemistry laboratory will be also covered.

Prerequisite:

BIOM 215

**BIOM 422 Diagnostic Microbiology****Credit Hours: 2**

The different methods and techniques applied for the diagnosis of pathogenic microorganisms isolated from different clinical specimens. With emphasis on both normal and transient flora of the human body. Methods of collection and handling of different pathological specimens. Advanced procedures and identification techniques used to isolate and identify bacteria. Morphological, biological, and biochemical characteristics of bacteria commonly isolated from clinical specimens.

Prerequisite:

BIOM 322

**BIOM 426 Clinical Immunology****Credit Hours: 3**

Molecular diversity and control of immune system and its association with disease states. Modern application of antibodies and cytokines in diagnosis and treatment of disease. The immune system and its relation to infection, transplantation and immunopathology with special emphasis on immunological techniques.

Prerequisite:

BIOM 243 Concur.

**BIOM 444 Histopathology****Credit Hours: 2**

Introduction to general pathology. Pathological lesions and diseases in various tissues and organs. The theoretical and practical aspects of techniques used in a histopathology laboratory. Fixation, processing, blocking decalcification of routine and special staining methods. Cardiovascular, respiratory, gastrointestinal, hepato-biliary, urinary, male and female reproductive, endocrine, lymphoreticular, musculoskeletal and central nervous systems.

Prerequisite:

BIOM 212

**BIOM 446 Urine Analysis and Body Fluids****Credit Hours: 2**

This course emphasizes the collection and analysis of urine, fecal specimens, vaginal secretions, and other body fluids such as cerebrospinal, synovial, seminal, amniotic, pleural, pericardial, and peritoneal fluids.

Prerequisite:

BIOM 215

**BIOM 451 Hematology & Hemostasis****Credit Hours: 4**

Formation and maturation. Blood cells differential and their functions. General principles and iron metabolism. Types of anemia. Methods of microscopic analysis. Haemoglobinopathies and methods of detection. Hemorrhage, blood groups and blood transfusion. Leukemia and its classification. Clotting mechanisms and disorders. Detection of coagulation disorders.

Prerequisite:

BIOM 243 Concur.

**BIOM 452 Immunohematology & Blood Bank****Credit Hours: 3**

This course is designed to provide the Bio-medical students with a concise theoretical account about Immunohematology and transfusion practices and a comprehensive knowledge of modern routine blood

banking and adequate practical training on all Blood Bank serological procedures including blood grouping, antibody screening and Identification, compatibility testing and preparation and storage of blood components. It also provides the students with necessary information about important clinical aspects of blood transfusion such as recognition and investigation of adverse transfusion reactions.

Prerequisite:

BIOM 451

### **BIOM 463 Endocrinology**

**Credit Hours: 3**

Introduction to hormones and chemical signals. Receptors. Basic principle of endocrine physiology. Synthesis, secretion and mode of action of various hormones. Hormonal control of metabolism. Hypothalamic and pituitary hormones. Thyroid gland and its hormones. Adrenal glands and calcium homeostasis. Hormonal assays. Hormonal control of reproduction in males and females.

Prerequisite:

BIOM 215

### **BIOM 491 Clinical Practice in Chemistry**

**Credit Hours: 3**

Supervised clinical practice in the clinical chemistry laboratory, providing experience in procedures and methods of evaluating and monitoring the presence and progression of disease, operation of instrumentation, observation of quality assurance practices, and use of appropriate safety measures.

Prerequisite:

BIOM 346

### **BIOM 492 Clinical Practice in Hematology**

**Credit Hours: 3**

Supervised clinical practice in the clinical hematology laboratory, providing experience in procedures and methods of evaluating and monitoring the presence and progression of disease, operation of instrumentation, following quality assurance practices, and using appropriate safety measures.

Prerequisite:

BIOM 451

### **BIOM 493 Clinical Practice in Immunology**

**Credit Hours: 3**

Supervised clinical practice in the clinical immunohematology laboratory, providing experience in procedures and methods of evaluating and monitoring the presence and progression of disease, operation of instrumentation, following quality assurance practices, and using appropriate safety measures.

Prerequisite:

BIOM 426

### **BIOM 494 Clinical Practice in Microbiology**

#### **Credit Hours: 3**

Supervised clinical practice in the clinical microbiology laboratory providing experience in procedures and methods of evaluating and monitoring the presence and progression of disease, operation of instrumentation, following quality assurance practices, and using appropriate safety measures.

Prerequisite:

BIOM 422

### **BIOM 495 Clinical Practice in Immunohematology**

#### **Credit Hours: 3**

Supervised clinical practice in the clinical immunohematology laboratory, providing experience in procedures and methods of evaluating and monitoring the presence and progression of disease, operation of instrumentation, observation of quality assurance practices, and use of appropriate safety measures.

Prerequisite:

BIOM 452

### **BIOM 496 Professional Development**

#### **Credit Hours: 3**

This is a capstone course designed to enhance problem-solving skills by integrating multiple biomedical laboratory disciplines utilizing literature reviews to assess case studies. The course focuses on integration and synthesis of knowledge acquired in previous courses. Competencies to be reinforced include leadership, critical thinking, communication, analytical skills, ethical issues, professionalism, and the skills to work in a healthcare setting.

### **BIOM 497 Research Project**

#### **Credit Hours: 3**

The research project (RP) is an important component of your academic experience within the Biomedical Sciences Program of Qatar University. This aspect of the program affords you the opportunity to demonstrate knowledge and skills gained in various courses and to apply research methodology and publication to become a competent biomedical scientist. This degree requirement will assist you to better comprehend scientific research in your work setting and/or graduate education. During your research experience, you will progress from a guided learning experience to a self-directed experience. The requirements associated with this research project and its timelines were planned to ensure your success. The RP is a process and a product. It requires you to identify a research question and to employ a scientific method to conduct a research study in collaboration and under the guidance of a faculty member. The product aspect is two-fold: a research paper and a presentation.

**CHEM 101 General Chemistry I****Credit Hours: 3**

Chemistry and Measurement and significant figures. Atoms, molecules and ions. Formulas and names. Stoichiometry and chemical calculations. Chemical reactions. Thermochemistry and enthalpy changes. Quantum theory of the atom and electron configuration. Chemical bonding and molecular geometry.

**Prerequisite:**

(( ENGL 040 OR ENGL C002 OR Total for Integrated Core 400) AND (ENGL 041 OR ENGL R002 OR ESL Reading Skills 100) AND (ENGL 042 OR ENGL W002 OR APL for Writing Workshop 225) ) OR ( Total for Integrated Core 400 AND ESL Reading Skills 100 AND ESL Language Use 100) OR TOEFL\_Inst Testing Prog 500 OR TOEFL Internet-based Test 061 OR TOEFL Computer-based Test 173 OR Int Eng Lang Test Syst-IELTS 5.5 OR ENGL 004 OR ENGL 111 OR ENGL 250 OR ENGL 201 OR ENGL 202

**CHEM 102 General Chemistry II****Credit Hours: 3**

Gases and States of Matter. Properties of Solutions. Rates of Reaction and Chemical Equilibrium. Acids and Bases and Acid-Base Equilibria. Solubility and Complex Equilibria. Thermodynamics and Equilibrium. Electrochemistry.

**Prerequisite:**

CHEM 101 AND CHEM 104 Concur.

**CHEM 103 Experimental General Chemistry I****Credit Hours: 1**

Safety in the Lab. Measurement of mass, volume and density. Identification of an unknown compound. Qualitative analysis of anions. Empirical formula of a compound. Thermal decomposition of hydrates. Stoichiometric determination. Acid-base and redox titrations. Enthalpy of reactions.

**Prerequisite:**

CHEM 101 Concur.

**CHEM 104 Experimental General Chem II****Credit Hours: 1**

Determination of Molar Mass. Softening of hard water. Rate of a Chemical reaction. Determination of Chemical Equilibrium. Relative Strengths of some Acids. Acid-base titration and determination of pKa of a weak acid. Solubility product constant. Calorimetry and Electrochemistry.

**Prerequisite:**

CHEM 103 AND CHEM 102 Concur.

**CHEM 209 Fundamentals in Organic Chemistry****Credit Hours: 3**



CHEM 209 is designed for students pursuing bachelor's degrees in biomedical, Nutrition, chemical engineering or pharmacy. The topics covered in this course include structure, properties and reactivities of aliphatic and aromatic hydrocarbons, their industrial applications and the concept of stereoisomerism. Alkyl halides and their reactions; and nomenclature and reactivities of alcohols, aldehydes, ketones, acids and amines will be covered in this one semester course.

Prerequisite:

CHEM 101 AND CHEM 103

### **CHEM 211 Organic Chemistry I**

#### **Credit Hours: 4**

CHEM 211 is the first course in the two-term undergraduate organic chemistry lecture sequence that includes CHEM 212 which is designed for students majoring in chemistry. The structures and properties of Aliphatic hydrocarbons will be presented, and their industrial importance will be discussed. The concept of stereoisomerism will be introduced in the context of organic chemistry (i.e., tetrahedral carbon). Aromatic hydrocarbons & Alkyl Halides, will be introduced and their reactions will be covered in depth.

Prerequisite:

CHEM 101 AND CHEM 103

### **CHEM 212 Organic Chemistry II**

#### **Credit Hours: 3**

Stereochemistry and chiral molecules – Ionic reaction – Nucleophilic substitution and elimination reactions of alkyl halides – radical reactions – conjugated unsaturated systems – aldehydes and ketones (aldol reactions) – synthesis and reactions of dicarbonyl compounds – phenols and aryl halides (nucleophilic aromatic substitution)- carbohydrates.

Prerequisite:

CHEM 211

### **CHEM 213 Experimental Organic Chemistry**

#### **Credit Hours: 1**

This laboratory is a vital supplement to the lecture course, CHEM 212. It introduces methods of synthesis and analysis of pertinent organic reaction types. Students receive hands-on experience in the experimental methods of organic chemistry. Many organic chemical reactions are examined in the context of their reaction mechanisms. This lab gives the student adequate training in the use of organic lab techniques and report writing.

Prerequisite:

CHEM 212 Concur.

**CHEM 217 Organic Chemistry I****Credit Hours: 3**

This course is the first course in the two-term undergraduate organic chemistry lecture sequence, which is designed for the students majoring in chemistry. The structures and properties of Aliphatic hydrocarbons will be presented. The concept of stereoisomerism will be introduced in the context of organic chemistry (i.e., tetrahedral carbon). Aromatic hydrocarbons & alkyl halides, will be introduced and their reactions mechanisms will be covered in depth.

Prerequisite:

CHEM 101 AND CHEM 103

**CHEM 218 Experimental Organic Chemistry I****Credit Hours: 1**

This experimental course introduces laboratory techniques in organic chemistry for chemistry majors. The emphasis is on learning basic laboratory techniques and skills such as distillation, recrystallization, extraction, sublimation, chromatography, photochemical reactions, isolation of essential oils, synthesis of Aspirin and identification of some functional groups. The students will gain experimental skills and hands experience on essential lab instruments and teamwork.

Prerequisite:

CHEM 103 AND ( CHEM 217 with Concurrency )

**CHEM 221 Inorganic Chemistry I****Credit Hours: 3**

This is the first inorganic chemistry course and covers the following basic topics. The structure of the atom. The structure of atoms and bonding theories, structure of solids and their analysis. The three major bonding theories include VSEPR, VB and MO theory. Other topics include structures of simple solids, oxidation and reduction, acids and bases, symmetry and symmetry elements, symmetry points groups and character tables. This course will also provide a brief introduction to coordination and organometallics chemistry.

Prerequisite:

CHEM 101

**CHEM 222 Experimental Inorganic Chemistry****Credit Hours: 1**

Synthesis and characterization of complex compounds. Cis-trans isomerism. Stabilization of unusual oxidation states by ligands. Magnetic and spectroscopic properties of complex compounds.

Prerequisite:

CHEM 103 AND CHEM 221

**CHEM 231 Analytical Chemistry I****Credit Hours: 2**

Introduction to analytical chemistry - statistical evaluation of analytical data - aqueous and buffered solution - chemical equilibrium - titration methods of analysis (neutralization reactions, precipitation titrations, redox and compleximetric titrations)- gravimetric methods of analysis – spectrophotometry.

Prerequisite:

CHEM 101

**CHEM 234 Experimental Analytical Chemistry****Credit Hours: 1**

Gravimetric analysis – Neutralization reactions – Precipitation reactions – Oxidation and reduction reactions – Complexometry.

Prerequisite:

CHEM 103 AND CHEM 231 Concur.

**CHEM 237 Analytical Chemistry I****Credit Hours: 3**

This course is designed to provide students with a conceptual framework to understand the fundamental principles of chemical analysis. The course deals with theory and applications of non-instrumental and some common instrumental techniques in quantitative chemical analysis. Covered topics include experimental errors; statistical treatment of experimental data; quality assurance; chemical equilibrium; titration; basics of electrochemistry and potentiometry; and fundamentals of spectrophotometry and spectrophotometers.

Prerequisite:

CHEM 101 AND CHEM 103

**CHEM 238 Experimental Analytical Chemistry I****Credit Hours: 1**

This course is an introduction to the practical aspects of quantitative chemical analysis. At the beginning of the course, the students will be introduced to experimental errors and statistical treatment of data. Students will be trained on preparing standard solutions that they will use later in the subsequent experiments. The course consists of about eleven analytical experiments following an important introduction on safety and lab techniques. Experiments will introduce the techniques of volumetric analysis, gravimetric analysis, ion selective electrodes and spectrophotometry.

Prerequisite:

CHEM 103 AND ( CHEM 237 with Concurrency ) OR (CHEM 103 AND (CHEM 231 with Concurrency))

**CHEM 239 Physical Chemistry with lab****Credit Hours: 4**

This course provides pre-pharmacy students with an overview of physical chemistry and its application in the life sciences. The course includes both lectures and lab work. Throughout the course, theory will be complemented by examples from life science and molecular biology.

Prerequisite:

CHEM 101 AND CHEM 103

**CHEM 240 Physical Chemistry for the Life Sciences****Credit Hours: 4**

This course presents an overview of topics in physical chemistry and applications in landscapes of life and pharmaceutical sciences. Topics include fundamental laws of thermodynamics with applications in biochemical systems; chemical and phase equilibria, Gibbs free energy and equilibrium constant, acid-base solution equilibria, composition-pH diagrams; kinetics of chemical and biochemical processes including reaction mechanisms, introduction to enzyme kinetics, rate of reaction, laws and order of reactions; introduction to molecular spectroscopy

Prerequisite:

CHEM 101 AND CHEM 103

**CHEM 241 Physical Chemistry I****Credit Hours: 3**

The kinetic model of gases: molecular interaction, the Vander Waals equation. Chemical thermodynamics: The first law, work, heat and energy, The second law, entropy and free energy, Free energy, chemical potential, effect of temperature and pressure on free energy changes, Tourton's and Richard's rules - Free energy changes and equilibrium constant, effect of temperature on the equilibrium constant. Absolute entropy- the third law. Phase diagrams and the phase rule: phase stability and phase transition, the physical liquid surface; surface tension, curved surface, and capillary action.

Prerequisite:

CHEM 102 AND CHEM 242 Concur.

**CHEM 242 Experimental Physical Chemistry I****Credit Hours: 1**

Introduction and laboratory safety experiment design– Determination of the gas constant, R - the Faraday Constant and Avogadro's number –Molecular radius from viscosity measurements – Molecular weight of a polymer. Molecular weight (Rast method and/or Beckmann's method) - Electrochemical cells and thermodynamics – Heat of solution – Heat of vaporization – Standard enthalpy change – Surface tension – Heat of adsorption Dissociation constant of an acid Phase diagrams – Cooling curves – Two components – three components systems.

Prerequisite:

CHEM 102 AND CHEM 241 Concur. AND CHEM 104

### **CHEM 275 Principles of Environmental Chemistry**

**Credit Hours: 3**

This course provides an understanding of the source, fate, and reactivity of compounds in natural and polluted environments. Emphasis is placed on the environmental implications of energy utilization, and on the chemistry of the atmosphere, hydrosphere, and lithosphere in the region.

Prerequisite:

CHEM 101 AND CHEM 103

### **CHEM 310 Organic Chemistry II**

**Credit Hours: 3**

This course is the second undergraduate organic chemistry course, which is designed for students majoring in chemistry. The structures, properties and reactions, reactions mechanisms and synthesis of alcohols, ethers, phenols, aldehydes and ketones, amines, carboxylic acids and derivatives will be covered. Enolates formation and reactions, malonic ester synthesis and applications in synthesis of related compounds will be discussed in depth.

Prerequisite:

CHEM 209 OR CHEM 217 OR CHEM 211

### **CHEM 311 Organic Chemistry III**

**Credit Hours: 3**

Fused polynuclear aromatic hydrocarbons – nonbenzenoid aromatic hydrocarbons – dyes (nomenclature, classification and examples) – heterocyclic compounds (five and six membered ring compounds) – other heterocyclic compounds (e.g. indole, imidazole, coumarins and flavones) – chemotherapy (sulphonamides, some antibiotics and antimalarial compounds).

Prerequisite:

CHEM 217 AND CHEM 218

### **CHEM 312 Organic Chemistry IV**

**Credit Hours: 2**

Spectroscopic techniques (infrared, ultraviolet, nuclear magnetic resonance and mass spectrometry) in identification of organic compounds (problems and answers).

Experimental: Preparation of some organic compounds (multi-steps preparations) – identification of organic compounds using different spectroscopic methods.

Prerequisite:

**CHEM 212****CHEM 313 Experimental Organic Chemistry II****Credit Hours: 1**

This is the second course in organic chemistry labs to study the functional groups transformation and spectroscopy, synthesis, isolation and identification of organic compounds. The course will cover aldol condensation, electrophilic aromatic substitution, nitration, esterification, condensation, and rearrangement. Hands-on spectroscopic techniques IR, Mass spec, UV-vis, and NMR. Various lab techniques will be practiced such as distillation, recrystallization, extraction etc. This course will give students the opportunity to practice their knowledge, gain experience in problem solving and perform multistep synthesis.

Prerequisite:

CHEM 218 AND ( CHEM 310 with Concurrency )

**CHEM 315 Environmental Chemistry****Credit Hours: 2**

This course introduces students to major topics of current interest in environmental chemistry. Topics covered include the origins of chemical contaminants in the environment, atmospheric chemistry, the greenhouse effect, the ozone layer, aquatic chemistry, aquatic chemistry and water pollution. A survey of major analytical techniques and some persistent chemicals of environmental concern is also included.

Prerequisite:

CHEM 221 AND CHEM 211

**CHEM 316 Introduction to Organic Polymers Chemistry****Credit Hours: 3**

This course describes various methods for the synthesis of polymers, such as cationic, anionic and free radical polymerization. Characterization of polymers, using spectroscopic and physical methods for molecular weight determination. Control of architecture, tacticity, polymer reactivity, polymer properties, structure/property relationships, compatibility and applications of polymers will be discussed. Current topics of interest such as polysaccharides and polyamides, and contemporary subjects will also be covered.

Prerequisite:

CHEM 310

**CHEM 317 Introduction to Natural Products Chemistry****Credit Hours: 3**

Introduction to natural products chemistry; covers: classification of natural products, isolation techniques and physiological data, the acetate pathway (fatty acids and polyketides), the shikimate pathway (aromatic amino acids and phenylpropanoids), the mevalonate (terpenoid and steroids), alkaloids, peptides and amino acid derivatives, and carbohydrates. Sources, applications, bioactivity, medicinal indications of certain natural products will be covered.

Prerequisite:

CHEM 310

### **CHEM 318 Organic Spectroscopy**

**Credit Hours: 3**

This course involves spectroscopic methods for structure analysis such as mass spectrometry, nuclear magnetic resonance spectroscopy, infrared spectroscopy, and ultraviolet spectroscopy. Fundamentals of the NMR phenomenon and recording of routine spectra ( $^1\text{H}$  and  $^{13}\text{C}$ ), essentials of data processing will be taught. 1D NMR techniques: Decoupling, DEPT and exposure to advances techniques relaxation measurement, NOE difference spectra. 2D NMR techniques with emphasis is on learning the practical use of NMR equipment

Prerequisite:

CHEM 310

### **CHEM 321 Inorganic Chemistry II**

**Credit Hours: 3**

This course describes the physical and chemical properties of the main group and transition metals in the periodic table. Its descriptive nature will allow the students to explore the rich tapestry of periodic patterns and trends; systematically study the chemistry of main group elements and demonstrate the diversity, intricacy, and fascinating nature of inorganic chemistry. The final part of this course will cover the chemistry of d-block metals, their electronic structure and complexes and their properties.

Prerequisite:

CHEM 221

### **CHEM 322 Inorganic Chemistry III**

**Credit Hours: 3**

This course focuses on transition metal compounds and their reaction mechanisms. The topics covered will include ligand substitution reactions, rates of ligand substitution, inner and outer sphere mechanism, photochemical and related reactions, electron transitions in metal-metal bonded systems, organometallic compounds containing different types of ligands; ligand substitution reactions, redox reactions, bond metathesis, insertion and elimination reactions; homogeneous and heterogeneous. It will also focus on chemistry of f-block elements and their coordination chemistry, material properties, electronic spectra and properties of some elements.

Prerequisite:

CHEM 221

### **CHEM 325 Bioinorganic Chemistry**

**Credit Hours: 3**

This course introduces students to major topics of current interest in bioinorganic chemistry. The topics covered will include biologically important metal ions and their binding sites, and the instrumental techniques used to



probe these sites. Structures of the most relevant metal centers in biological molecules will be explored focusing in particular on non-redox enzymes, electron-transfer copper-based and iron-based proteins, nitrogen-fixation proteins, nitrification and denitrification proteins, and oxygen-transporting proteins. Role of metals in medicine will also be introduced.

Prerequisite:

(CHEM 209 OR CHEM 217 OR CHEM 211) AND CHEM 221

### **CHEM 331 Analytical Chemistry II**

**Credit Hours: 3**

Introduction to modern methods of instrumental analysis: separation techniques (gas, and high liquid chromatography); spectroscopic methods (atomic and molecular absorption spectroscopy); and electrochemical methods including polarography, potentiometry, and conductometry, Experimental:

Practical application of instruments in analysis including potentiometry, polarography, conductometry and spectrophotometry and gas and liquid chromatography.

Prerequisite:

CHEM 231 AND CHEM 234

### **CHEM 337 Analytical Chemistry II**

**Credit Hours: 3**

This course covers principles, instrumentations, and applications of a variety of modern analytical techniques including spectrophotometry, electrochemistry, liquid/gas chromatography, and mass spectrometry. Figures of merit including detection limit, sensitivity, precision, selectivity, and linear dynamic range will be also discussed. Moreover, students will submit a project/research paper assignment/presentation on one of the modern analytical techniques.

Prerequisite:

(CHEM 231 OR CHEM 237) AND (CHEM 338 with Concurrency)

### **CHEM 338 Experimental Analytical Chemistry II**

**Credit Hours: 1**

Students will gain practical skills on the use and applications of various instrumental techniques in chemical analysis. This course focuses on the application of the following broad analytical methodologies: optical spectroscopy, extraction, electrochemistry, chromatography, and mass spectrometry. Students will also practice analyzing and evaluating data they collect and writing experimental reports.

Prerequisite:

(CHEM 234 OR CHEM 238) AND (CHEM 337 with Concurrency)

**CHEM 341 Physical Chemistry II****Credit Hours: 3**

Chemical kinetics; reaction orders, first, second and third orders; reactions approaching equilibrium; parallel first order reactions; consecutive elementary reactions; the Michaels- Menten mechanism, the Lindemann-Hinshelwood mechanism; theories of the rate constant (collision theory and activated complex theory) – equilibrium electrochemistry, ion activities, electrochemical cells – dynamic electrochemistry, – processes at solid surfaces – surface growth – surface composition – surface sensitive techniques – the adsorption processes.

Prerequisite:

CHEM 241 AND MATH 101

**CHEM 342 Physical Chemistry III****Credit Hours: 3**

This course will introduce students to computational chemistry and its basis in quantum chemistry.<sup>[SEP]</sup>Quantum chemistry principles, including the Schrodinger equation and its resulting wave functions for electrons in atoms and molecules, are presented in way useful in computational chemistry, introducing wave functions and basis sets from semi-empirical, ab initio, Hartree-Fock and SCF methods. Activities such as building molecules, calculating their energies, minimizing the structures, as well as calculating their vibrational frequencies will be conducted during the course. The following software will be used to achieve our goal: Gaussian, Gauss View, Spartan and molecular modeling. Also, different kinds and levels of calculations as HF, RHF, AM1, PM3 and others will be demonstrated, applying different basis sets.

Prerequisite:

CHEM 241

**CHEM 343 Principles of Corrosion Science****Credit Hours: 3**

This course covers fundamentals of corrosion. The topics covered will include causes of corrosion, the methods by which corrosion is identified, monitored, and controlled, with emphasis on electrochemical methods and modeling. It will give basic understanding of various types of corrodible and corrosive materials in terms of characteristics of corrosive environments such as atmospheric, water, and other electrolytes. This course will also explore how to control corrosion through material selection, modification of environment, protective coatings, and cathodic and anodic protections.

Prerequisite:

CHEM 341

**CHEM 351 Basic Biochemistry****Credit Hours: 3**

Amino acids and peptides, protein structure, protein function, hemoglobin and myoglobin, enzymes (classification – mechanism of action and kinetics - regulation), vitamins and nutrition, carbohydrates structure, Glycoconjugates, lipids classification, lipid structure, lipids in the structure of biological membranes, lipids in

cell signaling, structure of nucleotides, structure of RNA and DNA, DNA synthesis, RNA synthesis, protein synthesis, gene expression.

Prerequisite:

CHEM 209 OR CHEM 212 OR CHEM 310)

### **CHEM 352 Experimental Biochemistry**

#### **Credit Hours: 1**

Quantitative determination of D-glucose by means of anthrone or glucose oxidase, Quantitative determination of amino acids by ninhydrin, Quantitative determination of proteins by Folin-lowry method, Bio-Rad assay of proteins, enzyme assays and factors affecting enzyme activity, acid value of simple lipids, effect of lipase on simple lipids, enzyme-linked immunosorbent assay (ELISA), polymerase chain reaction (PCR).

Prerequisite:

(CHEM 209 OR CHEM 218) AND (CHEM 351 with Concurrency)

### **CHEM 362 Research Methods in Chemistry**

#### **Credit Hours: 1**

This course prepares students for the independent research in one of the areas of chemistry including multidisciplinary research. The course will be presented by chemistry faculty in the form of workshops covering material relevant to chemistry-related research. Topics include laboratory safety, literature searching, retrieval and citation methods, data acquisition, handling, and treatment methods, special software used in chemistry research, research ethics, and scientific writing skills. Students will prepare and present a proposal for their intended research project.

### **CHEM 365 Forensic Chemistry**

#### **Credit Hours: 3**

Theory and methods for scientific investigation of physical evidence found at the scene of a crime. It demonstrates the importance of chemistry in a broader framework of its application to analyse crime scene evidence. The course further offers balanced perspective of basic concepts of chemistry in identification of individuals, both victims and suspects. The topics covered include crime scene processing, drug analysis, forensic toxicology and DNA analysis.

Prerequisite:

CHEM 209 OR ( CHEM 217 AND CHEM 218 )

### **CHEM 375 Industrial Chemistry I**

#### **Credit Hours: 3**

This course is an introduction to industrial chemistry. It focus on the fundamental aspects of industrial chemistry. Petroleum and its products, water industry, mineral fertilizers (P-, N- and K-containing fertilizers), coal technology, rubber and synthetic plastics. It also introduces oils, fats and waxes, as well as other inorganic

solids as (Enamel and Ceramics). Industrial gases are also covered.

Prerequisite:

(CHEM 209 OR CHEM 211 OR CHEM 217) AND CHEM 241

### **CHEM 377 Materials Chemistry**

#### **Credit Hours: 3**

The course will provide a broad perspective of the various contributions of chemistry to the development of functional materials. The primary emphasis is on the synthesis, structures, and properties of advanced materials, focusing on a range of topics with current societal importance such as colloidal systems, surfactants, polymers, and self-assembled monolayers. Novel topics of molecular electronics, nanotubes, fuel cells, catalysts, metals, semiconductors, superconductors, and magnetism.

Prerequisite:

CHEM 212 OR CHEM 310 AND CHEM 222

### **CHEM 391 Advanced Biochemistry**

#### **Credit Hours: 3**

In this course a special focus will be set on common biochemistry principles. How the genetic information is stored, mechanism of DNA binding and modification by proteins and enzymes, Gene regulation, thermodynamics and kinetics of ligand binding to proteins, enzyme catalysis, metabolism and description of energy production will be studied. The lab part will be continuation of the basic biochemistry laboratory with individual research projects. Emphasis is on building the skills and intellectual framework necessary to work in biotechnology field.

Prerequisite:

CHEM 351

### **CHEM 393 Advanced Biochemistry**

#### **Credit Hours: 2**

Topics covered in this course include protein structure and methods of protein separation and characterization; DNA structure, storage (replication, recombination and mutations) and expression (transcription and translation) of genetic information and genetic disorders; Mechanisms of enzyme catalysis and cellular signalling (fundamentals of ligand-receptor, DNA-protein, and protein-protein interactions); and bioenergetics, regulation; and integration of major metabolic and signal transduction pathways.

Prerequisite:

CHEM 351 AND (CHEM 394 with Concurrency )

**CHEM 394 Advanced Experimental Biochemistry****Credit Hours: 1**

This is an advanced biochemistry laboratory course with an emphasis on project based approach to learning protein and DNA techniques. The laboratory experiments will focus on protein isolation, fractionation, purification, sequencing and crystallization techniques; and application of recombinant DNA techniques to manipulate and clone DNA, DNA sequencing, gene expression, protein purification using affinity tags, and genetic polymorphism analysis.

Prerequisite:

CHEM 352 AND ( CHEM 393 with Concurrency )

**CHEM 442 Experimental Physical Chemistry II****Credit Hours: 1**

Introduction and safety. Chemical kinetics: kinetics of catalytic decomposition of  $\text{H}_2\text{O}_2$  (the rate constant, order, activation energy), alkaline hydrolysis of ester-second order reaction (Conductometric determination). Kinetics of reduction of methylene blue by ascorbic acid (Spectrophotometric method). Electrode reactions (cyclic voltammetry)  
Surface Chemistry: adsorption isotherms and fluorimetry.

Prerequisite:

CHEM 242 AND CHEM 341 Concur.

**CHEM 461 Special Topics****Credit Hours: 3**

Advanced level of study in selected areas of various disciplines. Topics such as: photochemistry, photophysics, corrosion, laser chemistry, bioinorganic chemistry, polymers, organometallic, and natural products

**CHEM 462 Research Project****Credit Hours: 3**

This course gives students the opportunity to inculcate the culture of research, develop technical and experimental skills via one-to-one supervision by a faculty member, allow an opportunity to demonstrate independence, and acquire soft skills (written and verbal) necessary to perform research in of the areas of Chemistry. Emphases will be placed on conducting research projects of inter- and multi-disciplinary nature that cross boundaries across various disciplines in chemical sciences.

**CHEM 434 Chemical Separation Techniques****Credit Hours: 3**

The course provides and in-depth understanding of the principles, instrumentation and applications of chemical separation techniques. The topics addressed include: TLC, GC, HPLC, capillary electrophoresis, and supercritical fluid chromatography. Additionally, the course addresses types of detectors utilized in these techniques and the application of chemical separation techniques in various fields such as food, pharmaceutical, and petroleum industries; forensic and medical investigations; and environmental monitoring and toxicology.

Furthermore, procedures of sample preparation, clean-up, and recovery for chromatographic analysis will be discussed.

Prerequisite:

CHEM 338

### **CHEM 435 Environmental Chemistry**

#### **Credit Hours: 3**

This course introduces the students to major topics of current interest in environmental chemistry including atmosphere, hydrosphere, and geosphere. This course is divided into 4 major parts that reflects the most pressing issues in Environmental Chemistry today: (1) Atmospheric Chemistry and Air Pollution; (2) Climate Change and Energy; (3) Water Chemistry and Water Pollution; and (4) Toxic Organic Compounds. The current major environmental problems including ozone hole; greenhouse gases; photochemical smog; and water and soil contamination will be also discussed.

Prerequisite:

CHEM 338

### **CHEM 456 Protein Engineering**

#### **Credit Hours: 3**

The protein engineering course introduces the strategies, methods and techniques used to engineer and design proteins with novel properties for scientific, medical, industrial and agricultural applications. The topics covered will include protein engineering and computational protein design methods, prokaryotic and eukaryotic protein expression systems, bioprocessing and production of enzymes/proteins of industrial interest. High throughput protein engineering platforms for selection of novel proteins and case studies of proteins that are successfully engineered as biopharmaceuticals, enzymes, biomaterials and other biotechnological applications.

Prerequisite:

CHEM 351

### **CHEM 457 Bioinformatics**

#### **Credit Hours: 3**

This course introduces the strategies (concepts and practice), methods and techniques used to in the field of bioinformatics. Topics covered include protein and DNA sequencing methods, building databases, protein DNA sequence alignments, publically available protein and DNA databases, protein and DNA data mining, gene and protein structure prediction, molecular phylogenetics, genomics and proteomics.

Prerequisite:

CHEM 351

**CHEM 463 Research Project****Credit Hours: 3**

This course gives students the opportunity to inculcate the culture of research, develop technical and experimental skills via one-to-one supervision by a faculty member, allow an opportunity to demonstrate independence, and acquire soft skills (written and verbal) necessary to perform research in of the areas of Chemistry. Emphases will be placed on conducting research projects of inter- and multi-disciplinary nature that cross boundaries across various disciplines in chemical sciences.

Prerequisite:

CHEM 362

**CHME 100 Energy for Life****Credit Hours: 3**

The course aims at developing the basic ideas of energy and their applications. It gives an overview of the main scientific principles and technologies related to conventional and unconventional energy resources. Fossil fuels (coal, oil, natural gas) are studied together with their societal and environmental impact and limitations. The course also introduces alternative energy resources, the opportunities, the technical foundations, as well as the associated risks. In particular, solar energy, wind, geothermal, and hydropower, together with various aspects of energy conservation are covered. In addition, the economic, societal and political issues related to the use of energy resources will be presented. Environmental issues related to energy such as global climate change, greenhouse gas emissions, effects on ecology and biodiversity (local-regional-global), responses to CO<sub>2</sub> build-up and mitigation technologies will be covered. Focus will be given to the Middle East region.

**CHME 201 Introduction to Chemical Engineering I****Credit Hours: 3**

The basic principles and techniques used for calculation of material balances in chemical engineering processes are introduced. The material covered involves fundamentals of material balance calculations, including reactive and non-reactive systems, formulation and solution of increasingly complex chemical engineering process problems and familiarization with physical properties and behavior of ideal and real gases.

Prerequisite:

CHEM 101 AND PHYS 191 Concur.

**CHME 202 Introduction to Chemical Engineering II****Credit Hours: 3**

Vapor-liquid equilibrium calculations for systems containing one condensable component and for ideal multi-component solutions, including bubble and dew point calculations. Forms of energy, the first law of thermodynamics, thermodynamic data, energy balance equation for closed and open systems, simultaneous material and energy balances. Balances on non-reactive systems that involve heating and cooling, compression and decompression, phase changes, mixing of liquids, and dissolving of gasses and solids in liquids. Balances on reactive systems using either the heat of reaction method or the heat of formation method.



Prerequisite:

CHME 201

### **CHME 212 Chemical Engineering Thermodynamics I**

#### **Credit Hours: 3**

Fundamental concepts. Thermodynamic properties of fluids. Equations of state. Diagrams, tables, and generalized correlations of thermodynamic properties. Work and heat. First law of thermodynamics. Heat effect. Second law of thermodynamics. Power and refrigeration cycles.

Prerequisite:

CHME 201 Concur.

### **CHME 213 Fluid Mechanics**

#### **Credit Hours: 3**

Fluid statistics. Viscosity of fluid and type of flow. Mass, energy, and momentum balance. Bernoulli's equation. Pressure and Flow measurements. Potential flow. Fluid friction in pipes and fittings. One – dimensional gas flow. Pump and compressor design. Flow in packed beds and Ergun equation. Fluidization. Introduction to gas-liquid flow. Surface forces.

Prerequisite:

CHME 201 Concur.

### **CHME 311 Heat Transfer**

#### **Credit Hours: 3**

Conduction, convection and radiation. Insulation and fins. Thermal boundary layer and turbulence. Empirical relations for convection. Heat transfer for various geometries. Boiling and condensation heat transfer. Heat exchanger design.

Prerequisite:

CHME 202 AND GENG 300 Concur. AND CHME 213

### **CHME 312 Chemical Engineering Thermodynamics II**

#### **Credit Hours: 3**

Non-ideal behavior in systems of variable composition. Calculation of thermodynamic energy functions. Residual properties. Partial properties. Thermodynamic property tables and diagrams. Fugacity and fugacity coefficients. Heat effects of mixing. Excess properties and activity coefficients. Introduction to Vapor-liquid equilibria. Phase equilibria at low- to moderate-pressures. Dew point, bubble point and flash calculations. Chemical reaction equilibria. Equilibrium constants and dependence on temperature. Calculation of equilibrium conversions for single and multi-reactions

Prerequisite:

CHME 212

**CHME 313 Mass Transfer I****Credit Hours: 3**

Molecular mass transfer. Estimation & measurement of diffusion coefficient. Analogies among mass, heat, & momentum transfer. Turbulence effects. Correlations for mass-transfer coefficients in laminar & turbulent flow. Interface mass transfer, Continuous two-phase transport. Design of absorption and stripping columns. Adsorption. Drying.

Prerequisite:

CHME 311 Concur.

**CHME 314 Chemical Reaction Engineering****Credit Hours: 3**

The rate of reaction, interpretation of kinetic data, batch reactors, continuous flow reactors, design equations for batch and flow reactors, reactors in series, the reaction rate constant, the reaction order, elementary, non-elementary, reversible, irreversible and multiple reactions, reactor sizing, volume change with reactions, isothermal and non-isothermal reactor design, pressure drop in reactors, unsteady state operation of reactors.

Prerequisite:

CHME 202 AND CHME 212

**CHME 315 Mass Transfer II****Credit Hours: 3**

Distillation, liquid-liquid extraction and leaching. Humidification. Crystallization.

Prerequisite:

CHME 313

**CHME 324 Fluid Mechanics and Heat Transfer Lab****Credit Hours: 1**

Experiments in fluid flow and heat transfer: Frictional pressure losses in pipes & fittings, Pump performance, Convection, and Double pipe and Shell & tube heat exchangers.

Prerequisite:

CHME 311 Concur.

**CHME 325 Unit Operations Lab****Credit Hours: 1**

Experiments in mass transfer and separation processes: drying, humidification, gas absorption, molecular diffusion in gases, batch and fractional distillation. One experiment on fixed and fluidized bed.

Prerequisite:

CHME 313

**CHME 327 Computer Methods in Chemical Engineering**

**Credit Hours: 1**

The aim of the course is to introduce simulation tools for analysis, planning and management of chemical processes. Students will attain knowledge and skills to apply advanced chemical engineering software packages (e.g., Aspen Plus/Hysys, HTRI) to conduct design and simulation of chemical processes.

Prerequisite:

CHME 315 Concur.

**CHME 361 Petroleum and Gas Technologies**

**Credit Hours: 3**

Refinery feedstock and crude oil properties, refinery products, refining processes and crude distillation, refined products blending. Natural gas processing and LNG technology. Primary petrochemical feedstock such as methane and ethylene. Petrochemical processes for the production of bulk petrochemical products such as ammonia, methanol and polyethylene. Clean fuels and Gas to Liquids technology. Emphasis will be put on environmental impact assessment of such technologies.

Prerequisite:

CHEM 275

**CHME 399 Practical Training**

**Credit Hours: 3**

Supervised eight-week training period at an approved engineering facility (consulting, contracting, industrial, government), intended to provide students with hands-on experience at the workplace. Evaluation is based on: Daily performance, supervisor's input, student's report, and a short presentation.

**CHME 405 Chemical Process Industries**

**Credit Hours: 2**

This course considers the processing of raw materials into useful products. It aims to expose students to both established and emerging industries. Energy, fuels, process utilities, water conditioning and environmental protection will be addressed. Natural gas processing (such as LNG and GTL) and petrochemical industries will be studied. Safety related to chemical process industry will also be highlighted.

Prerequisite:

CHME 313

**CHME 413 Process Modeling & Simulation****Credit Hours: 3**

Mathematical modeling of chemical processes. Principles of formulation of fundamental and empirical models. Steady state and dynamic models. Applications using spreadsheets and commercial simulators.

Prerequisite:

CHME 314 AND MATH 217

**CHME 421 Senior Design Project I****Credit Hours: 3**

First design course in a series of two. Introduction to process design via industrial projects. Process route selection based on relevant and realistic constraints. Development of process flow diagrams (PFDs), utilizing Simulation software and exposure to industrial safety, and P&IDs.

Prerequisite:

CHME 315

**CHME 422 Senior Design Project II****Credit Hours: 3**

Second design course focused on optimization of industrial processes using advanced integration design tools; detailed design of all major process units of a manufacturing process and economic & profitability analysis. Using computer aided software (e.g. excel and ASPEN simulation).

Prerequisite:

CHME 421 AND GENG 360 Concur.

**CHME 423 Process Control****Credit Hours: 3**

Introduction to practical and theoretical aspects of process control, process modeling, transfer functions, dynamics of open-loop systems, Control Station, feedback control system, instruments of control system, control laws (P, PI, PD and PID), block diagrams, dynamics of closed-loop systems, Stability analysis, root-locus analysis, tuning of controllers, cascade control, feed-forward control, other control schemes.

Prerequisite:

CHME 314 AND MATH 217

**CHME 426 Reaction Engineering and Process Control Lab****Credit Hours: 1**

Experiments in process control, reaction kinetics and membrane separation. Batch and flow reactors used for generating rate data. Includes the use of analog and digital control equipment.

Prerequisite:

CHME 314 AND CHME 423 Concur.

### **CHME 431 Petroleum Refining Process**

#### **Credit Hours: 3**

Origin of crude oil, introduction to exploration, drilling and production, refinery feedstock, refinery products, crude oil distillation, fluid catalytic cracking, hydrotreating, catalytic reforming, isomerization, polymerization, product blending, light end unit and other supporting processes, laboratory experiments in petroleum characterization.

Prerequisite:

CHEM 211 Concur. OR CHEM 209 Concur.

### **CHME 433 Petrochemical Technology**

#### **Credit Hours: 3**

Petrochemical industry. Raw materials. Aliphatic and aromatic petrochemicals. Petrochemicals from methane. Petrochemicals from normal paraffins. Production of olefins. Petrochemicals from aromatics. Polymerization processes. Synthetic rubber. Fibers and proteins.

Prerequisite:

CHEM 211 Concur. OR CHEM 209 Concur.

### **CHME 435 Polymer Engineering**

#### **Credit Hours: 3**

This course provides the basic building blocks of polymer science and engineering: the structure and properties of polymers; polymerization reactions; polymer solutions and molecular weight characterization; viscoelasticity and rubber elasticity; polymer processing and rheology; mechanical properties; and some special topics.

Prerequisite:

CHME 213 OR CHEM 209 Concur.) AND (CHEM 211 Concur.)

### **CHME 445 Desalination**

#### **Credit Hours: 3**

Industrial desalination processes such as multistage flash, multiple effect distillation, reverse osmosis, and electrodialysis. Technical and economic analysis of desalination processes. Water quality and analysis.

Prerequisite:

CHME 311

### **CHME 451 Introduction to Gas Engineering**

#### **Credit Hours: 3**

Characterization of natural gas. Properties of reservoir fluids. Qualitative phase behavior. Vapor-liquid equilibrium calculations. Separator selection and design. Natural gas economics. Industrial utilization.

Laboratory experiments in gas characterization.

Prerequisite:

CHME 312

### **CHME 454 Natural Gas Treatment**

#### **Credit Hours: 3**

The course presents an overview of the natural gas industry, from wellhead to marketplace, with emphasis on gas plant operations. Physical, chemical and thermodynamic properties of natural gas. Phase behavior of natural gas. Water hydrocarbon systems. Pipelines. Major processes for gas compression, dehydration, acid gas removal and sulfur recovery. Cryogenic Processes. LNG production. Storage and transportation. Field trips to LNG plants are also involved.

Prerequisite:

CHME 312

### **CHME 455 Introduction to Biochemical Engineering**

#### **Credit Hours: 3**

This course aims to introduce main aspects of biochemical engineering. It includes application of engineering principles to biochemical processes that employ living cells or enzymes. Topics covered include basic biology and biochemistry, enzyme kinetics, microbial growth kinetics, bioreactor design and scale-up, and transport phenomena. Biological waste treatment and bioseparation applications will be addressed.

Prerequisite:

CHME 314 with concurrency

### **CHME 458 Process Safety and Hazards Prevention**

#### **Credit Hours: 3**

This course aims to establish concepts that lead to enhance process safety and hazards prevention, especially in chemical process industries. It includes application of chemical process safety principles, risk assessment and management, hazard and operability analysis, chemical engineering principles for risk reduction, industrial hygiene, and hazard identification. Case studies and term projects will be used to enhance students' mastering of these principles.

Prerequisite:

CHME 312

### **CHME 462 Pollution Control**

#### **Credit Hours: 3**

Characteristics and composition of industrial wastes, sampling and methods of analysis of industrial wastes, and remedial measures for treatment, in-plant conservation, material, reclamation, recycling and disposal, NOX,

SOX and global warming, Membrane separation, waste identification, water treatment.

Prerequisite:

CHEM 102

### **CHME 464 Wastewater Treatment**

#### **Credit Hours: 3**

This course aims to provide an overview of the engineering approach to wastewater treatment systems. It starts with a basic description and understanding of the principle unit operations and processes used in the treatment of wastewaters. Physical, chemical, and biological processes are presented, including sedimentation, filtration, biological treatment, disinfection, and sludge processing. It will extend to understanding the kinetic theory of biological growth, applying it to typical aerobic processes, and appreciating the purpose and practice of sludge treatment.

Prerequisite:

CHME 315 with concurrency

### **CHME 466 Special Topics in Chemical Engineering I**

#### **Credit Hours: 3**

Selected topics from specialized areas of chemical engineering, aimed at broadening or deepening students' knowledge and skills. The specific contents of the course are published one semester in advance.

### **CHME 467 Special Topics in Chemical Engineering II**

#### **Credit Hours: 3**

Selected topics from specialized areas of chemical engineering, aimed at broadening or deepening students' knowledge and skills. The specific contents of the course are published one semester in advance.

### **CHME 470 Fund of Petroleum Engineering**

#### **Credit Hours: 3**

The course covers different disciplines in petroleum engineering of the upstream operation, wellbore flow performance, production behavior and reservoir management. The course incorporates external lecturers from industry, to talk about one of the major petroleum engineering disciplines, as well as a field trip to see the drilling operations and surface facilities. In addition, a term project is included, to cover different disciplines of Petroleum Engineering.

Prerequisite:

CHME 213 AND CHME 312

### **CHME 474 Process Equipment Design**

#### **Credit Hours: 3**

Material selection and mechanical design of heat exchangers, cooling towers, VLE columns, pumps/compressors, furnaces and pressure vessels. Factors influencing the design of vessels. Design of shell for



float-bottomed cylindrical vessels. Proportioning and head selection for cylindrical vessels with formed closures. Design of cylindrical vessels with formed closures operating under high pressure.

Prerequisite:

CHME 315 with concurrency

### **CHME 477 Process Integration**

#### **Credit Hours: 3**

The course introduces advances in process integration and synthesis. It presents systematic techniques to gain insight into process mass and energy flows and it shows how these insights can be used to optimize process performance. Various mathematical and visualization tools are covered. Special focus is given to integration and synthesis methods.

Prerequisite:

CHME 315 with concurrency

### **CHME 486 Corrosion Engineering**

#### **Credit Hours: 3**

Study of corrosion mechanisms and techniques used in prevention and control. Electrochemistry and its application to corrosion. Materials selection for different environments

Prerequisite:

CHEM 102

### **CHME 488 Undergraduate Research**

#### **Credit Hours: 3**

This is a research-oriented course, which is aimed at enhancing students' independent learning and research skills. A major research project in a chemical engineering topic is included. Such topics will involve theoretical, experimental or computational aspects. Students are expected to enhance and practice research skills in the assigned topic and present their results orally and in writing.

Prerequisite:

ENGL 203 AND GENG 200

### **CHME 495 Graduation Project I**

#### **Credit Hours: 1**

An in-depth study of a project of defined chemical engineering significance, based on laboratory- or computer-oriented investigations. Students work in close accord with a faculty member on a project of mutual interest. Written reports and oral presentations are required for evaluation by the department. This course gives students the opportunity to demonstrate their ability to work under minimum supervision.

**CHME 496 Graduation Project II****Credit Hours: 3**

Continuation of CHME 495 Graduation Project I: “An in-depth study of a project of defined chemical engineering significance, based on laboratory- or computer-oriented investigations. Students work in close accord with a faculty member on a project of mutual interest. Written reports and oral presentations are required for evaluation by the department. This course gives students the opportunity to demonstrate their ability to work under minimum supervision.”

Prerequisite:

CHME 495

**CMPE 261 Digital Logic Design****Credit Hours: 4**

Introduction to digital logic circuit design, combinational and sequential circuits. TTL logic family; combinational logic design; logic minimization techniques; logic implementation techniques for ROM, RAM, EPROM, and PLDs, flip flops; sequential logic design, state diagrams, logic minimization; registers and counters; synthesis and analysis of sequential machines. The laboratory provides experiments examining logic devices and circuits, and a final design project.

Prerequisite:

CMPS 205

**CMPE 263 Computer Architecture & Organization I****Credit Hours: 3**

Higher-level concepts in computer architecture. Data representation; classic components of a computer; performance measures for computers; CPU types, design, organization, instruction-level description; processor programming, register transfer languages, addressing modes, assembly language; main and cache memory, caching techniques.

Prerequisite:

CMPS 205 AND (CMPS 151 OR GENG 106)

**CMPE 355 Data Communication and Computer Network I****Credit Hours: 4**

Concepts and principles underlying data communication networks including TCP/IP protocol suite and OSI model, digital and analog conversions, multiplexing and spread spectrum. Transmission impairments, Ethernet, network layer protocols, IP addressing and submitting, UDP and TCP transport protocols, and application layer protocols. The laboratory provides hands-on experience in designing, simulating, configuring, and troubleshooting small-to-medium size networks.

Prerequisite:

CMPS 303 AND CMPE 263

**CMPE 363 Computer Architecture & Organization II****Credit Hours: 3**

Fundamentals of computer organization. Central processing unit organization; hardwired control; arithmetic logic unit design and implementation; micro- programmed control, interrupts; instruction cycle and format, addressing modes; buses, pipelining, instruction-level parallelism; input/output system design; external storage.

Prerequisite:

CMPE 263 AND CMPE 261

**CMPE 364 Microprocessor Based Design****Credit Hours: 4**

This course focuses on microprocessor hardware and software for embedded systems, CPU organization, Assembly programming language, Instruction Set Architecture (ISA), memory access, and programmable I/O peripherals. It also includes Hands-on lab to design, build and test embedded systems using latest microprocessor technology, development frameworks and tools.

Prerequisite:

CMPE 363

**CMPE 370 Computer Engineering Practicum****Credit Hours: 1**

Introduction to hands-on broad hardware techniques and specific hardware skills useful for computer engineers. Circuit construction through soldering; personal computer hardware troubleshooting; project implementation using digital signal processing kits or advanced controller kits; embedded reverse engineering approaches; discrete component-based analog/digital circuits; programmable hardware designs.

Prerequisite:

CMPE 261 AND ELEC 231 AND ELEC 201

**CMPE 457 Data Communication & Computer Networks II****Credit Hours: 3**

Builds upon fundamental knowledge and concepts addressed in the “Data Communications and Computer Networks I” course. Signal modulation, coding techniques; wireless transmission; radio frequency, multiplexing, circuit and packet switching, medium access control; interior and exterior routing protocols, autonomous systems, link state routing; IPv6 address space, transmission methods from IPv4 to IPv6; network and internet security, VPN, cryptography, encryption schemes, firewalls, intrusion detection; congestion control, quality of service; protocols for network management; network socket programming.

Prerequisite:

CMPE 355 OR CMPE 455

**CMPE 462 Computer Interfacing**

**Credit Hours: 3**

Review of basic components in computer interfacing with real-world applications in graphical programming environments representing complete dataflow logic. Sensors; signal conditioning circuits; analog-digital converters; actuators; serial and parallel data interfacing with personal computers.

Prerequisite:

CMPE 364

**CMPE 470 Modern Computer Organization****Credit Hours: 3**

Discussion of current trends and future directions in computer organization highlighting various hardware and software techniques designed to maximize parallelism and improve performance within technological constraints. Non-von Neumann architectures; performance/cost enhancement techniques; cache memory, bus architecture, memory interleaving, pipelining, super-pipelining, super-scaling, vector computing, parallel organization; discussion of current research and publications in computer organization.

Prerequisite:

CMPE 363

**CMPE 471 Selected Topics in Computer Engineering****Credit Hours: 3**

Selected topics in the field of computer engineering addressing new trends and practical issues.

**CMPE 472 Performance Evaluation****Credit Hours: 3**

Introduction to performance analysis and evaluation. Modeling and evaluation of computer systems; Markov processes and chains; single and network queues; concurrent process modeling.

Prerequisite:

GENG 200

**CMPE 474 Artificial Neural Networks****Credit Hours: 3**

Introduction to theory, architecture, and applications of artificial neural systems; Supervised, unsupervised, and reinforcement learning in single and multiple layer neural networks; Associative neural memory recording and retrieval dynamics; Self-organizing maps; Learning capacity and generalization; Hardware implementations.

Prerequisite:

MATH 217

**CMPE 476 Digital Signal Processing****Credit Hours: 4**

Overview of continuous and discrete signal processing with hands-on algorithmic implementation of various signal transforms and other operators for generalized applications. Analog to digital conversion methods; sampling theory, discrete Fourier transform, fast Fourier transform, z-transforms; signal sampling and reconstruction; digital filters, correlation, spectral estimation. The laboratory provides practical experience in the implementation of digital signal processing algorithms using standard kits.

Prerequisite:

ELEC 351

**CMPE 480 Computer Vision****Credit Hours: 3**

Introduction to the basic concepts and techniques of computer vision focusing on reconstruction of 3D models from 2D still images and video. Image formation, segmentation; camera calibration, motion and object recognition; use of image processing tools.

Prerequisite:

CMPS 251

**CMPE 481 Modeling and Simulation of Digital Sys****Credit Hours: 3**

Advanced concepts in digital logic design using language tools to describe digital logic systems at different levels of abstraction and simulation. Programmable logic devices; designing with field programmable gate arrays; synchronous and asynchronous sequential logic circuits.

Prerequisite:

CMPE 261

**CMPE 483 Introduction to Robotics****Credit Hours: 3**

Use of robotics kits, robot assembly, familiarization with the basic concepts of sensing, actuation, and robotic intelligence. Basic robotic sensors; actuation functions; embedded robotic task-related intelligence levels; capstone project and report presentation.

Prerequisite:

CMPE 261 AND CMPS 151

**CMPE 385 Fundamentals of Digital Image processing****Credit Hours: 3**

Introduction to various mathematical and algorithmic concepts in digital image processing and hands-on implementation using simulated environments. Hands-on approach to image operations; filtering, de-

convolution, edge detection, geometric transformations, compression, conversions.

### **CMPE 487 Hardware Software Co-Design**

#### **Credit Hours: 3**

A knowledge of how to design reliable and real-time embedded systems is a very important asset of today's computer engineer, particularly for the design of heterogeneous and SoC embedded platforms using hardware (HW) software (SW) co-design approaches. This course will emphasize on the integration of custom hardware components with software. Topics to be covered are: Embedded systems design, reconfigurable computing, heterogeneous SoC platforms (FPGA, ARM), HW/SW co-design techniques, hardware compilation, Tools for HW/SW co-design.

Prerequisite:

ELEC 351

### **CMPE 488 Wireless Network & Applications**

#### **Credit Hours: 3**

Fundamentals of radio transmission including an overview of wireless networks, cellular networks, wireless LANs, Bluetooth, satellite systems, WiMAX, and LTE. Multiplexing, circuit and packet switching; fundamentals of evolution, medium access control, network architecture, protocols; mobile applications, handset platforms, service delivery platforms.

Prerequisite:

CMPE 355 OR CMPE 455

### **CMPE 495 Independent Study**

#### **Credit Hours: 3**

Guided reading of selected topics exploring advanced topics in computer engineering. Topics and credit hours vary.

### **CMPE 498 Design Project I**

#### **Credit Hours: 3**

The first phase of the capstone design project involving number of students tackling different aspects of a hardware and/or software project. It includes problem definition, requirements gathering and analysis, identification of appropriate engineering standards and real-life design constraints (e.g., economic, environmental, social, ethical, health and safety, manufacturability, and sustainability), defining an architecture of the proposed solution, preparing an implementation project plan, and compiling all in a well-formulated interim report and orally presenting it to the examining committee.

Prerequisite:

CMPE 370 Concur.

**CMPE 499 Design Project II****Credit Hours: 4**

The implementation phase of the capstone design project. It includes the design, implementation and testing of the solution that was selected in CMPE498. This culminates in producing a working prototype, documenting the design solution and process, and presenting the project achievements. The primary objective of this course is to apply a systematic design process while incorporating appropriate engineering standards and addressing multiple realistic design constraints such as economic, environmental, social, ethical, health and safety, manufacturability, and sustainability.

Prerequisite:

CMPE 498

**CMPS 101 Introduction to Computer Science****Credit Hours: 3**

Fundamental concepts of computer systems organization, logic, and algorithmic problem solving. Lab session: problem solving with fundamental components of a modern programming language.

**CMPS 151 Programming Concepts****Credit Hours: 3**

Problem solving techniques such as pseudo-code or flowcharts, algorithmic thinking. Basic programming concepts including variables, arithmetic and logical operations, input/output, conditional statements, loops, arrays, functions, and file processing. The laboratory provides a practical programming experience.

**CMPS 185 Fundamentals of Cybersecurity****Credit Hours: 3**

This course introduces the basics of cyber security. It provides an overview of authentication, authorization, best-practices password, data integrity, common cyber threats, cyber-attacks, the key concepts of cybersecurity for protecting devices and information from cyber-attacks, detecting malware, identifying phishing, social engineering tactics, common protection mechanisms, software updates, symmetric and asymmetric cryptography, internet security, personal security, privacy, and Qatar cybersecurity laws.

**CMPS 200 Computer Ethics****Credit Hours: 1**

Overview of computing ethics and practice. Philosophical ethical theory and morality; codes ethics and professional practice; cyber and computer crimes; whistle blowing; privacy and freedom of expression; legal and ethical issues; intellectual property and rights; safety-critical program development; ethics and the marketplace.

**CMPS 205 Discrete Structures for Computing****Credit Hours: 3**

Introduction to the elements of mathematics applicable to the computing field. Logic and methods of proof; logic gates; Boolean algebra



and minimization; set theory; relations and functions; sequences and sums; induction; numbering systems and combinatorics.

### **CMPS 251 Object-Oriented Programming**

#### **Credit Hours: 4**

Fundamentals of object-oriented programming, object-oriented design, apply object-oriented concepts such as abstraction, encapsulation, composition, inheritance, polymorphism, and interfaces. Graphical user interface and event-driven programming; exception handling; additional object-oriented features. The laboratory provides practical object-oriented programming experience.

Prerequisite:

CMPS 151 OR GENG 106

### **CMPS 303 Data Structures**

#### **Credit Hours: 4**

Fundamental data structures and algorithms and their efficient implementation and application to problem solving. Linked lists, stacks, queues, hash tables, trees and graphs. Develop and analyze iterative and recursive algorithms such as searching and storing algorithms. The laboratory provides practical experience with data structures and algorithms.

Prerequisite:

CMPS 251 OR CMPE 265

### **CMPS 307 Introduction to Project Management and Entrepreneurship**

#### **Credit Hours: 2**

Introduction to entrepreneurship, and elements of business management with emphasis on managing software and information and communication technologies projects. Concepts of project management; project plan development, progress tracking, staffing, leadership, conflict resolution; organization, costs, risks, control; entrepreneurship, basics of owning and operating a business, business plan development for starting and financing a small business.

### **CMPS 310 Software Engineering**

#### **Credit Hours: 4**

Fundamental concepts, principles and techniques for cost-effective engineering of quality software. Software process models, requirements specification, domain analysis, software design and modeling of structural and behavioral aspects of a software system using a common modeling language, implementation, testing and software project management. The laboratory provides practical experience with software engineering and supporting tools.

Prerequisite:

CMPS 251

**CMPS 312 Mobile Application Development****Credit Hours: 3**

Concepts, principles, design strategies, tools and frameworks to design and develop mobile applications on modern mobile platforms that make use of key mobile sensors and system services and connect to online data sources and Web services. Hands on experience in designing and constructing mobile apps using a mainstream development platform and framework such as Android or iOS.

Prerequisite:

CMPS 251

**CMPS 323 Design and Analysis of Algorithms****Credit Hours: 3**

Analysis, design, and efficiency of algorithms illustrated by a comprehensive exposure to fundamental algorithms and various adopted techniques to solve different types of problems. Analysis of sorting, searching, and other algorithms; designing algorithms using techniques for problem-solving such as greedy methods, divide-and-conquer, backtracking, dynamic programming, and branch-and-bound techniques; complexity of algorithms.

Prerequisite:

CMPS 303 AND CMPS 205

**CMPS 350 Web development Fundamentals****Credit Hours: 3**

Concepts, protocols and enabling technologies related to the development of modern web applications. Fundamentals of designing and developing dynamic and interactive web applications using HTML and related standards, scripting languages, client-side and server-side programming. Hands-on Lab to design and develop Web applications.

Prerequisite:

CMPS 251

**CMPS 351 Fundamentals of Database Systems****Credit Hours: 4**

Fundamentals database concepts, architectures, principles and techniques. Data modeling, relational database design and normalization. Query notations and languages including relational algebra, relational calculus and SQL. Database security. Hands-on Labs in modeling and implementing database applications using modern technologies.

Prerequisite:

CMPS 251

**CMPS 356 Web Application Design and Development****Credit Hours: 3**

This course focuses on the principles, architectures, and technologies for designing and developing modern web applications using client-side and server-side frameworks, web access to data sources and cloud services, development and integration of web services. It also includes Hands-on lab using latest web development frameworks and tools to design, implement, test, deploy, scale, and secure web applications.

Prerequisite:

CMPS 350

**CMPS 360 Data Science Fundamentals****Credit Hours: 3**

Fundamental data science algorithms, methods and tools for analyzing data to effectively solve a broad set of data analysis problems and derive valuable insights from data. Including data collection and integration, data cleaning, various analytical approaches including exploratory data analysis, prediction models, statistical analytics, and data visualization. Acquiring a working knowledge of data science through hands-on projects on real datasets using common Data Science application development tools.

Prerequisite:

CMPS 351

**CMPS 373 Computer Graphics****Credit Hours: 3**

Fundamental concepts of computer graphics illustrated with programming applications using a graphics package or tool. Graphics systems types, architectures and graphical objects; applications of computer graphics; graphics programmer's interface; designing and rendering 2D and 3D graphical objects (geometric transformations, viewing, shading, discrete techniques, buffers and mappings).

Prerequisite:

CMPS 303

**CMPS 381 Applied Cryptography****Credit Hours: 3**

Introduction to cryptography, its mathematical foundations, and its applications to secure data and systems. Cryptographic primitives such as symmetric encryption, asymmetric encryption, hashing, message authentication codes, digital signatures and cryptographic protocols. Modern applications of cryptography.

Prerequisite:

CMPS 205

**CMPS 385 Computer Security****Credit Hours: 3**

Fundamentals of information security. Risks and vulnerabilities, controls and protection methods, cryptography, authentication, host-based and network-based security issues, privacy, legal and ethical implications.

**CMPS 393 Modeling & Simulation****Credit Hours: 3**

Fundamentals of studying systems by modeling and simulation focusing on developing discrete-event simulations. Reasons for simulation, basic simulation modeling; systems modeling; developing discrete-event simulations; queuing models; random number generators, generating random varieties; analysis of simulation data; verification and validation of simulation models

Prerequisite:

CMPS 303 AND GENG 200

**CMPS 399 Practical Training****Credit Hours: 3**

Supervised eight-week training period at an institution (Business, industrial, government), intended to provide students with hands-on experience at the workplace. Evaluation is based on: Daily performance, supervisor's input, student's report, and a short presentation.

**CMPS 403 Artificial Intelligence****Credit Hours: 3**

Fundamental concepts of artificial intelligence, logic, and knowledge representation with associated algorithms and techniques supported by logic programming applications. Motivation for logic and knowledge representation by horn clauses; logic and propositional equivalencies; predicates and quantifiers; matching, backtracking, forward and backward chaining; logic programming applications.

Prerequisite:

CMPS 303

**CMPS 405 Operating Systems****Credit Hours: 4**

Fundamental concepts of operating system design and implementation. Operating system components, concurrency, process management and inter-process communication, process synchronization, deadlock, scheduling algorithms, memory management, input/output and file systems, protection and security. The laboratory provides practical experience on major operating system concepts.

Prerequisite:

CMPS 303 AND CMPE 263

**CMPS 433 Multimedia Systems****Credit Hours: 3**

Learn of analog and digital representation of information and the concept of digitization. Study about various types of multimedia objects and their characteristics, formats, and associated algorithms for text, images, graphics, audio, and video. Fundamentals of data compression, animation, and human-computer interaction. Gain hands-on experience on manipulation of multimedia objects with programming.

Prerequisite:

CMPS 350

**CMPS 434 Game Design and Development****Credit Hours: 3**

Concepts, principles, design strategies and tools to design and develop digital games with interactivity, animation, sound and visual effects and networking capabilities. Introduce and practice the game design process including core mechanics, storytelling, game play, game balancing and level design. Hands on experience implementing a game using a standard game engine, including creating game characters and objects, 3D modeling and animation, use of physics, interaction and interface design, basics of lighting, creating visual effects.

Prerequisite:

CMPS 251

**CMPS 445 Compiler Construction****Credit Hours: 3**

Theoretical and technical aspects needed to construct compilers and interpreters illustrated by a comprehensive study of the design and implementation for a mini language. Fundamentals of compilers and interpreters; syntactic and lexical analysis; handling user-defined types and type checking; context analysis; code generation and optimization; memory management and run-time organization.

Prerequisite:

CMPS 303

**CMPS 451 Database Management Systems****Credit Hours: 3**

Management of operations of internal components and advanced features of database systems and a study of various database types. Transaction management, concurrency control; security; optimization; object-oriented and distributed databases; data warehousing and mining; current developments in database technology; integration of databases to internet environments.

Prerequisite:

CMPS 351

**CMPS 453 Data mining****Credit Hours: 3**

Principles concepts of data mining techniques and their practical application in pattern recognition and knowledge discovery from large data sets. Fundamental strategies and methodologies of various classification, clustering, association rules extraction algorithms applied on tabular data sets. Hands-on experience with a variety of different data mining tools.

Prerequisite:

GENG 200 AND CMPS 351

**CMPS 460 Machine Learning****Credit Hours: 3**

Fundamental principles of machine learning, supervised learning, unsupervised learning, instance-based learning, decision tree induction, Bayesian inference, support vector machines, multi-layer neural networks, and performance evaluation of machine learning algorithms. Hands-on experience with implementing machine learning applications.

Prerequisite:

GENG 200 AND CMPS 303

**CMPS 465 Parallel Computing****Credit Hours: 3**

Fundamental concepts and practical aspects underlying the design and engineering of modern parallel computing systems including system models and enabling technologies, parallel architectures, parallelization strategies, parallel algorithms and their applications, optimization and performance, implementation frameworks and languages, programming models and design principles for parallel and distributed computing. Students acquire hands-on experience in the design and development of parallel and distributed computing systems.

Prerequisite:

CMPS 405

**CMPS 466 Information Retrieval****Credit Hours: 3**

Fundamental aspects of classical information retrieval techniques, strategies, and future trends. Web information storage and presentation schemes; web- based and online retrieval systems; search strategies; indexing, evaluation, ranking of search results; search engines, web crawling, meta-searchers; centralized and distributed architectures; semi-structured data models; merging technology; query languages for semi-structured data.

Prerequisite:

**CMPS 303****CMPS 481 Enterprise Cybersecurity****Credit Hours: 3**

Enterprise cybersecurity principles and practices, threat models, security risk assessment, cyber threat intelligence. Designing, implementing and managing enterprise security program to protect enterprise assets and systems by integrating technical controls with policies, incident response, cybersecurity governance, best practices, and standards of cybersecurity.

Prerequisite:

CMPS 385

**CMPS 482 Cyber Physical Systems Security****Credit Hours: 3**

Principles and practices to secure various types of cyber-physical systems including industrial control systems and IoT (Internet of Things) solutions. Tools and techniques used to compromise cyber-physical systems. Fundamental security primitives for protecting cyber-physical systems.

Prerequisite:

CMPS 385

**CMPS 483 Digital Forensics****Credit Hours: 3**

Principles and practices of digital forensics. Cybercrime, digital investigation, forensic acquisition, data recovery, digital evidence, forensic imaging, and state of the art forensics techniques and tools. Digital forensics legal and ethical implications.

Prerequisite:

CMPS 385

**CMPS 485 Network Security****Credit Hours: 3**

Network security principles and practices. Network vulnerability assessment, common attacks against network protocols and services. Wireless, TCP/IP and application layer security. Network security defense including secure network design, network authentication protocols, intrusion detection, firewalls, Virtual Private Networks (VPN) and network security policies.

Prerequisite:

CMPE 355 OR CMPS 381



**CMPS 489 Special Topics in Cybersecurity****Credit Hours: 3**

Specialized or emerging cybersecurity topics. Topics vary.

**CMPS 493 Senior Project I****Credit Hours: 3**

The first phase of the computer science capstone project that involves number of students tackling different aspects of applied research and/or development project requiring significant effort for planning and completion. Team members experience different roles and gain range of diverse technical skills in all phases of the project development. This first part focuses on problem definition, requirements gathering and analysis, defining a high level architecture of the proposed solution, preparation of a project plan for implementing and completing the project, compiling all in a well-formulated interim report and orally presenting it to the examining committee.

**CMPS 497 Special Topics in Computing****Credit Hours: 3**

Selected topics in computing concerning content not normally covered in the formal curriculum. Topics vary

**CMPS 499 Senior Project II****Credit Hours: 3**

Continuation of the capstone senior project started in CMPS 493 course. It includes detailed design, implementation and testing following a systematic development process while incorporating appropriate design and development principles and standards. This culminates in producing a working solution and a formal final report, and presenting the project achievements including a demo.

Prerequisite:

CMPS 493

**CVEN 210 Properties & Testing of Materials****Credit Hours: 3**

Composition and properties of Portland Cements, special cements, gypsum, lime, and asphaltic materials. Properties and testing of aggregates and concrete. Concrete mix design. Use of stones, blocks and bricks. Ferrous and nonferrous metals. Wood.

The laboratory component includes: tests on Portland cement, sieve analysis and grading of aggregate, specific gravity and absorption of coarse aggregate, Los Angeles abrasion test, slump test, measurement of air content, concrete mix, crushing of concrete cubes, split-tension test, rebound hammer and PUNDIT

Prerequisite:

CHEM 101 AND CHEM 103

**CVEN 212 Fluid Mechanics****Credit Hours: 3**

Elementary mechanics of fluids with emphasis on hydrostatics, control volume analysis of flowing fluids using kinematics, continuity, energy, and momentum principals; similitude, pipe flow.

Prerequisite:

PHYS 191 AND PHYS 192 AND (CVEN 213 OR CVEN 211 )

**CVEN 213 Statics****Credit Hours: 3**

General principles of statics, force vectors in two and three dimensions, force system resultants, free body diagrams, equilibrium of a particle, moment of a force about a point and about an axis, equilibrium of a rigid body, introduction to structural analysis, internal forces, shear and bending moment diagrams, introductory truss analysis, friction, center of gravity and centroid, moments of inertia.

Prerequisite:

MATH 102

**CVEN 214 Strength of Materials****Credit Hours: 3**

Stress, strain, mechanical properties of materials, Hooke's law, axial load, stress due to temperature, introduction to statically indeterminate members, axial load and axial stress, torsion and torsional stress, pure bending and bending stress, transverse shear and shear stress, combined loadings and stresses, stress transformation, introduction to buckling of columns.

Prerequisite:

CVEN 213

**CVEN 220 Analysis of Structures****Credit Hours: 3**

Type of loads. Stability and determinacy of structures. Analysis of determinate trusses, beams, and frames. Reaction computation. Axial force, shear force and bending moment diagrams. Deflection calculations by geometric methods and virtual work methods. Influence lines for determinate structures. Arches and cables. Introduction to statically indeterminate structures.

Prerequisite:

CVEN 213 OR CVEN 211

**CVEN 230 Geotechnical Engineering****Credit Hours: 3**

Soil Composition, soil-water system, classification of soil, permeability and seepage, stress distribution in soil, compressibility of soil, settlement analysis for shallow foundations, shear strength of soil.

The laboratory component includes visual inspection, sieve and hydrometer analyses, Atterberg limits, constant and falling head permeability, compaction, field density, one-dimensional consolidation, direct shear, triaxial, and unconfined compression testing.

Prerequisite:

CVEN 213 OR CVEN 211

### **CVEN 270 Surveying for Construction**

#### **Credit Hours: 3**

Introduction to Surveying and Geomatics. Measurements and Units. Theory of Errors. Vertical Distance Measurements: Types of Leveling, Differential Leveling procedures and computations, Profiles and Cross-Sections. Horizontal Distance Measurement: Taping and Electronic Distance Measurements. Horizontal and Vertical Angle Measurements. Theodolites and Total Station. Traverse Computations and Adjustments. Areas and Volumes Calculations. Mapping & Computer-Aided Survey. Setting out Construction Sites. Introduction to GIS.

Prerequisite:

MATH 101

### **CVEN 320 Design of Reinforced Concrete Members**

#### **Credit Hours: 3**

Relationship between the architectural plan and the structural system, Reinforced concrete material characteristics, Load determination and distribution, Flexural analysis and design of beams, Flexural analysis and design of one-way slabs, Shear design of beams, Design of short columns subjected to concentric and eccentric loading, Serviceability, bond and development length.

Prerequisite:

CVEN 220 AND (CVEN 214 OR CVEN 211)

### **CVEN 321 Analysis of Indeterminate Structures**

#### **Credit Hours: 3**

Analysis of indeterminate structures by the force method, slope deflection, and moment distribution. Deflection of indeterminate structures. Introduction to matrix analysis of structures: trusses, beams, and frames.

Prerequisite:

CVEN 220

### **CVEN 330 Foundation Engineering I**

#### **Credit Hours: 3**

Subsurface investigation (planning, boreholes, open and test pits, soil sampling, rock coring, visual inspection, SPT, CPT, vane shear test, plate load test, field permeability test, geophysical test methods, exploration report), soil bearing capacity for shallow foundations, lateral earth pressure, stability of retaining walls, introduction to

deep foundations, computer application.

Prerequisite:

CVEN 230 AND (CVEN 214 OR CVEN 211)

### **CVEN 340 Analysis and Design of Hydraulic Systems**

#### **Credit Hours: 3**

Applications of fluid mechanics to engineering and natural systems, including closed-conduits and pipe networks, open channel flow, turbo machinery, and hydrology.

Prerequisite:

CVEN 212

### **CVEN 342 Water Resources and Management**

#### **Credit Hours: 3**

An introduction to basic concepts and issues of water resources management, emphasizing on water law and rights, water resource planning, institutional and organizational arrangements, sustainable water resources development. Case studies illustrate the role of political, social, economical, and environmental factors in decision making. Physical properties of groundwater and aquifers, principals and fundamental equations of porous media flow and mass transport, well hydraulics and pumping test analysis, role of groundwater in the hydrologic cycle.

Prerequisite:

GEOG 442

### **CVEN 350 Environmental Engineering**

#### **Credit Hours: 3**

Introduction to water pollution, air pollution, soil contamination, noise, hazardous and solid waste, and their control. Environmental impact statements and global pollution issues. Introduction to groundwater engineering. Waste water management and sanitary engineering.

Prerequisite:

CVEN 212 AND CHEM 103 AND CHEM 101

### **CVEN 352 Waste Management**

#### **Credit Hours: 3**

Physical, biological and chemical water quality parameterization and measurements, wastewater generation and collection, biological wastewater treatment and reuse, industrial wastewater treatment, solid waste management, remediation of contaminated soil, groundwater remediation, hazardous waste.

Prerequisite:

GEOG 442

### **CVEN 360 Highway Engineering**

#### **Credit Hours: 3**

Introduction to highway engineering. Functional classification of the highway system. Driver and vehicle characteristics. Traffic characteristics. Grades and sight distance. Design speed. Design specifications for cross section elements. Geometric design of highways; horizontal and vertical alignment design. Intersection design for at-grade intersections.

Prerequisite:

CVEN 270

### **CVEN 380 Construction Engineering**

#### **Credit Hours: 3**

Topics covered in this course are: introduction to the construction industry, management processes, time & cost processes, project budgeting, management of construction equipment, safety of construction sites, legal aspects in construction and construction claims. Introduction to computer applications in construction engineering.

Prerequisite:

CVEN 320

### **CVEN 381 Contracts, Specifications, and Local Regulations**

#### **Credit Hours: 3**

Law of contracts; formation principles. Performance of breach of contract obligation. Termination of agreement; pre-qualification. Contracts for construction and engineering services. Specifications. Professional liability; insurance and bonds. Water rights. Environmental law. Arbitration of disputes. Local regulations.

Prerequisite:

CVEN 380 Concur.

### **CVEN 399 Practical Training**

#### **Credit Hours: 3**

Supervised 8-week training period at any approved engineering concern (consulting, contracting, industrial, government), intended to provide students with hands-on experience in the workplace. Evaluation is based on daily performance, supervisors' input, student's report, and a short presentation

### **CVEN 401 Civil Engineering Design Project I**

#### **Credit Hours: 2**

Understanding a design problem and the overall context. Acquiring the necessary knowledge from other courses. Defining the general requirements. Identifying the specific project objectives and deliverables. Preparing an effective project schedule and developing the project tasks. Exploring different options for design and conducting preliminary information gathering/data collection/analyses on these options. Defining clear

evaluation criteria and evaluating the different options accordingly. Deciding on the best design option based on the evaluations. A final report and a group presentation are required

### **CVEN 402 Civil Engineering Design Project II**

#### **Credit Hours: 3**

Performing detailed analyses on the design option chosen. Undertaking the detailed design process. Incorporating and evaluating multiple realistic constraints, i.e., ethical, economic, environmental, and safety constraints. Effective use of design standards. Investigating the implementation/construction stage of the project for smooth delivery of the project. The work completion is under the supervision of faculty member(s) in addition to mentor(s) from the industry. A final report and a group presentation are required. This is a continuation of CVEN 401.

Prerequisite:

CVEN 401

### **CVEN 420 Design of Steel Structures**

#### **Credit Hours: 3**

Properties of structural steel, Steel sections, Analysis and design concepts, LRFD design concept, Design of tension members, Design of compression members, Column base plates, Design of beams with and without lateral supports, Design of members under combined axial and bending loads, Design and details of simple bolted and welded connections and an introduction to common building connections, Composite beams and columns, Introduction to plastic analysis.

Prerequisite:

CVEN 220 AND (CVEN 214 OR CVEN 211)

### **CVEN 422 Design of Reinforced Concrete Structures**

#### **Credit Hours: 3**

Analysis and design of: irregular beams, deep beams, and continuous beams. Analysis and design of two-way floor systems (solid slabs on beam and flat slabs). Analysis and design of irregular (circular, triangular and trapezoidal) slabs and cantilever slabs. Analysis and design of framed structures. Analysis and design of uniaxial and biaxial long columns. Torsional analysis and design of reinforced concrete members. Analysis and design of reinforced concrete foundations: isolated footings, wall footings, combined footing, and strap footings. Analysis and design of retaining walls.

Prerequisite:

CVEN 320

**CVEN 423 Selected Topics in Structural Design****Credit Hours: 3**

Analysis and design of pre-stressed beams, wind load calculations, use of structural analysis software for multistory buildings, introduction to structural dynamics, new developments in structural engineering.

Prerequisite:

CVEN 320

**CVEN 424 Structural Matrix Analysis****Credit Hours: 3**

Matrix Analysis of Plane Framed Structures: force method and displacement method. Formulation of stiffness and flexibility matrices. Introduction to the finite element method.

Prerequisite:

CVEN 321

**CVEN 430 Foundation Engineering II****Credit Hours: 3**

Analysis and design of deep foundations (piers, caissons, piles), stability of open cuts, stability and design of sheet-pile walls (cantilever, free and fixed earth support types, ties, wales), design of secant-pile walls, computer applications.

Prerequisite:

CVEN 330

**CVEN 431 Selected Topics in Geotechnical Engineering****Credit Hours: 3**

Stability of slopes, design of dewatering systems, characteristics of desert problematic soils (swelling soil, dune sand, salt-bearing soil "Sabkha", liquefiable sand), soil improvement methods (mechanical, chemical), description and use of geosynthetics, stability and design of reinforced-earth walls, design of liner systems for liquid containments and solid waste landfills, computer applications.

Prerequisite:

CVEN 230 AND (CVEN 214 OR CVEN 211)

**CVEN 442 Selected Topics in Water Resources****Credit Hours: 3**

An introduction to basic concepts and issues of water resources management, emphasizing on water law and rights, water resources planning, institutional and organizational arrangements, sustainable water resources development. Case studies illustrate the role of political, social, economic, and environmental factors in decision making. Physical properties of groundwater and aquifers, principals and fundamental equations of porous media flow and mass transport, well hydraulics and pumping test analysis, role of groundwater in the



hydrologic cycle.

Prerequisite:  
CVEN 340

### **CVEN 453 Selected Topics in Environmental Engineering**

#### **Credit Hours: 3**

Air Pollution Control, wastewater treatment, industrial wastewater treatment, solid waste management, remediation of contaminated soil, groundwater remediation, hazardous waste, water quality measurements, air quality measurements.

Prerequisite:  
CVEN 350

### **CVEN 460 Pavement Materials and Design**

#### **Credit Hours: 3**

Properties uses and tests of asphalt materials, Aggregate types and classification. Traffic characterization. Pavement types and infrastructure. Asphalt concrete mix design methods. Introduction to super pave systems. Flexible and rigid pavement analysis. Structural design of flexible and rigid pavements. Pavement evaluation; Serviceability concept, structural capacity and surface distresses.

Prerequisite:  
CVEN 360 AND CVEN 230

### **CVEN 461 Traffic Engineering**

#### **Credit Hours: 3**

Introduction to Traffic engineering. Characteristics of road users, vehicles, and roadways. Traffic stream characteristics. Traffic studies: Speed, volume, travel time and delay, and parking studies. Capacity and Level of service (LOS) analysis for roadways and intersections. Traffic Safety; Accident studies and analysis. Methods of intersection control. Traffic signals; Warrants for signalization, Principles of Phasing, Signal coordination, and Traffic signal design and timing.

Prerequisite:  
CVEN 360

### **CVEN 462 Selected Topics in Transportation Engineering**

#### **Credit Hours: 3**

Highway planning, Mass transit plans design and operation (bus and rail), Analysis and design of signalized intersections based on HCM2000, Traffic signal coordination, Introduction to pavement management systems, Introduction to airport engineering, New developments in transportation engineering.

Prerequisite:

CVEN 360

### **CVEN 463 Railway Track Engineering**

#### **Credit Hours: 3**

This course delivers a background knowledge about railway engineering. The course comprises: an introduction for railway engineering, problems associated with railways, types of tracks and construction techniques, characteristics and properties of ballast, characteristic of sub-ballast and ground, characteristics of other track components, loading mechanisms, alignment design, modeling a railway track as a beam on elastic foundation, degradation of tracks, inspection and assessment techniques, and maintenance of railway tracks.

Prerequisite:

CVEN 360

### **CVEN 464 Risk and Safety Management**

#### **Credit Hours: 3**

The course delivers the fundamentals of hazard identification, risk assessment and managing risks in projects with emphasis on the workplace. It also covers the risk managements processes, tools and techniques and computer applications. It also deals with laws and requirements involving worker, public and client safety practices. The course includes developing and implementing a site safety plan, pre-task planning, and site worker orientations.

Co-requisite:

MECH 471 OR CVEN 380

### **CVEN 481 Project Planning & Scheduling**

#### **Credit Hours: 3**

Introduction to Project Management Body of Knowledge (PMBOK), network methods of project planning & scheduling, such as AON, PERT, bar-charting, line-of-balance, and VPM techniques. Project compression analysis and control. Computer applications in project management. The Laboratory component of this course covers modern project management tools and techniques on the personal computer.

Prerequisite:

CVEN 380

### **CVEN 482 Selected Topics in Construction Engineering and Management**

#### **Credit Hours: 3**

Selection made from the following topics: risk management, value engineering, total quality management; concurrent engineering; material management, and procurement of construction projects, project budgeting.

Prerequisite:

CVEN 380

**DAWA 111 Islamic Culture****Credit Hours: 3**

This course seeks to strengthen the unifying identity to which all students subscribe, regardless of their academic specialties. The Course adopts a particular educational philosophy that suits its particular nature. All topics are arranged in a unifying, integrative structure that begins with defining key concepts related to culture, science and civilization. Following these preliminary clarifications, an intensive analytical material on issues related to the message of Islam, creation of man, role of the Islamic ummah, and the relationship with the other, will be presented.

**DAWA 113 Philosophy of Sirah****Credit Hours: 3**

- 1- Highlighting the personality of the Prophet (peace be upon him) in the various spheres of life.
- 2- Implanting love of the Prophet (peace be upon him) in the hearts of the students.
- 3- Expounding the Prophetic methodology in dealing with others.
- 4- Enabling the student to relate the Sirah of the Prophet (peace be upon him) with the requirements of the modern age.
- 5- Enabling the student to relate events and analyze and produce ideas.

**DAWA 114 Modern Techniques of Dawa****Credit Hours: 3**

1. Educating the student on the information and skills required for a successful life.
2. Entrenching virtues in the student.
3. Developing communications skills.
4. Encouraging the student to participate in Dawa activities in the society.
5. Introducing the student to various Dawa institutions.
6. Acquainting the student with skills for dialogue, discussions and objective reasoning.
7. Enabling the student on analyzing modern means of Dawa.

**DAWA 117 Ethics****Credit Hours: 3**

- 1- Educating the student on the centrality of ethics in the making of a human, social, cultural and civilizational makeup.
- 2- Introducing the student to the role played by ethics in preserving humanity and nature and in the right development of human beings emotionally, socially, academically and culturally as well in achievement of justice and a civil society.
- 3- Acquaint the student with essential moral qualities, its importance and benefits in life and its practical results.
- 4- Engraining in the student moral etiquettes through the exposition of the essence of morality and the ways and means to nurture it.
- 5- Acquainting the student to the characteristics of Islamic ethical values by objectively and academically comparing it with various ethical philosophies

**DAWA 202 Introduction to general Philosophy****Credit Hours: 3**

- 1- Introduce the student to the essential issues of philosophy.
- 2- Introducing the student to the most important schools of philosophy.
- 3- Introducing the student to the contribution of philosophy in the human civilization.
- 4- Enable the student to objectively interact and deal with philosophical thought.

**DAWA 203 Principles & Method of Dawa****Credit Hours: 3**

- 1- Develop an intellectually and behaviorally sound personality which eschews extremist tendencies.
- 2- Prepare a successful preacher/scholar who can contribute positively in reforming the society.
- 3- Define the characteristics, methodologies, approaches and means of prophet preaching.
- 4- Prepare a preacher/scholar abreast of modern facilities and capable of responding to with modern requirements.
- 5- Introduce the preacher/scholar to his duties towards his society and humanity at large.
- 6- Educate the student on the psychology of his audience.
- 7- Educate the student on dialogue and communication skills for Dawa work.
- 8- Assisting the student in achieving model roles from the life pattern of the Prophet (peace be upon him).

**DAWA 204 Research Methodology****Credit Hours: 3**

The objectives of the course are to provide students with:

- An introduction to research methodology and independent research skills.
- Key empirical and analytical skills that will facilitate disciplinary and interdisciplinary research in various fields.
- Improved academic writing skills, the ability to give and receive constructive feedback and to act constructively upon it.
- Effective ways of using library resources for research works

**DAWA 205 School of Islamic Thought****Credit Hours: 3**

There are three realms in which these objectives vividly manifest themselves:

1. In the field of knowledge – the student would learn:
  - the origin of the schools of Islamic thought and their spread
  - the impact of the political and social situation in conditioning the development of the thought pattern of these schools, and in turn the impact of these schools on intellectual and social life.
  - Views and concept of each school.
  - Characteristics of each school and its methodologies.
  - The guiding conceptual principles which guided the leading figures of a school.
  - The civilizational impact of these schools of Islamic thought upon the nurturing of human civilization.

All these points will have to be studied with understanding, criticism, analysis, and implementation to enable the student to appreciate the methodologies and teachings of these schools of Islamic thought.

2. In the field of skill, al-hiss al-haraki – to develop and nurture the students intellectual, cultural and academic u

### **DAWA 206 International Organizations & Human Rights**

#### **Credit Hours: 3**

- 1- Acquainting the student with the International Organisations and human rights issues.
- 2- Introducing the student to the most important International Organisations
- 3- Introducing the student to the issue of human rights and different views around it and the issues related to it.
- 4- Enable the student to understand the role of these organizations and interact with them.

### **DAWA 207 Islamic Institutions**

#### **Credit Hours: 3**

1-Introducing the students to the institutions of Islam which regulate their society politically, economically and socially. 2-Introducing the student to the merits of Islamic Shariah and its comprehensive nature in all matters of life. 3-Nurturing the students' understanding with respect to the issues that help in organizing ones life meaningfully. 4-Explaining the characteristics of Islamic institutions with respect to their divine nature, their adaptability, development, comprehensiveness, practicability, middle-coursed nature, fairness, moderation and the ability to safeguard ones freedom and respect for human rights.

### **DAWA 214 Philosophy of Sirah**

#### **Credit Hours: 3**

This course deals with the various stages of Prophet Mohammad's Sirah. It discusses its historical context, the Dawa movement, the establishment of the Islamic Ummah belief and value systems and its diverse relationships. The course adopts an objective analytical approach. It aims at deducing norms and practical lessons that promote the ideal model for the Islamic revival, tackle the major defects facing the Ummah in line with its identity and strengthens the ties to it.

### **DAWA 214 Textual Study of The Quran**

#### **Credit Hours: 3**

1. Educate the student on the best way to partake of the Qur'an and understand its methodology.
2. Introduce the student to the method and style of benefiting from the Qur'an objectively to resolve modern issues and crises by presenting instances of these and the Quranic solutions to them in our everyday life.
3. Fully acquaint the student with the Quranic approach to interacting with the 'other'.

Prerequisite:

DAWA 110 OR ISLA 203 OR ISLA 102

### **DAWA 222 Alliance of Civilizations**

#### **Credit Hours: 3**

This course aims to provide a vision for the possibility of the Alliance of Civilizations, based on the commonalities between nations, societies and civilizations. It will focus on the promotion of common interests between civilizations and coexistence on the basis of mutual respect and understanding of the culture and

religions of human civilizations. All this while accommodating the world's cultural diversity which would help in the building of civilizations and interact between them on the one hand while endeavoring to distance them from sectarian and ethnic conflicts highlighting the pioneer contribution of the Islamic civilization in human progress with emphasis on the values of tolerance and solidarity between peoples.

### **DAWA 301 Contemporary issues of Fiqh**

#### **Credit Hours: 3**

Teach students the permissible and the prohibited matters in social and economic contexts and remove any doubts concerning these aspects.

### **DAWA 302 world Religions Comp Studies**

#### **Credit Hours: 3**

1. Introducing students to the science of history of comparative religion.
2. Introduce the student to the different methodologies of comparative religion.
3. Enable the student to carry out comparative religious studies.
4. Deepening the understanding of the student of other religious traditions
5. inculcating positive approach towards the "other"
6. Enabling student to understand and appreciate the commonalities and differences between religions.

### **DAWA 303 Comparative Mysticism**

#### **Credit Hours: 3**

1. Importance of the study of comparative mysticism.
2. Introduction to the commonalities of human spiritual experience.
3. Introduction to the characteristics of mystical experience.
4. Highlighting the human, intellectual, psychological and ethical dimensions of the mystical experience.
5. Acquainting the student with the mystical language and its characteristics and points of impact.
6. Elaborating the role of tasawwuf in the forward march of civilization.
7. Highlighting the role of tasawwuf in resolving the problems of modern man.

In all this the teacher would pursue a comparative study of the essential religious experiences of world religions.

### **DAWA 305 Modern Philosophy**

#### **Credit Hours: 3**

1. Introducing the student to the most important schools of modern western philosophy.
2. Introducing the student to the contribution of modern philosophy in the European civilization.
3. Enable the student to objectively interact and deal with modern western thought, benefit from its positive aspects and forsake its negative aspects.
4. Enable the student to evaluate modern philosophy in the light of Islamic beliefs

### **DAWA 306 History of Religion**

#### **Credit Hours: 3**

Introducing the student to the major religions of the world with respect to their origin, development, sacred scriptures and their modern situation with a solid background on the theological, juristic and major

contemporary trends.

### **DAWA 311 Dawa in the Modern Age**

#### **Credit Hours: 2**

Aims at critically analyzing the current state of Dawa movements, trends, individuals and institutions.

### **DAWA 312 Dawa Personal & the Society**

#### **Credit Hours: 2**

Acquaints students with the nature of Dawa Society, its institutions and cultural and intellectual trends, and prepares them spiritually, intellectually and culturally to interact with that society.

### **DAWA 401 Area Studies**

#### **Credit Hours: 3**

1. Brief the student on the geographical setting of various areas world, their history, civilization, politics, society, economy and religion.
2. Introduce the student to the most important movements, institutions, religions and philosophies and personalities.
3. Encourage the student to keep close track of all developments in this areas.
4. Enrich the student with the culture of these places.
5. Acquaint the student with the strategic importance of various places in different respects.

### **DAWA 402 World Religious Thought**

#### **Credit Hours: 3**

1. Acquaint the student with the modern religious map of the world and introduce him to the most essential issues engaging man in this regard.
2. Introduce the background against which all these changes are taking place to the student.
3. Acquaint the student with the critical and comparative methodologies involved in these studies.
4. Engage the student in understanding and appreciating the points of view of other religions in this regard.
5. Provide the student the necessary material and motive to make a positive contribution towards this dialogical thrust while representing his own religious view succinctly.

### **DAWA 403 Graduation Project**

#### **Credit Hours: 3**

The student will have to carry out a research project as a necessary part of graduation, on a topic or a theme of his choices after the approval of the department and under the supervision of faculty. He will be allowed to start the project from the third year if he wishes so. No degree will be conferred on him until and unless he successfully completes the project to the satisfaction of the department.

### **DAWA 404 Sociology of Religion**

#### **Credit Hours: 3**

1. Introducing the student to the social dimension of religion and its academic importance through the sociology of religion.



2. Introducing the student to the origins, schools, theories, methodologies and leading figures of this discipline and enabling him to critically analyze it.
3. Acquaint him with the meaning of social change and its various theories and the role played by religion in it.
4. Educate the student on the perspective of the scholars or sociology on the nature of religious and political institutions in the modern societies and encourage him to develop his own critical opinion on the subject.
5. Introducing the student to the efforts made by Muslim scholars in this field and comparing it with the modern western endeavors in the field.
6. Develop in the student a clear and concise Islamic view of religion and society and encourage him to understand and appreciate the modern views of civil society and human rights.
7. Educate the student on critically analyzing theories

### **DAWA 405 Independent Studies**

#### **Credit Hours: 3**

This course provides an opportunity for students to engage in self-study on a variety of topics, with particular emphasis upon subjects and issues that the student did not get the chance to study in other courses. This would be done in an interactive manner, by creating an environment of discussion and exchange of ideas between students and the instructor.

### **ECON 101 Principles of Economics**

#### **Credit Hours: 3**

Scope of economics. The economic problem. Factors of production. Law of diminishing returns. Division of labor. Price determination. Elasticities of supply and demand. Costs of production. Average cost under competition and monopoly. Money; its function, Market structure. National Income. Foreign trade.

Prerequisite:

(ENGL 4 OR MATH 119) OR COMP F003 AND (COMP 2 OR ENGL 2011 ) OR ENGL F073

### **ECON 103 Principles of Law**

#### **Credit Hours: 3**

An introduction to the basic principles of law of contract. General theory of law. Nature and characteristics. Branches of law sources of law. Application of law as to time and place. Theory of equity.

### **ECON 111 Principles of Microeconomics**

#### **Credit Hours: 3**

This course focuses on basic microeconomic concepts such as supply and demand, market equilibrium, the concept of elasticity, consumer choice, utility, production and costs, the theory of perfect competition, monopoly and monopolistic competition

Prerequisite:

MATH 103 OR Mathematics Placement Test 180 OR ACT 21 OR SAT 500 OR MATH 021 OR MATH F014 OR MATH 004 OR MATH 002 OR MATH 101 OR MATH 119

**ECON 112 Principles of Macroeconomics****Credit Hours: 3**

This course focuses on basic macroeconomic concepts such as the production possibility set, the circular flow of income, the national accounts, the components of aggregate spending, a simple model of income determination and international linkages.

Prerequisite:

MATH 103 OR Mathematics Placement Test 180 OR ACT 21 OR SAT 500 OR MATH 021 OR MATH F014 OR MATH 004 OR MATH 002 OR MATH 101 OR MATH 119

**ECON 201 Microeconomics****Credit Hours: 2**

MATH 103 OR Mathematics Placement Test 180 OR ACT 21 OR SAT 500 OR MATH 021 OR MATH F014 OR MATH 004 OR MATH 002 OR MATH 101 OR MATH 119

**ECON 202 Macroeconomics****Credit Hours: 2**

Aggregate supply and demand. Say's law. Circular flow of income. Consumption function. Saving function. Determination of National Income. Aggregate supply and demand. The multiplier. The Keynesian system. Money in the national economy. Fiscal and monetary policy. Monetarism versus Keynesianism. General equilibrium analysis.

**ECON 211 Intermediate Microeconomics****Credit Hours: 3**

This course examines theory of choice and its applications, income and substitution effects of a change in price and the compensated demand curve, production and cost with many variable inputs, theory and models of oligopoly, input markets and the allocation of resources.

Prerequisite:

ECON 111 AND ECON 112

**ECON 212 Intermediate Macroeconomics****Credit Hours: 3**

This course examines the behavioral foundations of consumption: absolute-income hypothesis, relative income hypothesis, permanent income hypothesis and life-cycle hypothesis will be discussed. Other topics covered include behavior of investment: the desired capital stock, the interaction between the multiplier and the accelerator and trade cycles, IS/LM model, labor markets, and balance of payments analysis.

Prerequisite:

ECON 111 AND ECON 112

**ECON 214 Monetary Policy****Credit Hours: 3**

This course covers the evolution of money. The monetary systems, the financial system, interest rates, commercial banks functions, and their role in the creation of money. The central bank: its role in setting monetary policy and money supply. Money demand, money and inflation, and the role of money in economic activity.

Prerequisite:

ECON 111 AND ECON 112

**ECON 301 Mathematical Economics & Econometrics****Credit Hours: 3**

Deals mathematically with Theory of Consumer Behaviour, Theory of Production. Market Equilibrium. Input-Output analysis. National Income determination. economic growth models. II. Econometrics: Significance of econometrics. Economic research approach. Estimation of parameters. Simple and multiple linear models.

**ECON 302 Economics of Money & Banking****Credit Hours: 3**

Definition and types of money. Value of money. Gold standard and its mechanism. Supply and demand of money. Elasticity of supply and demand of money. Velocity of circulation of money. Monetary theories Classical, Fisher, Keynes and Milton Friedman. Commercial and Central banks. Monetary policy. Arab monetary integration.

**ECON 303 Public Finance****Credit Hours: 2**

The concepts and development of public finance. The interference and effects of government on economic activity. The concepts and growth of public expenditure. The development and analysis of public revenue and its effects on economic activity. Taxes and their types. Public debt and its role in achieving economic objectives. The budget and its economic objectives.

**ECON 305 Economics of Arab Countries****Credit Hours: 3**

The concept of economic structure and its determinants. Application of economic structure on Arab Countries. Relative shares and economic activities. Foreign- and intra-trade of the Arab countries. Theory of integration. Arab economic integration experience and evaluation. Cooperation Council for the Arab countries of the Gulf experience and evaluation. Theory of integration. Arab economic integration experience and evaluation. Cooperation Council for the Arab countries of the Gulf experience and evaluation.

**ECON 306 Economics of Labor & Industry****Credit Hours: 3**

I. Labour Economics: The concepts of labour. Wages theories. Wages differential. Marginal productivity of labour. Equilibrium of the labour market. Phillips curve and its applications. II. Economics of Industry: Industrialization. Factors affecting the structure of the industrial sector. Criteria for industrialization. Motives for industrialization. Capital intensity and industrialization. The relationship between the optimum size of the industrial unit and costs. Problems of industrialization in developing countries.

### **ECON 307 Advanced Economic Theories**

#### **Credit Hours: 3**

Factor pricing within different market structures. General equilibrium and resource allocation. Economic welfare criteria and how to maximize it. Some macroeconomics problems; inflation, unemployment and economic growth.

### **ECON 308 Comparative Economic Systems**

#### **Credit Hours: 3**

Essentials of capitalist, socialist and Islamic economic thought. Economic systems; a comparison of economic systems in developed and undeveloped countries. A comparison of economic relations in traditional and modern economic sectors in developing countries.

### **ECON 311 Econometrics**

#### **Credit Hours: 3**

This course examines properties of the least-squares estimators, specification, estimation and hypothesis testing of the simple and multiple regression models, use of dummy variables and violations of classical assumptions: heteroscedasticity, autocorrelation and multicollinearity.

Prerequisite:

ECON 111 AND STAT 222 AND ECON 112

### **ECON 312 Microeconomic Policy**

#### **Credit Hours: 3**

Microeconomic tools to analyze policy implications of the decisions taken by various economic units. Consumer surplus, producer surplus, impact of taxes, subsidies, tariffs and quotas on market equilibrium, black markets, objectives of the firm, price discrimination, deadweight loss of monopoly, patent policy, markets for nonrenewable resources, product differentiation, cartels, bargaining, two-tiered oil pricing, time allocation, labor supply and labor markets, externalities, public goods and public decision making.

Prerequisite:

ECON 211

### **ECON 313 Macroeconomic Policy**

#### **Credit Hours: 3**

Stabilization policy; the dynamics of inflation and unemployment; inflation and indexation; money, deficits and inflation; budget deficit and the public debt; international adjustment and interdependence; the optimal mix of

monetary and fiscal policy in an open economy; macroeconomic policy and the recovery and the minimalist macroeconomic policy.

Prerequisite:

ECON 212

### **ECON 320 Mathematical Economics**

#### **Credit Hours: 3**

Use mathematical techniques in understanding economic theory; optimization with and without constraints; Kuhn-Tucker conditions and game theory and apply these techniques to microeconomic theory. Other topics covered include linear, nonlinear and dynamic macroeconomic models.

Prerequisite:

ECON 211 AND ECON 212

### **ECON 331 Money & Banking**

#### **Credit Hours: 3**

Nature and functions of money, the transaction and asset demand for money, the quantity theories of money, the commercial banking system and non-banking financial institutions, the Central Bank, monetary policy and international money and banking.

Prerequisite:

ECON 112 AND MATH 221

### **ECON 341 Public Finance**

#### **Credit Hours: 3**

Development of public finance as a discipline, government intervention in economic activities, impact of government expenditure, sources of government revenue, impact of taxes on economic activities, government budget and public debt.

Prerequisite:

ECON 211 AND ECON 212

### **ECON 361 International Trade**

#### **Credit Hours: 3**

Theory of comparative advantage and the gains from trade, tariffs and other trade restrictions, protection policies, the GAAT, mechanics of international payments, and international monetary reform.

Prerequisite:

ECON 212

**ECON 401 International Economics****Credit Hours: 3**

International trade theories; classical, neoclassical, Heckscher-Ohlin, technological theories. Economic growth and international trade. Monetary theory and balance of payments. Foreign exchange markets. International monetary systems.

**ECON 402 Planning & Economic Development****Credit Hours: 3**

I. Economic Planning. Definition of planning. Arguments for planning. Some concepts of planning. Time span of plans. Formulation of plans. II. Economic Development Economic underdevelopment and characteristics of underdeveloped countries. Interpretations of economic under-development. Theories of economic development. Policies of economic development.

**ECON 403 Project Evaluation****Credit Hours: 3**

General framework of feasibility studies. Commercial profitability of the project. Marketing feasibility study. Technical feasibility study. Financial feasibility study. Financial and economic evaluation of commercial profitability. Break-even analysis. Pay-back period. Net Present Value (NPV) (cost/benefit) analysis. Internal rate of return. National profitability of the project (investment criteria). Social (cost/benefit) analysis. Balance of payments criterion. Recoupment period criterion. Income distribution criterion. Other criteria.

**ECON 404 Energy Economics****Credit Hours: 3**

Concepts of energy demand and supply of energy. Oil as an energy for development. The demand on oil as a multiple use resource. Prices of crude oil. Productivity and marketing of oil. Coal, nuclear, and electricity as an energy. The prospects of competition between oil, nuclear, natural gas, and coal as different sources of energy. The differences and similarities in the usage of these different sources.

**ECON 405 Seminar****Credit Hours: 3**

A series of seminars dealing with current economic issues and topics related to the state of Qatar as well as the Gulf and Arab States. The student is expected to present a research paper during the course.

**ECON 411 Econometric Models****Credit Hours: 3**

Autoregressive and distributed lag models, simultaneous-equations models and time series econometrics and forecasting with ARIMA and VAR models. Techniques of data gathering and choosing a research project and writing a research report are examined.

Prerequisite:

ECON 311

**ECON 431 Monetary Policy & Foreign Exchange****Credit Hours: 3**

Introduction to the instruments of monetary policy and international finance. Topics covered are monetary policy and interest rates, uncertainty and choice of monetary instrument, foreign exchange market, the international monetary system and exchange rate arrangements, choice of exchange rate regime, purchasing power parity, foreign exchange exposure and risk management, currency futures and swaps and exchange rate forecasting.

Prerequisite:

ECON 212 AND ECON 331

**ECON 451 Economic Development****Credit Hours: 3**

This course focuses on the main characteristics of developing countries, indicators of economic development, the process of development, sources of development, theories and strategies of economic development, barriers to development, negative aspects of economic development and sustainable growth to be addressed.

Prerequisite:

ECON 111 AND ECON 112

**ECON 452 Industrial Economics****Credit Hours: 3**

This course provides an overview of the industrial organization framework, market structure and performance, market concentration, pricing theory and strategy, game theory, innovation and market structure, managerial firms, firm size and diversification, multinational firms and transfer pricing, international organization, vertical integration, technology choice, and industrial policy.

Prerequisite:

ECON 111 AND ECON 112

**ECON 453 International Economics****Credit Hours: 3**

This course examines the theory of comparative advantage and the gains from trade, tariffs and other trade restrictions, protection policies, the GAAT, mechanics of international payments, and international monetary reform.

Prerequisite:

ECON 111 AND ECON 112



**ECON 454 Economics of Energy****Credit Hours: 3**

This course examines the essential economics of various sources of energy; emphasis given to the demand for oil, supply of oil, fluctuations in oil prices, forecasting oil prices and the role of OPEC. The course also covers other sources of energy, particularly coal, natural gas and nuclear power.

Prerequisite:

ECON 111 AND ECON 112

**ECON 471 Project Evaluation & Feasibility Study****Credit Hours: 3**

Process of evaluating projects and conducting a feasibility study. Market and technical appraisal, financial estimates and projections, financial and economic appraisal of single projects, multiple projects and capital budgeting, and project management are covered.

Prerequisite:

ECON 211 AND ACCT 112 AND MAKT 115

**ECON 472 Managerial Economics****Credit Hours: 3**

This course covers the scope of managerial economics, tools of analysis and optimization, demand, markets, and elasticity. Production, costs and profitability analysis (short and long run), market structure: perfect competition, monopolistic competition, oligopoly, and monopoly, market power and market domination including; cartels, local and international dominating firms, and pricing practices (price discrimination, action reaction pricing policies, and capital budgeting and investment decisions and risk analysis will be discussed.

Prerequisite:

ECON 111 AND ECON 112

**ECON 474 Labor Economics****Credit Hours: 3**

Supply of and demand for labor; wage determination; wage theories; wage differential; labor productivity; unemployment and inflation, job search theory and expected inflation.

Prerequisite:

ECON 211 AND ECON 212

**ECON 475 Contemporary Topics in Economics****Credit Hours: 3**

This course focuses on the current and important economic topics relevant to local, regional, and international communities. The course will discuss real world economic issues utilizing economic principles and concepts.

Prerequisite:

ECON 111 AND ECON 112

### **ECON 483 Environmental Economics**

**Credit Hours: 3**

Examination of the impact of economic growth on the environment. Special attention is directed toward environmental pollution, its causes and remedies; practical examples that demonstrate the impact of pollution on different economic variables.

Prerequisite:

ECON 212 AND MAGT 203

### **EDEC 410 Play & the Theory of Movement**

**Credit Hours: 2**

Theory and research in the field of play and movement for young children are the focus of this course; characteristics of play at various ages and the role of play in development are covered. Course experiences are oriented toward increasing student awareness of the meaning and play to children, the importance of movement, and how to stimulate and enhance enriching play behavior.

Prerequisite:

EDUC 315 AND EDUC 312 AND EDUC 310

### **EDEC 411 Health & Safety of Young Child**

**Credit Hours: 2**

Participants in this course learn about the basic nutritional needs of children, good health practices, and accident prevention in the home and classroom. It will also examine prenatal factors of nutrition, health, and safety that may affect the education and wellbeing of the young child.

Prerequisite:

EDUC 310 and EDUC 312 and (EDUC 315 or SPSC 349)

### **EDEC 412 Community Outreach & Resources**

**Credit Hours: 2**

This course focuses on a study of approaches to family, community, societal, cultural, and ideological support systems in children's growth, learning, and development. It includes an emphasis on how these factors are related in the permissive-restrictive dimensions of child rearing and socialization in broad perspectives across environmental contexts, an examination of resources and systems to address the special needs of families with children who are "at risk" or have disabilities, and review of technological tools used to locate and compile information on community resources.

Prerequisite:

EDUC 310 AND EDUC 315 AND EDUC 312

### **EDEC 413 Integrated math & Science for young child**

#### **Credit Hours: 3**

This course is designed to help the student gain knowledge and competencies necessary to become an effective teacher and leader in the areas of early childhood mathematics and science. It develops the theoretical bases for mathematics and science learning and teaching; illustrates and applies models for integrating elementary mathematics and science teaching; provides practical experience in curriculum, instruction and assessment. This course addresses specific State of Qatar National Curriculum Standards and requires an extensive field-based component.

Prerequisite:

EDUC 310 AND EDUC 312 AND EDUC 315 AND (BIOL 101 OR BIOL 100) AND MATH 103

### **EDEC 452 Teaching Reading and Writing to Young Children**

#### **Credit Hours: 3**

This course will apply the theories of literacy acquisition to classroom settings. The course will investigate ways to help students learn to read and to write, how to assess and remediate learning, and how to address special issues related to the skills of reading and writing.

Prerequisite:

EDUC 312 AND EDUC 313

### **EDEC 453 Teaching Arabic Language to Young Children**

#### **Credit Hours: 3**

Participants in this course will study goals, methods, and materials appropriate for teaching young children the Arabic language, with special emphasis on the Curriculum Standards for the State of Qatar, Arabic. This course includes an extensive field-based component.

Prerequisite:

EDUC 312 AND ARAB 213 AND EDUC 313

### **EDEC 454 Integrated Social Studies to Young Children**

#### **Credit Hours: 3**

This course will investigate how to apply theories of educational philosophy and psychology to teach the content and the values of social studies. There will be special emphasis on Arabic culture, Islamic values, and traditional ways of life in Qatar.

Prerequisite:

EDUC 312 AND MATH 103 AND (BIOL 101 OR BIOL 100) AND EDUC 315 AND EDUC 310

**EDEC 456 ESL and Young Children****Credit Hours: 3**

This course deals with theory and best practice in teaching, listening, speaking, reading and writing that are aligned with the State of Qatar National Curriculum Standards for grades KG to Three. It also introduces instructional strategies that foster language development in elementary school that are consistent with current theories of child second language acquisition. Language assessment, integrating technology and materials, planning lessons and curricula, and classroom organization and management will also be explored. This course includes an extensive field-based component.

Prerequisite:

(ENGL 156 OR ENGL 150) AND EDUC 313

**EDPE 210 Introduction to Physical Education and Physical Activity****Credit Hours: 3**

In this course, students will examine and analyze contemporary views and practices of health, wellness, and physical activity through review of: historical and philosophical perspectives; evolving issues and discussions in the health, wellness, and physical activity fields; review of sociocultural influences in professional practices and research paradigms; current recommendations for research-based health, wellness, and physical activity practices and/or behaviors. Students will be given the opportunity to examine further current developments in physical activity and examine the impact of these trends and development on physical education curriculum and physical activity in general.

Prerequisite:

EDUC 310 AND EDUC 312

**EDPE 220 Functional Anatomy and Basic Physiology****Credit Hours: 3**

This course introduces students to the structure and function of the human body, with special focus on the skeletal, muscular, nervous, endocrine, cardiovascular, respiratory, and digestive systems. The course acquaints students with the structures of human body, including molecules, cells, tissues, organs, organ systems and basic physiology. Laboratory work includes computer simulations and interactive programs of the physiological aspects of human body. This course aims to identify and explain the main concepts for the most important anatomical parts of human body related to the physical activity. Also, it discusses the functional aspects of each part with emphasis upon the application of such knowledge to human motor performance.

Prerequisite:

EDUC 310 AND EDUC 312

**EDPE 230 Motor Learning and Development****Credit Hours: 3**

This course is designed to develop students' knowledge and understanding of the theoretical principles that underpin motor learning and development as it has been applied to sport and physical activity settings. The

course focuses on enhances students' knowledge of main theories of learning and the principles that contribute towards motor development. The course introduces students to the changes in motor behavior that take place across the lifespan. It also explains the processes that underpin these changes and the factors that affect them.

Prerequisite:

EDUC 310 AND EDUC 312

### **EDPE 240 Principles and Practices of Sport 1**

#### **Credit Hours: 3**

This course is designed mainly to provide students with the necessary teaching skills to introduce the games of football and handball to students and enable them to become eligible practitioners working in the education sector.

The course aims at developing understanding of the principles of learning and teaching the basic skills in football and handball. It will also enable them to understand the mechanisms of organizing and managing sports tournaments in football and handball. Students will also be familiar with the rules and regulations of these two sports as they governed by the International Federations for football and handball.

Prerequisite:

None

### **EDPE 250 Sport Injuries**

#### **Credit Hours: 3**

This course introduces students to various types of common athletic injuries in the field of physical activity and sports. The course demonstrates to students the various methods of managing sports injuries and avoiding complications. The course introduces students to the various types of sports injuries that could occur in schools' playing grounds or during sporting competition. Additionally, the course provides students with the appropriate methods of offering first aid that helps to avoid any further complications.

Prerequisite:

None

### **EDPE 260 Child Physical Education Curriculum and Practicum**

#### **Credit Hours: 3**

The purpose of this course is to introduce teacher candidates to the developmentally appropriate physical education for children. In this course, appropriate planning, instruction, and assessment make-up the main foundation of the activities involved. Students are expected to conducted field visits to schools and watch and evaluate actual physical education classes.

Prerequisite:

EDPE 210

**EDPE 270 Biomechanics in Physical Activity and Sport****Credit Hours: 3**

This course aims at developing students' theoretical foundation of biomechanical laws and principles as applied to physical activity and sports. The course introduces students to movements' analyses of physical activities and its application to performance in various sports. The course covers essential and practical knowledge of physiological changes associated with performance and the mechanical principles and physical laws that govern human movement and sports performance. A substantive part of the course will be devoted to the analysis of fundamental and complex motor skills and the use of these skills in physical activity and performance in physical education lessons, recreation and sporting events.

Prerequisite:

EDPE 210

**EDPE 280 Principles and Practices of Sport 2****Credit Hours: 3**

This course aims to provide students with sufficient knowledge of basketball and volleyball through applied theoretical study that enables them to learn those games, acquire their skills and understand the international rules and regulations that govern the games. Students will learn how to teach, referee and organize the game. The course covers methods of teaching fundamental skills of basketball and volleyball and game plans and strategies.

Prerequisite:

None

**EDPE 290 Nutrition for Sport, Exercise and Health****Credit Hours: 3**

This course introduces students to the importance of nutrition for sport, exercise and health, as well as providing them with the essential knowledge about different nutrients. The course explains the main functions of carbohydrates, fats and proteins and methods of absorbing and extracting energy. It also provides information on the role of minerals, vitamins and water in maintaining health. The course clarifies the role of enriched and fortified foods and dietary supplementation towards human performance. Additionally, it explains to students how to interpret the information placed on food labels and the importance of adequate dietary intakes. The course identifies the type, the quantity and the time when carbohydrates, fats and proteins should be consumed before, during and after exercise. Moreover, it explains how to develop an individualized nutrition plan for maintaining health.

Prerequisite:

EDPE 210 with concurrency

**EDPE 310 Teaching Physical Education in Primary Schools****Credit Hours: 3**

This course introduces the theories related to the concept and development of physical literacy and fundamentals movement skills. The course deals with the organizational framework, relevant pedagogical concepts and methodological strategies for physical education curriculum in Primary Schools. The course aims to develop student's competencies as a physical education teacher in primary school. The course focuses on students' ability to understand and apply their pedagogical practices in a range of creative, competitive and challenging activities in preparation for teaching and learning at Primary School level. Teacher candidates will recognize and understand how individuals at that age participate and respond in different situations and subsequently be able to begin to differentiate and select their teaching material and approach accordingly.

Prerequisite:

EDPE 250

**EDPE 320 Psychological Aspect of Physical Activity and Sport****Credit Hours: 3**

This course is designed to provide students with an understanding of the theoretical and practical principles of applying psychological concepts to physical activity, exercise, and health settings. The course explores how personality and situational variables affect motivation, anxiety and performance. Also, the course provides the opportunity to explore and discuss the effects of exercise on mental health and wellbeing. Additionally, the course provides an overview of theory and practice related to contemporary issues in the field, including personality and performance, motivation, attention control, leadership styles, athletic counseling, performance enhancement techniques, and testing and performance motivation. This course aims to give students a better understanding of psychological factors that influence performance of physical activity. The main topics include: leadership, group cohesion, and team dynamics.

Prerequisite:

EDPE 210 with concurrency

**EDPE 330 Principles and Practices of Sport 3****Credit Hours: 3**

The course introduces students to the main swimming strokes and various methods of teaching beginners. The course attempts to develop students' knowledge of aquatics sports and covers aspects such as developing self-confidence in learning swimming, systems of energy production in competitive swimming for short and long distances and the biomechanics of various swimming techniques. In addition, the course introduces students to practical aspects such as floating, kicking, breathing, starting-up and turns.

Prerequisite:

None



**EDPE 340 Sociological Aspects of Physical Activity and Sport****Credit Hours: 3**

This course develops students understanding and appreciation of the place of sport in society and its impact on various communities and groups of people. Also, it develops an appreciation of the networks that people form and the consequences of these interdependencies for involvement in both leisure and sports activities (including 'exercise') and competitive sports. This course will focus on issues such as: participation in physical activity, sport participation and exercise; sport and performance enhancing drugs; sport and violence; nationalism and sport; the professionalization, commercialization; sport and the media; the relationship between sport and health; sport as a lifestyle; exercise as a means of rehabilitation.

Prerequisite:

EDPE 210 with concurrency

**EDPE 350 Exercise Physiology****Credit Hours: 3**

This course provides a basic knowledge about the physiological changes in human body during normal steady state as well as under different training conditions, such as exercising in various environmental conditions and circumstances. Also, it gives students the opportunity to understand some of the important physiological issues relating to the development of human performance capacity and limitations. In addition, this course aims to encourage student to research and explore some of the important and interesting contemporary issues in the area of exercise physiology that are related to the content of this course. Additionally, the course identifies the major field methods and laboratory procedures employed in assessing the various human capacities and physical fitness components.

Prerequisite:

EDPE 220

**EDPE 360 Adapted Physical Activity****Credit Hours: 3**

This course aims to develop students' understanding of the historical background concerning the concept of adapted physical activity and explains the difference between adapted physical activity and mainstream physical education. The course introduces students to the classification of special needs with regard to the nature and degree of severity. The course also introduces students to various approaches used for inclusion of special needs pupils in mainstream physical education and the special requirements and provisions needed to ensure successful implementation.

Prerequisite:

EDPE 220

**EDPE 370 Sport Management and Recreation****Credit Hours: 3**

The course introduces students to managing physical education, sports and recreations events inside and outside school. The most commonly used definitions of managing physical activity, sporting events will be presented and the underlying knowledge areas of each of the definitions will be discussed. Students will be given the opportunity to examine current developments in managing schools' sporting events and relate these trends and developments to managing other recreational events organized for the school or the local community. Essential topics in this course include definitions of physical activities and sport management, essential skills and roles of the sports activities manager and current trends in managing schools sporting and recreational events.

Prerequisite:

EDPE 210 with concurrency

**EDPE 380 Teaching Physical Education in Secondary Schools****Credit Hours: 3**

The course deals with the organizational framework, relevant pedagogical concepts and methodological strategies for physical education in secondary schools. The course aims to develop the knowledge, skills and competencies necessary for teacher trainees to be able to teach secondary school students. The course also focuses on candidates' ability to understand and apply their pedagogical practices in a range of creative, competitive and challenging activities in preparation for teaching and learning at secondary schools. Teacher candidates will recognize and understand how individuals at that age participate and respond in different situations and subsequently be able to begin to differentiate their teaching material and approach accordingly.

Prerequisite:

EDPE 310

**EDPE 390 Principle and Practice of Sport 4****Credit Hours: 3**

This course is designed to develop the teaching skills of students who are trained to work in the education sector. This course deals with the place of gymnastics in the school's physical education curriculum. It explores the different types of gymnastics, focusing on the technical aspects of performing of the basic and main skills on the floor as well as the various apparatus. Also, it develops students and understanding and appreciation of health and safety regulations, support techniques and aiding methods on these apparatus. The course also covers the theoretical and practical foundations of floor and apparatus exercises and routine, as well as their usage gymnastic exercises to develop numerous physical capacities.

Prerequisite:

EDPE 390

**EDPE 410 Work-based Learning****Credit Hours: 3**

This course offers students the opportunity to apply and explore academic subject knowledge within a vocational context, through the mode of work-based learning. Students will be allocated a College placement tutor and a placement supervisor in their host organization. The placement supervisor will discuss a focus area for the student's role on placement. With the guidance provided by the placement tutor, the student should be able to reflect critically on the experience through a reflective assignment.

Prerequisite:

None

**EDPE 420 Measurement and Evaluation in Physical Education and Sports Studies****Credit Hours: 3**

The course introduces students to the various methods and approaches commonly used in exploring and investigating issues relating to physical education, physical activity, sports and recreation. The main and universally used theories and principles of measurement and evaluation in Physical Education will be introduced and students will be offered practical sessions on the application and use of these principles in the field. The course develops students' understanding of the purpose and applications of measurements and introduces them to a range of validated tests used in physical education, recreation and sports.

Prerequisite:

EDUC 201

**EDPE 430 Independent Project in Physical Activity and Sport****Credit Hours: 3**

This course builds on prior learning, particularly work-based learning course, and offers students the opportunity for further development of their skills, knowledge and understanding through conducting an independent research project. The project is regarded as an important exercise for developing students' abilities to formulate effective research design and procedures, to collect and present data in an appropriate and meaningful way and to conduct a critical analysis of relevant literature. Students are expected to complete an independent research or enquiry-based project of a practical or theoretical nature. This will enable them to demonstrate independence in their approach to research and enhance their project planning experience. Students will be receiving guidance and support throughout the process from their personal supervisor.

Prerequisite:

None

**EDPE 440 Principle and Practice of Sport 5****Credit Hours: 3**

This course is designed to introduce students to the sport of athletics and provides them with the knowledge and skills required to plan, organize and deliver physical education lessons covering the major track and field events. The course aims to provide students with the necessary skills required for teaching and training track

and field events for different age groups. The course should enable trainee teachers to develop the ability to perform and teach the technical aspects of various track and field events, demonstrating a good level of understanding of the rules and regulations that govern this sport and its organization.

Prerequisite:

None

### **EDPE 449 Physical Conditioning**

#### **Credit Hours: 3**

This course aims to provide students with theories and knowledge of fitness, including fitness divisions and components. The course provides opportunity to students to practice on how to run some of the fitness training batteries according to the needs of participants, including normal individuals and athletes. In addition, students will be provided with the recent recommendations and scientific programs related to foundations of fitness conditioning. Where appropriate, this course will employ other related sport sciences to physical fitness development. Also, the course provides students with the skills to conduct the necessary laboratory and field to assess and evaluate physical fitness levels.

Prerequisite:

None.

### **EDPE 450 Principles and Practices of Sport 6**

#### **Credit Hours: 3**

This course aims at providing students with information about the history, evolution, and development of Racket Sports (Tennis & Table tennis). The course of study provide students with opportunities to learn and develop their skills, gaining experiences of arbitration and organizing tournaments. The course reviews Racket Sports (Tennis & Table tennis) basic skills, their technical and instructional steps as well as their basic playing plans and strategies.

Prerequisite:

None

### **EDPE 490 Internship**

#### **Credit Hours: 6**

This course offers students the opportunity to build on their previous work-based learning through the more developed application of academic subject knowledge to a vocational context. The internship is a three-way partnership between the student, the College and the employer. Students choose and negotiate a physical activity or physical education work experience with College support and guidance. The internship must be in a vocation specific to their chosen pathway. Students spend a number of days during the 2nd Semester of their final year in a host institution engaged in agreed tasks relevant to future career and undertake a project related to physical activity and/or physical education. The nature and aims of the project are normally negotiated with the host organization and the College tutor. Additionally, students reflect on their experiences during the internship

through completion of a weekly log book.

Prerequisite:

None

### **EDPR 410 Reading and Writing in all Disciplines**

#### **Credit Hours: 3**

This course will focus on the theories and research that underpin the incorporation of reading and writing in every discipline and on methods for incorporating rich reading and writing experiences in each subject.

Participants in the class will explore the theory and practice of literacy development of adolescents and how those theories may be applied in the classroom.

Prerequisite:

EDUC 313

### **EDPR 446 Teaching Primary Level Arabic**

#### **Credit Hours: 3**

Participants in this course will study goals, methods, and materials appropriate for teaching primary students in the Arabic language, with special emphasis on the Curriculum Standards for the State of Qatar, Arabic. This course includes an extensive field-based component.

Prerequisite:

EDUC 313 AND ARAB 218 AND ARAB 213

### **EDPR 447 Teaching Primary Level Islamic**

#### **Credit Hours: 3**

Participants in this course will study goals, methods, and materials appropriate for teaching primary students in Islamic Studies. This course includes an extensive field-based component.

Prerequisite:

EDUC 310 AND EDUC 312 AND EDUC 315 AND ((ISLA 105 AND ISLA 106) OR (FIQH 205 AND QURS 203 AND QURS 200))

### **EDPR 448 Teaching Primary Level Social Studies**

#### **Credit Hours: 3**

This course concentrates on the teaching strategies of social studies, its approaches, and its methods in general education classes for the primary level. The course includes a number of topics including the nature of social studies in relation to its objectives, structure, concepts, definitions and the mutual relations among its branches and educational functions. The course also examines the knowledge and skills related to the curricula of social studies in Qatar which is connected to teaching, planning, learning resources, as well as evaluation methods.

This course includes an extensive field-based component.

Prerequisite:

EDUC 312 AND GEOG 110 AND HIST 222 AND EDUC 315 AND EDUC 310

### **EDPR 450 Teaching Primary Level Science**

**Credit Hours: 3**

Participants in this course will study goals, methods, and materials available for teaching topics such as scientific inquiry, matter and energy, biological systems, space and earth science, ecology, forces, and physical systems in the primary school classroom. Issues related to problem solving and technology will also be examined. The course will focus on the State of Qatar National Curriculum Standards in Science and will have a field-based component in a primary school setting.

Prerequisite:

EDUC 312 AND BIOL 101 AND CHEM 101 AND EDUC 315 AND EDUC 310

### **EDPR 451 Teaching Primary Level Math**

**Credit Hours: 3**

Participants in this course will study goals, methods, and materials available for teaching topics such as numeration, geometry, basic operations, fractions, decimals, percent, measurement, and probability in the primary school classroom. Issues related to problem solving and technology will also be examined. The course will focus on the State of Qatar National Curriculum Standards in Mathematics and will have a field-based component in a primary school setting.

Prerequisite:

EDUC 312 AND MATH 104 AND MATH 103 AND EDUC 315 AND EDUC 310

### **EDPR 452 Methods in Inquiry & Research**

**Credit Hours: 2**

This course focuses on the candidates' acquisition of research and inquiry skills to support data collection, analysis, and reflection (action research). The application of qualitative and quantitative research methodologies will be examined. In addition, candidates will learn how to teach and support higher level thinking and inquiry skills in primary students and how to teach students to design and conduct experiments in science and mathematics. This course has a field-based component.

Prerequisite:

EDUC 312 AND EDUC 315 AND EDUC 310

### **EDPR 453 Teaching Primary Level English (ESL I)**

**Credit Hours: 3**

This course deals with the techniques, methods and strategies for teaching beginning EFL/ESL students. It deals with the effective teaching of English language skills, with special emphasis on the curriculum standards of the

state of Qatar, English for grades from 4-6. Participants in this course will be exposed to the major concepts, theories and research related to the nature and acquisition of a second language. The course will also cover scaffolding techniques, material selection, and evaluation and assessment techniques appropriate to Qatar standards and ESL/EFL classrooms. This course includes field- based experiences in a primary school setting.

Prerequisite:(EDUC 311 OR EDUC 319) AND ENGL 157 AND ENGL 153

### **EDPR 454 Teaching Primary Level English (ESL II)**

#### **Credit Hours: 3**

This course expands upon candidates knowledge the concepts and strategies for teaching beginning EFL/ESL students learned in Teaching Primary Level English (ESL) I for the effective teaching of English language skills, with special emphasis on the curriculum standards of the state of Qatar, English for grades from 4-6. The course requires candidates to apply scaffolding techniques, material selection, and evaluation and assessment techniques appropriate to Qatar standards and ESL/EFL classrooms and to effectively use ICT and inquiry in instruction. This course includes field-based experiences in a primary school setting.

Prerequisite:

EDPR 453

### **EDPR 455 Teaching Primary Level Reading**

#### **Credit Hours: 3**

This course is a comprehensive reading instruction course that is research based and includes the study of phonemic awareness, phonics, comprehension, spelling patterns, and methods of delivering a strong literature based program with emphasis on content area reading, comprehension, and ongoing assessment and diagnostic techniques. This course has a field-based component.

Prerequisite:

EDUC 312 AND EDUC 315 AND EDUC 310

### **EDPR 481 Student Teaching**

#### **Credit Hours: 9**

This course will provide ongoing mentoring and reflection during a 10-week Student Teaching experience and the four weeks preparation for that Student Teaching. Topics for study will emerge from interns' authentic concerns and interests, from the university supervisor's classroom observations, and from mentor teacher suggestions. Participants enrolled in this course will assume the responsibilities of a classroom teacher in a school setting. This course requires a significant number of field hours.

Prerequisite:

EDUC 310 AND (EDUC 311 OR EDUC 319) AND EDUC 313 AND EDUC 314 AND EDUC 318 AND EDUC 317 AND EDUC 316 AND EDUC 312 AND EDUC 315



**EDSE 331 Reading & Writing Across the Curriculum.****Credit Hours: 3**

The purpose of this course is to extend the candidate's thinking about the concept of literacy, and to prepare the candidate to critically analyze learning and literacy instruction in today's schools. We will focus on providing a critical perspective for teaching reading and writing across the curriculum. The emphasis of the class is on developing conceptual tools that will enable the candidate to use reading and writing as instructional tools in the classroom. The course will focus on the nature of literacy processes and instruction that facilitates learning, particularly as it applies to secondary students. The course uses a social-constructivist theoretical perspective and involves a field-based experience.

Prerequisite:

EDUC 310 AND EDUC 320 AND EDUC 312

**EDSE 340 Methods I: Instructional Strategies for Arabic****Credit Hours: 3**

This course focuses on introducing student teachers to the nature of the Arabic Language, its qualities, characteristics, and skills. It also aims at identifying the National Curriculum standards of teaching prep and secondary stage students, this is in addition to professional teachers 'standards in the State of Qatar. The course provides student teachers with opportunities to train in the skills of lesson planning, recent methods and strategies of teaching and its applications in teaching the Arabic language(class questions, warm ups, motivating learners, teaching listening, speaking ).It also provides opportunities to develop teaching performance through applications and field experiences. The course also develops skills in conducting action research, reflection in professional practices. This course includes a field-based component.

Prerequisite:

EDSE 331

**EDSE 341 Methods I: Instructional Strategies for English****Credit Hours: 3**

Candidates will study goals, methods, and materials appropriate for teaching secondary courses in English (ESL, EFL), with special emphasis on the Curriculum Standards for the State of Qatar, English. Students will learn a range of research-based strategies for designing and delivering effective ESL/ EFL instruction in the secondary classroom. The differences between the Advanced and Foundation Curriculums for the State of Qatar National Curriculum Standards and the changes in strategies that requires will be explored. This course includes a field-based component.

Prerequisite:

EDSE 331

**EDSE 342 Methods I: Instructional Strategies for Islamic Studies****Credit Hours: 3**

The diploma candidates will study in this course the notion of Islamic education and its characteristics and objectives, and they will learn how to analyze content. As well, they will learn the teaching skills needed for the teaching profession; they will also learn the modern teaching methods and strategies that emphasize positive learning activities such as active learning, collaborative learning, brainstorming and others. They will, as well, learn the appropriate teaching of recitation and interpretation in as much as their teaching objectives and principles are concerned. They will also study the provisions of proper recitation and Tajweed of the holy Quran. This course includes a field-based component.

Prerequisite:

EDSE 331

**EDSE 343 Methods I: Instructional Strategies for Social Studies****Credit Hours: 3**

Candidates will study goals, methods, and materials appropriate for teaching secondary level courses in social studies. Students will learn research-based methods of effective instruction in the knowledge and skills related to the discipline. This course has a significant field-based component.

Prerequisite:

EDSE 331

**EDSE 344 Methods I: Instructional Strategies for Mathematics****Credit Hours: 3**

Candidates will study goals, methods, and materials appropriate for teaching preparatory/secondary levels courses in science, with special emphasis on the Curriculum Standards for mathematics in the State of Qatar. Topics will include the history development and perspectives in mathematics education, learning theories, principles and standards of mathematics education, teaching strategies, problem solving strategies, instructional media and manipulatives, and assessment techniques in mathematics education. This course includes a field-based component.

Prerequisite:

EDSE 331

**EDSE 345 Methods I: Instructional Strategies for Physics****Credit Hours: 3**

Candidates will study goals, methods, and materials appropriate for teaching secondary levels courses in Physics, with special emphasis on the Curriculum Standards for the State of Qatar, Physics. Topics will include constructivist learning theories, discovery learning, inquiry, learning cycle models, project and problem-based learning, and the design and management of Physics laboratories. The differences between the Advanced and Foundation Curriculums for the State of Qatar National Curriculum Standards and the changes in strategies that

requires will be explored. This course has a field-based component

Prerequisite:

EDSE 331

### **EDSE 346 Methods I: Instructional Strategies for Chemistry**

#### **Credit Hours: 3**

Candidates will study goals, methods, and materials appropriate for teaching secondary levels courses in Chemistry, with special emphasis on the Curriculum Standards for the State of Qatar, Science. Topics will include constructivist learning theories, discovery learning, inquiry, learning cycle models, project and problem-based learning, and the design and management of science laboratories. The differences between the Advanced and Foundation Curriculums for the State of Qatar National Curriculum Standards and the changes in strategies that requires will be explored. This course has a field-based component

Prerequisite:

EDSE 331

### **EDSE 347 Methods I: Instructional Strategies for Biology**

#### **Credit Hours: 3**

Candidates will study goals, methods, and materials appropriate for teaching secondary levels courses in Biology, with special emphasis on the Curriculum Standards for the State of Qatar, Science. Topics will include constructivist learning theories, discovery learning, inquiry, learning cycle models, project and problem-based learning, and the design and management of science laboratories. The differences between the Advanced and Foundation Curriculums for the State of Qatar National Curriculum Standards and the changes in strategies that requires will be explored. This course has a field-based component.

Prerequisite:

EDSE 331

### **EDSE 460 Methods II: Inquiry and ICT for Arabic**

#### **Credit Hours: 3**

This course concentrates on introducing students to effective and suitable strategies and methods of teaching Arabic for the prep and secondary stages in alignment with Qatar National curriculum standards and the National professional standards for teachers. The course deals with techniques and tools of varied assessments that measure students 'performance levels in the Arabic language skills. It also focuses on employing and using technology in teaching the Arabic Language skills. It also aims at developing the learners' skills in research, analysis, and creation through employing technology in the lesson. It develops their reflective skills about their professional practices. This course includes a field-based component.

Prerequisite:

EDSE 340

**EDSE 461 Methods II: Inquiry and ICT for English****Credit Hours: 3**

Candidates will study goals, methods, and materials appropriate for teaching secondary level courses in English. The differences between the Advanced and Foundation Curriculums for the State of Qatar National Curriculum Standards and the changes in strategies that are required will be explored. Candidates will learn how to conduct action research, initiate and guide student research, and to use ICT in English teaching. This course has a field-based component. This course requires eight hours of field experience.

Prerequisite:

EDSE 341

**EDSE 462 Methods II: Inquiry and ICT for Islamic Studies****Credit Hours: 3**

B.Ed. candidates will study methods of teaching the various Islamic Education branches that include: Hadith and the Prophet's Biography (Sirah), Creed (beliefs), Worship and Discipline as incorporated in the teaching objectives and the teaching principles and procedures. As well, they will be familiar with the strategies of using technology in teaching Islamic education, as well as the role of the evaluation and assessment in Islamic education, let alone identify attributes and characteristics of the Islamic education teacher and finally how to undertake research in Islamic education. This course includes a field-based component.

Prerequisite:

EDSE 342

**EDSE 463 Methods II: Inquiry and ICT for Social Studies****Credit Hours: 3**

Candidates will study goals, methods, and materials appropriate for teaching secondary levels courses in social studies, with a special emphasis on the use of ICT in social studies instruction. The course will also include the use of action research to inform instruction; and strategies to encourage, design, mentor and assess student research. This course includes a field-based component.

Prerequisite:

EDSE 343

**EDSE 464 Methods II: Inquiry and ICT for Mathematics****Credit Hours: 3**

The course will focus on student-centered methods in teaching mathematics. Special attention will be devoted to technological aids to instruction and hands on mathematics equipment such as computer-aided instruction and mathematics laboratories to stimulate discovery learning. The course will also include the use of action research to assess and inform instruction and strategies to teach, encourage, mentor, and assess student research. This course has a field-based component.

Prerequisite:

EDSE 344

### **EDSE 465 Methods II: Inquiry and ICT for Physics**

#### **Credit Hours: 3**

Candidates will study goals, methods, and materials appropriate for teaching secondary levels courses in Physics, with special emphasis on the Curriculum Standards for the State of Qatar, Physics. Topics will include the use of ICT in Physics; use of action research to inform instruction; and strategies to encourage, design, mentor, and assess student research. This course includes a field-based component.

Prerequisite:

EDSE 345

### **EDSE 466 Methods II: Inquiry and ICT for Chemistry**

#### **Credit Hours: 3**

Candidates will study goals, methods, and materials appropriate for teaching secondary levels courses in Chemistry, with special emphasis on the Curriculum Standards for the State of Qatar, Chemistry. Topics will include the use of ICT in Chemistry; use of action research to inform instruction; and strategies to encourage, design, mentor, and assess student research. This course includes a field-based component.

Prerequisite:

EDSE 346

### **EDSE 467 Methods II: Inquiry and ICT for Biology**

#### **Credit Hours: 3**

Candidates will study goals, methods, and materials appropriate for teaching secondary levels courses in Biology, with special emphasis on the Curriculum Standards for the State of Qatar, Biology. Topics will include the use of ICT in Biology; use of action research to inform instruction; and strategies to encourage, design, mentor, and assess student research. This course includes a field-based component.

Prerequisite:

EDSE 347

### **EDSE 491 Student Teaching in Secondary Education**

#### **Credit Hours: 9**

Ten weeks of observation and participation in classroom activity; supervised teaching in an independent school. Candidates will be assigned a mentor teacher at the school and university supervisors. Instruction of candidates will be based upon NCATE, INTASC principles, and the Qatar National Professional Standards for Teachers. Instructional activities will be designed using the Qatar Core Curriculum Standards. This course has a significant field-based component.

**EDUC 100 Photography****Credit Hours: 3**

This course focuses on the basic concept of digital photography, which emphasis on 1) photography literacy, 2) handling of the digital camera, and 3) manipulation of digital images.

**EDUC 200 Education and Social Problems****Credit Hours: 3**

This syllabus was designed to help Qatar University students be aware of the basic educational concepts and their relationships with the local and universal problems and issues directly related to the education field. These issues and problems are considered a foundational introduction to understand education issues and topics at the local, regional and universal levels.

It also aims at helping students acquire the skills of recognition, understanding, analyzing, and justifying those problems logically and critically. This in turn will contribute to increasing their analytic abilities and their awareness of the community problems and issues from different domains (culturally, socially, economically, and environmentally, etc.) and in the amount that qualifies them to accept the other. This is of course will be achieved considering the

renewed conditions of the Qatari society in addition to the variables and hurried universal innovations.

**EDUC 201 Research Methods****Credit Hours: 3**

This course is designed to help undergraduate students understand what research is, how it is conducted, and its place in academic disciplines. The focus will be on assisting students in developing practical research skills and strategies to enhance academic and professional success. Major emphasis will be on helping students understand the basic concepts of research as well as the different research paradigms and their implications for doing research. Another focus will be on assisting students with developing the ability to effectively prepare a research proposal. Other course topics include research ethics, experimental and non-experimental research, and acquiring electronic and non-electronic information resources for research purposes. Delivery methods used in this course will integrate active and experiential activities in the teaching and learning process. Student learning outcomes will be assessed using a multidimensional approach.

**EDUC 203 Family Relationships****Credit Hours: 3**

This course provides students with a range of knowledge, skills, and positive attitudes towards the family and family relations. It covers the concept of families, their functions and characteristics, the functions of the individual that change with marriage and family life, and family growth in the life cycle. Content includes the family's role in child-rearing during different developmental stages. The role of family organizations in helping families address marital issues and problems is also addressed

**EDUC 310 Foundations of Education in Qatar and School Reform****Credit Hours: 3**

This course has been designed to acquaint the learners with the progress of education in Qatar, including schools and the various elements that impact education and learning, such as the family and society. Learners will also become acquainted with the roles expected they may be expected to play within the initiative of educational progress in Qatar through examining some of the issues related to the initiative and the responsibilities of teachers.

### **EDUC 312 Curriculum and Assessment**

#### **Credit Hours: 3**

This course engages participants in examining curriculum theory and models and provides experience in designing individual lessons, units, and assessments that promote the learning of all early childhood and primary students. Participants in the course will learn to plan an effective instructional program through applying best practices, responding to diverse community interests, and planning for student mastery of State of Qatar curriculum standards. This course includes a field-based component.

### **EDUC 313 Developing Literacy in Children**

#### **Credit Hours: 3**

This course will provide an overview of the history, current research, and issues in language acquisition in both naturalistic contexts and classroom settings and the importance of literature in the development of children. It also includes the identification, evaluation, and use of different genres of literature in teaching children.

Prerequisite:

EDUC 315 AND EDUC 310 AND EDUC 312

### **EDUC 314 Technology for Children**

#### **Credit Hours: 3**

This course provides an introduction to basic computer operations and technology, including fundamentals of using a computer, using basic software, accessing and saving data, basic use by children of spreadsheets, databases and word processing. Participants in this course will learn about developmentally appropriate use of technology with children and how to evaluate and select hardware and software to support the early childhood and primary programs.

Prerequisite:

EDUC 310 AND EDUC 315 AND EDUC 312

### **EDUC 315 Child Development & Learning**

#### **Credit Hours: 3**

This course reviews the literature on children's biological, motor, perceptual, cognitive (including intelligence), language, emotional, social, and gender development. Child development history, theory, and research strategies will be discussed, as well as the effect of family, peers, media, and schooling.



**EDUC 316 Classroom Management****Credit Hours: 3**

This course will explore methods to create a positive primary classroom environment and to establish routines that lead to effective learning and safety for all students. It will examine theories and research-proven strategies to manage student behaviors to promote learning and ways to engage parents as partners to promote learning. This course includes a field-based component.

Prerequisite:

EDUC 310 AND EDUC 312 (EDUC 315 OR EDUC 320 OR SPSC 349)

**EDUC 317 Inclusive Classrooms****Credit Hours: 3**

This course aims at introducing candidates to psychological, environmental, and cultural conditions that contribute to mild/moderate disabilities. It covers etiology, characteristics, development, prevention and intervention strategies, theories, and legal aspects. It emphasizes development in academic, social, career, behavioral, medical, psychological, physical, and health conditions of individuals with mild/moderate disabilities.

**EDUC 318 Integrating Visual Arts****Credit Hours: 3**

This course teaches how to integrate the visual arts and infuse it across the curriculum. It acquaints students with the interdisciplinary approach to education. Literature supporting integration of the visual arts with other subjects will be examined. The course also has a clinical aspect in which students design and execute lessons, thematic units, and activities to demonstrate understanding of the concepts as well as ability to carry them out in the classroom.

Prerequisite:

EDUC 310 AND EDUC 315 AND EDUC 312

**EDUC 319 Classroom Assessment****Credit Hours: 3**

This course will provide participants with the knowledge and skills needed to assess student learning across the curriculum and instruction. The course will present principles of classroom assessment: how to design, administer and interpret formal and informal classroom assessments in different domains (Knowledge, skills and emotions), test construction properties, use of emerging technologies in assessment, grading and basic test analysis, how to interpret data from a variety of relevant sources, how to use assessment for educational and instructional decisions, and the ethical issues related to testing and assessment.

Prerequisite:

EDUC 310 AND EDUC 312 AND (EDUC 315 OR EDUC 320)

**EDUC 320 Human Development****Credit Hours: 3**

This course reviews the literature on child biological, motor, perceptual, cognitive (including intelligence), language, emotional, social, and gender development. Child development history, theory, and research strategies will be discussed, as well as the effect of family, peers, media, and schooling

**EDUC 481 Student Teaching-Early Childhood****Credit Hours: 9**

This course will provide ongoing mentoring and reflection during a 10-week Student Teaching experience and the four weeks preparation for that Student Teaching. Topics for study will emerge from interns' authentic concerns and interests, from the university supervisor's classroom observations, and from mentor teacher suggestions. Participants enrolled in this course will assume the responsibilities of a classroom teacher in a school setting. This course requires a significant number of field hours.

**EDUC 482 Student Teaching-Arabic Studies****Credit Hours: 9**

This course will provide ongoing mentoring and reflection during a 10-week Student Teaching experience and the four weeks preparation for that Student Teaching. Topics for study will emerge from interns' authentic concerns and interests, from the university supervisor's classroom observations, and from mentor teacher suggestions. Participants enrolled in this course will assume the responsibilities of a classroom teacher in a school setting. This course requires a significant number of field hours.

**EDUC 483 Student Teaching-Math & Science****Credit Hours: 9**

This course will provide ongoing mentoring and reflection during a 10-week Student Teaching experience and the four weeks preparation for that Student Teaching. Topics for study will emerge from interns' authentic concerns and interests, from the university supervisor's classroom observations, and from mentor teacher suggestions. Participants enrolled in this course will assume the responsibilities of a classroom teacher in a school setting. This course requires a significant number of field hours.

**EDUC 484 Student Teaching-English****Credit Hours: 9**

This course will provide ongoing mentoring and reflection during a 10-week Student Teaching experience and the four weeks preparation for that Student Teaching. Topics for study will emerge from interns' authentic concerns and interests, from the university supervisor's classroom observations, and from mentor teacher suggestions. Participants enrolled in this course will assume the responsibilities of a classroom teacher in a school setting. This course requires a significant number of field hours.

**ELEC 201 Electric Circuits Credit Hours: 3**

Electric current, voltage, power, and dependent and independent sources, Kirchhoff's current and voltage laws, Ohm's law and simplification of series/parallel and Y/delta connections. DC circuit analysis, Nodal and Mesh analysis,

Superposition, Thevenin's and Norton's theorems, Source transformation and maximum power transfer, Capacitance and Inductance; Capacitors and inductors series/parallel connections. Source free and step response of RL, RC, and RLC transient circuits. Several laboratory experiments to reinforce material from the lectures will be conducted.

Prerequisite:

MATH 102 Concur. AND PHYS 193 Concur.

## **ELEC 202 Electric Circuits II**

### **Credit Hours: 3**

Phasor relationships for circuit elements. Series/parallel, Nodal and Mesh Analysis, and Theorems for AC circuits; Instantaneous and average AC power; Maximum average power transfer, RMS value, Complex AC power, and power factor correction; Three-phase circuits analysis, power in balanced three-phase system; Mutual inductance and electric circuits with mutual inductances; resonant electric circuits; steady state response of electric circuits with non-sinusoidal sources.

Prerequisite:

ELEC 201 AND MATH 231

## **ELEC 203 Electric Circuits II Lab**

### **Credit Hours: 1**

In this course, students are required to build electric circuits and make some measurements using instruments like Digital multimeter and Oscilloscope to experimentally verify several electric circuits analysis techniques and theorems given in theory lectures. Computer simulation will be used throughout the laboratory experiments.

Prerequisite:

ELEC 202 Concur.

## **ELEC 231 Fundamentals of Electronics**

### **Credit Hours: 3**

PN junction; diodes and applications; BJTs and MOSFETs; DC and AC analysis of transistors; transistor applications (switches, CMOS digital logic gates, single- and multi-stage amplifiers), op amps and applications. Selected laboratory experiments for diodes, transistors, and opamps.

Prerequisite:

ELEC 201

**ELEC 232 Lab for Electronics I****Credit Hours: 1**

Selected laboratory experiments for characterizing diodes and transistors, and designing and testing electronic circuits that employ diodes, BJTs, and MOSFETs.

Prerequisite:

ELEC 234 Concur.

**ELEC 234 Electronics I****Credit Hours: 3**

Review of semiconductor physics, PN junctions, Diode circuits, Special diodes, Bipolar junction transistor (BJT) ), DC and small signal analysis of BJT circuits, MOSFETS, DC analysis of depletion and enhancement MOSFET circuits, small signal analysis of MOSFETs and JFETs.

Prerequisite:

ELEC 201

**ELEC 261 Digital Systems Design****Credit Hours: 3**

Number systems, Boolean Algebra, Combinational Logic Design and implementation, Logic Minimization Techniques, Sequential Logic Design and implementation. State minimization Techniques, Sequential Circuit Implementation, Logic Devices (FPGAs), Hardware description language (VHDL).

Prerequisite:

ELEC 201

**ELEC 262 Digital System Design Lab****Credit Hours: 1**

Selected experiments examining logic devices and circuits, and including a final design project, to accompany and complements the lecture course.

Prerequisite:

ELEC 261 Concur.

**ELEC 263 Computer Architecture & Organization****Credit Hours: 3**

Introduction and historical overview. The Five classic components of a Computer. Performance measures for Computers. CPU description at the instruction level. CPU organization. CPU types. CPU design: Register transfer language, Hardwired and micro-program control, CISC and RISC processors. Instruction and hardware study of a commercial 8-bit microprocessor (e.g. Intel 8088). Computer Memory, Input and output devices.

Prerequisite:

**ELEC 261****ELEC 311 Electromagnetics****Credit Hours: 3**

Electromagnetic phenomena explored in modern applications; Basics of vector calculus. Maxwell's equations and their physical meanings; solution of Maxwell's equations for non-time varying and time varying fields; unguided and guided propagation of travelling waves; electromagnetic radiation and introduction to antenna theory.

Prerequisite:

(PHYS 193 AND MATH 285) OR (MATH 217 AND MATH 385 AND PHYS 193)

**ELEC 312 Electric Machines****Credit Hours: 3**

Magnetic circuits, transformers, DC machines, three-phase induction machines, and synchronous machines. For each machine, the construction, principle of operation, equivalent circuit and characteristics are studied.

Prerequisite:

ELEC 202

**ELEC 313 Electric Machines Lab****Credit Hours: 1**

Transformer: Open and short-circuit tests, polarity test, loading characteristics for efficiency and regulation determination. DC machines: starting and loading tests. Induction Motor: Starting tests, no-Load and locked rotor tests, load test. Synchronous Machines: No load and short circuit tests, synchronization test. Computer package will also be used to handle tedious calculations arising in some electric machine experiments.

Prerequisite:

ELEC 312 Concur.

**ELEC 321 Power Systems Analysis****Credit Hours: 3**

Power system components; per unit system; system modeling and impedance diagram; transmission lines; power flow analysis; symmetrical faults. The course includes a Lab with selected experiments and computer simulations that complement the theory.

Prerequisite:

ELEC 313

**ELEC 325 Power Electronics****Credit Hours: 3**

Power semiconductor devices, power electronic converters: AC/DC, DC/DC, DC/AC, and AC/AC. Selected applications. The course includes a Lab with selected experiments and computer simulations that complement the theory.

Prerequisite:

ELEC 202

**ELEC 341 Communications Engineering****Credit Hours: 3**

Front-end transceiver architectures; conversion from analog to digital and associated distortion; time and frequency multiplexing. Baseband and passband digital communication and modulation; channel characterization and noise effect; introduction to modern communication networks and medium access techniques

Prerequisite:

ELEC 351 AND GENG 200

**ELEC 342 Communications Engineering Lab****Credit Hours: 1**

Construction and testing of analog and digital modulation architectures; spectral analysis and bandwidth requirements; Bit Error Rate performance in digital communication systems; sampling and quantization systems. Introduction to network simulators.

Prerequisite:

ELEC 341 Concur.

**ELEC 351 Signals & Systems****Credit Hours: 3**

Continuous time representation of signals and systems: Signal and system properties; Convolution and time domain response of systems; Fourier series, Fourier transform, and signal spectrum; Laplace transform: Transfer functions; Analog filters; Nyquist Shannon sampling theorem and discrete time signals. Several laboratory experiments to reinforce material from the lectures will be conducted.

Prerequisite:

ELEC 231 Concur.

**ELEC 352 Control Systems****Credit Hours: 3**

Introduction to automatic control: open loop and closed loop systems. System modeling using transfer function and block diagram reductions. Feedback characteristics. Time response: stability analysis, transient performance specifications, and steady-state errors. Routh's stability criterion. Root locus analysis and design. Frequency response: Bode diagrams and Nyquist stability criterion, gain and phase margins. Several laboratory experiments to reinforce material from the lectures will be conducted.

Prerequisite:

ELEC 351 AND (MATH 285 OR MATH 217)

**ELEC 353 Signal Analysis & Filtering****Credit Hours: 3**

Discrete signals and systems; Discrete Fourier Transform, AD-DA Conversions, Multirate DSP; Z transform; FIR/IIR filter design, Optimal Filtering; Linear and circular convolution; overlap-add method; signal enhancement; Advanced Concepts & Applications on 1D (Audio, Biomedical and Multicarrier Communications) and 2D (Image) signals: Denoising, Analysis, Enhancement, Intro to 2D Signal Processing (DIP).

Prerequisite:

ELEC 351 AND (MATH 285 OR MATH 217)

**ELEC 364 Microprocessors****Credit Hours: 3**

Microprocessors and microcontrollers evolution. Architecture of a selected 8-bit microprocessor (e.g. 8088 microprocessor). Assembly language and its software development tools. Data movement, arithmetic, logic, and program control instructions. Interrupt organization. The hardware of the selected microprocessor. Memory interface and address decoding. DRAM controllers. I/O interface. Programmable peripheral interface (PPI). Serial I/O interfacing and USART. Hardware interrupts, basic interrupt interface and programmable interrupt controller (PIC). Direct memory access (DMA).

Prerequisite:

ELEC 263

**ELEC 365 Microprocessors Lab****Credit Hours: 1**

A group of experiments to emphasize the practice of assembly language programming, the data acquisition software technique, and the hardware for data acquisition systems.

Prerequisite:

ELEC 364 Concur.



**ELEC 366 Embedded Systems****Credit Hours: 3**

An introduction to microcontroller architecture, instruction sets, C language compilers, microcontroller interfacing, microcontroller peripherals, and embedded system design. Study cases of microcontroller-controlled systems. Simulation and Emulation of specific families of microcontrollers.

Prerequisite:

ELEC 261 AND GENG 106 AND ELEC 262

**ELEC 367 Embedded Systems Lab****Credit Hours: 1**

Selected experiments and course project that complement the theory course ELEC364. Operation of microcontrollers; interfacing microcontrollers to real systems; design of embedded systems solutions using microcontrollers. Use of computer simulation for the analysis and design of microcontroller-based systems

Prerequisite:

ELEC 366 Concur.

**ELEC 371 Sensors and Instrumentation****Credit Hours: 3**

Measurements & errors; DC & AC bridges; measurements (current, voltage, resistance and capacitance); industrial sensors (temperature, pressure, strain, velocity, flow); signal conditioning and processing techniques (active and passive filters, ADCs); Data Acquisition (DAQ); The course includes a Lab with selected experiments and computer simulations that complement the theory.

Prerequisite:

ELEC 231 OR (ELEC 333 with concurrency)

**ELEC 399 Practical Training****Credit Hours: 3**

Supervised 8 weeks training period at any approved engineering concern (consulting, contracting, industrial, government), intended to provide students with hands-on experience at the work place. Evaluation is based on daily performance, supervisors' input, student's report, and a short presentation.

**ELEC 417 Selected Topics in Electric Machines Credit Hours: 3****Credit Hours: 3**

Selected topics in the field of electric machines that deal with new trends and practical issues. The course includes a Lab with selected experiments and computer simulations that complement the theory.

Prerequisite:

ELEC 312

**ELEC 420 Renewable Energy Sources****Credit Hours: 3**

Conventional electrical distribution systems. Advanced energy distribution systems challenges. Loads nature. Harmonics in electrical distribution systems. Voltage regulation in electrical distribution systems. Fault current levels. Distributed generation. Inverter-based distributed generation. Fault current limiter. Grid-connected converters for renewable energy sources. Island mode of operation. Island detection.

Prerequisite:

ELEC 321 AND ELEC 325

**ELEC 421 Solar Electricity System Design****Credit Hours: 3**

Concepts of solar electricity systems in general and photovoltaic systems in particular and their impacts as engineering solutions in global, economic, environmental, and societal contexts. Technical design, economic analysis, environment impacts, hazards, and viability of photovoltaic system applications.

Prerequisite:

ELEC 321 AND GENG 360 with concurrency

**ELEC 422 Advanced Power System Analysis****Credit Hours: 3**

Network Calculations: Node elimination, direct determination of bus impedance matrix. Symmetrical components and Sequence networks, Unsymmetrical faults, Power Systems Stability: steady state stability, transient stability, voltage stability. Reactive power and voltage control, HV Protection.

Prerequisite:

ELEC 321

**ELEC 423 Electric Power Distribution Systems****Credit Hours: 3**

Load characteristics. Distribution transformers. Underground cables. Primary and secondary distribution systems. Power losses and Voltage regulation. Voltage dips due to motor starting, Low Voltage distribution protection. Reactive power compensation, Distribution generation. Electricity tariffs. Introduction to power quality and Smart Grid.

Prerequisite:

ELEC 321

**ELEC 424 Operation of Power Systems****Credit Hours: 3**

Characteristics and economic dispatch of power generation units, Unit commitment, Optimal power flow, Load frequency control of single and multi-area, Design of load frequency controllers, Automatic generation, Power

Systems Stability: steady state stability, transient stability, voltage stability. Reactive power and voltage control.

Prerequisite:  
ELEC 321

### **ELEC 425 Selected Topics in Power Systems**

**Credit Hours: 3**

Selected topics that deal with new trends and issues in Power System and High Voltage Engineering.

Prerequisite:  
ELEC 321

### **ELEC 426 Protection of Power Systems**

**Credit Hours: 3**

Type of Faults, Symmetrical and unsymmetrical faults, Sequence networks, Instrument transformers, circuit breakers and fuse, Protection strategies, zones of protection, Distance Protection, Differential protection, Generator Protection, Transmission line Protection, radial system protection, Overcurrent Protection and coordination.

Prerequisite:  
ELEC 321

### **ELEC 427 Transportation Electrical Systems**

**Credit Hours: 3**

Selected topics in the field of transportation engineering (e.g. railway, aviation, marine etc.) that deal with concepts, new trends, practical issues, and applications from electrical engineering aspects.

Prerequisite:  
ELEC 428 with concurrency

### **ELEC 428 Electrical Engineering Design**

**Credit Hours: 3**

This course introduces students to the overall design concept and steps within multiple realistic constraints and standards through practical examples oriented around a number of electrical engineering projects. Selective weekly seminars are given by the faculty and invited speakers from the industry. Topics include contemporary engineering issues, ethical issues, engineering skills, creativity, and various other issues that help students in their future careers. The course includes a Lab for design project(s) implementation.

### **ELEC 429 Selected Topics in Electric Machines and Drives**

**Credit Hours: 3**

Selected topics in the field of electric machines and drives that deal with new trends and practical issues. The course includes a Lab with selected experiments and computer simulations that complement the theory.

Prerequisite:

ELEC 321

### **ELEC 438 Selected Topics in Electronics**

**Credit Hours: 3**

Selected topics in the field of Electronics that deals with new trends theoretical and practical issues.

Prerequisite:

ELEC 333 OR ELEC 371

### **ELEC 441 Fundamentals of Secure Communications**

**Credit Hours: 3**

Communication security mechanisms based on cryptography: security evaluation criteria and the mathematical constructs underlying cryptographic primitives; Fundamental security challenges in wireless communications: physical layer, modulations, and higher layers protocols; Applied aspects practice with hands on exercise labs.

Prerequisite:

ELEC 341 AND MATH 285

### **ELEC 442 Satellite Communications**

**Credit Hours: 3**

Introduction to satellite systems: types of satellites, satellite orbits, orbital mechanics, frequencies, constellations; Electro-Magnetic propagation: plane wave propagation, polarization; Link budget: orbit effects, atmospheric effects; Antenna design; Transceiver design: satellite modulations, transponder multiplexing, satellite receivers, noise and interference figures, uplink and downlink designs; Satellite applications: GPS, DVB-S2, CubeSat.

Prerequisite:

ELEC 341

### **ELEC 446 Selected Topics in Communication Engineering**

**Credit Hours: 3**

Selected topic in the field of Communications Engineering that deals with new trends and practical issues.

Prerequisite:

ELEC 341

### **ELEC 448 Digital Wireless Communications**

**Credit Hours: 3**

Cellular radio fundamentals: cellular design concept, interference and capacity, cellular geometry, frequency reuse, cell splitting and sectoring. Mobile radio propagation channel: small scale, shadowing, large scale fading

and wireless channel modeling. Diversity techniques. Transceiver specifications and link budgeting. Modern techniques for wireless communication systems: Channel estimation and equalization and channel coding. Modern wireless system standards and techniques. The course includes a Lab with selected experiments and computer simulations that complement the theory.

Prerequisite:

ELEC 311 AND ELEC 341

### **ELEC 449 Optimization and Machine Learning**

#### **Credit Hours: 3**

This introductory course aims to present an overview of crucial concepts, methods, and algorithms in optimization and machine learning, starting with fundamentals of optimization (in the concept of ML), supervised and unsupervised learning, classification and linear regression. The focus will then be drawn on more recent topics such as Evolutionary Optimization, Support Vector Machines, Artificial Neural Networks, and Convolutional Neural Networks. The course will give the student the basic ideas and intuition behind modern machine learning methods as well as a bit more formal understanding of how, why, and when they work. Selected applications will be covered in data mining, 1D/2D signal analysis, and pattern recognition.

Prerequisite:

ELEC 353

### **ELEC 453 Advanced Control Systems**

#### **Credit Hours: 3**

State-space representation of control system and solution of linear state equation. Controllability, observability, state feedback pole placement, state observer and the separation principle. Linear optimal control. Properties of nonlinear systems, Linearization technique for dynamic systems, Lyapunov stability, and nonlinear control system design. Intelligent control systems.

Prerequisite:

ELEC 352

### **ELEC 455 Selected Topics in Signal Processing**

#### **Credit Hours: 3**

Selected topics in the field of Digital Signal Processing that deals with advanced concepts, new trends and applications. Selected MATLAB based lab exercises, and digital simulations are conducted to enhance and consolidate the theory.

Prerequisite:

ELEC 353

### **ELEC 469 Communication Networks and Applications**

#### **Credit Hours: 3**

Network classifications architecture and topologies; layered reference models and functional description of layers; network protocols, medium access control switching, routing and TCP/IP protocols; framing and error

control techniques; network connectivity and graphs. Modern communication networks: optical networks, wireless and mobile networks, IoT and satellite networks. Fundamentals of queueing theory: queueing systems, Little's theorem, Markov chains, and queueing analysis. Basics of network security and principles of cryptography. Application development for wireless systems, WAP and mobile programming, m-business, m-health and m-government. The course includes a lab with selected computer simulations and mobile programming experiments to complement the theory.

Prerequisite:

ELEC 341

### **ELEC 471 Selected Topics in Computer Engineering**

**Credit Hours: 3**

Selected topics in the field of Computer Engineering that deals with new trends and practical issues.

Prerequisite:

ELEC 366

### **ELEC 472 Wireless Networks & App**

**Credit Hours: 3**

Overview of Mobile Applications, Mobile Business (m-Business), and the Wireless Internet. Wireless Technologies, Wireless transmission, Wireless Networks, Satellite Systems, Wireless LAN, Bluetooth, and Wireless Application Protocol (WAP). Mobile Programming Languages & tools of development including C#.NET, ASP .NET, Mobile.NET, Integrated Development Environment (IDE) Visual Studio .NET, Extensible Markup Language (XML), Web Matrix. Application Development for Wireless Devices.

Prerequisite:

ELEC 341 AND GENG 106

### **ELEC 473 Biomedical Instrumentation**

**Credit Hours: 3**

Basic anatomy and physiology, origin of measurable physiological signals such as Blood Pressure, ECG, EMG, EEG and EOG. Principles of operation of medical sensors, design of electronic circuitry for realizing biomedical instruments. The course includes a Lab with selected experiments and computer simulations that complement the theory.

Prerequisite:

ELEC 371

### **ELEC 474 Optical Electronics in Modern Communications**

**Credit Hours: 3**

This course covers thorough engineering analysis and components for a proper design of optical fiber communications systems. Learn about system evolution and architectures, optical fibers, optical sources, optical

receiver operation, digital transmission systems, WDM concepts and components, optical amplifiers, optical networks (SONET/SDH), measurements in optical systems (attenuation, dispersion, optical spectrum analyzers). Students for term-projects, homework, and free design projects will intensively use CAD tools for design and simulation of optical component and systems.

Prerequisite:

ELEC 321 AND ELEC 341

### **ELEC 475 Smart Grid**

#### **Credit Hours: 3**

Introduction to Smart Grid and its relevant issues such as: Smart Grid Concept and Issue, Distributed Generation and Microgrids, Electric Vehicles, Power Electronics Application, Demand Response, Wide Area Measurement, Communications, Security and Privacy.

Prerequisite:

ELEC 321 AND (GENG 360 with Concurrency) AND (ELEC 341 with Concurrency)

### **ELEC 480 Selected Topics in Power Electronics**

#### **Credit Hours: 3**

Selected topics in the field of power electronics that deals with new trends and applications. Selected laboratory experiments, computer-based exercises, and digital simulation labs are conducted to enhance and consolidate the theory.

Prerequisite:

ELEC 325 AND (ELEC 352 with Concurrency)

### **ELEC 484 Industrial Control**

#### **Credit Hours: 3**

This course aims to introduce the basic concept of industrial automation and modeling and control of industrial process. The course covers modeling of industrial processes through physical principles, and also identification of them using time and frequency domain techniques. Tuning of industrial controllers like PID is elaborated. Next, hydraulic and pneumatic system in industrial automation is introduced and their logic design is elaborated. Finally, Programmable logic controllers (PLC) are introduced and their hardware and software are explained.

Prerequisite:

ELEC 352

### **ELEC 485 Introduction to Robotics**

#### **Credit Hours: 3**

The purpose of this course is to introduce the basics of mathematical modeling, design, planning, and control of robot systems. In this course, student will learn relevant results from rigid body transformation and geometry, forward and inverse kinematics, velocities and Jacobians of linkages, dynamics, trajectory planning and control,



robot design, and actuation and sensing devices.

Prerequisite:

ELEC 352 OR MECH 361

### **ELEC 489 RF Communication Electronics**

#### **Credit Hours: 3**

This course covers engineering analysis and design of RF/Microwave Wireless Systems. Learn about system architectures and impairments (e.g. noise, intermodulation) and effects on system performance parameters like Sensitivity, Non-Linearity (IP3, 1dB-CP), SNR, and BER. Practical circuits for heterodyne/homodyne/Direct-conversion radio receivers are studied, including RF/IF amplifiers, matching networks, oscillators, mixers, frequency synthesizers (PLL), modulators, demodulators. CAD tools for design and simulation of communication circuits and systems along with design projects will be intensively used.

Prerequisite:

ELEC 341 AND ELEC 371

### **ELEC 490 Electric Drives**

#### **Credit Hours: 3**

Introduction electric drive systems, Dynamics of electric drive systems, Joint speed torque characteristics of electric motors and mechanical loads, Modeling of electric drive systems, Speed control of DC motors, Design of feedback control system for electric drives, Speed control of induction motor, Braking of electric motors. Several laboratory experiments and computer-based exercises are conducted to enhance and consolidate the understanding of electric drives principles and applications.

Prerequisite:

ELEC 312 AND (ELEC 325 with Concurrency) AND ELEC 352

### **ELEC 495 Independent Study**

#### **Credit Hours: 3**

To study and conduct a special assignment, or to participate in an internal or external research project.

### **ELEC 498 Senior Design Project I**

#### **Credit Hours: 3**

The main Objective of the project is to train the student on how to tackle a specialized topic in the electrical engineering field. The topics are normally chosen by the department faculty members. The student is required to demonstrate his ability to: conduct a literature survey; perform the relevant calculations and implement his design. A well-referenced report constituting a theoretical background, design, theoretical results, conclusions and recommendations has to be submitted by the end of the project.

Prerequisite:

ELEC 428 with concurrency

**ELEC 499 Senior Design Project II****Credit Hours: 3**

Continuation of ELEC 498.

Prerequisite:

ELEC 498

**ENGL 099 Language Skills I****Credit Hours: 3**

The course is designed to develop the students listening comprehension, pronunciation and speaking skills. It aims at increasing the student's fluency, accuracy and confidence in dealing with listening and speaking materials and situations.

**ENGL 100 Language Skills II****Credit Hours: 3**

The course is a continuation of language skills (1) and provides practice in listening comprehension and speaking skills at a higher level.

**ENGL 110 English I****Credit Hours: 3**

The course is designed to introduce students to the process of reading and oral communication. It provides the students with a wide range of reading and oral communication skills/strategies that help them become efficient readers and speakers of English. The course focuses on reading comprehension and vocabulary development in context, listening comprehension, pronunciation and speaking skills. Course material and textbooks will be selected to reflect the pedagogical content of the course.

**ENGL 111 English II****Credit Hours: 3**

This course is a continuation of English (1) and focuses on developing the same skills at a more advanced level. The emphasis remains on students' practical use of English. Some attention will be given to differences between written and spoken English (with the aim of eliminating errors resulting from confusing the two modes) and to conventions of punctuation.

Prerequisite:

ENGL 110 OR ENGL 202

**ENGL 112 Grammar I****Credit Hours: 2**

This course introduces students to basic syntactic categories, or parts of speech. It pays considerable attention to devices for expressing time, aspect and voice and to development of the students' understanding of how these are used appropriately in context. Continuous attention will be paid to subject-verb agreement throughout the

series of grammar courses.

### **ENGL 113 Grammar II**

#### **Credit Hours: 2**

This course continues Grammar (1) examining in addition modality, negation, the use of determiners and major syntactic and collocational properties of phrasal verbs. The students are also encouraged to practice question formation.

Prerequisite:

ENGL 112 OR ENGL 124

### **ENGL 114 Writing I**

#### **Credit Hours: 2**

The goal of this course is the writing of paragraphs. Students will work on sentences and the combination of sentences, paying additional attention to punctuation and spelling. They will also work on the discovery or creation of ideas and in organizing them into paragraphs showing clear topics, developmental points and conclusions.

### **ENGL 115 Writing II**

#### **Credit Hours: 2**

Building on the paragraph-writing skills of Writing (1), this course will concentrate on short essays of three paragraphs. The students will develop their abilities further to construct more complex sentences and to combine them using suitable transitions. The course will move toward more formal outlining or organizing ideas into clearly stated themes, or purpose, supporting statements and conclusionary remarks.

Prerequisite:

ENGL 114 OR ENGL 127

### **ENGL 150 Essay Writing I**

#### **Credit Hours: 3**

This course provides guided experience in writing academic essays at the university level. Emphasis is placed on writing effective introductions and concluding paragraphs, developing a clearly defined thesis statement and crafting strong supporting paragraphs. The course will help the students to learn how to research, evaluate, use and cite sources and learn a variety of techniques for crafting their own writing through two principal activities: the process of their own writing and analysis of the writing of others. Students will receive instruction on summarizing, using transition signals/paragraphs, paraphrasing, using different types of quotes and correcting common sentence errors. All material is based on the writing standards established by the Modern Language Association (MLA).

**ENGL 151 Advanced Reading Comprehension****Credit Hours: 3**

This course introduces students to a wide variety of authentic texts from different sources including newspaper and magazine articles and extracts from the works of modern writers. Texts will also vary in length and density. Tasks are designed to include different skills reflecting the different kinds of responses to texts needed by students such as summarizing the main argument of the text, taking detailed notes, criticizing texts, comparing texts written in different registers examining the different features that make texts cohesive and coherent and responding to exam-style comprehension questions.

**ENGL 152 Sentence Analysis****Credit Hours: 3**

This course is designed to provide students with an understanding of the way in which words and sentences are constructed. It will cover the fundamental issues of sentence analysis, such as: word classes; clauses and units within the clause; free and bound clauses; and the distinction between form and function. Different ways of representing analysis will be covered, but the emphasis will be on traditional grammar and on functional analysis down to word level. Students will be expected to produce different analyses of superficially identical sentences, in order to explain ambiguities.

**ENGL 153 Essay Writing II****Credit Hours: 3**

This course continues the work started in Essay Writing I. It deals in more detail with the different types of essays, some of which are of immediate relevance to the students' work in other courses such as the analytical and argumentative essay types, and others introduce the student to critical thinking and develop their analytical skills. This course will enable students to learn how to research, outline and write essays and also it enables them to judge essays written by others.

Prerequisite:

ENGL 150 OR ENGL 203 OR ENGL 251

**ENGL 155 Introduction to Language****Credit Hours: 3**

This is an introduction to the general study of language. The course deals with the origin, nature and function of language as a uniquely human phenomenon. That is, what is common to all human speakers no matter what specific language they speak. Topics such as the structure of language, its role in society, and how it is learned are surveyed. Linguistic phenomena and their links to other disciplines such as artificial intelligence, psychology, society, culture, and brain, among others, are discussed.

**ENGL 156 Introduction to Literature I****Credit Hours: 3**

This course introduces plays and a narrative poem from Shakespeare's career. Class discussions will involve close analysis of Shakespeare's language, his culture, and the various moral, political, and aesthetic issues raised in the plays and poetry. The class will favour thematic over chronological order of reading so that

students can build on a progressive examination of king and kinship, gender, love, friendship and reciprocal obligation; revenge and moral redemption.

### **ENGL 157 Introduction to Linguistics**

#### **Credit Hours: 3**

The course introduces students to the basic concepts in phonology, morphology, syntax, and semantics, as well as to some of the other subfields of linguistics, such as psycholinguistics, sociolinguistics and historical linguistics. Data and examples from numerous languages, particularly English and Arabic, are used to illustrate these concepts. The course helps students approach language in a scientific way.

Prerequisite:

ENGL 155

### **ENGL 158 Introduction to Literature II**

#### **Credit Hours: 3**

This course builds on knowledge and skills gained from ENGL156. It surveys literature from the eighteenth century to the present. Students will learn about the rich canonical tradition and how each generation of writers has responded to it. The course will help students to learn key theoretical approaches and instil some of the essential study skills they need for their undergraduate programme.

Prerequisite:

ENGL 156 OR ENGL 248

### **ENGL 200 English Language I for-Arts Shareea Edu**

#### **Credit Hours: 3**

This course is designed to enable students who have completed secondary school English to consolidate basic spoken and written communication skills. The course primarily employs a communicative, task-based approach. Students are encouraged to become independent language learners and apply critical thinking skills towards a variety of motivating themes. Course activities include listening to authentic dialogues, table/data completion, acquiring vocabulary, group discussions, and paragraph and/or text writing.

### **ENGL 201 English Language II for Arts, Shareea and Education**

#### **Credit Hours: 3**

This course is designed to enable students who have completed English 200 to use English effectively for communicative purposes. It offers the opportunity for students to further develop their language skills: listening, speaking, reading, and writing in a systematic way and in context. Students in this course are encouraged to apply critical thinking skills and become independent language learners. The course also gives practice in grammar, vocabulary, pronunciation, note-taking, group discussion, conducting interviews, oral presentation and further reading.

Prerequisite:

## ENGL 200

**ENGL 202 English Language I Post Foundation****Credit Hours: 3**

This course is designed to help students improve their academic writing ability, and to ensure that they are prepared for the more advanced writing and research skills introduced in English 2. Emphasis is placed on understanding information from authentic texts. Academic vocabulary is taught through inference and context. A collaborative community environment is encouraged, whereby students learn to provide and accept relevant, focused feedback to and from their peers. Throughout the semester, students create and develop an e-portfolio.

**Prerequisite:**

ENGL 004 OR ( ENGL 040 OR ENGL C002 OR Total for Integrated Core 400 ) AND ( ENGL 041 OR ENGL R002 OR ESL Reading Skills 100 ) AND ( ENGL 042 OR ENGL W002 OR APL for Writing Workshop 225 ) OR TOEFL\_Inst Testing Prog 500 OR Int Eng Lang Test Syst-IELTS 5.5 OR TOEFL Internet-based Test 061 OR TOEFL Computer-based Test 173 OR (Total for Integrated Core 400 AND ESL Language Use 100 AND ESL Reading Skills 100).

**ENGL 203 English Language II Post Foundation****Credit Hours: 3**

English 203 is an advanced academic writing course which provides an opportunity for students to learn and practice the skills needed for a guided university-level academic paper related to their field of study. The course emphasizes the development of academic writing skills as well as the ability to read and think critically. Students will learn to use the library and appropriate online resources to find and evaluate sources to inform, develop and support their ideas in term paper writing.

**Prerequisite:**

ENGL 202

**ENGL 208 Literary Criticism****Credit Hours: 3**

This course introduces the concept of literary criticism, the history of theorizing about literature, and the different views on the role of literature and its relation to life and society. This course will chart the history of these attempts from Plato to the present, and the subsequent rise of literary theory. Along with studying the main schools of criticism, this course will integrate practical or applied criticism by using a shared text to ground our knowledge within a literary context

**Prerequisite:**

ENGL 158 OR ENGL 248

**ENGL 209 Language and Society****Credit Hours: 3**

The aim of this course is to give students a basic understanding of the role language plays in the fabric of society at both macro and micro levels, particularly the unifying the separatist functions. The nature of the course calls for encompassing themes from social psychology, communication, semiotics, pragmatics, and language planning. This eclectic approach is meant to provide students with an overall view of language as a social process and a social product. It is also meant to making students aware of the link between the formal and the functional dimensions in the study of language. The students are exposed to the problems and issues related to language diversity with reference to the Qatari society.

**ENGL 213 Language and Culture****Credit Hours: 3**

The aim of this course is to introduce language as a catalyst in the formulation, maintenance and transmission of culture. The importance of this course stems from the ever-diminishing role of local cultures in view of a sweeping process of globalization. Language attrition is approached as a back door to cultural attrition. The course adopts an interdisciplinary approach and draws on backgrounds as diverse as linguistic theory, language teaching methodology, media studies and post-colonial literatures in English.

The course stresses the role of language maintenance as a means of transmitting artifacts of culture in the case of indigenous minorities. Reference is made to the call for adopting English as an international lingua franca. Also, the role of education, media, and language policies are studied as means of culture maintenance. Case studies of different language communities are presented. Special reference is made to the Arab world in general and the Qatari society in particular.

**ENGL 216 Phonetics and Phonology****Credit Hours: 3**

This course introduces students to general phonetics and phonology from a theoretical perspective. Students will be introduced to the theory of phoneme and the articulatory features of speech sounds from phonetic and phonological perspectives. The students will touch on the topic of acoustic phonetics. Topics such as phonological alternations (allophonic variation), phonological rules and rule ordering are dealt with. A discussion of the major theoretical frameworks in the field will cover theories such as feature geometry and underspecification, in addition to the basic elements of optimality theory.

Prerequisite:

ENGL 157 OR ENGL 373

**ENGL 220 American Literature****Credit Hours: 3**

This course introduces students to both the contexts and the texts that have come to shape American literature from the eighteenth- to the twentieth century. We will explore differing versions of American identity as they have developed through time and across the genres of prose narrative, poetry, and drama. From Walt Whitman's proud assertion of an American selfhood in "Song of Myself" (1855) to Sylvia Plath's struggle with what it means to be an American woman, this course will engage with major themes in American literature.



These will include slavery and its inheritance, the creation of national identity, gender in America, the idea of the frontier and American gothic.

Prerequisite:

ENGL 158 OR ENGL 248

### **ENGL 226 History of English Language**

**Credit Hours: 3**

The course is designed to introduce student to a history of the English language, focusing on its origins and development in the areas of sound (vowels and consonants), spelling, form and syntax. It will cover Old English, Middle English and Modern English. The course will also familiarize students with methods used by linguists to recognize, describe and analyze language change.

Prerequisite:

ENGL 157 OR ENGL 373

### **ENGL 230 Professional Writing**

**Credit Hours: 3**

This course teaches key rhetorical concepts that help students shape their professional writing ethically, appropriately for audiences, and in a variety of professional contexts. Students will learn to plan, organize, and deliver effective business communications, including formal letters, memos, proposals, reports, presentations, and resumes. Students are encouraged to focus coursework and projects on prospective careers. Through both collaborative and individual projects, students will engage with practical and theoretical problems of communicating in the complex professional environments of the global, 21st century workplace.

Prerequisite:

ENGL 153

### **ENGL 233 Language and Computers**

**Credit Hours: 3**

This course aims at familiarizing the students with the basic relationship between linguistics, computing, and cognitive sciences. Students are introduced to the concepts on natural language processing (NLP), particularly the computational models pertaining to the structure and function of language, its use and its acquisition. Students will also have the chance to study the logic behind many of the computer applications they use including speech recognition and natural language generation. Problems of lexical and syntactic ambiguity are studied in depth and the difficulty they pose in NLP will be highlighted. Other applications such as spelling and grammar checkers spam handling, text –to – speech and speech-to text, parsing, machine translation, etc. will be approached from a functional angle. The course does not require any background in programming although knowledge of one or more programming languages is helpful. The course is suitable for linguistics students aim to enrich their

**ENGL 234 Language and Gender****Credit Hours: 3**

This course focuses on how the social lives of women and men in a society interact with the ways language(s) is structured, learned and used; how people talk to the opposite sex in face-to-face interaction; and how we read and write. Topics covered include gender differences in linguistic forms, nonverbal communication and conversational patterns. It will also include how gender affects boys and girls as they learn to talk. These issues are considered in terms of theoretical and historical perspectives. References will be made to studies in linguistics and particularly sociolinguistics, anthropology, sociology, psychology and women studies.

**ENGL 246 English Phonetics and Phonology****Credit Hours: 3**

This course introduces students to basic practical and descriptive levels of the English sound system and to such principles in other languages. With regard to phonetics, the course covers the articulatory tract and its use in producing English language sounds. Consonants and vowels are classified according to their articulation, and students are taught phonetic transcription. Attention is paid to the problems that speakers of Arabic have in mastering English pronunciation. With regard to phonology, students study the significant sounds of languages - phonemes - and the phonological processes by which the pronunciation of such sounds is affected when they are produced in sequence with other sounds – allophonic variation. In addition to segments – vowels and consonants – the course will investigate phoneme distribution, syllable structure, and stress and general intonation.

**ENGL 249 Writing****Credit Hours: 3**

This course introduces students to the basics of essay writing in English. Students will learn and practice how to develop and write effective sentences, and how to organize these sentences into a cohesive paragraph. Class activities will lead students through the writing process, including brainstorming, developing a topic, adding relevant details, and writing and editing paragraphs. Students will participate in activities that teach a range of writing techniques and stimulate critical thinking skills.

**ENGL 250 English for Communication I****Credit Hours: 3**

This course provides an opportunity for students to continue to increase their English language proficiency but with major weight on reading and writing skills. Readings include a diverse range of articles from authentic texts so that critical thinking, reading strategies, and fluency are developed. Both semi-formal and formal writing skills are incorporated in writing times so that students are familiar and flexible with texts required for college study and different majors. Vocabulary, grammar, listening and speaking are extended through integrative, immersive activities using highly interactive and collaborative strategies, as well as technology-based communication and tools. All sessions are designed around the principles of active learning and student-centered practices.

Prerequisite:

ENGL 111 OR IBT 061 OR CBT 173 OR IELT 5.5 OR T02 500 OR ENGL 203

### **ENGL 251 English for Communication II**

#### **Credit Hours: 3**

Building on English 250, this course is an advanced English Communication course with the main focus being reading and writing . It provides students the opportunity to learn and practice higher level reading and writing skills to prepare them for both college needs and future work demands. Diverse authentic academic models and situations emphasize the appropriateness of every task, culminating with a short-term paper. Students gain information literacy skills, the ability to acknowledge sources and respect for intellectual property necessary for academic assignments. Flexible vocabulary, grammar, listening and speaking are extended through immersive activities using highly interactive sessions including debates, a variety of perspectives and use of technology. All sessions are designed around the principles of active learning and student-centered practices.

Prerequisite:

ENGL 250

### **ENGL 252 English for Business Comm.**

#### **Credit Hours: 3**

English for Business communication is an upper intermediate English communication course. The course is intended for students who are preparing for a career in business. The course focuses on high level reading, writing, listening and speaking. The course combines recent ideas from the world of business with a strong task based approach. The writing component includes business correspondence in a variety of registers as well as concise report writing. The speaking component focuses on role plays of business meetings where students are required to take on a role in a business case study. Students are encouraged to use their own opinions in order to maximize involvement and learning.

Prerequisite:

ENGL 250

### **ENGL 253 English Communication for Law**

#### **Credit Hours: 3**

English communication for Law is an upper intermediate level English course. The course focuses on high-level writing and reading. The writing component includes the promotion of fluency and accuracy in Law discipline specific situations and law-related academic genres. This culminates in a term paper incorporating referenced authoritative sources. Interactions through debates, role plays and various media enrich the course. The regular application of critical thinking pushes a student's boundaries to enhance understanding of both law discipline specific and legal contemporary materials.

Prerequisite:

ENGL 250

**ENGL 301 Syntax****Credit Hours: 3**

This course introduces students to the study of the theory of the syntax of human language and the methods of syntactic analysis. We begin with considering fundamental theoretical linguistic notions about the form of human language and general syntactic concepts and move towards identifying and classifying syntactic units: words, phrases and clauses. The course will also treat the concept of structure, how it is formed, assigned, represented and tested. We will follow this by examining major syntactic processes. Lectures, discussions, group presentations and exercises will be our main learning vehicles in this course.

Prerequisite:

ENGL 157 OR ENGL 373

**ENGL 302 Comparative Literature****Credit Hours: 3**

Comparative literature is the critical study of literature dealing with two or more literatures, different in their cultural, linguistic or national origin. This course introduces students to the theory and practice as well as to the recent developments in this field. In addition to enhancing their command of new development in critical theory, this course will enable student to transfer the skills they learnt in English and American literature to other literatures, and particularly their own literature.

Prerequisite:

ENGL 158 OR ENGL 248

**ENGL 303 Sociolinguistics****Credit Hours: 3**

This course introduces students to the study of language in its social context, focusing on uses and users of language. It tries to answer to a number of questions regarding the correlation between language and society, including the following: a) Who uses different linguistic forms and/or language varieties? b) Who do they use them with? c) Why do some forms or languages ‘win over’ some others? Topics include sociolinguistic variation, politeness, social identity construction, and language contact.

Prerequisite:

ENGL 157 OR ENGL 373

**ENGL 304 Shakespeare****Credit Hours: 3**

This course will introduce plays and a narrative poem from Shakespeare’s career as chief dramatist for The Lord Chamberlain’s Men and, later, The King’s Men. Class discussions will involve close analysis of Shakespeare’s language, his culture, and the various moral, political, and aesthetic issues raised in the plays and poetry. The class will favor a thematic over chronological order of reading so that students can build on a progressive examination of king and kinship, gender, love, friendship and reciprocal obligation; also, in relation

to these issues, the class will examine domestic and political tyranny, revenge and moral redemption.

Prerequisite:

ENGL 158 OR ENGL 248

### **ENGL 305 First Language Acquisition**

#### **Credit Hours: 3**

This course introduces plays and a narrative poem from Shakespeare's career. Class discussions will involve close analysis of Shakespeare's language, his culture, and the various moral, political, and aesthetic issues raised in the plays and poetry. The class will favour thematic over chronological order of reading so that students can build on a progressive examination of king and kinship, gender, love, friendship and reciprocal obligation, revenge and moral redemption.

Prerequisite:

ENGL 157 OR ENGL 373

### **ENGL 306 Medieval Literature**

#### **Credit Hours: 3**

This course introduces students to the main canonical works of the medieval period (approx. 12th – 15th century) as well as the necessary historical background information—the religious & socio-cultural scene—to contextualize such works. It will focus on the poetic genre, the Arthurian legend, and Chaucer, with only quick survey reference to other genres like Morality drama (e.g. Everyman) and travel literature (e.g. Mandeville's Travels). Selected texts for close study will be in modern translation.

Prerequisite:

ENGL 158 OR ENGL 248

### **ENGL 307 Psycholinguistics**

#### **Credit Hours: 3**

This course introduces the study of language and mind. It covers the main areas of this subfield: language processing, innateness and issues regarding the nature of mind as a theoretical construct and as a way of talking. The course deals with the ways that various kinds of evidence are marshaled in support of different mental models of how linguistic data is represented and processed. Evidence of language and mind with regards to language organization, structure, function, and breakdown, is considered.

Prerequisite:

ENGL 157 OR ENGL 373

### **ENGL 308 Renaissance to Restoration**

#### **Credit Hours: 3**

This course focuses on the literature of change in the seventeenth century, from edgy theatre of the likes of Ben Jonson and Thomas Middleton to the prose writings of revolutionaries like John Milton and females like Aphra

Behn. The first half of this course will take us through to the 1630s, the second half will focus on the period of revolution and Restoration, and will include glances at religious controversy, political pamphleteering, and the making of modern London.

Prerequisite:

ENGL 158 OR ENGL 248

### **ENGL 309 Second Language Acquisition**

#### **Credit Hours: 3**

The course outlines and discusses the theoretical and empirical background concerning aspects of Second Language Acquisition (SLA). Some fundamental considerations of the nature of language and language learning will be discussed first. Then ideas and research that have provided the framework for SLA will be represented. Other aspects of SLA will be surveyed and discussed in order to contribute further to our understanding of the process of foreign language acquisition.

Prerequisite:

ENGL 157 OR ENGL 373

### **ENGL 314 Augustan to Romantic**

#### **Credit Hours: 3**

This course provides a study of English literature from the Restoration of Charles II to the throne of England in 1660 and ending with the ascension of Queen Victoria in 1837. This period witnessed the beginnings of Enlightenment consciousness, the expansion of the British Empire, and the revolutions that gave birth to the modern political order. Emphasizing the transition from satirical expression to introspective reflection, and historical and cultural development from “Augustan Neoclassicism” to “Romanticism.”

Prerequisite:

ENGL 158 OR ENGL 248

### **ENGL 319 Semantics**

#### **Credit Hours: 3**

The aim of this course is to examine the nature and scope of semantics. Attention will be paid to such topics as Context, Reference, Semantics and Grammar, Utterance Meaning, Semantics and Logic. Set texts will be mostly in the form of a discussion of general principle applied to some data, followed by a number of exercises. Points will be illustrated with examples from both English and Arabic.

Prerequisite:

ENGL 157 OR ENGL 373

**ENGL 324 Victorian Literature****Credit Hours: 3**

This course studies the literary production of the Victorian era. The general cultural and intellectual background of Victorianism will be introduced to understand the rapid social and political changes of the times such as the industrial revolution, urbanization, political reform, the rise of the middle class, material and scientific progress, mass production, the transformation to modernity, among other changes. Overall, the course exposes students to the body of literature in its literary-historical context of the second half of the 19th century.

Prerequisite:

ENGL 158 OR ENGL 248

**ENGL 326 Poetry****Credit Hours: 3**

This course familiarizes students with critical terms required for poetry analysis and introduces poetry written in English in England, Ireland, America, and overseas, from Medieval times through the Romantic period, to the present. It includes discussions of poetic genres and examines poets at the junction of poetry, and other literary genres. Artforms as paintings are utilized to provide a challenging approach. The course roots poems in their socio-historical contexts, offers innovative analyses, and provides an overview of current philosophical approaches.

Prerequisite:

ENGL 158 OR ENGL 248

**ENGL 327 Discourse Analysis****Credit Hours: 3**

Discourse Analysis is the study of spoken or written, naturally occurring language use. While much of linguistics focuses on abstract linguistic structure, this course will focus on the things we do with language, including telling stories, holding a conversation, and carrying out forms of interaction specific to particular kinds of social encounters (like courtroom proceedings, doctor-patient consultation, classroom interaction, talk show radio chat). The patterns we find in discourse can tell us something about the social world around us.

Prerequisite:

ENGL 157 OR ENGL 373

**ENGL 328 Drama****Credit Hours: 3**

This course introduces students to the genre of drama and its basic characteristics, beginning with the model of Greek tragedy and a study of Aristotle's Poetics. It will also introduce them to the evolution and development of English drama through its most significant phases. Students will study how plays reflect their respective ages and overarching theme of man vs. fate/destiny, as well as man vs. society.

Prerequisite:



ENGL 158 OR ENGL 248

### **ENGL 330 The Short Story**

#### **Credit Hours: 3**

This course is designed to introduce students to the genre of the short story and its various types. The texts are selected from the works of well-known American & English writers and vary in length, theme, and technique. Close reading and in-depth analysis of the stories will be applied to enhance the students' knowledge, experience, and skill in critiquing a fictional prose text. The literary elements of short fiction, a brief history of the short story, and writing analytical essays—are all components of the course. Students are required and expected to read fully the original texts of approximately 18 to 20 stories and apply critical thinking in study and discussions. The selection should include a variety of short story genres, types, themes, styles, and techniques.

Prerequisite:

ENGL 158 OR ENGL 248

### **ENGL 332 The Novel**

#### **Credit Hours: 3**

This course introduces students to the English novel as a literary genre, exploring not only the various elements that make up the novel (plot, characterization, time, voice or narrative perspective, narrative techniques, theme, etc.) but also its development in historical, cultural, and thematic contexts. Students also explore timeless moral and ethical questions probed by great novelists. After an introduction to the English novel and its development, the course concentrates on the epoch of great English novels, particularly in the nineteenth and twentieth century, and provides the students with close reading of selected novels. In exploring the stories of these books through the eyes of the storytellers, we will learn more about both the stories themselves and the narrators' biases, vision, 'world view', agendas, or simply the lens through which they perceive the world.

Prerequisite:

ENGL 158 OR ENGL 248

### **ENGL 353 Sounds of English**

#### **Credit Hours: 3**

An introduction to the sounds of English. Topics covered include: segmental phonology (the "letter" sounds of English); syllable structure, stress, and intonation; the articulation of English sounds, including components of the human vocal tract that contribute to these sounds; basics about the different varieties of English (e.g., American English compared to British English); and differences between the sounds of English and Arabic (e.g., English vowels and consonants not in Arabic).

Prerequisite:

ENGL 157

**ENGL 354 Structure of the English Language****Credit Hours: 3**

An introduction to the structure of English language, aiming to develop in students the ability to analyze and describe morphological, syntactic, and semantic structures in English. In morphology, it examines the structure of English words and the processes that generate them. In syntax, it explores the structure and parts of sentences. For semantics, topics include meaning relations between lexical items, semantic concepts including sense relations, prototypes, semantic fields, idiomatic expressions, and the relationship between word meaning and sentence meaning.

Prerequisite:

ENGL 157

**ENGL 370 American Literature****Credit Hours: 3**

This course aims to introduce students both to major themes and ideas in American literature and to significant American authors. Issues to be dealt with will include slavery, the idea of the frontier and the development of a national identity. Examples of 19th and 20th century poetry and fiction will be taken from such authors as Dickinson, Twain, Hawthorne, Poe, Fitzgerald, Whitman, and Melville.

Prerequisite:

ENGL 248 OR ENGL 156 OR ENGL 215

**ENGL 373 Introduction to Linguistics****Credit Hours: 3**

The course deals with the levels of linguistic analysis: phonetics, phonology, morphology, syntax, and semantics. Data from numerous languages are used to introduce the students to the methods of analysis in phonology and morphology, but English is used to exemplify syntactic analyses and hypotheses, and semantic concepts. Extensive use of practical exercises will help the students to understand theoretical notions and learn how to approach language in a scientific way.

**ENGL 375 Poetry****Credit Hours: 3**

This course has two objectives: to familiarize students with critical terms required for the analysis of poetry and to introduce them to poetry written in English from the Medieval through the Romantic Period. The course includes discussions of the genres of poetry, such as the folk and literary ballad, lyrical verse, the sonnet, satire, and ode.

Prerequisite:

ENGL 248 OR ENGL 156

**ENGL 390 Sociolinguistics****Credit Hours: 3**

The course provides an introduction to language in its social context, focusing on uses and users of language. Topics include: social class, ethnic group, gender, language attitudes, bilingualism, language contact, and dialects.

**ENGL 393 Twentieth Century Literature****Credit Hours: 3**

This course is designed to introduce students to modernist poetry and prose. Modernism's challenge to literary form will be related to its historical, intellectual and ideological contexts. Combining approaches to the experimental form of both poetry and prose, the course will encourage students to relate the aesthetic concerns of modernist writers to aesthetic trends in the period more generally. Writers from the Modernists canon such as Woolf, Joyce, Pound and Eliot will be studied, as well as lesser-known but equally influential figures such as H.D. The course takes an international perspective, reflecting modernism's own transatlantic cosmopolitanism. Key concepts such as gender and politics will also be studied as they relate to and influence modernist writing. Beginning with the differing genres of nineteenth-century poetry, the course allows students to trace the revolutions in poetic expression throughout the twentieth century and how they reflect the changing ideologies of the

Prerequisite:

ENGL 158 OR ENGL 248

**ENGL 400 Women's Literature****Credit Hours: 3**

This course offers a survey of key women's writings from the medieval period until the twentieth century, and also involves the discussion and study of particular feminist themes. These include issues such as women's self-image and finding a voice; definitions of female identity; challenging patriarchy & traditional culture; the role of gender in the production of literature; literary characteristics of women's writings; the emergence of feminist criticism. The selected readings range from creative works to influential foundational tracts.

Prerequisite:

ENGL 158 OR ENGL 248

**ENGL 401 Speech Sciences****Credit Hours: 3**

This is a comprehensive course, which teaches the core material of the three areas of speech science: speech production, hearing, and speech perception. The course opens with a unit on basic research skills, techniques, and basic statistics. It then proceeds to the unit on Speech Production, which addresses the anatomy and physiology of speech. This course provides students with the necessary expertise and experience to work in a speech lab, or to proceed to graduate studies in the speech sciences.

Prerequisite:

ENGL 216 OR ENGL 246

### **ENGL 402 Text and Film**

**Credit Hours: 3**

This course provides an interdisciplinary study of literature and film. It examines the relations in the context of word and image debates, interact discourse, theories of adaptation, theoretical trends in the humanities, and the problem of turning texts into moving images. The course offers a theoretical introduction to questions of representation and issues of iconology, before dealing with the novel / film debate and theories of adaptation. The course explores different strategies of adaptation and narrative transformation, and choices open to film-making.

Prerequisite:

ENGL 158 OR ENGL 248

### **ENGL 403 Field Methods**

**Credit Hours: 3**

This course gives students first-hand experience and training in linguistic fieldwork, including data archiving, data preprocessing, and linguistic analysis of a non-Western language. The course covers basic research techniques in the form of guided elicitation sessions in class with a language consultant who is a native speaker of the language of study. Phonological, morphological, syntactic, or semantic structures are elicited and analyzed by the students in a research paper which they submit at the end of the course.

Prerequisite:

ENGL 157 OR ENGL 373

### **ENGL 404 Modernism**

**Credit Hours: 3**

This course is designed to introduce students to modernist poetry and prose. Modernism's challenge to literary form will be related to its historical context and formal analysis. The course takes an international perspective, reflecting modernism's own transatlantic cosmopolitanism. Beginning with the differing genres of nineteenth-century poetry, the course allows students to trace the revolutions in poetic expression throughout the twentieth century and how they reflect the changing ideologies of the time.

Prerequisite:

ENGL 158 OR ENGL 248

### **ENGL 406 Post-Modernism**

**Credit Hours: 3**

This course provides an introduction to postmodernism and its critics, focusing on novels and films. Learning about concepts and techniques deployed in novels and films, and demonstrate their destabilizing rhetorical and visual effects. The course will include a discussion of a number of literary concepts such as intertextuality, metafiction, self-reflexivity, parody, pastiche and collage. We will also explore how postmodern concepts and

techniques can be traced in other disciplines such as architecture, visual arts, film, and technological innovations.

Prerequisite:

ENGL 158 OR ENGL 248

### **ENGL 408 Post-Colonial Literature**

#### **Credit Hours: 3**

This course introduces a clear definition of the field and an historical account of its development, and culminates the application of this method of analysis to selected works of colonial and postcolonial literature. It will introduce students to the shift from history to geography which in turn brought the question of power, hegemony and representation into focus. It also includes in the range of its inquiry the comparison of different types of art.

Prerequisite:

ENGL 158 OR ENGL 248

### **ENGL 423 Seminar in Linguistics**

#### **Credit Hours: 3**

This course provides students with the opportunity to read and discuss primary research articles in detail, on a topic not covered in the program's regularly scheduled linguistics courses. The specific topic will be selected by the instructor. Students will read and discuss seminal articles on the topic chosen by the instructor. Student evaluation will be based on their critical response papers to article and their level of participation in the seminar meeting discussions.

Prerequisite:

ENGL 157 OR ENGL 373

### **ENGL 424 Modern Drama**

#### **Credit Hours: 3**

This course analyzes modern plays from the late 19th and the 20th centuries. Selected texts of European drama are studied not only for their aesthetic traits but also innovation. The most significant of these crises is the breakdown of traditions that defined individuals and their relationships to society and culture. Modern drama illustrates individual disillusionment with ideals and historical meaning. We will therefore consider what drama in particular has to offer now and in the future.

Prerequisite:

ENGL 158 OR ENGL 248

**ENGL 425 Topics in Linguistics****Credit Hours: 3**

The aim of this course is to introduce students to special and/or new-trends issues in the study of language at both formal and functional levels. This is meant to keep up with new developments in the field of linguistics without having to change or modify the study plan. It is also meant to provide the students with the chance to pursue a topic relevant to their academic interests that is not offered as a regular course in the program. The course adopts an in-depth approach in which the background and the development of an issue is presented and discussed in a format similar to that of other courses in the program. Although this course is offered under the rubric of ‘Topics in Linguistics’, a specific topic is tagged on to it every time it is offered. The instructor provides a rationale for the selection of a given topic, and its relevance to the program and to the students’ potential interests is particularly highlighted. A basket of proposed topics is annually reviewed by the Department.

Prerequisite:

ENGL 157 OR ENGL 373

**ENGL 426 Children’s Literature****Credit Hours: 3**

This course will introduce students to the wide variety of literature for children, including poetry, plays, picture-books and prose. We will look at the origins of children’s literature in fairy tales, folk lore and the oral rhythms of nursery rhyme and song. Students will study the differing approaches to the psychology, literacy and individual development found in writing for children.

Prerequisite:

ENGL 158 OR ENGL 248

**ENGL 428 Topics in Literature****Credit Hours: 3**

This course introduces students to special and/or new trends in the study of literature. Students will have the chance to pursue a topic relevant to their academic interests that is not offered as a regular course in the program. Although this course is offered under the rubric of ‘Topics in Literature’, a specific topic is tagged on to it every time it is offered.

Prerequisite:

ENGL 158 OR ENGL 248

**ENGL 441 English Syntactic Structure****Credit Hours: 3**

This course introduces the students to the categories and principle structures of English syntax. The course reviews the morpheme and the word but concentrates on phrase and sentence structures. It also introduces the students to the methods of syntactic analysis and provides them with extensive practical exercises to understand

theoretical notions and learn how to approach the syntactic system of English in a scientific way.

Prerequisite:

ENGL 373 OR ENGL 310

### **ENGL 442 Capstone-Integrated Skills**

#### **Credit Hours: 3**

This course provides an introduction the analysis of spoken and written texts in context. Students will be encouraged to collect, transcribe, and analyze features of conversations, lectures, explanations, interviews, descriptions, and other types of written and spoken texts while reading and discussing theoretical notions underlying language use in English, and identify features of cohesion, involvement, coherence, structure, rhythm, prosody and others.

### **ENGL 444 Seminar in Lang & Linguistics**

#### **Credit Hours: 3**

This seminar allows students to specialize in one of several areas of study: language and linguistics. Common training will be given in the correction and presentation of data for a research paper, with students examining models and completing exercises. The later part of the course will take the form of tutorial groups, and presentations, according to specialization.

Prerequisite:

ENGL 373 OR ENGL 310

### **ENGL 445 Topics in Linguistics**

#### **Credit Hours: 3**

This course provides an in-depth exposé to some of the areas in linguistics that fall outside the core areas of linguistic structures. These include historical linguistics: language history and change, and language comparison; socio-linguistics: language variation and language contact; computational linguistics: computers and language analysis, and translation. It may also deal with recent developments in linguistic theory and more advanced issues of linguistic analysis.

Prerequisite:

ENGL 373 OR ENGL 310

### **ENGL 446 Semantics**

#### **Credit Hours: 3**

The aim of the course is to examine the nature and scope of semantics. Attention will be given to such topics as Context, Reference and Denotation, Lexical Semantics: Fields and Collocation, Sense Relations, Semantics and Grammar, Utterance Meaning, Semantics and Logic. Set texts will be mostly in the form of a discussion of general principles applied to some data, followed by a number of exercises.

Prerequisite:



ENGL 373 OR ENGL 310

### **ENGL 448 Independent Study**

#### **Credit Hours: 3**

Studies arranged with an instructor to enable the student to make up for an insufficient number of credit hours required for graduation.

### **ENGL 449 Capstone (Integrated Skills)**

#### **Credit Hours: 3**

Students take this course at the first or second terms of their senior year in the DELL program. In this course, students embark on a research project under the supervision of their instructors. To enhance their collaboration skills, more than one student may embark on one project. Although students are given the liberty to select their individual/ collective project, the approval and guidance of instructors is practiced. Specifically, the Capstone project is supposed to reflect the skills and training undertaken throughout the DELL program. Students' performance is supposed to reflect, in addition to their professional writing and presentation skills, the ability to conduct a goal oriented and methodical research. Specifically, a research question, goal, methodology, and critical analysis of results are highlighted.

Prerequisite:

ENGL 375 OR ENGL 318

### **ENGL 451 Modern Drama**

#### **Credit Hours: 3**

This course focuses on later drama from the nineteenth and twentieth centuries. Selected texts from Continental, English, and American drama are studied not only for their aesthetic traits but also for the ways they illustrate cultural crises. The most significant of these crises is the breakdown of traditions that defined individuals and their relationships to society and culture. Modern drama illustrates individual disillusionment with ideals and historical meaning.

Prerequisite:

ENGL 377 OR ENGL 313

### **ENGL 453 History of English Literature**

#### **Credit Hours: 3**

This course incorporates the developments in English literature up to the Modern Period. It relates the various trends and movements in English literature to their social and cultural contexts. This course provides a wide variety of critical and historical background information relevant to studies in English literature.

### **ENGL 490 Shakespeare**

#### **Credit Hours: 3**

Our larger goal in this course is first and foremost to think with Shakespeare. By this I mean reading Shakespeare's plays in order to address questions of ongoing theoretical and practical urgency, in dialogue with

but not constrained by the horizons of Shakespeare's world. Shakespeare: a theatre of evil is designed to expose students to Shakespeare's darkest plays and Thought. Using contemporary criticism as a point of entry, this course will establish how and why the question of evil is pervasive throughout Shakespeare's work. No writer has indeed surpassed Shakespeare in capturing the essence of evil. Shakespeare's great evildoers—such as Iago in Othello, Edmund in King Lear, Macbeth, and Claudius in Hamlet—are at once believably human and cosmically representative of a battle between good and evil. Trying to answer “the question of evil in Shakespeare” provides an opportunity for glimpsing into the heart of the human condition. The plays will be both studied as distinguished writ.

Prerequisite:

ENGL 248

### **ENGL 499 Capstone (Integrated Skills)**

#### **Credit Hours: 3**

Students take this course at the first or second terms of their senior year in their program. In this course, students embark on a research project under the supervision of their instructors. To enhance their collaboration skills, more than one student may embark on one project. Although students are given the liberty to select their individual/collective project, the approval and guidance of instructors is practiced. Specifically, the Capstone project is supposed to reflect the skills and training undertaken throughout the DELL program. Students' performance is supposed to reflect, in addition to their professional writing and presentation skills, the ability to conduct a goal oriented and methodical research. Specifically, a research question, goal, methodology, and critical analysis of results are highlighted.

### **ENGL R100 Developmental English**

#### **Credit Hours: 3**

The course ENGL R100 prepares students with lower English proficiency levels for English 110. Methodologies are used that allow all four-language skills to be accessed and practiced through rich and interesting activities that engage the learner. Fieldtrips that contextualize concepts and allow learners access to authentic language are offered to reinforce the themes of the units. Tasks, tests and exams are used to evaluate the students' attainment of outcomes during and at the end of the course. Engr100 is taken as Pass/Fail. Students must achieve 70% or more in the course in order to pass.

### **EPSY 201 Introduction to Psychology**

#### **Credit Hours: 3**

The course provides students with introductory knowledge and skills about the basic principles, methods, and areas of psychology, such as learning, memory, emotion, perception, physiological, developmental, intellectual, social, and abnormal. The aim of this course is to provide students with a basic overview of psychology as behavioral science and to help them develop a more comprehensive and accurate understanding behavior.

**EPSY 205 Social Psychology****Credit Hours: 3**

Social Psychology is the scientific study of the way in which people's thoughts, feelings, and behaviors are influenced by the real or imagined presence of other people. This course will focus on three major categories: (a) thinking about the self and the others, (b) evaluating persons and relationship, and (c) interacting with other people. Thinking about the self. Evaluating persons and relationships involves attitudes, attitude change, prejudice, interpersonal attraction, and close interpersonal power, and groups.

**FINA 114 Principles of Finance****Credit Hours: 3**

Basic concepts and techniques relating to identification of business financial needs and their sources, with particular emphasis on financial analysis, planning and control, as well as investment decisions relating to working capital.

Prerequisite:

MAGT 112 AND ACCT 111 AND STAT 222

**FINA 201 Principles of Finance****Credit Hours: 3**

This course emphasizes the financing and investment decisions of the financial manager. Topics include financial analysis, planning and control, working capital management, time value of money, risk and return, valuation of bonds and stocks, capital budgeting, and cost of capital.

Prerequisite:

(MAGT 101 OR MAGT 112) AND ACCT 110

**FINA 301 Corporate Finance****Credit Hours: 3**

This course provides an in-depth analysis of financial decisions involving investment in capital assets and the selection of internal and external sources of long-term funds. Topics include capital budgeting techniques, risk analysis, capital structure, dividend policies, mergers and acquisitions.

Prerequisite:

FINA 201

**FINA 302 Investments****Credit Hours: 3**

This course examines alternative investment instruments and environments. This course provides an introduction to risk and return; asset pricing models; portfolio choice; analysis and valuation of bonds, stocks, options, and futures; and, the workings of exchanges and regulations.

Prerequisite:

FINA 201 AND ( STAT 220 OR STAT 155)

### **FINA 303 Financial Markets & Institutions**

#### **Credit Hours: 3**

This course examines the operations, mechanics and structure of the financial system. Topics include commercial banking, non-bank financial institutions, money and capital markets, and the impact of monetary policy on financial institutions. An introduction to the international financial system is also provided.

Prerequisite:

FINA 201

### **FINA 304 International Finance**

#### **Credit Hours: 3**

This course surveys techniques of investment analysis and portfolio management within an international context. Topics include International monetary environment and institutions, determinants of foreign exchange rates and risk management, valuation and portfolio analysis of international stocks and bonds, and foreign investment analysis

Prerequisite:

FINA 302 OR MAGT 306 OR ( FINA 201 AND MAGT 304)

### **FINA 305 Public Finance Application**

#### **Credit Hours: 3**

Financial functions of public administration at state level. Analytical presentation of the financial decision making process, financial planning, and financial welfare. Analyzing the financial structure for both internal and external sources. Applying the financial analysis indicators and procedures to increase the financial efficiency of the state.

### **FINA 307 Financial Institutions Management**

#### **Credit Hours: 3**

Concepts of financial institutions management. Main fields of decision making and methods of evaluating alternative courses of action. Commercial banks and insurance companies are emphasized.

### **FINA 308 Financial Management**

#### **Credit Hours: 3**

Some advanced topics in the areas of financial analysis, capital investments decisions, fixed assets, financial structure, sources of capital, securities and the methods of portfolio analysis.

### **FINA 323 Management of Financial Firms**

#### **Credit Hours: 3**

Approaches and policies adopted by financial institutions such as commercial banks, Islamic banks, insurance companies and investment funds. Special emphasis will be laid on management of financial firms operating in the State of Qatar.

Prerequisite:

FINA 114

### **FINA 324 International Banking Operations**

**Credit Hours: 3**

Managerial aspects of the international banking system, international banking activities, the organizational setup of international banking, foreign exchange risk management, international portfolio and role of multinationals.

Prerequisite:

FINA 411

### **FINA 401 Portfolio Management**

**Credit Hours: 3**

This course covers various topics related to portfolio management. Topics include diversification and portfolio theory, capital market theory, security selection and bond selection; portfolio management: revision of equity portfolio and fixed-income portfolio, risk management with derivative securities, performance evaluation, and portfolio manager's duties and responsibilities; integrating derivative assets and portfolio management.

Prerequisite:

FINA 302

### **FINA 402 Personal Finance**

**Credit Hours: 3**

This course provides an overview of fundamental concepts of personal finance. Topics include types of investment securities, retirement and real estate planning, insurance planning, budgeting, credit, home ownership, and savings.

Prerequisite:

FINA 201

### **FINA 403 Insurance & Risk Management**

**Credit Hours: 3**

This course addresses and examines the basic risk theory and elementary risk management principles and techniques. Topics include life insurance and annuity products, property/liability insurance, life/health insurance, and selected social insurance programs, insurers and their operations, guidelines for efficient purchase and use of insurance products. Special attention is given to the attitudes of consumers towards life and general insurance in GCC countries and the role of insurance companies as non-banking financial institutions.

Prerequisite:

FINA 201 AND STAT 222

### **FINA 404 Islamic Banking & Finance**

**Credit Hours: 3**

This course introduces the concept of economic behavior of a society that adheres to the Islamic doctrine; economic properties of an Islamic economy, general equilibrium and macroeconomic policies in Islamic economies, Islamic banks and finance and the role of the stock exchange in an Islamic economy. Other topics include basic differences between Islamic banks and conventional banks; financial instruments of Islamic banks; profit/loss sharing method of finance is compared with fixed interest charges. The relationship between Islamic financial institutions and the Central Bank is analyzed.

Prerequisite:

FINA 201 AND (STAT 220 OR STAT 155)

### **FINA 405 Financial Derivatives**

**Credit Hours: 3**

This course focuses on options and futures markets, investment and risk management strategies using these derivative products, and pricing of options and futures contracts. Additional coverage includes basic swap agreements and exotic options.

Prerequisite:

FINA 302

### **FINA 406 Management of Financial intermediaries**

**Credit Hours: 3**

This course covers financial management of deposit and non-deposit-taking financial institutions. The course aims to have students understand and appreciate the conceptual, strategic, and risk management issues involved in managing financial intermediaries in general and banks in particular, and understand the impact of interactions of business areas on financial performance. Topics include the role and the activities of depository financial institutions, performance measurement and evaluation; asset/liability management for liquidity risk, credit risk, interest rate risk; and regulation of depository institutions.

Prerequisite:

FINA 302

### **FINA 410 Financing for Entrepreneurial Ventures**

**Credit Hours: 3**

The focus of this course is to analyze the unique financial issues which face entrepreneurial firms and to develop a set of skills that has wide applications for such situations. The course covers venture capital industry and its players, sources of financing, legal aspects of venture capital, cost of capital and valuation, investment

feasibility and comparable analysis, real options, and game theory.

Prerequisite:  
MAGT 303

### **FINA 411 Financial Management**

#### **Credit Hours: 3**

Financial planning and control, as well as capital investment decisions under uncertainty, in addition to main financial policies adopted by the firm and its capital structure.

Prerequisite:  
FINA 114

### **FINA 416 Portfolio Analysis**

#### **Credit Hours: 3**

Basic concepts related to modern portfolio theory, characteristics of securities, analysis and selection of portfolio, asset pricing model, equilibrium model and assessment of securities.

Prerequisite:  
FINA 114

### **FINA 425 Financial Modeling**

#### **Credit Hours: 3**

This course builds upon the theoretical background gained in FINA 201, FINA 301, and FINA 302 and equips the students with the required tools to solve real-world finance problems. The course introduces advanced statistical and risk analysis tools for the purpose of financial planning and decision-making. Topics to be covered include, but are not limited to: "What-if" analysis; Goal Seek; Statistical Solver; Scenario Manager; Data Tables; Portfolio Optimization; Monte Carlo Simulations; Break-Even Analysis; Sensitivity Analysis; and Risk Analysis.

Prerequisite:  
MIST 201 AND FINA 301 AND FINA 302

### **FINA 429 Insurance**

#### **Credit Hours: 3**

Structure-conduct-performance paradigm of the insurance industry; insurance contract, insurance policies for different kinds of insurance, insurance premiums and reserves. Special attention is given to the attitudes of consumers towards life and general insurance in GCC countries. The role of insurance companies as non-banking financial institutions will be assessed, and the future of the insurance industry is examined.

Prerequisite:



## FINA 411 AND ECON 112

### **FINA 432 Money & Capital Markets**

#### **Credit Hours: 3**

Introduction short-term and long-term financial markets, financial and non-financial institutions, banking regulation, the GCC stock markets, efficiency markets, money market rates and the common stock returns, randomness of stock market movements, the arbitrage pricing theory, international stock markets

Prerequisite:

ECON 112 AND STAT 222

### **FINA 455 Islamic Banking & Finance**

#### **Credit Hours: 3**

Introduction of the concept economic behavior of a society that adheres to the Islamic doctrine; economic properties of an Islamic economy, general equilibrium and macroeconomic policies in Islamic economies, Islamic banks and finance and the role of the stock exchange in an Islamic economy. Other topics examined with further details include basic differences between Islamic banks and conventional banks; financial instruments of Islamic banks; profit/loss sharing method of finance is compared with fixed interest charges. The relationship between Islamic financial institutions and the Central Bank is analyzed.

Prerequisite:

ECON 331

### **FINA 461 International Finance**

#### **Credit Hours: 3**

International credit markets, equity markets and foreign exchange markets, globalization and the distinction between real and economic returns and asset markets, macroeconomic schools of thought and the international payments system

Prerequisite:

ECON 212

### **FIQH 101 Introduction to Fiqh**

#### **Credit Hours: 3**

This course aims to acquaint students with Islamic jurisprudence, its sources, terminology, domain, rules, theories, schools, stages of development. It introduces definitions of Sharia and jurisprudence “fiqh” and explicates their properties and the relationship between them. It also expounds the relation of Sharia to prior legal systems and positive law. It also studies the history of Islamic jurisprudence; evolution of schools of legal thought, their text book and terminology, codification of Islamic jurisprudence, the definition of principles of Islamic jurisprudence the most important text book of agreed and disagree legal evidences and some legal theories.

**FIQH 210 Commercial Fiqh I****Credit Hours: 3**

This course aims to define sales, conditions of contracts, kinds of options and prohibited sales. It also shows each type of prohibited sale and the rationale of prohibition. Further the course studies, abolition of sales, currency and money sale, financial markets, goods and stock exchange markets and conditional sales and their rules. This course studies the right of preemption: its meaning, conditions, evidence thereof and its rule of inheritance, mortgage: rules, kinds of mortgage, mortgage in possession and guaranty mortgage, admissible and inadmissible mortgages, mortgaging bonds and shares.

**FIQH 212****Personal Fiqh I****Credit Hours: 3**

This course aims to raise the awareness of the new generations about the dangers of separation for the family and the community alike, clarify the types of separation such as divorce and the wisdom of legitimating it. This course explains the types of divorce and deputizing in divorce repudiation (divorce for monetary compensation) separation for maltreatment, separation for indigence, separation for cursing one another, separation for apostasy and the consequences thereafter such as the recess, alimony, housing, legitimacy of parentage, nursing and custody and the expenses thereof. The course compares all of the above with Qatari (Family law) personal status law.

**FIQH 214 Commercial Fiqh II****Credit Hours: 3**

This course includes: lease contracts for objects and utilities, the nature of a lease contract, its basis, conditions, rules, and modern applications. This course also includes “make to order” contracts, construction contracts and manufacturing contracts. It also includes royalty contracts, competition contracts, struggle contracts, grants, loan contracts, endowment contracts and loan for use contracts.

**FIQH 215 Intro to Ownership & Contract****Credit Hours: 3**

This course includes: the definition of money and utilities, debts and their divisions into equivalent and ad valorem, the definition of property and the cause of proprietorship, ownership of utility, benefits, and rights, intellectual property rights, ownership of minerals, archeological remains, treasures, limitations on ownership, definitions of ownership, definition of contract: its basis, conditions and types, defects of consent, options and individual will.

**FIQH 219 Fiqh of Worship II****Credit Hours: 3**

This course aims to satisfy the needs and longings of the soul in the field of Zakat and Haj. This course includes Zakat jurisprudence, which enables students to obtain knowledge of the legitimacy of Zakat, its conditions, and types of property that are subject to Zakat, such as agricultural produce, gold, silver etc. The course also explains to students the areas of expending Zakat and modern applications, the Zakat of shares and bonds, how to invest revenues of Zakat. In this course, students get to know Alfiter Alms and its ruling, the definition and

wisdom of Haj and Umra together with their types and rules of performance.

### **FIQH 303 Fiqh of Zakat and Awqaf**

#### **Credit Hours: 3**

The course covers the legal provisions of Zakat, its legitimacy, general conditions, the kinds of wealth in which Zakat is prescribed, and rules of zakat in goods, jewellery, minerals, stocks, bonds, and banks, and the rules of the Waqf and its role in Takaful and Islamic insurance.

### **FIQH 304 Islam Ruling and Implications**

#### **Credit Hours: 3**

This course deals with the Islamic ruling in terms of definition, divisions, the act, the subject, and examines modes of interpreting the texts, such as the general word (al-amm), the specific word (al-kass), indeterminate word (mutlaq), particular word (muqayyad), explicit meaning (mantuq) implied meaning (mafhum), plain meaning of the text (Ibarat al-Nass), connotation of the text (Isharat al-Nass), implication of the text (Dalalat al-Nass) Iqtida and abrogation.

### **FIQH 305 Introduction to Islamic Fiqh**

#### **Credit Hours: 3**

This course is designed as an introduction to Islamic jurisprudence, demonstrating its characteristics, importance, various historical stages, sources, schools of thought, and various fiqh terminologies. It also examines the most important theories of jurisprudence, and the challenges faced by Islamic jurisprudence in the present era, as well as how to develop and promote it.

### **FIQH 314 Penal Fiqh I**

#### **Credit Hours: 2**

This course aims to acquaint students with the method of Islam in preserving human life by promulgating retribution, through studying the concept of felony in Sharia and in law. The course expounds the types of felonies against self, such as homicide, manslaughter (accidental homicide) and the basis of each. Students get acquainted with the provision of retribution and felony against other than self and the consequences of that. The course acquaints students with blood money, atonements their legitimate regulations and conditions; comparing that with positive law as possible.

### **FIQH 315 Contemp Fin Transactions**

#### **Credit Hours: 3**

This course deals with modern financial transactions not known in the past. These transactions include moral rights, goodwill, and different kinds of insurance, (commercial insurance, cooperative insurance, and reinsurance) and the Islamic substitute to commercial insurance. The course studies the problems of money, the problems of inflation, international financial markets, stock markets and their rules. It also deals with the transactions of Islamic Banks such as deposits, money transfers, and letters of guarantee, letters of credit, and profit sharing in order of purchase and decreasing partnership.

**FIQH 317 Commercial Fiqh IV****Credit Hours: 2**

This course deals with the definition of Bills of Exchange, their legitimacy, basis, conditions of validity, and modern applications. The course also defines securities, their basis, security of self, security of property and their modern application.

**FIQH 318 Contemporary Issues of Fiqh****Credit Hours: 3**

This course includes the solutions that Sharia offers to modern issues. It also contains the stance of Islam from science, the aims of Sharia in medicine. The course shows the prophetic medicine and its status as legislation or otherwise. It shows also how Islam conceptualizes medical treatment, quarantine, prevention of infection, premarital medical test, change of substance, removal of impurity, cancellation of prohibition from medicines and foods. It also explains rulings on genetic treatment, genetic print, cloning, artificial insemination, birth control, test tube babies, abortion, controlling the sex of fetus, milk banks, clinical death, organ transfer and autopsy.

**FIQH 319 Fiqh of Procedures****Credit Hours: 3**

This course is designed to elaborate the concept of judiciary in Islam, the theory of justice, the ethics pertaining to the judge and the history of judiciary in Islam, dealing with the most important books in this field and sheds light on the elements and conditions of the case, the claimer and the defendant, status of the judge and semi judiciary .

**FIQH 320 Legal Theory II****Credit Hours: 3**

The course aims to promote students ability to analogically relate secondary rules to principles in cases where there is no explicit provision. The course enables students to know the method of inference using nonconsensual evidences. Students will be able to define juridical analogy and explain its basis and subdivisions, and the conditions of validity of each claim to evidence. The course acquaints students with sources whose claim to authority lacks consensus among jurists. These sources are al-Masalih al-Mursala, Custom, Equity, Public interest and presumption of continuity “alistishab”.

**FIQH 321 Legal Theory III****Credit Hours: 3**

The course aims to deepen the knowledge of students about the scriptural sources to Sharia rulings, so as to analyze texts to relate offshoots to roots. The course promotes students’ mastery of lexical analysis to gain rigor in judgment, by studying the Holy Quran and the suna and by knowing injunctions, prohibitions, the general, the specific, the universal, and the particular. This course enables students to know the semantics of utterances by expression, by reference, by implicature and how clear or obscure these utterances are. This course enhances the abilities of students to know which utterance refers conceptually and which ones refer by their contrary. This course also aims to study how authoritative is consensus, the types of consensus, how they are reported.

Finally, the courses deals with judicial colleges and do they achieve consensus.

### **FIQH 325 The Philosophy of Islamic Law**

#### **Credit Hours: 3**

The course covers the meaning of philosophy of legislation elaborating on the establishment of the Islamic rules on the aphorisms, reasons and objectives, examining the issue of worship in the legislation, also shedding light on the philosophy of the Legislation as a whole as well as of each part of the ruling in Islamic Sharia.

### **FIQH 402 Companies, Documentation and Donations**

#### **Credit Hours: 3**

The course covers the nature of companies and its general rules, its different kinds such as sharikat Anan, Sharikat wujooh, Sharikat Aamal, Mudaraba, Musahama, Tadamun Tawsiya and the nature of the authentications such as Rahn , Kafala, Hawala, and the nature of the donations such as Heba (gift),Aariya (borrowing), Waqf (Endowments) and Qard (Loan).

### **FIQH 403 Fiqh of Inheritance & Bequest**

#### **Credit Hours: 3**

This course is designed to study the Islamic system of Inheritance, its causes and impediments, and elaborates on the inheritors (Waratha), Residuary (Al-Asaba), Exclusion (Al-Hajb), return (al-Rad), Devolution (munasaka), Denominator (Al-Takharuj) Increase (Al-Awl) and inheritance of the pregnant, missing persons and prisoners. It investigates the meaning of the Will, its elements, conditions, terms and the act of leaving more than one will and compulsory wills.

### **FIQH 415 Islamic International Law**

#### **Credit Hours: 3**

The course covers the definition of International Law, its advantages, themes, emergence and development and a comparison between Islamic International law and contemporary international law, elaborating international relations in Islam in situations of war and peace and elucidates upon Neutrality and Isolation.

### **FIQH 416 Fiqh Theories**

#### **Credit Hours: 2**

The course includes the importance of a juridical theory, its concept, development, history and properties. The course studies the theory of necessity, the theory of right, the theory of norms, the theory of arbitrary use of right, and the theories of invalidity and unsoundness.

### **FIQH 417 Oaths, Vows, Atonement & Food**

#### **Credit Hours: 2**

This course aims to acquaint students with the ruling of self-imposed obligations (faith/ vows and atonements). The course also deals with the ruling of Sharia on foods, the permissible and the prohibited. The course also gives a background to each of the above-mentioned topics.

**FIQH 418 Contemporary Ijtihad****Credit Hours: 3**

This course deals with Ijtihad (derivation of the hukm) in terms of definition, elements, conditions, its emergence and importance and examines various grades and classes of Mujtahidin. It also covers individual and collective Ijtihad, and Partial Ijtihad (al-Ijtihad al-juz'ee), the codification of Islamic law, elaborating on the issue of Fatwa and Taqleed and the provisions of Fatwa and the Fiqh academies all over the world.

**FIQH 419 Fiqh of Inheritance & Wills****Credit Hours: 3**

The course aims to enable students to know the system of inheritance and wills in Sharia, and draw comparisons with systems of inheritance and wills in other legal systems, with certain emphasis on Qatari law. This course gives practical experience to students to solve problems in inheritance through the knowledge of who among the relatives is entitled to inheritance and who is not and calculating the portions accordingly.

**FIQH 421 Fiqh of Evidence****Credit Hours: 3**

This course is designed to highlight the concept of evidence, and its methods and means in Islamic law, examining the validity of these means and the possibility of the use of contemporary means of proof while comparing between these means in the Islamic Sharia and man-made laws.

**FIQH 425 Al-Qiyas (Analogy)****Credit Hours: 3**

The course covers the definition of Qiyas (Analogy), its authority, elements, conditions, and different types and highlights the reason, wisdom, and appropriate pathways through which reason could be discovered and focuses on the areas where Qiyas is applicable and not.

**FREN 100 French Language I****Credit Hours: 3**

This course provides an introduction to French communication, with a focus on speaking and listening comprehension. Students will learn key vocabulary and basic French grammatical structures. Students will learn to comprehend French as they hear and read authentic language relating to familiar topics. To boost their listening comprehension skills, students will be exposed to multiple authentic audio-visual materials.

**FREN 110 French 2****Credit Hours: 3**

This course provides students with a thorough grounding in the four language skills: reading, writing, speaking and listening comprehension. It also introduces the culture of France and the Francophone world. Aided by state-of-the-art language learning software, students will learn and practice French for practical purposes, such as communicating in basic social situations, meeting routine travel needs and carrying out simple transactions. The course provides an introduction to Francophone cultures and literatures. Students will also learn to write short messages and well-articulated sentences in French on familiar topics, and by the end of the course can be expected to display appropriate awareness of everyday culture in the Francophone world.

Prerequisite:

FREN 100

### **FREN 210 French for Oral Communication I**

**Credit Hours: 3**

This course develops students' speaking ability in French by providing opportunities for conversation practice. The main emphasis will be oral practice, but attention will also be paid to grammar, written production and presentation as well as discussion of various topics of general interest in French. Students will learn and practice French for practical purposes, such as communicating in basic social situations, meeting routine travel needs, obtaining food and lodgings, carrying out simple transactions, and giving biographical details. The language lab will be used to enhance students' learning experience through specific self-study exercises aimed at boosting communication skills.

Prerequisite:

FREN 100

### **FREN 220 French 3**

**Credit Hours: 3**

This course reinforces the language skills learned in Intermediate French I to help students develop proficiency in the four skills: reading, writing, speaking and listening comprehension. This course is intended to increase students' proficiency in the language skills and broaden their understanding of Francophone culture and literature. Students will be expected to broaden vocabulary for both reception (listening and reading comprehension) and production (speaking and writing). The course focuses on use of the language in context, and will therefore include use of authentic readings, discussion in French, and film clips.

Prerequisite:

FREN 110

### **FREN 221 French Composition I**

**Credit Hours: 3**

This course develops students' writing and speaking ability in French through models of style, related grammar, composition exercises, and the World Wide Web. It also reinforces the language skills presented in Intermediate French I and II through an intensive review of grammar, written exercises, an introduction to composition, lexical enrichment, and spoken skills. Comprehension and speaking are developed through the use of cinema, music, conversation, and other developing technologies. By the end of the course students will be able to create elaborated utterances in French and group them into paragraphs and narratives.

Prerequisite:

FREN 110



**FREN 300 Language, Culture and Society****Credit Hours: 3**

This course offers a study of the history of France with emphasis on political, social, intellectual, and artistic aspects of French civilization. It includes various analyses of the role of France on the international scene and includes study of articles drawn from the French press, recent films, and current French television news. Students will learn to demonstrate knowledge of the chronology of French civilization and identify the major intellectual and artistic movements, their defining characteristics and contexts. Students will also be given an overview of the most important movements and authors in the French literary canon and taught to place literature in a meaningful cultural and historical context. Students will be taught how to analyze and make connections between events, movements, and ideas for the time periods covered in this course.

Prerequisite:

**FREN 111 OR FREN 220 FREN 301 French Language III****Credit Hours: 3**

At the end of this course students will be able to deal with most situations and be able to describe past and future experiences and events. The student will have sufficient vocabulary to express himself/herself on essay topics and give their opinion. They will be able to deal with everyday life situation. The class will be spent mostly on answering questions, and on reinforcement practice afforded by the exercises in the book.

**FREN 310 French Phonetics****Credit Hours: 3**

This course provides an introduction to the sounds of French, paying close attention to their place and manner of articulation (phonetics) as well as how they pattern with respect to each other and as influenced by morphological and syntactic factors (phonology). It teaches students basic phonetic rules in French, including the phonetic alphabet and phonetic transcription. Specific language exercises will provide students with the opportunity to correct defects in pronunciation and intonation and give them a better understanding of the differences between the French and English sound systems.

Prerequisite:

FREN 100

**FREN 320 French for Oral Communication II****Credit Hours: 3**

The course focuses on developing practical vocabulary, idiomatic expressions, professional terminology and cultural interactions on a variety of topics such as language for use in a variety of professions. It will improve students' ability to use French in real-life situations and for real-life purposes, as well as focusing on special topics, cultural events, and cultural issues currently in the news. It will give an overview of contemporary French culture and business practice, and guide students through practical processes such as organizing travel and tourism in France, navigating French social systems and bureaucracy, and interacting with the French.

Prerequisite:

FREN 210 AND (FREN 111 OR FREN 220)

### **FREN 341 French Composition II**

**Credit Hours: 3**

This course develops and refines written expression through a review of complex grammatical structures and idiomatic expressions. Students practice guided compositions and creative writing using factual reporting techniques and literary models. Students will improve their written French and gain advanced training in comparative grammar and organizational structures. Students will be assessed on their ability to write fluently in French a variety of writing situations (for example, diaries, transcriptions, narrations, letters and emails), as well as their fluency of usage in the written language. The course also focuses on the distinction between spoken and written styles.

Prerequisite:

FREN 221 AND (FREN 111 OR FREN 220)

### **FREN 410 Introduction to French Literature**

**Credit Hours: 3**

This course is a continuation of French V and focuses on the same skills at a more advanced level.

Prerequisite:

### **FREN 111 OR FREN 220 FREN 420 Business French**

**Credit Hours: 3**

This course focuses on introducing functional language skills in the world of French business and business cultural competence. Students will be given further practice of specialized oral and written communication, as well as developing a commercial vocabulary dealing with the varied activities of a commercial firm (for example, advertising, transportation, banking). The course provides students with simulated business situations and exposure to authentic spoken materials, as well as teaching them the rules and formulas of formal business correspondence. Students will study the economic and business environment, and learn key technical terms and useful idiomatic expressions.

### **FREN 440 French Media**

**Credit Hours: 3**

This course offers a study of the French-language media with a focus on political, social, intellectual, and editorial aspects. Conducted exclusively in French, the course emphasizes all aspects of language: listening, speaking, reading, writing and culture. Students will discuss topics of current interest in France and other Francophone countries, as presented in the press, radio, television, social media and the Internet, and engage in the analyses of articles, videos, podcasts, and TV programs.

Prerequisite:

FREN 110

**GENG 106 Computer Programming****Credit Hours: 3**

This course introduces the student to computer concepts, control structures, functions, arrays: single and multi-dimensional, and string processing. The course also examines input/output statements including data file I/O, arithmetic, logical and comparison operators, along with an introduction to classes.

**GENG 107 Engineering Skills and Ethics****Credit Hours: 3**

Introduction to engineering and engineering disciplines, engineering ethics, communication skills, study skills and problem-solving skills, introduction to design.

**GENG 111 Engineering Graphics****Credit Hours: 3**

This course discusses the fundamental concepts of engineering graphics. It also provides an introduction to computer graphics using CAD software. The following topics are covered: Drawing conventions such as standards, line types and dimensioning; drawing of inclined and curved surfaces; deducting the orthographic views from a pictorial; drawing full and half sections; deducting an orthographic view from given two views; pictorial sketching (isometric and oblique).

**GENG 200 Probability and Statistics for Engineers****Credit Hours: 3**

Classification of Data. Graphical representation. Arithmetical description. Probability theory, probability of an event and composite events. Addition rule and multiplication rule, independent events. Counting techniques. Random variables and probability distributions. Expected values. Continuous and discrete random variables. Normal distribution. Binomial distribution. Poisson distribution. Joint and marginal probability distributions. Independence of random variables. Covariance and correlation. Random sampling. Unbiased estimates. Statistical intervals and test of hypothesis for a single sample.

Prerequisite:

MATH 102

**GENG 231 Materials Science****Credit Hours: 3**

A study of relationships between the structure and the properties of materials. Atomic structure, bonding, crystalline and molecular structure and imperfections. Mechanical properties of metals, alloys, polymers, and composites. Electrical properties of materials, semiconductors and ceramics. Creep, fatigue, fracture and corrosion in metals. Laboratory experiments.

Prerequisite:

CHEM 101

### **GENG 300 Numerical Methods**

#### **Credit Hours: 3**

The numerical methods course involves solving engineering problems drawn from all fields of engineering. The numerical methods include: error analysis, roots of nonlinear algebraic equations, solution of linear and transcendental simultaneous equations, matrix and vector manipulation, curve fitting and interpolation, numerical integration and differentiation, solution of ordinary and partial differential equations.

Prerequisite:

(GENG 106 OR CMPS 151) AND (MATH 211 OR (MATH 102 AND MATH 231))

### **GENG 360 Engineering Economics**

#### **Credit Hours: 3**

Principles of Engineering Economy. Equivalence and compound interest formula. Single payment model. Uniform payment model. Gradient payment model. Decision criteria for single and multiple alternatives: Present worth, annual worth, future worth, internal rate of return, and benefit cost ratio. Before and after-tax analysis.

Prerequisite:

MATH 102

### **GENG 498 Multidisciplinary Senior Design Project I**

#### **Credit Hours: 3**

The main objective of the course is to train students on how to tackle a specialized topic in the engineering field while working in a multidisciplinary team. This requires the students to identify and understand the design problem, appropriate standards, objectives and deliverables; define the general requirements; conduct a literature survey; consider and integrate multiple realistic constraints, and define and properly use clear evaluation criteria. A well-referenced report and a group presentation are required by the end of the course.

### **GENG 499 Multidisciplinary Senior Design Project II**

#### **Credit Hours: 3**

This is a continuation of the Multidisciplinary Senior Design Project I course where students work in multidisciplinary groups to perform detailed analyses on the design option chosen, undertake the detailed design process, incorporate and evaluate multiple realistic constraints, demonstrate effective use of design standards, perform the relevant calculations and implement the appropriate solutions. The work is conducted under the supervision of faculty member(s) in addition to mentor(s) from the industry from various backgrounds. A final report and a group presentation are required.

Prerequisite:

GENG 498

**GEOG 110 General Geography****Credit Hours: 3**

This course will study the principles of general geography: Geographical thinking, branch definition and geographical interests and methodologies; Real facts about the planet Earth - universal and mathematical facts about planet Earth, also its climate and biological environment; humanities and economical geography such as population, type of populations, political group, natural resources and various economic activities.

**GEOG 204 General Economic Geography****Credit Hours: 3**

The course covers the study of the economical aspects and their characteristics as following: - Definition of economic geography, its relations and links with other geographic branches, and evaluating the research methodology outcomes. - Studying the economic resources, its meaning and status, its spatial and era perspectives, dividing and classifying the resources. - Analyzing the physical resources and the characteristics of the economic production which are seen in: the distribution of water and land, the geological formation, the distribution of rocks and metals, the surface features and weather factors, the natural plants, animal, and water resources. - Understanding the human resources such as: population and their distribution, the economic and living levels, technological progress, the governmental strategies and policies, the social features as the traditions, beliefs, and customs, and finally the resources management strategy. - Explaining some economic activities and the phases of its progress such as: forest, fishing, agriculture, manufacturing, services, and transportation. - A practical study on the economy status of the Gulf countries and the possibility of achieving an absolute economic relationship between them.

**GEOG 241 Geography of Qatar****Credit Hours: 3**

This course aims at providing the students with insight into the effective factors in the geography of Qatar, methods of investigation and analysis. Additional goal is to highlight the mutual relationship among the natural, human and economic elements that affects the geography of Qatar and how these various elements interplayed to create unique features of Qatar's geography

The course includes the following topics:

- Natural elements which comprises the study of climate, soil, natural habitat and water resources.
- Human elements which include the study of population.
- Economic elements which focus on the agricultural, gas and oil production ; industrial development; trade; transportation and tourism; analytical study of the future perspective of the industrial development and gas production with some focus on the population crisis and the role of the GCC.

**GEOG 242 Weather & Climate****Credit Hours: 3**

The present syllabus deals with the study of climatology in a geographical perspective. Such science is focused on presenting a geographical analysis of the human environment, and its contribution in building the main background for numerous humanity sciences. Consequently, it will be possible to precisely explain the diverse human phenomenon on the globe. Atmosphere cover: origin, components, layers, pollution sources and the future. Main climate elements: Solar and ground radiation, temperature, air pressure, wind, evaporation,

condensation, rainfall, air masses, air depression, tropical cyclones. Climate classifications and regions Climate in the State of Qatar.

### **GEOG 243 Introduction to Remote sensing**

#### **Credit Hours: 3**

The course covers the following topics: Concept of remote sensing. Its history (stages of progress and use of remote sensing). Principles of remote sensing (its components, electromagnetic energy, the interaction of energy with the atmosphere). The mediums of remote sensing which include photographic (non-color films, infrared films, standard color films, and infrared color films) and non- photographic medium. Aerial photography (simple instruments, processing non-color,color, and infrared films). Remote sensing satellites: Multi-Spectral Scanner (MSS), Thermal Scanners (TS), Thematic Mapper (TM). Microwaves sensors (including radar and radiometer). Mathematics of aerial photography: measuring elevation from paired/overlapped photographs, relief displacement, aerial photograph interpretation.

### **GEOG 260 Introduction to Cartography**

#### **Credit Hours: 3**

This course introduce students with variety of techniques and design principles for developing and creating maps. Maps are important to investigate, explore, understand, and analyze the distribution of the geographical phenomena. Students will apply cartographic principles and theories to practical problems through class lectures and labs with a concentration on designing and creating thematic and reference maps using visualization techniques as well as classifying and generalizing data.

### **GEOG 270 People, Space and Change**

#### **Credit Hours: 3**

This course focuses on the interrelationships between human and their space. The course focuses on different topics related to the dynamic change in human's life such as the population growth, economic prosperity and activities, urban and regional development, cultural difference, and the spread of ideas and innovations. Furthermore, students will be introduced to the problems associated with these activities and phenomena to develop solutions through critical thinking and problem solving.

### **GEOG 271 Urban Form and Spatial Structure**

#### **Credit Hours: 3**

This course will provide students with the theoretical and practical knowledge and understanding of why and how cities grow or decline economically and spatially. Students will focus on urban form and spatial structure of cities. Students will concentrate on the inter-urban dynamics to understand what conditions will affect the growth of cities.

### **GEOG 300 Geography of Arab World**

#### **Credit Hours: 3**

This course includes an introduction to Arab World. It covers a physical study of the Arab World, introduction to the geographical position and its spatial characteristics, international geopolitical situation, structural geology, topography, climate- regional climate, natural plants and their distribution, as well as soils. It also

covers the Economics of the Arab world: Agriculture production, physical and human being elements, biological and water resources, mineral resources, energy sources, geographical distribution of petroleum productions, consumption and trading, industry, transportation, Arabian economic corporations, problems facing the Arab world and studying some Arab countries.

### **GEOG 330 Geography of Tourism**

#### **Credit Hours: 3**

This course explores the tourism industry from geographic perspective as a national, regional, and global phenomenon, with social, environment, economic, and political impacts. The course will focus on the geographical distribution of tourism, tourism impacts on local population and the natural environment. Key topics will include types and forms of tourist areas and destinations, tourism demand and supply, tourist flows and movements, tourism development. In addition, the course will focus on the theories and concepts of traditions of thought in tourism geography.

### **GEOG 332 Energy and Sustainability**

#### **Credit Hours: 3**

With the intent of exploring the fundamental connections between global climate change and energy consumption, this course will examine global energy systems using a multi-level perspective. Renewable (i.e. wind; solar; nuclear) and non-renewable (coal; oil; gas) energy supply systems are compared using economic and environmental measures. Consumption trends and conservation options are considered using a combination of political, socio-technical, and behavioural lens. This course is designed to develop applied knowledge necessary to measure energy performance and to evaluate options in energy transitions, efficiency and carbon intensity at multiple scales.

### **GEOG 333 Food Systems and Sustainability**

#### **Credit Hours: 3**

This course examines dimensions of food systems sustainability and food security, from production to consumption, from local to global scales, in the Global North and South. Specific themes covered in the course include technological and genetic change in food production, resource depletion and wider environmental impacts of the industrial food system, and policy, market-oriented, and civil society initiatives to bring about change in the food system, including organic production and localizing food systems.

### **GEOG 340 Geomorphology**

#### **Credit Hours: 3**

Geomorphology is the study of the earth's surface landforms both on land and the sea floor, as well as the endogenetic and exogenetic processes that control these landforms. Therefore, this course examines the origin/evolution of landforms, the physical process responsible for the landform creation and modification. The course will introduce the shape of the earth and the analysis of the development of the continents and ocean basins. The course will also discuss the tectonic construction of landscape, transport of material through hillslope and fluvial systems, landscapes at the coastal/marine interface, and sediment entrainment and deposition.



**GEOG 342 Natural Hazard****Credit Hours: 3**

In this course, we will take a comprehensive and global look at what we know about the physical and human impacts of natural hazards with the goal being to equip students to contribute to policy development and decision-making to aid individuals, communities, and even national governments to reduce the societal impacts of hazard events. This course will not use a simple hazard-by-hazard approach, but will integrate perspectives from the physical and social sciences to identify and describe principles that can enhance our understanding of the physical, social, psychological, technical, political, and economic forces inherent to extreme meteorological, climatological, and geophysical events. Geospatial and temporal analyses will be used to explain why, in spite of increasing investments in mitigation projects emergency management initiatives, losses from natural hazards continue to rise.

**GEOG 343 Environmental Remote Sensing****Credit Hours: 3**

This course is designed to understand the applications of remote sensing specific to the environment information and natural resource management and problem solving principles and applications of remote sensing. The course helps students to obtain and use actual imagery for real world environmental applications and to develop basic understanding of applications and principles including computer-assisted analysis, image interpretation, matter-energy interactions, satellite multispectral data sets, radiation transfer theory, mapping and monitoring natural resources, land use, and environmental phenomenon.

Prerequisite:

GENG 243

**GEOG 344 Political Geography****Credit Hours: 3**

Political geography definitions; comparison with political, economic, and geopolitical sciences; research methods in political geography, issues in neo- political geography; the notion of the “state” in political geography, state (physical & human) components; the notion of “space” for the state; capitals; local and international policies; political boundaries: the establishment of boundaries and developments since the rise of nation-state, marine boundaries, regional boundaries, boundaries and relations with human phenomena, case studies in political boundaries; the notion of political blocs and its relation with supra- nationalism. Notice: all case studies and practices should consider Arab and middle east examples.

**GEOG 345 Natural Resource Management****Credit Hours: 3**

This course is designed to focus on the sustainable management of natural resources as well as the challenges and opportunities for developing governmental policies, and sustainable management and production systems that achieve sustainability of the natural resources on the long run. The course offers theoretical and case studies evaluations from national and global array of natural resources (renewable and non-renewable). Furthermore, the course includes the understanding and performing management of water, land and biological resources; handling data to natural resources; environmental concerns; and the impact of climate change. This course will

enable students to demonstrate an integrated understanding of social, political, ecological, cultural, and economic aspects of natural resources including their management, use, and misuse.

### **GEOG 346 Introduction to GIS**

#### **Credit Hours: 3**

This course is divided into two parts: theory and practical parts. Theory section: covers the following topics: Concept of Geographic Information Systems (GIS): definition of GIS, technologies related to this system, fields of GIS application. Components of GIS which include five components: hardware, software, , data), and the GIS applications. GIS basic functions: data entry, management of data, data processing and analysis, and data output. Types of geographic data and their organization:, design and implementation of geodatabases. Methods for planning and implementing a successful GIS project

Practical section: Training students on the preparation of a complete GIS workstation, develop student's ability to analyze and compare different GIS systems. Hands-on experience on various methods of geodatabase design to hold geographic data of a project. Train students on mechanisms of data sharing and data conversions Conduct all stages of a GIS project with local scenarios using one of the available GIS software packages.

### **GEOG 347 Geography of Transportation**

#### **Credit Hours: 3**

Geography of transportation course focuses on the spatial aspects of transportation. The course will cover different topics such as the principles, development, structure, and location of world transportation. In addition, the course will introduce the significant role of transportation in moving people, goods, and ideas on different geographical scales. Other topics include transportation concepts, theories, methods, and models, the studying of network configuration and analysis, urban transportation, public transit, freight transportation, current problems and issues in the transport system at different geographical scales, traffic demand and supply, accessibility, and allocation of transport facilities.

### **GEOG 348 Urban Land Used and Development**

#### **Credit Hours: 3**

Land use and land cover change is a significant and constant feature in any geographic area. In this course, students will explore the techniques, theory, processes, and professional skills to manage land use change. In addition, student will explore the fundamentals of land use planning at different geographical scales. Focus will be on how policy-makers, stakeholders, and private citizens can influence the rate and pattern of land use changes in urban environment. Students will also examine the economic framework of the land use planning, the issues and challenges confronting planners and policy makers to accomplish their land use goals.

### **GEOG 349 Spatial Analysis**

#### **Credit Hours: 3**

This course helps students to understand the geographical spatial analysis methods and learn practical skills in statistics using SPSS program, and GIS to discover features of spatial distribution. This course is designed to provide students with the skills and required knowledge to explore, understand, and interpret the spatial patterns of a geographical phenomenon. Furthermore, the course examine the essential theoretical concepts of

quantitative geography, including spatial autocorrelation, measures of geographical distribution, and interpolation and network connectivity.

Prerequisite:

GEOG 346

### **GEOG 350 Geographical Research Methods**

#### **Credit Hours: 3**

This course introduces a variety of geographical research methods to understand the human and environmental activities and behavior. In addition, the course will introduce theoretical, conceptual, and analytical as well as research skills necessary for the students to carry out independent research work. Students will learn different statistical techniques to analyze, measure, display, and describe information to examine relationships in order to test claims, answer questions, solve problems, and make decisions.

### **GEOG 351 Spatial Database**

#### **Credit Hours: 3**

The course aims to give the student strong theory of spatial database as well as its application. The course also will cover large area of the idea of spatial database and its types and how these data are prepared and organized to be useful in GIS environment.

Prerequisite:

GEOG 346 AND GEOG 349

### **GEOG 370 Internship**

#### **Credit Hours: 3**

The internship aims to help the student acquire practical skills and understanding of real-world problems and scenarios. Scheduled to take place between the 6th and 7th semester at one of the related governmental or private agencies, a special training program is tailored in coordination between the university instructor and the agency supervisor. Evaluation is based on a report submitted by the student at the end of the semester detailing the training chores and the benefits, as well as the agency supervisor's report.

### **GEOG 420 Creative Thinking and Problem Solving in Geography**

#### **Credit Hours: 3**

This course tend to enhance the critical thinking of student through providing a further techniques in statistical and theoretical methods in Geography using relevant example. Students will develop skills in analyzing, interpolating, the results and think critically in developing solutions. Course work is designed to give students experience in using the methods to analyze real world data and thereby gain insights into their value and limitations. Problem solving is also a creative process. It is the 'thinking outside the box' that involves the creativity in problem solving. It involves critical thinking and bringing in new insights and ideas. Students will be asked to investigate and critically address geographical problems and phenomena about places and environments. When students are asked to solve problems in geography it requires them to think around the concepts and content that form the substance of the problems and be creative in finding solutions.

**GEOG 430 Satellite Image Processing****Credit Hours: 3**

This course is designed to provide the knowledge and understanding of various advanced techniques of image processing and analysis of remotely sensed digital data. Topics covered in this course include digital image representation, radiometric correction, visual perception, atmospheric and ground effects, filtering, spectral analysis, image enhancement, supervised and unsupervised image classification, recognition and interpretation, accuracy assessment, fuzzy classification, image segmentation, color processing, and elements of video processing.

Prerequisite:

GEOG 243

**GEOG 431 Web Geographic Information System****Credit Hours: 3**

The purpose of this course is to give students hands-on experience creating websites with interactive maps combining different types of spatial data. The course introduces the technology behind the maps—geographic information systems, server software, data sources, and web development languages. The course will raise an awareness of these technologies' capabilities and limitations, to build the student's capacity for further learning and decision-making in fields that produce or consume web-based maps.

Prerequisite:

GEOG 346 AND GEOG 351

**GEOG 442 Environment & Pollution****Credit Hours: 3**

This course aims at studying the global environmental systems and the imbalance these systems are facing. The course includes three parts:

- The first part: introduction to the environmental systems of the earth and the mutual relationship between the environmental components and the living species.
- The second part: studying the negative effects of human activities and the environmental imbalance.
- The third part: focuses on different types of the environmental pollution, air pollution and its consequences such as acid rain and the deterioration in the ozone; radiation pollution, noises pollution and marine pollution.

**GEOG 448 Hydrogeography****Credit Hours: 3**

This course deals with hydrology in a holistic view. Water resources remain of great worldwide concern due to the necessity of water in our daily life. That is why this course will handle this issue in its diverse dimensions and aspects: Hydrology: purpose, branches, development, character of water, typology, general hydrological cycle. Continental water: rivers, lakes, swamps, and groundwater. Seas and oceans and Water usage. Non-conventional drinking water resources: desalination, recycled water, water import, bottled water, cloud seeding, collateral fog, icebergs. Water scarceness: causes and ways to enface it. Means to control water demand: juridical tools, technical tools, economic tools, social tools, decision making and management. Water pollution

and filtering ways. Water jurisdiction. Styles and approaches of drinking water management Sustainable development of drinking water. Water resources in the State of Qatar

### **GEOG 450 GIS Applications for Coastal Management**

#### **Credit Hours: 3**

This course enables students to use their GIS skills and GIS tools in studying the coastal areas. GIS facilitate the better use of data to manage the human and physical geographical activities related to coastal areas. The students will use the principles, concepts, and tools of GIS to understand the coastal areas and map its related domains of geographic, oceanographic, and geologic endeavor. Students will use the GIS tools to facilitate the management, monitoring, and development of coastal and marine habitats. GIS will be used to provide student with the skills to collect shoreline feature data and data management.

Prerequisite:

GEOG 346

### **GEOG 451 GIS Applications for Petroleum and Renewable Energy**

#### **Credit Hours: 3**

This course is designed to provide the knowledge and understanding of using the GIS tools for evaluation of potentiality of oil and gas reserves and their locations. Students will be able to use related data to the location in map form and to map, view, and manipulate the data to analyze and understand it potential. Furthermore, students will learn how to manage, inquiry, and analyze the spatial components of petroleum business objects such as pipelines, wells, facilities, and environmental concerns.

Prerequisite:

GEOG 346

### **GEOG 452 GIS Applications for Transportation**

#### **Credit Hours: 3**

This course is designed to provide a comprehensive information underlying concepts, principles, and applications of GIS technology in geography of transportation. Students will be able to use the GIS tools for transport network analysis and identify which types of spatial problems that can be solved using these tools. Furthermore, students will use theories and concepts learned in transport geography course into practice using network analysis in a GIS. Students will understand what data is needed and how to develop database for conducting transportation analysis in GIS environment.

Prerequisite:

GEOG 346 AND GEOG 347

### **GEOG 453 GIS Applications for Planning and Development**

#### **Credit Hours: 3**

This course uses the GIS tools to investigate the concept of urban planning and development. The core of this course is to use the GIS tools to understand the planning for urban geography including land use development,

social and residential patterns, urban form, urban planning, and environmental problems in the planning process. Students will use the GIS software to build urban planning database to support planners decision and plans. In addition, students will use GIS application in urban planning to solve real urban problems.

Prerequisite:

GEOG 346 AND GEOG 348

### **GEOL 101 Principles of General Geology**

#### **Credit Hours: 3**

Introduction to geology and earth sciences, evaluation of the geologic thinking and the contribution of Arab & Muslim scientists, position of the Earth in the universe and its relation to other planets, and origin and evolution of Earth. Earth's layers and their main characteristics, components of the Earth's crust; crystal minerals and rocks, and geologic structures. Internal and external processes and plate tectonics theory, introduction to historical geology, and synopsis on the geology of Qatar and its natural resources.

Prerequisite:

(( ENGL 040 OR ENGL C002 OR Total for Integrated Core 400) AND (ENGL 041 OR ENGL R002 OR ESL Reading Skills 100) AND (ENGL 042 OR ENGL W002 OR APL for Writing Workshop 225)) OR (Total for Integrated Core 400 AND ESL Reading Skills 100 AND ESL Language Use 100) OR TOEFL\_Inst Testing Prog 500 OR TOEFL Internet-based Test 061 OR TOEFL Computer-based Test 173 OR Int Eng Lang Test Syst-IELTS 5.5 OR ENGL 004 OR ENGL 111 OR ENGL 250 OR ENGL 201 OR ENGL 202

### **GEOL 211 Principles of Paleontology**

#### **Credit Hours: 3**

Definition, stratigraphic methods in historical geology, paleontologic methods; definition of fossils and modes of fossilization, paleontological studies of protozoa (foraminifera-radiolaria), sponges, coelentrata, graptolites, and general life of the Paleozoic, life of Mesozoic, and Cenozoic.

Prerequisite:

GEOL 101

### **GEOL 303 Sediment & Sedimentation**

#### **Credit Hours: 3**

Introduction, sedimentary cycles, clastic rocks, carbonate rocks, evaporites, sedimentary rocks, siliceous sediments, phosphates, depositional environments: continental, mixed and marine, sedimentary basins, sedimentology and tectonics, economic mineral deposits.

Prerequisite:

GEOL 101

**GEOL 321 Structural Geology and Geotectonics****Credit Hours: 3**

Evolution of Earth through geologic time, internal structure of the Earth, continental drift theory, isostasy, convection currents, paleomagnetism, sea floor topography, plate tectonics, ocean-floor spreading, asthenosphere, hot spots, major plate boundaries, economic implications.

Prerequisite:

GEOL 101

**GEOL 322 Survey & Field Geology****Credit Hours: 3**

Introduction and main concepts of field work, field observations, collection of samples and data, principles of plane surveying using different methods, techniques & instruments for measurement of distances, horizontal and vertical angles, use of compass, clinometers and hand level for geological surveying and mapping, identification of geologic structures in the field.

Prerequisite:

GEOL 101

**GEOL 332 Geophysics****Credit Hours: 3**

Physical properties of rocks, seismic method (introduction), mechanical properties, equipment, reflection method, refraction method, data analysis and interpretation, gravity method, earths' gravity field, equipment and field survey.

Prerequisite:

GEOL 101

**GEOL 401 Geochemistry****Credit Hours: 3**

Introduction, earth spheres, meteorites, distribution of elements, earth structure, geochemistry of igneous rocks, metamorphic rocks, sedimentary rocks, hydrosphere-environmental geochemistry.

Prerequisite:

GEOL 101

**GEOL 403 Economic Geology****Credit Hours: 3**

Introduction, classification, ores of igneous rocks, ores of metamorphic rocks, ores of sedimentary rocks, metallogenic provinces, exploration techniques, mineral wealth.

Prerequisite:



**GEOL 101****GEOL 411 Geology of Qatar and Arabian Peninsula****Credit Hours: 3**

General Geology of Saudi Arabia, Qatar and Oman, Geology of the Cambrian rocks in Western Arabia, structural elements of the Arabian Peninsula, stratigraphic nomenclature of the Arabian Peninsula and Qatar (Paleozoic from Recent), mineral and petroleum resources.

Prerequisite:

GEOL 101

**GEOL 421 Photogeology & Remote Sensing****Credit Hours: 3**

Introduction to the principles, equipment, materials and methods for aerial image acquisition, electromagnetic spectrum and basic spectral properties of Earth features and atmospheric interaction, airphoto geometry and mapping.

Prerequisite:

GEOL 101

**GEOL 432 Geology of Petroleum****Credit Hours: 3**

Introduction, historical background, relation of petroleum geology to other sciences, physical & chemical properties of petroleum, generation and migration of oil, the reservoir, traps and seals, reserve estimation.

Prerequisite:

GEOL 101

**GEOL 434 Hydrogeology****Credit Hours: 3**

Introduction to hydrogeology, evaporation and precipitation, runoff and streamflow, soil moisture and groundwater, principles of groundwater flow. Geology of groundwater occurrence, geology of groundwater flow to wells, regional ground water flow, water chemistry, water quality and groundwater contamination, groundwater development and management.

Prerequisite:

GEOL 101

**GSCN 100 Science for Life****Credit Hours: 3**

“Science for Life” is a general Science course that is designed to meet the needs of students majoring in non-science undergraduate programs. The course develops students’ broad understanding of basic science concepts

with an integrative approach of physics, chemistry, environmental sciences, and biology in one course. Students will be engaged in real-life experiences that connects theoretical science to daily life phenomena and applications. The course emphasizes captivating topics that both effectively and creatively convey the fundamental science concepts to students. Specifically, the content focuses on improving students' skills in areas of scientific reasoning, critical thinking, problem solving and cooperative dialogue through hands-on activities and real-life scenarios. It will also increase students' self-awareness on scientific issues relevant to their local, regional and global contexts.

### **HIST 103 An Introduction to History**

#### **Credit Hours: 3**

This history gateway course traces the key themes of history. The course explores the concept and meaning of history. It enables students to develop critical and analytical thinking skills through examination of primary and secondary sources, as well as research and writing processes, which includes different modes of historical writing such as arguments, along with class presentations and discussions. This course covers history of the world before 300 AD.

### **HIST 111 History of the Muslim World I**

#### **Credit Hours: 3**

This course surveys the emergence and growth of the Islamic community, from the time of the Prophet Muhammad to the end of the twelfth century. Topics covered include the rise and spread of Islam, the Islamic empire under the Umayyad and Abbasid Caliphs and the emergence of regional Islamic states from Afghanistan and Eastern Iran, to North Africa and Spain. The course concludes with Muslim recapturing of Jerusalem in 1187. The course emphasizes the structure of social and political institutions.

### **HIST 121 History of Qatar**

#### **Credit Hours: 3**

This course aims at familiarizing students with the history of Qatar through different historical eras, with particular emphasis on the emergence and development of Qatar Emirate during the Ottoman-British rivalry in the Gulf. The course also deals with social, economic and political life during the pre and post oil and Gas era. It examines the socio-political and economic developments that took place in the country covering the period of his Highness, Sheikh Hamad Ben Khalifa Al Thani.

### **HIST 131 World History Since 1300**

#### **Credit Hours: 3**

This course examines key transition in world history since 1300 CE. Topics covered include intensified hemispheric interactions, emergence of the First Global Age (1450?1770), creation of a world market, the age of revolutions, and emerging modern patterns in world history such as modernization and colonization. The course emphasizes the formation and development of the world's major societies, and systematically explores cross-cultural interactions and exchanges that have been some of the most effective agents of change since 1300 CE.

**HIST 204 Historical Research Methodology****Credit Hours: 3**

This course deals with the rise and development of historiography and the auxiliary sciences of history, such as archeology, diplomatics, numismatics, epigraphy, and others. The course aims to train students in the scientific method of conducting historical research, in terms of how to deal critically with the available historical sources, collect and assess the historical evidence, and use and document that evidence using many tools and techniques. Finally, the course introduces students to the technical rules of writing historical research.

Prerequisite:

HIST 103 OR HIST 188 OR HIST 188

**HIST 212 History of the Muslim World II****Credit Hours: 3**

This course is a continuation to the History of the Muslim World I course. It aims to introduce students to the most prominent political, military and economic events in the Muslim world from 583 AH / 1187 CE to 923 AH /1517CE. It begins with the liberation of Jerusalem by Salah al-Din, then it goes to critically analyse the situation of the Muslim world under the Ayyubids, Mamluks and other rulers. It also looks at the advent of Mongols and their destruction of Baghdad in1258CE, which resulted in ending the Abbasid Caliphate. The course ends with the decline of the Mamluks state at the hands of the Ottomans.

Prerequisite:

HIST 111 OR HIST 262

**HIST 213 Modern Arab History****Credit Hours: 3**

This course traces the social, cultural, economic, and political changes that contributed to shaping the foundation of today's modern Arab societies. It examines the changing fortunes of the political elite, merchants, shopkeepers, peasants, tribal populations, religious scholars, women, as well as ethnic and religious minorities during the reign of the Ottoman Empire. Students will learn how to examine and interpret primary sources relevant to the period covered.

**HIST 217 Islamic Civilization****Credit Hours: 3**

This course focuses on the concept of civilization, the rise and historical circumstances that helped in establishing the Islamic civilization, its interrelation with the other civilizations, and its contributions to the world culture and heritage. The course deals with the foundation of the Islamic state, its administrative, financial, judicial and social institutions. In addition, it is devoted to examine the social, economic, and intellectual activities of Muslims and their impact on other civilizations up to the 16th century.

**HIST 220 Epidemics Diseases in World History****Credit Hours: 3**

Throughout history, diseases have claimed the lives of millions, yet the medical, social, economic and political impacts of such devastation are often under investigated. This course will address the historical, social and health related aspects of selected diseases and how they have shaped the medical practice, social, history, and influenced today's societies.

This course is open to all students planning to major in science, social sciences, health sciences, or arts and humanities. Students do not need a background in science, medicine, or history to take this course.

**HIST 222 The Gulf in Modern Period****Credit Hours: 3**

This course is designed to provide the students with the necessary information that would help them understand the historical developments in Gulf countries during the past five centuries, as well as acquaint them with main sources of Gulf history. The course will focus on the political history of the Gulf and the conditions that led to the emergence of Gulf countries.

**HIST 231 Europe & the World since 1500CE****Credit Hours: 3**

This course examines European social, economic, political, and cultural development since the 1500s, and its impact on the early modern and modern world history. Topics covered include the intellectual contribution of the Renaissance, Reformation, and Enlightenment, the arts, social and political thought, the Industrial Revolution, Romanticism and Realism, nationalism, feminism, imperialism and colonialism, World War I and II, and the Cold War era.

**HIST 244 History & Methodology****Credit Hours: 3**

Concept and Methodology of History, History as a Science, the Historian's Scientific, Cultural and Moral Formation, Sciences that Support the Historian, Sources of Modern and Contemporary History, the Scholarly Approach to Historical Research Writing, Technical Rules of History Writing, Schools of Historical Interpretation

**HIST 245 Ancient Greek & Roman****Credit Hours: 3**

Sources of Greek and Roman History, the Homeric Period, Greek Colonization and its Results (8th Century-6th Century B.C.), Development of Greek City- states to the End of the 6th Century B.C. (Sparta and the Peloponnesian Alliance, Athens and evolution of its systems), Persian-Greek Wars, Rise of the Athenian Empire, the Peloponnesian Wars, General Conditions in the Greek World up to the Age of Alexander the Great. Peoples of Italy before the Foundation of Rome, Rome during the Monarchy, Rise of the Republic, Italian Unification Led by Rome, External Expansion and the Rome-Carthage Conflict, Roman Policy towards the Eastern Provinces, Revolution, Civil War and Fall of the Republic, Augustus and Rise of the Empire, Roman

Rule in the East up to the Early Imperial Period.

### **HIST 314 Economic & Social History of the Muslim World**

#### **Credit Hours: 3**

This course examines Islamic world's agriculture (indigenous and imported), food and industrial crops, irrigation and trade. It discusses Islamic economic growth and its impact on rural areas; metallurgy and other industries; trade and marine routes; companies and monopolies; the relationship between Muslim communities and other trading communities; the Islamic city and countryside; prevalent customs and traditions; and the role of women. Course assignments such as essays, reaction and research papers will contribute to improving students' critical and analytical thinking.

### **HIST 318 History of Al-Andulus**

#### **Credit Hours: 3**

This course deals with the history of Andalusia from the sixth to the fifteenth century. It examines many topics, such as the Late Roman period, Islamic conquest, Islamic states in Andalusia, society and culture, and the Reconquista movement up to the fall of Andalusia in 1492. The course will shed light on the relations between the Muslims states in north Africa (Maghreb) and the Islamic state in Andalusia from the Muslim conquest until the end of Islamic power in Andalusia.

### **HIST 319 History of the Crusades**

#### **Credit Hours: 3**

An intensive study of the wars between Western Europe and Islam that took place in the Holy Land from the late eleventh to the late fifteenth century. Special emphasis is placed on the analysis of the crusading ideal, the motivations of the crusaders, the changes in crusaders' ideology, Muslim response to Christian military attacks, Muslim awakening and role in liberation of their lands. Lastly, the course concludes by discussing the results and cultural influences of the Crusades on Europe.

### **HIST 320 History of Islamic Sects and Movements**

#### **Credit Hours: 3**

This course aims at studying social, economic, intellectual and political developments that had accompanied the establishment of the state of Islam. It also focuses on the division of the Umma as a result of the first period of Fitna between 30?40 A.H. The course also sheds light on the crystallization of the nation of state (Ahla al?Jama'a); the emergence of sects; political and religious oppositional parties' opinions towards economic, social and political issues; and the state's position towards these opinions.

### **HIST 322 Iran and its Neighbours**

#### **Credit Hours: 3**

In this course, the students will study Iran's relationship with its neighbours during the modernperiod, beginning with the early Persian dynasties; their subsequent domination of Central Asia; conflict with the local and regional powers; and the impact of superpowers such as Russia, the Ottoman Empire, Britain, and Portugal. The students will also study Arab presence in the eastern parts of the Gulf and its influences on Iran.

**HIST 323 Gulf-South Asian Relations in modern and contemporary history****Credit Hours: 3**

This course is designed to help the students understand the nature of the relationship between the Gulf and South Asia, particularly India, and the economic and social dimensions of this relationship. The students will explore the early contacts beginning with the sixteenth century; commercial exchange; the economic activities associated with pearl trade; Gulf presence in India; and the impact of European colonialism on the relationship between the two regions.

**HIST 324 Economic History of the Gulf****Credit Hours: 3**

This course is designed to provide the students with the necessary information that will help them understand the main themes and dynamics in the political economy of the Gulf at domestic, regional and global levels; with special attention to the impact of oil, the question of rentierism, different development models, labor markets, regional integration, the Gulf's changing place in the global economy and the question of reform.

**HIST 331 Ancient Greece and Rome, 1200 BCE to 500 CE****Credit Hours: 3**

This course examines various developments in ancient Greece and the Roman Empire, covering topics such as the Greek society and the age of the city-state until the advent of Macedonia and the suppression of the Greek states in 338 B.C.E. It also covers the history of the Romans from the Latium region and the emergence of Rome until the deterioration of the Republic at the end of the second century B.C.E. The course requirements include visits to some museums in Qatar and sites with Roman influences.

**HIST 332 Medieval Europe, 500 to 1400 CE****Credit Hours: 3**

This course presents an overview of western European history, from the fall of the Roman Empire through to the Hundred Years' War. Emphasis is placed on the decline of the Roman Empire; the rise of feudalism and manorialism; the rise of the Papacy; the Commercial Revolution; and the origins of nation states. Course assignments include essay exams, reaction papers, as well as class presentations that emphasize critical thinking, writing and communication skills.

**HIST 333 The Renaissance and Reformation, 1400 to 1648****Credit Hours: 3**

This course examines the intellectual and cultural developments in Italy and Northern Europe; the origins of the Protestant Reformation and its impact; the Counter Reformation; European interaction with Africa, Asia and the Americas; the decline of feudalism and the rise of the nation state; Religious wars; and the Peace of Westphalia. Course assignments include research paper, reaction papers, as well as class and group presentations that emphasize critical thinking, writing and communication skills.

**HIST 334 Arabian Gulf in Antiquity****Credit Hours: 3**

This course introduces basic archaeological knowledge about the Arab Gulf region from pre-history to the Islamic period, benefitting from the archaeological evidence that has emerged during the past five decades due to exploration and excavation projects. It explores the role played by the Arab Gulf societies in trade between Mesopotamia and the East. The course includes field visits to some archaeological sites and institutions in Qatar, such as the Museum of Islamic Arts and Qatar National Museum.

**HIST 336 Women and Gender in the Ancient Near East****Credit Hours: 3**

This course will investigate the history of gender roles, images, and experiences in the social, political, economic and legal context of ancient societies such as Mesopotamia, Ancient Egypt, Persia, Levant, India, China, Ancient Yemen, Greece, Rome, Africa, Latin America and Arabia. Through a topical approach, the emphasis is placed on the variety of ancient women's experience. Reading material includes translations of primary sources; pictorial and archaeological evidence will likewise be at the center of class discussions.

**HIST 337 The Age of Absolutism and Revolution, 1648 to 1815****Credit Hours: 3**

This course examines the major trends in political, social, intellectual, and cultural history of Europe during the period of 1648 to 1815, including the development of absolutism in France and elsewhere in the Europe. The course deals at length with the cultural movement known as the Enlightenment; the liberal revolutions in England and France, and the consequences of those of those developments.

**HIST 343 Fatimids, Ayubides & Memlukes****Credit Hours: 3**

Ismaili Mission in the Maghreb, Rise of the Fatimid State and Its Internal Problems, the Fatimid Dynasty, Foundation of Cairo and Al Azhar Mosque, Political, Economic and Social Life in Egypt during the Fatimid Period, the Zeangids, Salahdin Al Ayyubi and Efforts to End the Fatimid Dynasty and the Shiite Sect in Egypt, The Near East in the 11th Century, Saladin and Rise of the Ayyubid Dynasty, Unification of Islamic Forces, Conflict with the Crusaders (Huttin Battle), Saladin's Successors, Ayyubid Systems, Emergence of the Mamelukes' Influence, Mamelukes' Naval Efforts to Eliminate the Crusaders' Presence, Repulsion of Mogol Threat, Economic Prosperity in the 8th Hegira Century (14th Century), Circassians, Main Sultans, Renewal of the Mongol Threat, Portuguese Threat, Conflict with Ottomans and Fall of the Mameluke Dynasty, Civilizational Systems and Accomplishments

**HIST 358 Ottomans to the Conqst****Credit Hours: 2**

Conditions of the Islamic East Under the Buwayhid Dynasty, Rise of the Seljuk State and Control of the Caliphate, Peak of Seljuk State (455-485 HegiraL1063-1092), End of the Great Seljuks' Era (485-525 HL1092-1157), Atabeq States Within the Seljuk State, Mongol Invasion, Fall of the Abbasid Caliphate (656 HL1258), Invaders' Emirates in Anatolia in the 12th and 12th Centuries), Rise and Growth of the Ottoman Emirate, Growth of the Ottoman Emirate into a State in the 14th and 15th Centuries, Fall of Constantinople (1453), the



Ottoman State and Annexation of Arab Countries, the Government and Administration Approach, Economic and Social Conditions, the Caliphate Issue and the Islamic League, Arabs from Separatist Attempts Within the Ottoman State to Confrontation of European Invasion, Arab National Thought to the Mid-20th Century.

### **HIST 370 Modern Arab History since 1919**

#### **Credit Hours: 3**

This course is a continuation of Arab History I. It begins with the 1919 Egyptian revolt against the British and ends with the 1967 Arab Israeli War. Topics covered include the Arabs in the interwar period, Arab nationalism and the struggle for independence, internal Arab relations, the Arabs and the Cold War, the Arab Israeli struggle for coexistence, women of the Arab world, and Arab modernization and development in the age of globalization.

Prerequisite:

HIST 213 OR HIST 358

### **HIST 380 The Making of Modern America**

#### **Credit Hours: 3**

This course examines the cultural, political, and constitutional origins of the US. It covers the series of revolutionary changes in politics and society between the mid-18th to 19th centuries that took thirteen colonies out of the British Empire and turned them into an independent nation. Starting with the cultural and political glue that held the British Empire together, the course follows the political and ideological processes that broke apart, ending with the series of political struggles that shaped US identity

### **HIST 390 The History of Modern China and Japan**

#### **Credit Hours: 3**

This course deals with the principles of codicology, which focuses on studying the manuscript's elements such as: writing materials, shape, sizes and arrangement of pages, decoration and gilding, in addition to its binding. The course equips students with important skills and techniques to deal with manuscripts, to examine, evaluate its authenticity, especially the Arabic and Islamic ones. In this course, the theoretical part will be in the first half of the semester, while the practical part is in the second.

### **HIST 406 Codicology**

#### **Credit Hours: 3**

The social, political and cultural history of twentieth century China and Japan with a focus on issues of nationalism, revolution, modernity and gender. Using a combination of primary and secondary materials relating to various walks of life, and a range of experiences from shopping to constitutional debates, students will be expected to craft their own interpretations of this fundamental period in Japan and China's histories. Lectures will introduce important developments and provide a framework for developing strong analytical skills.

**HIST 407 Capstone****Credit Hours: 3**

In this course, students embark on a research project under the supervision of their instructors. To enhance their collaboration skills, more than one student may embark on one project. Although students are given the liberty to select their individual/ collective project, the approval and guidance of instructors is practiced. Specifically, the Capstone project is supposed to reflect the skills and training undertaken throughout the history program.

**HIST 415 History of Science in Islam****Credit Hours: 3**

This course traces the development of science in Islam up to the age of Ottoman Empire. It begins with the positive attitude of Islamic traditions towards seeking knowledge and critical thinking. The impact of establishment of the paper mills and the Wisdom House in Baghdad on the translation process and emergence of Islamic scientific scholarship will also be examined. The contributions of Muslim scientists and Islamic centers of learning during the Middle Ages will be discussed.

**HIST 416 History of Islamic Arts and Architecture (7th -13th Century)****Credit Hours: 3**

This course introduces students to Islamic arts and architecture from the rise of Islam to the 13th century C.E. It discusses the influences of the ancient civilizations on the early Islamic art and architecture, followed by studying examples of numismatics, pottery, ceramic crafts, and other artefacts. It also discusses architectural designs of Islamic buildings, such as mosques, castles, and walls. The course includes field visits to some architectural and archaeological sites and institutions in Qatar, such as museums and historical castles and mosques.

**HIST 417 Topics in Islamic History****Credit Hours: 3**

This course may count twice with different topics. The following are examples of topics and are not meant to be exclusive: History of Women in Islam; Islamic Political Thought; Military History in Islam; and Travels in the Medieval World: Historical & Socioeconomic Lessons. Students' broad comprehension of the material will be examined through highly critical and analytical research projects.

**HIST 421 The Gulf and the Arab World****Credit Hours: 3**

This course is designed to acquaint the students with the relationship between the Gulf countries and the Arab World during the modern period, the evolution of this relationship, and its social, political, and economic dimensions. The course will examine Gulf-Arab relations since the nineteenth century, cultural and educational exchange, Arab migrant labor in the Gulf, the policies of Gulf countries towards nationalist movements in the Arab world, and their position regarding the Arab-Israeli conflict.

**HIST 425 Topics in Gulf History****Credit Hours: 3**

The course may count twice with different topics. The following are examples and are not meant to be exclusive: Travellers and the Gulf in Modern History; Gulf -Africa Relations; The U.S and the Gulf; The Gulf and Arab –Israeli Conflict; Reform Movements in the Gulf.

**HIST 427 Muslim Minorities in the World****Credit Hours: 3**

This course explores the developments and debates related to Muslim communities issue in different parts of the world. The great focus of this course will be mapping these communities. The course will explore the history of these minorities in the west, eastern Europe, Latin America, and south Asian countries. The course will also study the challenges that are facing these minorities, and the contributions they may have made to those societies.

**HIST 431 Nationalism and its Consequences, 1815 to 1914****Credit Hours: 3**

This course examines nationalism in three interrelated domains: the way it informed the emergence of modern nation-states in Europe; the major theoretical debates this historical experience generated and the ways in which nationalism was disseminated through public performance. The course focuses on nationalism in France, Germany, and Italy. Students will improve their sense of inquiry, developing sharper communication and writing skills through composition of research papers, class and group discussions, and presentations.

**HIST 432 Europe Between the Two World Wars, 1914- 1945****Credit Hours: 3**

This course examines the social, economic, and political causes of both wars; the politics and society of the inter-war period, and the rise of totalitarianism; the impact the wars left on the European continent and their repercussions on the rest of the world.

**HIST 434 Topics in European History****Credit Hours: 3**

The course may count twice with different topics. The following are examples and are not meant to be exclusive: Napoleon Bonaparte; Nazi Germany; The Russian Empire; Europe and the Middle East; Women in European History; The Rise of European Fascism in the 20th Century; European-Ottoman Encounters.

**HIST 436 Intellectual History of Europe in the 20th Century****Credit Hours: 3**

This course explores the intellectual and cultural history of Europe in the 20th century. It examines how European intellectuals, artists, writers, and other cultural figures contributed and responded to key developments in the 20th century. Among the historical themes for consideration are psychology and the self, feminism, gender, the mass politics of socialism, fascism and totalitarianism, race, empire and decolonization.

**HIST 444 Morocco & Andalusia****Credit Hours: 3**

The Maghreb and Its Population, Islamic Conquest, Governors Period, Independent States (Aghaliba, Rustumis, Madrarioun, Adarisa, Fatimids), Al Ziri and Zanati Emirates, Banu Hilal and Salim, Murabits, Al Muwahids and Their Fall, Spain before the Islamic Conquest, Conquest of Spain, Governors Period, Ummayyad Emirate Period, the Caliphate and Its Fall, Al Tawa'if States, Andalusia under Murabits and Muwahids, Bni Al Ahmer State, Bani Mureen State and Its Struggle, Fall of Bani Al Ahmer State, Moriscos

**HIST 445 Modern and Contemporary History of Arabian Gulf****Credit Hours: 2**

Conditions of the Arabian Peninsula from the Outset of Ottoman Rule, Al Salafiya Movement and Its Effects, Advent and Evolution of the First Saudi State, Saudi-Ottoman Relations, Mohammed Ali Pasha and the Arabian Peninsula, Political Forces in the Arabian Peninsula in the 19th and 20th Centuries, Advent of the Third Saudi State, Arabian Peninsula and World War One, Kingdom of Saudi Arabia, Yemen in the Modern Era, Major Powers and Arabian Peninsula.

**HIST 447 History of Modern Europe****Credit Hours: 3**

European Renaissance, Geographical Discoveries and Their Effects, Religious Reform Movement in Europe and Its Effects, International Relations in the 16th Century, Evolution of Europe in the 17th Century, International Relations in the 17th and 18th Centuries, the French Revolution, the Industrial Revolution and Its Results, Era of Conferences and Reformation of Europe, Italian Unification, German Union, Alliances and Blocks from the Late 19th Century to Early 20th Century, First World War: causes, battles and results, peace treaties, Inter-war Period, Communist, Fascist, Nazi Regimes, Democracies, World War Two and Its Results, Post-war World and Emergence of the Two Superpowers, Alliances and Blocks, Trends towards European Unity

**HIST 453 Islamic Art & Archaeology****Credit Hours: 3**

Influence of Islamic on Artists, Islamic Architecture (urban architecture, military architecture), Money and Al Numayat (Study of Coins), Islamic Arts (pottery, metals, carpets, other arts), Inscriptions (Kufic writing, Naskh writing).

**HIST 456 Comprehensive Experiences****Credit Hours: 3**

This course is designed to provide students with the ability to link the knowledge, skills and trends they have acquired and employ them all in field of study, as well as overcome educational, obstacles. Furthermore, it leads the educational advancement from a comprehensive perspective, taking into consideration the practical experience the students have acquired from their training as student teachers in school. This course also focuses on providing students with the skills of adopting complementary methods for studying and solving such field and educational problems, such as alternative strategies and comprehensive quality administration methods. This course can be considered as the umbrella under which all the educational experience, that the student

teachers have acquired during their preparation period as teachers, comes, and constitutes, as a whole, a comprehensive field project related to the real factual field.

### **HIST 461 Independent Study**

#### **Credit Hours: 3**

The Course Professor selects a an important contemporary topic and gives a general idea in an initial lecture. Students are then divided into teams to cover the various aspects of the topic. The teams present the research activities in lectures.

Assessment: Students' research activities on the topic are assessed and no tests are given. Examples of topics: the Iraqi Issue, Reform in the Arab World, Women in the Arab World, etc.

### **HIST 470 Modern Latin American History**

#### **Credit Hours: 3**

This course explores the emergence of independent Latin American nations from the 19th century. It examines how states are formed from colonial territories and how nations, national identities, and national communities are constructed. It also focuses on questions of democracy, and the struggle for political, social, and economic representation. Course assignments emphasize reading and interpreting primary source materials, and both oral and written work, including research and reaction papers that will improve critical thinking abilities.

### **HONS 100 Freshman Seminar**

#### **Credit Hours: 3**

This Honors Seminar will introduce students to the University and its Honors program. It will enable students to learn how to think and express their thoughts critically and effectively. Students will also learn the necessary skills for writing an effective research paper. The course is interdisciplinary with emphasis on topics proposed by different Honors faculty members.

### **HONS 101 Honors Freshman Seminar for Humanities.**

#### **Credit Hours: 3**

The Honors Freshman Seminar course for Humanities trains students in how to analyze and interpret texts, including primary and secondary sources. Students gain familiarity with at least one specific humanities discipline, and apply its methods or approaches to examine a given theme, problem or geographic region. They also learn the benefits of interdisciplinary approaches in scholarship. The development of critical, analytical and interpretative reading, writing and rhetorical skills as well as research skills are stressed.

### **HONS 102 Introduction to Honors**

#### **Credit Hours: 3**

This course has been specifically created to support students in capitalizing on their honors experience, forming a feeling of community amongst the honors students, and prepare them for life during and after college. This course will allow honors students to have discussions about the realities of the mind, the nature of knowledge, the idea of a university, and how university education can change and influence the future of individuals. The course will acquaint honors students with the college experience by directly involving them in service, scholarship, and leadership endeavors. This course incorporates workshops, practical experiences, and notable

guest speakers, which will encourage independent scholarship and collaborative learning.

### **HONS 201 Design Thinking for Innovation**

#### **Credit Hours: 0**

This module focuses on how students utilize their design thinking abilities and creativity in recognizing and selecting opportunities that encourage innovation. Through a variety of real-world activities, creative problem-solving abilities will be cultivated and enriched. An outline of design thinking instruments is offered to assist students in comprehending design thinking as a methodology for problem-solving. Concepts constructed through these methods are then associated with a customer detection approach to evaluate their significance in the current marketplace.

Prerequisite:

HONS 102

### **HONS 202 Entrepreneurship: Launching an Innovative Business**

#### **Credit Hours: 0**

This module is devised to help students comprehend what it requires to be an entrepreneur, to assist students in determining whether students want to pursue an entrepreneurial route, and to provide students some fundamental tools to follow such a route excellently. Particularly, the module intends to support the students to firstly recognize and gauge business opportunities, secondly to have the ability to be analytical about ventures assuming the positions of VCs, thirdly to have the capability to expand from a business idea to a fully fleshed-out business concept and finally, to construct a foundation to evaluate the viability of a “winning concept” that as entrepreneurs, students have generated.

Prerequisite:

HONS 102

### **HONS 203 Mastering Critical thinking**

#### **Credit Hours: 0**

In this module, students will be taught how to build their Critical Thinking Skills to facilitate them in being successful in their university studies and real life. Students are introduced to the process of logical reasoning to interpret and evaluate the quality of reasoning behind arguments, interpretations, and/or beliefs.

Prerequisite:

HONS 102

### **HONS 204 Leadership in the Age of Disruption**

#### **Credit Hours: 0**

This module is intended to equip honors students with the skillset that is necessary for future leaders. In this module the instructor will guide participants through a collaborative workshop which combines theoretical learning, case studies and collaborative activities that focus on evolving students for the experiences of business

and corporate environments. During this module, learners will be taught skills such as Innovation, Creativity, EQ, frameworks for Leadership in a Digital Age, and learn how to be the forerunner for revolution and transformation in their future organizations and throughout their lives.

Prerequisite:

HONS 102

### **HONS 205 Digital Technologies: Reimagining the Future**

**Credit Hours: 0**

This module is constructed for equipping students with several technological skills that are essential to excel in today's digital world. They will be exposed to a diverse array of technology from basic to advanced and will learn its applications. Students will be taught how to improve their digital literacy and information skills to help them be successful in their university studies. Students will be provided with opportunities for exploring, experimenting, and increasing their expertise through real-world functions whilst developing academic skills which will train students for being successful in the current digitally-connected professional world.

Prerequisite:

HONS 102

### **HONS 206 The Fourth Industrial Revolution and Sustainable Development**

**Credit Hours: 0**

In this module will provide students with a strong knowledge about sustainability and explore the key components of: building stronger local communities and smaller-scale economies; increasing sustainable and short food supply chains; reducing pollutants and increasing well-being by walking, biking, busing and less driving; and increasing community spirit and support, for example by building relationships with neighbors. Students will explore the importance of technological innovation and government policies in achieving sustainability.

Prerequisite:

HONS 102

### **HONS 301 Expertise, Experience and Exchange: Tips for Research Methods**

**Credit Hours: 0**

Unlike usual courses in research methods, this module aims to help students learn from diverse research mistakes and communication failures. This is not a "how-to-do-it" course; Research Methods tips relies on reviewing research methods and scientific writing quality in order to sensitize learners to how alternative scientific techniques might affect their research output. It concentrates on the impact of errors on the quality of research. The module will primarily involve reading, abstracting, peer-editing and in class discussion around the following major scientific topics: scientific ethics and research integrity; peer-review; responsible authorship and publication; responsible data acquisition and management; research misconduct; and error, negligence and bias in science. Students will participate in open class discussions with the instructor and occasionally with invited experts.



Prerequisite:

Hons 102, Hons 201, Hons 202, Hons 203, Hons 204, Hons 205, Hons 206

### **HONS 302 Guide to senior project**

**Credit Hours: 0**

This module is intended for honors students to master the skills required to prepare a high-quality senior project proposal and a final project report. Students will learn how to prepare their senior project proposal, perform a literature review, and understand how to effectively document methods, intended learning outcomes, expected research outcomes and results. Guest speakers from different disciplines will be invited to give a lecture on the methodology of their field. Moreover, students will learn how to properly present their results and defend their presentations>

Prerequisite:

Hons 102, Hons 201, Hons 202, Hons 203, Hons 204, Hons 205, Hons 206, Hons 301

### **IENG 210 Work Methods and Measurements**

**Credit Hours: 3**

Introduction to concepts of work & man-machine interface, analysis, design and measurement of work, method study, recording at different levels, process analysis and improvement, applications in design/modification. Work measurement, Time study, work sampling, PMTS, fundamentals of incentive schemes & performance measurement.

Prerequisite:

GENG 200

### **IENG 260 Thermodynamics**

**Credit Hours: 3**

Introductory examples of energy conversion systems. Basic concepts and definitions. Properties of a pure substance, ideal gases. Work and heat. The first law of thermodynamics and its application to systems and control volumes. The second law of thermodynamics and the concept of efficiency. The entropy and irreversibility. Selected applications to engineering problems including vapor-power cycles, refrigeration cycles and simple gas turbine cycles.

Prerequisite:

MATH 217

### **IENG 310 Facility Plan & Layout**

**Credit Hours: 3**

Fundamentals of facilities planning and design. Facilities planning models including location selection and location allocation modeling. Product, process and schedule design. Flow, space and activity relationships as well as personnel requirements. Material handling equipment selection and materials handling systems.

Systematic layout planning and computer aided layout improvements and design. Storage and warehouse system.

Prerequisite:

IENG 210 AND IENG 330

### **IENG 311 Quality Design and Control**

**Credit Hours: 3**

Analytical and statistical methods for assurance of quality in manufacturing and service organizations, resolving quality problems and implementing effective quality systems. Process stability and capability analysis, Lot-by-Lot acceptance sampling for attributes, design of experiments (DOE), voice of the customer analysis (VOC), quality function deployment (QFD), quality loss functions, design for reliability, and axiomatic design.

Prerequisite:

GENG 200

### **IENG 315 Introduction to Systems Engineering**

Introduction to basic systems engineering concepts, systems approach, systems models, systems engineering methodology, use of systems engineering methodology in products and systems, concepts of systems failure and analysis. Hands-on projects to design products/services by applying systems engineering concepts and methodology

Prerequisite:

GENG 107

### **IENG 325 Ergonomics & Safety Engineering**

**Credit Hours: 3**

Introduction to Ergonomics & terms associated, understanding the working of body & mind, physical & mental characteristics, human senses, cognitive processes, nature of work and work capacity, impact of working environment, ergonomic considerations in design of workplace & facilities, controls and displays, office ergonomics, introduction to safety & quality of work life, hazard & failure causes, fundamentals of investigation & analysis.

Prerequisite:

IENG 210

### **IENG 330 Operations Research**

**Credit Hours: 3**

Methods of operations research including formulation for models and derivation of solutions linear programming. Simplex algorithm. Transportation and assignment problems. Network models.

Prerequisite:

MATH 231 OR MATH 102

### **IENG 331 Advanced Operations Research**

#### **Credit Hours: 3**

Linear programming review: simplex and revised simplex method sensitivity analysis. Advanced linear programming: Parametric linear programming. Goal programming. Scheduling and Sequencing Nonlinear Programming.

Prerequisite:

IENG 330

### **IENG 337 Production Planning and Inventory Control**

#### **Credit Hours: 3**

Introduction to subject and related terms to the topic, fundamentals of products & processes selection & transformation requirements, approaches for forecasting, aggregate & capacity planning, inventory management for independent demand items, material requirements & resource planning, scheduling, new concepts in subjects such as lean management practices.

Prerequisite:

IENG 330 AND GENG 200 AND GENG 360

### **IENG 350 Computer Simulation Systems**

#### **Credit Hours: 3**

Probabilistic models, system dynamics and simulation modeling, input data modeling, verification and validation of simulation models. Analysis of simulation outputs. Discrete-event simulation modeling and analysis. Problem solving using simulation modeling techniques. Queuing theory, queuing systems and application of statistical principles. Design of simulation experiments and tools for reducing the variance of simulation outputs.

Prerequisite:

GENG 106 AND GENG 200

### **IENG 357 Quality Management**

#### **Credit Hours: 3**

Introduction to the philosophy and application of Total Quality Management in the context of organizational and cultural change dedicated to the continuous improvement of products and services. Some of the ideas and topics covered are: international quality awards quality management systems (ISO 9000), benchmarking reengineering; teaching of Deming, Juran, and Crosby; management of change and implementation of TQM.

Prerequisite:

IENG 311 OR IENG 320

**IENG 360 Production Automation****Credit Hours: 3**

Principles of manufacturing automation and control strategies and techniques for modern industrial processes. Fundamentals of numerical control (NC) and applications of modern computer numerical control (CNC). Programmable Logic Controllers (PLC). Robotics and automated materials handling systems. Analysis of automated production systems/lines including; automated flow lines, transfer lines, and automated assembly lines.

Prerequisite:

GENG 106 AND MECH 230 AND PHYS 194 AND MECH 223

**IENG 399 Practical Training****Credit Hours: 3**

Supervised 8 weeks training period at any approved engineering concern (consulting, contracting, industrial, government), intended to provide students with hands-on experience at the workplace. Evaluation is based on daily performance, supervisors' input, student's report, and a short presentation

**IENG 411 Maintenance Planning & Control****Credit Hours: 3**

Management of maintenance planning, execution, control, and its relationship to other functions, preventive and predictive maintenance using condition-based monitoring, spare parts planning, replacement analysis, reliability engineering, maintenance procedure and costs involved, fundamentals of TPM and OEE, role of computers. Case studies and applications

Prerequisite:

IENG 330

**IENG 421 Decision Analysis****Credit Hours: 3**

This is an introductory course on the theory and applications of decision analysis. Approaches of decision-making problems under certainty and uncertainty. Emphasis on the formulation, analysis and use of decision-making techniques in engineering and systems analysis. Formulation of risk problems and probabilistic risk assessments.

Prerequisite:

GENG 200

**IENG 423 Design of Experiments****Credit Hours: 3**

Principles of experimental design. Randomized complete block designs. Latin square and Graeco-Latin square designs. General factorial designs. 2k Factorial designs. Response surface methodology and robust design.

Planning, performing and analyzing industrial experiments.

Prerequisite:

GENG 200

### **IENG 425 Reliability Engineering**

#### **Credit Hours: 3**

Introduction to reliability analysis. Reliability measures reliability function, expected life, hazard function of important distribution functions. Hazard models and product life. Extreme value distribution. Static reliability models. Dynamic reliability models. System effectiveness measures. Reliability allocation and optimization. Introduction to fault tree analysis and human reliability.

Prerequisite:

GENG 200 AND IENG 330

### **IENG 441 Concurrent Engineering**

#### **Credit Hours: 3**

A systematic approach to the mechanical design of products, requiring the concurrent design of all related processes. Iterative and integrated product development methods. Design of world class products. Integrated concurrent and reverse engineering. Quality Function Deployment, Value Engineering; alignment of product requirements with process capability, Design for Manufacturability, Design for Assembly. Robust products through appropriate design of experiments.

### **IENG 451 Expert Systems**

#### **Credit Hours: 3**

Fundamentals of artificial intelligence (AI). Basic concepts and principles of expert systems. Building expert systems, central ideas of expert system development; including knowledge representation, control structures, knowledge acquisition, and knowledge engineering. Emphasis on the use of domain specific knowledge to obtain expert performance in programs. Modern expert system programming techniques and tools.

Prerequisite:

GENG 106

### **IENG 452 Information Systems Engineering**

#### **Credit Hours: 3**

Fundamentals of information systems, key application areas of an industrial information system - the relational database model, introduction to SQL, Query by Example- Informational architecture and logical database design - data modeling, entity-relationship model - normalization - information system analysis and design, understanding the information requirements of an enterprise - implementation (design of a user interface, design and implementation of forms and reports based on user requirements) - Web-enabled databases, basics of ERP concepts and information requirements inclusive of e-business - Introducing object- oriented design, UML diagrams, modeling using UML. A Design Project: Execution of information system design project using

standard design tools.

Prerequisite:  
IENG 350

### **IENG 453 Container and Air Cargo Management**

#### **Credit Hours: 3**

Trends in development of shipping, container ports and air cargo terminals, ports development, equipment and automation for handling in ports, general operations in ports, ports handling and supply chain management, air cargo business, ports management and challenges

Prerequisite:  
IENG 337

### **IENG 454 Human-Computer Interaction and User Experience**

#### **Credit Hours: 3**

Introduction to human-computer interface framework, user interface and experience, terms, and theories associated; practice of user requirements analysis in user interface design; practice of user interface design and evaluations; applying human-factors principles, cognitive psychology, and information transmission in designs; design of a human-involved experiment and statistical analyses.

Prerequisite:  
IENG 325 OR IENG 410

### **IENG 455 Sustainable Industrial Systems**

#### **Credit Hours: 3**

Introduction to sustainability, sustainability metrics, systems approach for sustainable industrial systems, industrial ecology, life cycle assessment, economic models for sustainability assessment, corporate social responsibility, sustainability analytics in business & sustainability reporting, decision analysis for sustainable industrial systems, and the applications of sustainability assessment in energy, transportation, construction and manufacturing sectors

Prerequisite:  
GENG 360

### **IENG 460 Manufacturing Systems Design**

#### **Credit Hours: 3**

Manufacturing operations, manufacturing models and performance metrics, design of manufacturing systems including cellular, manufacturing and flexible manufacturing systems. Analysis of process selection, planning, optimization and economic of manufacturing systems, group technology, transfer lines. Computer –aided manufacturing.

Prerequisite:

IENG 360

### **IENG 478 Innovation & Entrepreneurship**

**Credit Hours: 3**

This course combines classroom lectures with field study and exercises supplemented with guest lectures and case studies on small and medium scale industries. The course offers the basic framework for understanding the process of entrepreneurship, principles of management and related techniques in decision making, planning, marketing, and financial control. Exercises in product design and prototype development, preparation of workable project feasibility reports, practical ideas about launching their own enterprises are also covered.

Prerequisite:

GENG 360

### **IENG 479 Special Topics**

**Credit Hours: 3**

Selected topics that meet student interests and reflect trends in the field of industrial and systems engineering.

### **IENG 481 Project Engineering**

**Credit Hours: 3**

Introduction to project engineering, project lifecycle and feasibility studies. System approach covering requirements such as scope, time, cost, quality, resources and communication. Project planning & control, work breakdown and network scheduling techniques such as CPM & PERT. Cost and resources considerations and organization structures. Applications of project management software. Case studies.

Prerequisite:

GENG 360

### **IENG 484 Supply Chain Management**

**Credit Hours: 3**

Introduction to subject its importance and evolution, terms associated, Inbound side of chain, procurement/e-procurements & sourcing, vendor management, operational aspects in supply chain, Make or buy decisions, and resource planning, distributional aspects of supply chains, Integration aspects such as Linkage with other software solutions like ERP, strategic chain decisions with manufacturing environments, optimization, and sourcing decisions affecting overall performance. Newer practices in supply chain management.

Prerequisite:

IENG 310

### **IENG 485 Financial Engineering & Risk Management**

**Credit Hours: 3**



Introduction to financial engineering with an emphasis on financial derivatives including; the future markets, the pricing of forwards and futures, forward rate agreements, interest and exchange rate futures, swaps, the options markets and option strategies. Techniques and methods for managing financial risk including; portfolio theory, Portfolio management, the Capital Asset Pricing Model (CAPM), Monte Carlo methods, Value-at-Risk, Stress testing, extreme value theory, decision trees and utility theory.

Prerequisite:

GENG 200 AND GENG 360

### **IENG 486 Service Operation Management**

**Credit Hours: 3**

Understanding Services, how the operations and management of services is different than manufacturing, role of services in economy and value chains, service strategies and competitiveness of value chain, design of services, service systems and the various considerations, managing and operating services, service considerations for select sectors such as health care, public and private non-profit organizations, global performance aspects of services.

Prerequisite:

GENG 360

### **IENG 496 Industrial Systems Design I**

**Credit Hours: 3**

Understand a specialized topic in the area of Industrial and Systems Engineering, understanding of systematic design approach, understanding of design experience, literature search, selection of methodology, technical report writing, invited seminars on contemporary industry problems and solution approaches, multidisciplinary teaming, goal preparation and realization.

### **IENG 497 Industrial Systems Design II**

**Credit Hours: 3**

A team-based capstone design work involving analysis and design of a system in the area of Industrial and Systems Engineering. Students follow systematic design approach; apply project planning and scheduling techniques and computational and/or experimental solutions. Emphasis on synthesis of knowledge and skills to assimilate and demonstrate a professional attitude and ethics in problem solving with assessment of environmental, cultural and social impacts; Students are required to present their findings at the end of the project in the form of a written formal report based on specific standard format, followed by a multimedia presentation of the work undertaken in the project.

Prerequisite:

IENG 496

### **IENG 499 Independent Study**

**Credit Hours: 3**

Independent research of a topic not previously studied in other industrial systems engineering courses. Offered under the supervision of a faculty member. A formal report is required.

### **INTA 100 First Year Seminar**

#### **Credit Hours: 3**

The First year Seminar is a small interdisciplinary course designed to improve critical thinking, reading and writing skills necessary for the rigor of the International Affairs curriculum. The format of the course is designed to maximize interaction between students, encouraging them to explore new ideas and concepts related to global issues. Students are expected to become involved in recognizing, evaluating and deconstructing arguments and learn essential methods of research, writing and analyzing.

### **INTA 101 Political & Social Thought**

#### **Credit Hours: 3**

In the last half a millennium Western Europe transformed in radical ways, from individual self-perception to the way the state legitimizes its authority. Most of the changes were unprecedented in human history, and along the way, brought about new philosophical problems that since then have occupied the western world. This course introduces some of the central philosophical problems as well as responds to the course of European transformation and some solutions offered by European philosophers.

### **INTA 102 Introduction to Political Science**

#### **Credit Hours: 3**

This course aims to provide an overview of political science by examining its major approaches, concepts, theories and subject matter in practice. The course intends to allow students to understand political analysis. The ultimate goal of the course is to offer students a firm conceptual foundation in the discipline so that these questions can be studied in more detail throughout the rest of their academic career.

### **INTA 103 Introduction to International Relations**

#### **Credit Hours: 3**

This is an introductory course to topics in international relations. It provides students with: (1) the analytical and theoretical frameworks and vocabularies needed to explore and understand the subject matter of international relations, and (2) case-oriented accounts relating to local, regional and global issues, including, but not limited to, ethnic and religious conflicts, wars, foreign policymaking, diplomacy, democratization and global terrorism.

### **INTA 200 Study & Practice of Diplomacy**

#### **Credit Hours: 3**

This course introduces a key element of international relations: the art of diplomacy. We analyze diplomacy's important role in the international system through the major theoretical lenses of International Relations and then explore empirical cases of diplomacy in the face of international crises. By the end of the course, students will be asked to create an exercise in international diplomacy of their own.

**INTA 201 Comparative Political Systems****Credit Hours: 3**

This course studies the concepts, methods and substance of comparative politics. It focuses on the politics of particular foreign countries and regions and the comparative study of political phenomena such as leadership or state formation on a regional level. It explores themes such as the relationship between ideology and political behavior, political interests and how they are represented, group-decision-making in democracies, as well as the different types of governments and regimes and the political hierarchy supporting them. The course also shows how different political systems interact, and students will be expected to anticipate how these political systems will act in the future.

Prerequisite:

INTA 102

**INTA 202 European Civilization****Credit Hours: 3**

This is an introduction to the history of European Civilization from the pre-industrial era. Its goal is to present students with some knowledge of the broad lines of European development from 1050 to 1750, as well as with an introduction to some outstanding current problems of interpretation. The principal topics include the later Middle Ages, Renaissance, Reformation, Scientific Revolution, and Enlightenment. Geographical emphasis will be on Western Europe, primarily England, France, Germany, Spain, and Italy.

**INTA 203 Women in Islam****Credit Hours: 3**

This course examines the women's issues related to Islam and contemporary Muslim culture including the role and rights of women in Islam. It will cover the changing roles what women have played throughout Islamic history and the shifting discourse in Muslim communities on the construction of gender identities. This class will challenge western assumptions and interpretations of other societies and provide a framework for in which to understand women in Islam from a variety of perspectives.

**INTA 204 Middle East History I****Credit Hours: 3**

This course is a survey of the history of the Middle East from the rise of Islam until the Ottoman Period, roughly the sixth to sixteenth century. It examines the principal political, economic, intellectual, social, and cultural features of the Muslim world and discusses the geo-strategic and cultural conditions that attended the rise and spread of Islam. The formation of classical and medieval Muslim institutions and technology will be a particular interest, as will be the development of Islamic theology and law, and the interaction of Muslim thought with the great cultural and intellectual traditions of the medieval world.

**INTA 205 Middle East History II****Credit Hours: 3**

This course is designed to cover the history of the Middle East from 1500 to the present with the purpose of understanding its people, society, culture, and its contemporary conditions. The format will consist of lectures

and class discussions through which we will examine the economic, intellectual, political, social, cultural and religious changes experienced by the people of the various countries that constitute the Middle East. Important themes to be covered include:

Ottoman society and politics, western imperialism and the several forms it took, class and gender struggle, the rise of nationalism in its various forms, including Pan-Arabism and Pan-Islam, the fight for independence, revolutions and the establishment of new republics, and the foundation of Israel and its impact on Palestinians and the Arab world. These themes will be developed with an underlying interest in the changes experienced by the people of the area in their daily life, social structures, institutions, and sta

Prerequisite:

INTA 204

### **INTA 206 Globalization**

#### **Credit Hours: 3**

Globalization is a popular term that remains poorly understood. For many it is associated with progress and development, while others see it representing rampant capitalism and Westernization. The purpose of this course is to introduce students to key issues in globalization. Through drawing on a variety of key themes, the course will cover globalization's most important political, economic, social and cultural phenomena, such as transnational social movements, international organizations, political economy and security. This seminar will attempt to answer fundamental concepts such as questions: What is globalization? Is it truly a new? Is it actually global? Does it represent a threat to national sovereignty? What are its implications for domestic policy making?.

### **INTA 20 Islam and the West**

#### **Credit Hours: 3**

Modern nation-states appeared first in Western Europe. The characteristics of such an institution—such as middle-class ascendancy, centralization, nationalism, urbanization, industrialization and modernization—were natural results of historical developments within Europe. Since the beginning of the nineteenth century when Europe began to colonize the world, then later in the twentieth century when the two super-powers, Russia and USA (themselves extensions of European civilization), divided the world between them, and today with Islamic fundamentalism representing a challenge to Western modernity, the patterns of development and progress in the Islamic world have been greatly influenced by the example of the West. First, through the enforced rule of Western European countries, particularly England and France, and later by choice of westernizing indigenous rulers, the Islamic world has been subjected to westernization. This course discusses the historical relationship between the West a

Prerequisite:

INTA 101

**INTA 296 International Organizations****Credit Hours: 3**

This course deals with the historical evolution of political and international systems, and the various forms international organizations have taken over the past century. It raises conceptual questions about international organization and goes into details in regards to the structural characteristics and operations of the United Nations, European Union, Arab League and similar international entities. Of particular interest will be the major international issues of concern to these organizations, such a peace and security, the environment and global warming, economic development and poverty, and human rights.

**INTA 300 Chinese Society and Politics in the 21st Century****Credit Hours: 3**

Over the past decade, China has rapidly emerged as a major force in the world economy, and an increasingly important player in international politics. In order to better understand how China came to be in this position and its growing impact on the rest of the world, this course will provide students with an interdisciplinary understanding of China's recent history, domestic politics, society, and economy. The course will then focus on China's foreign relations in general, and her growing role in the Middle East and the Gulf in particular.

**INTA 301 Islamic Political Thought****Credit Hours: 3**

This course investigates how Muslims – both religious and secular – have thought about Islam and its role within politics in various parts of the world during the nineteenth and twentieth century. By examining the writings of important Muslim scholars and Arab secular intellectuals, and their historical contexts, this course tries to understand the diverse ways that Islam as a religious ideology has been historically implicated, or, as some have argued, “hijacked” by modern politics. Taking an historical approach, this class is based heavily on discourse analysis – analyzing primary sources – in order to discover how religious and secular ideas about Islam have evolved in the Muslim world's search for modern political legitimacy and an authentic Islamic identity in the modern period.

**INTA 302 Politics of Oil****Credit Hours: 3**

This course examines the impact of oil politics on society and social development. The main focus will be on the modern history of major oil producers in the Gulf region and around the world, from the Iranian revolution to the recent conflict in Iraq. In particular, this course will analyze the relationship between oil, foreign intervention, nationalism, democratization, religion and social change. To this end, this course will provide a comprehensive introduction to the contemporary politics of oil by discussing its dynamics, implications, and impact on the formation, reformations and transformations of social, cultural and political institutions. The class is an interdisciplinary course and incorporates disciplines such as history, political science, economics, and sociology.

Prerequisite:

INTA 102 AND INTA 103

**INTA 305 Internship****Credit Hours: 3**

This is an innovative cross-cultural course that allows students to explore the relationship between the Muslim/Arab world and the West. Through the Soliya program, Students will be grouped together with other students from the United States, Europe, the Middle East, and North Africa. Students will have the opportunity to explore the relationship between the Arab/ Muslim world and the West via online dialogue sessions. The goal of the course is to improve awareness and understanding of other societies. Students will examine their perception of 'other,' through this intercultural dialogue. The course is taught in conjunction with Soliya ([www.soliya.net](http://www.soliya.net)).

**INTA 306 Gulf Studies****Credit Hours: 3**

This course explores the eight political systems located in the oil-rich Arabian Gulf. The course will focus on the clash between tradition and modernity, resurgent Islam and secularism in this unique part of the world.

**INTA 308 International Political Economy****Credit Hours: 3**

This course looks at energy and environmental issues from an economic perspective. Emphasis of this course will be on the relationship between the environment, natural resources, and economic growth. Other topics will include energy efficiency and control of pollution across countries, global warming and the role of energy in the international economy.

**INTA 313 Culture and Politics****Credit Hours: 3**

The purpose of this class is to introduce students to the theoretical debates, critical methodologies and theorists of the field of culture and politics, with particular attention being given to the Middle East. The course will draw on a number of key cultural and political critiques that address the way we read, interpret and construct meaning, identity, knowledge and values in our societies, politics and cultures. The course is particularly interested in examining the political meanings of culture as they relate to issues such as representation, power, class, gender, media and nationhood in terms of their social and historical contexts.

Prerequisite:

INTA 100

**INTA 315 Dialogue Across Societies and Civilizations****Credit Hours: 3**

This is an innovative cross-cultural course that allows students to explore the relationship between the Muslim/Arab world and the West. Through the Soliya program, Students will be grouped together with other students from the United States, Europe, the Middle East, and North Africa. Students will have the opportunity to explore the relationship between the Arab/ Muslim world and the West via online dialogue sessions. The goal of the course is to improve awareness and understanding of other societies. Students will examine their perception of 'other,' through this intercultural dialogue. The course is taught in conjunction with Soliya

([www.soliya.net](http://www.soliya.net)).

### **INTA 345 The Arab Israeli Conflict**

#### **Credit Hours: 3**

This course will survey the social, political, and ideological origins of the Arab-Israeli conflict. Looking specifically at the forces of Western colonialism and imperialism, Arab nationalism and Zionism, and how these forces shaped the region and the conflict. Moving beyond the causes of the conflict, this course will also look at the different attempts at peacefully resolving the conflict. This course will also explore the role of major players, such as the US, France, UK, Russia, and Iran in the conflict.

### **INTA 350 Foreign Policy of the United States**

#### **Credit Hours: 3**

This course offers a survey of the foreign policy of the United States since the American Revolution. It aims to show the themes that underpin its foreign policy through adopting a case study approach on the role of the United States in its foreign affairs and includes both World Wars, the Cold War era, in addition to the role it has in the contemporary era, including the wars in Afghanistan and Iraq.

### **INTA 375 Qatari Foreign Policy**

#### **Credit Hours: 3**

This course begins with an overview of the fundamental concepts and theories that explain foreign policy approaches in general, and especially those that focus on small-state diplomacy within the framework of the international system. From this basic introduction, the course seeks to critically examine the historical transformation of Qatari foreign policy, with special focus on the internal and external factors that have shaped Qatar's prominent role in global and regional politics. Moreover, the course will aim to investigate the role of Qatar in regional and international organizations, especially the GCC, Arab League and the UN.

Prerequisite:

INTA 103

### **INTA 401 International Relations Theory**

#### **Credit Hours: 3**

This course explores the prominent theories of International Relations. Major themes include morality and politics; debates over methods and theory; foreign policy and global conflict; and the search for peace. Classes will be both lecture and discussion based. At the conclusion of the course students will demonstrate their understanding of various theories of international relations in analyzing a current problem of their choosing through the lenses of two of the theoretical perspectives discussed in class.

Prerequisite:

INTA 103



**INTA 403 Security Studies****Credit Hours: 3**

Aims to develop a working knowledge of the theories and conceptual frameworks that form the intellectual basis of security studies as an academic discipline. Particular emphasis on balance of power theory, organization theory, civil-military relations, and the relationship between war and politics. The reading list includes Jervis, Schelling, Waltz, Blainey, von Clausewitz, and Huntington. Students write a seminar paper in which theoretical insights are systematically applied to a current security issue.

Prerequisite:

INTA 103

**INTA 404 Gender & law****Credit Hours: 3**

General survey of law as it relates to women, including constitutional rights, inheritance laws, civil rights legislation, domestic relations, law as a profession for women, and political implications of the legal process. This course will look focus both on the history of gender and law as well as contemporary issues across the world.

**INTA 405 Gender in International Perspective****Credit Hours: 3**

Explores gender construction and identity formation in international perspective. Case studies may be drawn from Africa, Asia, the Middle East, Latin America, and the Caribbean. Topics include theories and methodologies for examining gender relations in cross-cultural perspective, political and socio- economic status of women, gender ideologies and symbolic representations, women's activism.

**INTA 411 Capstone****Credit Hours: 3**

This course represents a culmination of the material students covered across the required courses of the International Affairs program. The course focuses on bringing together and synthesizing methods, skills and acquired knowledge, and building upon them through exploration of a more focused and narrowly defined subject that provides students with the possibility of deeper learning of a particular topic relevant to the study of International Affairs. Goals of the capstone will be to consolidate analytical skills, expand written and oral communication, and gain practice in undertaking more focused and sophisticated methods of research. Topics will vary from year to year depending on who is teaching the seminar and on international events. Subjects could include human rights, global warming, war against terrorism, world trade, world poverty and other issues

Prerequisite:

EDUC 201

**INTA 415 History of the Middle East****Credit Hours: 3**

History of the Middle East in the 20th Century. This course explores the 20th-century history of the Middle East, concentrating on the Fertile Crescent, Egypt, Turkey, the Arabian Peninsula, and Iran. We will begin by examining the late Ottoman Empire and close with the events of 9/11 and their aftermath. Readings will include historical surveys, novels, and primary source documents.

**INTA 420 Conflict Resolution and Human Rights****Credit Hours: 3**

This course provides a solid foundation in the theoretical basis of conflict studies and human rights. The course will adopt a thematic approach where both the dynamics of conflicts and the human rights issues from national and international military or humanitarian interventions will be examined. This course will also explore conflict styles, communication and mediation skills through relevant case studies.

Prerequisite:

INTA 103

**INTA 433 Europe, the Cold War & World****Credit Hours: 3**

This course covers the period between the end of the Second World War in 1945 and the events leading to the dismemberment of the Soviet Union in 1991. It examines the development of the Cold War between the United States and the Soviet Union; the history of the Soviet Union from Stalin to Gorbachev; the economic and political development of Western Europe, and the transformation of the role of Western European countries in the world through the process of decolonization. The course focuses on Nationalism in France, Germany, and Italy. Students will improve their sense of inquiry and develop sharper communication and writing skills through the writing of research papers, class and group discussions and presentations

**INTA 440 Politics of Development****Credit Hours: 3**

This course introduces students to the broad theories of development and their critiques. The focus is on the various perspectives, models and approaches to development in the Global South. The course will place a regional emphasis on Asia, Africa and Latin America. We will begin by examining the contested concept of “development” itself. We will look at the history and nature of colonialism and its legacy of poverty and inequality. In the second section we will examine mainstream approaches to development and alternative proposals. The final section of the course will explore key substantive topics and debates in the field.

**INTA 450 Ethics of International Relations****Credit Hours: 3**

Over the last years, ethics in international relations has witnessed increasing importance and significance within the discipline of international affairs during. This growth is due mainly to the complexity and gravity of contemporary problems and challenges related to wars and conflicts, weapons of mass destruction, poverty and

inequality, violation of human rights and humanitarian intervention, globalization and economic crises, justice and governance, environment and ecological issues, migration and cultural diversity. In this respect, this module entitled “Ethics and International Relations “offers a comprehensive outlook about the philosophical principles and issues raised by international politics. The course will include a wide range of representative academic approaches and ideological movements in modern and contemporary international relations such as Realism, morality and law, wars, pacifism, nationalism, Internationalism, Communitarian and cosmopolitanism, seeking to better

### **INTA 460 International Politics & Epidemics**

#### **Credit Hours: 3**

This course will explore the history and evolution of some of the greatest challenges to human health. We consider the origins of epidemics, broadly defined, and the factors -rooted in biology, social organization, culture and political economy - that have shaped their course. We examine the interaction between societies’ efforts to cope with disease and the implications of the latter for world history, ancient and contemporary. Texts include eyewitness accounts by participants such as scientists, healers and the sick who search for treatment or cures; the politicians, administrators and communities who try to prevent or contain disease at both the local and international level; and the artists, composers and literary figures who interpret the effects of the great pandemics. Cases chosen from different regions and continents range from early plagues and the recurrent threats of influenza, malaria and tuberculosis to nineteenth century disasters including cholera and the Irish Famine, “

### **INTA 461 Special Topics**

#### **Credit Hours: 3**

A rotating course topic is applied for this course.

### **INTA 465 Leadership and Civic Responsibility**

#### **Credit Hours: 3**

This course examines the concepts and ideas that surround ‘Leadership’ and ‘Civic Responsibility.’ It elucidates a variety of diverging perspectives on ‘Leadership’ and, thereafter, locates them in the context from which they arise. Ultimately, questions of leadership and civic responsibility raise important questions on ethics and the moral bases for authority and legitimacy. This course, then, considers the ways in which thinkers have responded to the understanding of leadership, teambuilding and responsibility. Broader questions will be asked that, that revolve around elite/mass attitudes with regard to rights and responsibilities. A significant aim of this course is to reveal to students the deep-seated beliefs that structure the definition of leadership and their responsibilities to others.

### **INTA 470 Area Studies**

#### **Credit Hours: 3**

This course offers an interdisciplinary examination on a region of the world through a rotating topic focus.

**ISLA 101 Studies in Islamic Creed****Credit Hours: 3**

This course would enable the student to get understand the terminologies pertaining to Aqeedah (theology) in Islam and get acquainted with both the methodology of the Quran and Sunnah in entrenching faith and conviction and the methodology of Muslim scholars in the field of Aqeedah.

**ISLA 102 Quranic sciences****Credit Hours: 3**

Acquaint the students to the terminologies of various disciplines of the Quranic Sciences and introduce them to the doubts and allegations hurled on the Quran and their rebuttals.

**ISLA 103****Quranic Exegesis****Credit Hours: 3**

Introduce the student to the aims and objectives of several surahs of the Quran. The course would also aim at analysis of texts from the Quran through the use of linguistic and grammatical principles.

**ISLA 104 Sciences of Hadith****Credit Hours: 3**

This course aims at familiarizing the students with the science of hadith, its emergence, significance, essential works in the field and the various terminologies used in the field of hadith, with the ability to distinguish between them (Shaaadh, Mahfuz, Mudtarib, Maqlub). It includes the role of scholars in the service of hadith and their varying methodologies and the doubts created regarding the authenticity of hadith and its rebuttal.

**ISLA 105 Analytical Hadith****Credit Hours: 3**

Create a sound understanding of the methodologies of the scholars employed in the understanding of the sunnah. Also enable them to develop the skills of commenting and discussing on issues related to hadith.

**ISLA 106 Fiqh of Worship****Credit Hours: 3**

This course investigates rules of water, (purities, impurities, and types of the water) and rules regarding prayer. It also deals with the rules, basis, conditions, types, and etiquettes of fasting, its Sunan (recommended acts) and Makruhat (disapproved acts), and examines the rules of i'tikaaf.

**ISLA 107 Precepts of Fiqh****Credit Hours: 3**

This course examines the Maxims of Islamic law in terms of definition, emergence and evolution, and deals with Greater and Lesser Maxims and their exceptional rules theoretically and in detail, and elaborates the contemporary applications, and the most important ancient and contemporary sources in this field.

**ISLA 201 Principles of Islamic Jurisprudence****Credit Hours: 3**

This course examines the definition of Islamic jurisprudence, its development, importance codification, and different methodologies used by scholars of Islamic Jurisprudence in authoring books, and deals with the original and secondary sources and rules of Islamic law and legal implications of the texts, derivation of the rules (Al-ijtihad), following the opinion of the Islamic Law Schools (Taqlaad) and issuing Fatwas.

**ISLA 202 Logic and research methodology****Credit Hours: 3**

Introduction (definition, emergence, relationship between logic and language). Understanding the Salient characteristics of scientific (intellectual) thought. Research Methodologies in Social Sciences and Humanities. Approaches to the study of religions and creeds.

**ISLA 203 Fiqh of Transactions****Credit Hours: 3**

This course clarifies the meaning of the jurisprudence of financial transactions and talks about the sales contract in terms of its basis, conditions, types, effects and contemporary applications. It also elaborates the terms of al-salam (advanced payment sale) al-Ijara (leasing), al-wakala (Agency), al- Sharika (company), al-Musaqat, al-Muzara'a (crop sharing), al-Ju'ala (Wages) and al- Daman (warranty).

**ISLA 204 Sufism and Ethics****Credit Hours: 3**

The objective of this course is to acquaint the student with an understanding of tasawwuf with its theoretical and practical aspects both as an internal and external behavior and in accordance with the Islamic Shariah. The students would also be introduced to models of this mode of practical behavior and lastly the role of tasawwuf in traditional Islamic civilization.

**ISLA 205 Intellectual Foundations of Islamic Civilization****Credit Hours: 3**

This course introduces the student to the Islamic Civilization through its Intellectual foundations derived from the Quran and Sunnah. It also enables the student to analyze the forward march of Islamic Civilization and understand its leanings as well as the role of scholars in the dissemination of Islamic Thought.

**ISLA 206 The objectives of the Sharia****Credit Hours: 3**

This course deals with the emergence of the purposes of the Sharia theoretically and examines the definition of the Maqasid and its types, grades, and their importance, and elaborates its role in derivation of legal opinion through Tarjih (preference of one opinion over the other) and illustrates the most important ancient and contemporary studies on al-Maqasid.

**ISLA 207 Analytical Exegesis****Credit Hours: 3**

This course aims at introducing the student to the principles of Quranic recitation and the aims and objectives of the smaller surahs of the Quran. Memorization of several verses and chapters from the Quran. Deriving the Purposes of Sharia and social and ethical principles from Quranic verses.

**ISLA 209 Islamic Studies in Contemporary Thought****Credit Hours: 3**

The course aims at enabling the student to understand the important milestones of contemporary thought and compare it with modern Islamic thought.

**ISLA 210 Thematic Hadith****Credit Hours: 3**

Introduction to a number of comprehensive ahadith and the way to derive benefits related to the narration. Analysis of the hadith with respect to its narration and text.

**ISLA 211 Islamic Studies in Legislative and Legal Thought****Credit Hours: 3**

This course covers the study of different man-made laws and their characteristics, and religious laws and their characteristics and objectives and their obligations, and comparison between them and the man-made laws, in terms of source, characteristics, strengths, universality and binding force.

**ISLA 212 Islamic Penal Code****Credit Hours: 3**

This course deals with definition of crime and punishment and describes the general principles of Islamic criminal law; examines retribution in the murder or other crimes; and elaborates the punishment for adultery, slander, drinking, theft, apostasy, banditry and punitive sanctions.

**ISLA 301 Contemporary Methods in I.S****Credit Hours: 3**

The importance of methodologies in Islamic Studies and the Methodological Heritage of Muslims. Methodology of Future Studies. Importance of observation. Islamic Studies in the age of globalization. The impact of modernism and post-modernism on Islamic Studies.

Prerequisite:

ISLA 102 AND ISLA 201 AND ISLA 104 AND ISLA 103

**ISLA 302 Family law****Credit Hours: 3**

This course describes the marriage contract, its conditions, effects, unmarriageable women, engagement, the elements of choice (of wife), and the rule of al-Zawaj al-Urfi (customary marriage), Misyar and the friend marriage. It further examines the types of separation between husband and wife, Idda (period of waiting), and

the consequences of separation such as its compensation, maintenance, accommodation, and descent.

### **ISLA 307 Islamic Constitutional and Administrative Law**

#### **Credit Hours: 3**

The course covers the importance of the State and its nature, the Imamate, sovereignty, governance, the source of sovereignty, the duties of rulers and their rights and attributes. It also studies rights and public freedom, the principle of consultation and obedience, legislation and codification in the Islamic state.

### **ISLA 308 Contemporary Intellectual Trends**

#### **Credit Hours: 3**

Apprise the student of the most significant contemporary trends of thought with respect to their development, methods and objectives. The student should be able to distinguish between the characteristics and personalities of these trends, critically study these trends from the Islamic perspectives and identify their pros and cons. Strengthen research skills around the intellectual trends and try to discern the general framework in which these trends are born and work.

### **ISLA 401 Graduation Project**

#### **Credit Hours: 3**

To assist the student in the realization of the objectives of the program and its outcomes and strengthen in him skills related to presentations, discussion and debate. The student would further learn how to harmonize between originality and contemporariness in the field of religious thought and accept and tolerate difference of opinion and visions.

Prerequisite:

ISLA 202

### **JAPN 101 Japanese I**

#### **Credit Hours: 3**

This course will introduce basic Japanese speaking, listening, comprehension, reading, and writing grammar. It will cover the basic structures of Japanese language and focus will be placed on learning the alphabets and reading simple passages written in Hiragana, Katakana and Kanji. An additional feature will be to provide contextual understanding of Japanese culture. During the course emphasis will be placed on the accuracy and fluency in both spoken and written Japanese communication.

The material will include how to communicate in daily situations such as making requests, or basic descriptions. The listening component will focus on how to understand what others say in daily conversations. As an integral part of the course, exposure to Japanese culture will be embedded to foster grammatically correct and socially appropriate use of language.

### **JAPN 102 Japanese II**

#### **Credit Hours: 3**

This course will continue the basic Japanese speaking, listening, comprehension, reading, and writing grammar material that was covered in JAPN 101. The course will further develop an understanding of Kanji by



introducing an additional 100 characters. By the end of the course students should be able to express probability, conjecture, comparison, state opinions, give reasons and provide dialogue on intentions and desires. The purpose will be to achieve an intermediate level of understanding of Japanese language.

Prerequisite:

JAPN 101

### **KORN 101 KOREAN I**

#### **Credit Hours: 3**

This course will introduce basic Korean speaking, listening, comprehension, reading, and writing grammar through 2 units includes illustrations, audio visual materials on topics covers the basic structures of Korean language and focus will be placed on learning the alphabets and reading simple passages. During the course emphasis will be placed on the accuracy and fluency in both spoken and written Korean communication. The material will include how to communicate in daily situations such as greetings, self-introduction, weekend plans, thanking, apologizing, etc. The listening component will focus on how to understand what others say in daily conversations.

### **KORN 102 KOREAN II**

#### **Credit Hours: 3**

This course will continue the basic Korean speaking, listening, comprehension, reading, writing and grammar material that was covered in Korean 101. The course expands on the fundamentals and grammatical elements of Korean. The course explores other common additional meanings for popular terms. Continued emphasis will be placed on conversation and listening skills and reading and writing skills.

By the end of the course students should be able to express probability, state opinions, give reasons and provide dialogue on intentions and desires. The purpose will be to achieve an intermediate level of understanding of Korean language

Prerequisite:

KORN 101

### **LAWC 100 Legal Culture**

#### **Credit Hours: 3**

The Legal Culture course highlights several basic topics for students who are not specialized in law. The main topics of the course include the definition of the legal rule and its sources, the different categories of law, and its most famous branches which have a clear relation to human life and its daily transactions, such as constitutional law, family law, criminal law, international law, and the general principles of human rights, in addition to civil law and commercial law. Furthermore, the course determines the nature of the relationship between law, state and individuals.

**LAWC 101 Introduction to Law****Credit Hours: 3**

This course deals with the general theory of law and the theory of rights. Therefore, the syllabus of this course will be divided into two main parts: (1) the theory of law and (2) the theory of rights. The first part will be concerned with the concept, philosophy, development, sources, classifications and scope of application and interpretation of law in general. The second part will introduce the students to the theory of rights as known in the civil law systems. This part will deal with the concept, classification, subjects and persons of rights and other relevant issues.

**LAWC 102 Human Rights****Credit Hours: 3**

This course will discuss two broad issues about human rights. The first is the theory of human rights in national and international instruments; this part will cover the concept, development and classification of human rights (i.e. civil, political, social, economic and cultural rights). The development of these rights in both national and international regimes will be examined. The second part of this course will deal with the concept of international humanitarian law, its role in the protection of victims of war and its definition and relationship with the work of the ICRC. The main treaties are the four Geneva Conventions of 1949 and their Additional Protocols as well as the Hague Conventions.

**LAWC 112 Sciences of Crimes&Penalties****Credit Hours: 3**

A general introduction to the study of criminal behavior from an interdisciplinary perspective. The main focus is on the classical and contemporary theories developed from the past until current time, to explain and predict criminal behavior in society and, as well as examining associated penalties. In addition, the ability of these theories to explain criminal behavior in different cultures will also be examined. Other issues in criminology, such as the role of demographics (age, race, gender, social class) in the causation of reaction to crime.

**LAWC 113 International Humanitarian Law****Credit Hours: 3**

This course will deal with the concept of international humanitarian law, its role in the protection of victims of wars and its relationship with the work of the ICRC. The main treaties are four Geneva Conventions of 1949 and their additional Protocols, as well as the Hague Conventions. This course is to be differentiated from other related topics such as the international law of human rights.

**LAWC 200 Public of Legal Research****Credit Hours: 3**

The Principles of Legal Research Course aims to provide students with basic skills related to the process of preparing and completing legal research in accordance with the legal methodology requirements. It also aims to develop the student's research capabilities through writing applied research related to detailed themes in the course. The course includes the basics of legal research and its tools, how the student collects information and data from various sources and references related to selected subjects of law courses, how to write information and data, how to document references, and finally how to produce the final legal research in formal and

objective terms.

### **LAWC 202 Public Finance & Taxation**

#### **Credit Hours: 3**

This course deals with the concept of public finance, the fiscal role of government and its evolution, the public budget and its preparation, its laws, principles and kinds. Public budget encompasses studying public expenditures: definition, involvement determinants, implications, etc. The course addresses also the main sources of revenues such as state property, fiscal charges, public loans and taxation. This is in addition to fiscal policy.

Prerequisite:

LAWC 101

### **LAWC 203 Law Clinic**

#### **Credit Hours: 3**

The legal clinic is a practical course where students receive public or private persons who wish to obtain legal assistance in various cases. They acquire the skills of dealing with real cases and participate in solving them in cooperation with law firms that provide these legal services on pro bono basis.

Prerequisite:

LAWC 101

### **LAWC 204 International Law of the Sea**

#### **Credit Hours: 3**

The International Law of the Sea Course deals with the definition of the law of the sea as one of the main branches of international law, indicating its importance and full understanding of its dimensions, in addition to identifying the provisions that govern the uses of the seas and the powers of coastal and landlocked states, particularly in the areas of maritime navigation and the exploitation of living and non-living resources; furthermore, the course highlights the application of the Law of the Sea by the authorities and individuals of the State of Qatar.

Prerequisite:

LAWC 101

### **LAWC 213 Sources of Obligations**

#### **Credit Hours: 3**

This Course introduces the students thoroughly to the fundamental principles of the sources of obligations in the new Civil Code of the State of Qatar. The Sources of obligations include: (1) Contract, (2) Unilateral Will, (3) Tort liability, (4) Unjustified Enrichment and (5) Legislation.

Prerequisite:

**LAWC 101****LAWC 214 Effects of Obligations****Credit Hours: 3**

This course deals with the legal regulation of the effects of obligations and the means of their implementation whether voluntarily or under compulsion. The course also covers the grounds under which the effects of obligations may be amended, transferred, assigned or terminated.

Prerequisite:

LAWC 213

**LAWC 215 Business Law and Ethics****Credit Hours: 3**

This course aims to provide a general introduction about the legal and ethical environment of business in Qatar. Accordingly, the main topics cover the legal and ethical environment concerning starting up a business whether it is a sole proprietor or a corporation. Then, it explains the legal and ethical environment related to running businesses with special focus on intellectual property, consumer protection, competition and anti-monopoly rules, banking and payment methods guarantees and commercial contracts. Next, the course deals with the legal and ethical environment associated to terminating the business including alternative dispute resolution methods and insolvency. Finally, the course examines recent ethical business case studies and its importance to the national economy.

Prerequisite:

ENGL 004 OR ENGL 202 OR CBT 173 OR IBT 061 OR IELTS 5.5 OR T02 500 OR ENGL 111

**LAWC 217 Commercial Law****Credit Hours: 3**

This is an introductory course to all other advanced commercial law courses. It provides the students with the general principles of commercial law; its concept, characteristics, development and sources. It will also study the legal concept and theory of commercial transactions and that of traders in the 2006 Commercial Code of Qatar. The legal status and rules of commercial premises and the rules of unfair competition will also be highlighted. The course shall also introduce students to the most common contracts of commercial nature such as the contract of sale and the contract of commercial agency.

Prerequisite:

LAWC 101

**LAWC 222 Constitutional Law****Credit Hours: 3**

This course studies constitutional law; its nature and its relationship with other branches of law, the definition of the constitution, its sources, kinds of constitutions, their origins and developments, the diminishing relative value of constitutions and the means for protecting them through censorship and its application. The course also

studies the state; its legal attributes, systems of government, the concept of government and its various types with samples of current governing systems. The course will also examine the constitutional system of the State of Qatar, and in particular the separation of powers doctrine and civil and political rights and liberties.

### **LAWC 250 Family Law**

#### **Credit Hours: 3**

The State of Qatar has recently codified most legal aspects of family relationships in the New Family Law No. (22) of 2006. This course will examine all provisions of this law, in particular the provisions of marriage, divorce, financial provision, guardianship.

### **LAWC 253 Anglo-American Legal System**

#### **Credit Hours: 3**

This course is intended to introduce the students to the main features of the Anglo-American legal system, as one of the main legal systems of the world, in comparison with the Civil Law legal system.

Prerequisite:

LAWC 101

### **LAWC 300 Legal Skills and Methodology**

#### **Credit Hours: 3**

Legal Research and Writing I introduces students to objective legal writing and legal reasoning and research. Students learn how to research, prepare and submit a memorandum of law. More broadly, they learn how to reason like lawyers and legal writers. Leading up to the writing of the memorandum of law, students also learn how to:

- 1) read and summarize cases.
- 2) organize written legal analysis in a standard format;
- 3) read and write case citations, and;
- 4) do targeted legal research using the universal search engines in local and international law firms.

Prerequisite:

ENGL 250

### **LAWC 301 Legal Skills and Methodology**

#### **Credit Hours: 3**

Legal Skills and Methodology introduces law students at Qatar University to the core skills of legal analysis of legislation and case law, legal writing in both an objective and persuasive context, legal research theory and practice and the fundamental modes of legal reasoning and argumentation. The course is designed to enhance the core competencies of students in all these key areas of legal practice.

**LAWC 302 Advocacy Skills****Credit Hours: 3**

This course will teach the practice skills used by lawyers in representing clients. It will develop lawyering skills and will address skills related to legal writing, oral advocacy, negotiations and counseling through readings, lectures and exercises.

Prerequisite:

LAWC 223 OR LAWC 310

**LAWC 200 Principles of Legal Research****Credit Hours: 3**

Unlike LRW 1, which focused on objective legal writing, Legal Research and Writing 2 (LRW2) will focus on persuasive written advocacy and legal argumentation. Over the course of the semester, students will write a submission (addressed to a court) on behalf of a client. As they work on that assignment throughout the semester, students will learn how to use the law and facts that pertain to their client's legal issues to advocate effectively for a desired outcome. Students will also build on the skills they learned in LRW 1 with advanced legal research, citation, and legal analysis.

Students will learn how to use these skills to write an effective legal brief. Students will also learn how to conduct legal research, how to cite, and how to effectively analyze and argue on behalf of their client using the CREAC format.

Prerequisite:

LAWC 111 OR LAWC 300

**LAWC 314 Law of Civil Contracts I****Credit Hours: 3**

The legal system of the State of Qatar follows the Latin distinction between civil and commercial contracts. This course will, therefore, follow this distinction and study the concept of nominated civil contracts and the distinction between such contracts and non-nominated contracts. The course will concentrate mainly on the two main nominated contracts: the contract of sale and the contract of leasing. All aspects of these contracts will be examined including their definition, formation, elements, obligations arising there from and termination.

Prerequisite:

LAWC 214

**LAWC 315 Labor & Social Insurance Law****Credit Hours: 3**

This course deals with general principles of labor law in the light of the legal system of the State of Qatar and international conventions. It will introduce the students to the labor laws definition, scope, evolution and sources. It will then investigate the individual labor contract, its elements, duration and effects. The course shall also spot the light on the legal regulations of the collective labor agreements, labor syndicates and the settlement

of the collective labor disputes. The course will also examine the legal environment of social security.

Prerequisite:  
LAWC 213

### **LAWC 316 Law of Procedures in Civil and Commercial Matters I**

**Credit Hours: 3**

This is an advanced course which deals with the structure of the judiciary in the State of Qatar, the formation of the civil courts, their jurisdiction and competence, the legal proceedings of the civil and commercial cases before the courts and the rules of appeals and cassation.

Prerequisite:  
LAWC 214

### **LAWC 321 Administrative Law**

**Credit Hours: 3**

This course deals with the definition of administrative law, its sources, the actions taken by the public administration in implementing the laws, administrative control, the system of public utilities, administrative legal instrument; administrative decisions, and administrative contracts (public procurement), all of that will be studied in the light of the Qatari Legal System.

Prerequisite:  
LAWC 101

### **LAWC 323 Criminal Law I-General**

**Credit Hours: 3**

This course deals with the general theory of crime and punishment. The general theory of crime contains the definition, types and elements of crime. The course will focus on the concept of the material and mental element of crime (actus reus and mens rea). It deals with the definition and forms of each element: commission and omission; attempt; causation; complicity; intention and recklessness. The course will also highlight of the causes of permissibility like the Legitimate Defense, the use of authority and the right of exercising some activities. The course will deal with the capacity and incapacity conditions of the person: the age of criminal responsibility, insanity, intoxication, In addition, the course addresses the general theory of punishment. It deals with the definition, purposes, kinds of punishment (substantive and subsidiary penalties) and its termination. At the end, the course will give some focus on the general theory of criminal preventive measures.

Prerequisite:  
LAWC 101



**LAWC 324 Criminal Law II-Private****Credit Hours: 3**

This course deals with the two major classifications of crimes in the Qatari penal law. It will focus on the definition, elements and punishment of each crime. First, crimes against the public interest: such as crimes against the state (treason, espionage, conspiracy); crimes against the administration and public property (corruption, bribery) ; justice crimes (contempt of court) ; crimes against public trust (forgery or counterfeit) and crimes against the social order (corrupt public morals or outrage public decency).

Second, crimes against persons and property: such as homicide, murder, manslaughter, bodily assault, abortion, kidnapping, false imprisonment, sexual crimes, blackmail, theft, robbery, fraud, computer and intellectual property crimes.

Prerequisite:

LAWC 323

**LAWC 329 Commercial Papers and Banking Transactions****Credit Hours: 3**

This course is divided into two main parts: (1) part one deals with the legal principles of commercial papers as negotiable instruments; their definition, characteristics and types as regulated by the Commercial Code of Qatar; namely the Bill of Exchange, Promissory Note and Cheque. (2) The second part shall examine the legal framework of the most common banking transactions from both international and national perspective.

Prerequisite:

LAWC 214 AND LAW C 217

**LAWC 330 Judgements and Criminal Appealing Means****Credit Hours: 3**

This course provides a detailed discussion of the criminal judgment through highlighting its essence, types, distinctive elements and conditions of validity. The course further examines the possible objections that could bar the execution of the criminal judgment, as well as the different options for challenging it; whether through ordinary means, namely; objection to in-absentia judgments, and appeals of first instance judgments, or extraordinary means, namely; cassation and request for reconsideration. It also highlights criminal judgments that could be subjected to appeal, parties who have the right to appeal, times and procedures of appeal and the legal effects of the appeal.

Prerequisite:

LAWC 324

**LAWC 333 Law of Electronic Commerce****Credit Hours: 3**

This course will introduce the students to the main legal issues of electronic transactions in the light of both national and international law. It addresses the new legal and policy issues that arise when businesses and consumers use the Internet to conduct their commercial transactions. These issues span a broad range of subject

matters, including consumer protection, contracting, digital signatures, electronic payment systems, privacy, jurisdiction, unfair competition, torts, alternative dispute resolution, and taxation.

Prerequisite:

LAWC 217

### **LAWC 335 Intellectual Property**

#### **Credit Hours: 3**

This course deals with national and international legal protection of intellectual property rights. The course shall introduce the students to the theory of intellectual property and applications, namely: copyrights and neighboring rights, industrial and commercial property rights and the laws that protect patent, trademarks and layout designs, the rules of the law that protect intellectual properties in Qatar and related Ministerial decisions. It also examines international agreements on industrial and intellectual property, such as the Bern Convention, the Paris Convention and the TRIPs.

### **LAWC 339 Public International Law**

#### **Credit Hours: 3**

This course will introduce the students to the definition, legal binding character, sources, and branches of public international law. It will also deal with different aspects of its applications in peace and war; in particular the question of international recognition of a state, the states responsibility, succession and means of international disputes settlement.

### **LAWC 345 International Trade Law**

#### **Credit Hours: 3**

This course examines international laws and institutions that govern foreign trade, including the World Trade Organizations (WTO), the General Agreement on Tariffs and Trade (GATT), and regional trade agreements. Focus is on customs laws, dumping, most favored nation treatment, unfair trade practices, and trade liberalization under the WTO. In addition, consideration is given to the WTO's dispute settlement system.

Prerequisite:

LAWC 217

### **LAWC 348 Corporate Law**

#### **Credit Hours: 3**

This course deals with the commercial company law in the State of Qatar in the light of Commercial Company Act No. 5 of 2002 and its amendments. The course shall introduce the students to the concept of "company" as a contract and as a legal person. It shall then turn to detail the legal principles and rules that govern each type of companies (i.e. General Partnership, Simple Commandite Partnership, Association in Participation, Joint Stock Company, Commandite Partnership by Shares, Limited Liability Company, Single-Person Company and Holding Company). The course will also cover the rules of merger, take over and liquidation of all types of companies.

Prerequisite:

LAWC 217

### **LAWC 350 Maritime Law**

#### **Credit Hours: 3**

This course aims at dealing with different aspects of maritime law such as; its definition, characteristics, history and sources. It also deals with the legal nature of a vessel (ship) and provides a definition of a vessel, its nature, and the means for owning it. Moreover, the study addresses the individual's associated with a vessel such as the owner, captain and seamen (crew), and the forms of their responsibility (liability) pursuant to international conventions and positive laws. The course deals with exploiting the vessel for transport whether through transport with shipping documents or through lease contracts which the course deals with in detail, insofar as their types, the obligations devolving upon the party in each type, and a study of the creditors of a sea journey, in addition to a study of sea accidents such as collision, loss, and also a study of maritime insurance.

Prerequisite:

LAWC 217

### **LAWC 351 Administrative Judiciary**

#### **Credit Hours: 3**

This course is concerned with all types of judicial review of administrative acts and decisions and with the principle of legality; its application and scope of its observation by public administration. It also studies the sources of legality and the scope of its application in some Arab countries. On the other hand, it studies the balancing of the principle of legality by means of discretionary power, emergency powers and acts of state or government.

Prerequisite:

LAWC 321

### **LAWC 352 Anti-Corruption Law**

#### **Credit Hours: 3**

This course deals with corruption crimes in the Qatari legislation such as bribery offenses, misappropriation of public funds, exploiting positions, white collar crimes, and other crimes related to public fund. The course also discusses laws and regulations relating to such crimes, the mechanisms of criminal prosecution in this type of crimes, methods of investigation, punishing the perpetrators, and the international cooperation in the fight against these crimes. In addition, this course introduces the student to the corruption offenses, according to the relevant international conventions such as the United Nations Convention Against Corruption, Arab Convention Against Corruption. Moreover, the course addresses the causes of corruption and its types, the regulatory agencies and their role in the fight against corruption, mechanisms for promoting integrity, and the realization of the principle of transparency.

Prerequisite:

**LAWC 323****LAWC 353 Real & Personal Securities****Credit Hours: 3**

The course will examine the main principles of debt securities in the Qatari Civil Code. It covers the concept, elements, conditions and legal effects of all types of real securities such as Mortgage, Pledge, and Liens, and of personal securities such as guarantees.

Prerequisite:

LAWC 214

**LAWC 354 Law of Public Service****Credit Hours: 3**

This course explains the law of civil service in Qatar, by showing how the public jobs are organized, described, and filled. It also deals with the legal status of public servants or employees and their duties and rights during and after their service.

Prerequisite:

LAWC 321

**LAWC 355 Economic Crimes Law****Credit Hours: 3**

This course deals with different forms and patterns of behavior called economic crimes. The course discusses its nature, dimensions, and the penalties for committing such behavior. The course also discusses the principles that govern organizations responsible for disclosing such crimes and the organizations in charge of implementing actions as a result of such disclosure and Investigating and prosecuting of perpetrators. The importance of studying this course stems from the role that economy plays as being the lifeblood, especially in the state of Qatar which is witnessing a great economic development, possibly accompanied by some abuses and violations committed by some individuals in their endeavor of economic and business activities. This situation obliges students to understand the principles and laws which relate to economic crimes within modern Qatari laws dealing with the prosecution of the perpetrators of these kinds of crimes.

Prerequisite:

LAWC 324

**LAWC 407 Special Topics****Credit Hours: 3**

Selected topics from specialized topics of law aimed at deepening students skills and knowledge toward developing law specialties.

**LAWC 408 Special Topics****Credit Hours: 3**

Selected topics from specialized topics of law aimed at deepening students skills and knowledge toward developing law specialties.

**LAWC 409 Externship****Credit Hours: 3**

The externship will give students the opportunity to work for academic credits with judges, lawyers, in-house counsels and other agencies. In these places, students may do legal research and writing; they may conduct client interviews, or they may make court appearances under the supervision of an attorney. In conjunction with this uncompensated work, they engage in a supervised tutorial which allows them to reflect and learn from their experience.

Prerequisite:

LAWC 111 OR LAWC 300

**LAWC 411 Real Rights****Credit Hours: 3**

This course deals with the property rights: the right of ownership, the scope of this right, the instrument for its protection, types of ownership, the basis for acquiring property, the rights derived from ownership, transfer, use, benefit, restrictions on its use and its disposal, all of that will be studied according to Qatari relevant legislation.

Prerequisite:

LAWC 214

**LAWC 413 Private International Law****Credit Hours: 3**

This course deals with the general theory of nationality, its definition, concept, development, types and means of acquisition, withdrawal and dropping. The course shall also cover the legal remedies for multinationals and stateless. The second part of this course deals with the legal status of foreigners residing on the State of Qatar. This course deals also with the concept, development, nature, sources and role of conflict of laws rules in private international relationships either of financial character or of personal and family status and concept and applications of public order in Private International Law. The course also examines legal rules set up to determine the competent courts (conflicts of jurisdictions) in cases involving foreigners or of international character.

Prerequisite:

LAWC 213

**LAWC 414 Law of Civil Contracts II****Credit Hours: 3**

The course will concentrate on two other contracts nominated and regulated by the Civil Code, in particular the Moqawleh contract (contract to perform works for others), and the contract of agency. All aspects of these contracts will be examined including their formation, elements and the obligations arising there from.

Prerequisite:

LAWC 214

**LAWC 422 Law of Criminal Procedures****Credit Hours: 3**

This course deals with the “criminal process” and the structure, functions and competences of the criminal courts and the public prosecution service according the Qatari law. It focuses on the pre-trial procedures: the arrest (with and without warrant); investigation; seizure; wiretapping; witness; interrogation; expertise; preventive detention; decisions to prosecute or not prosecute. The course will deal with the trial phase before the criminal courts, focuses on the proceedings, evidence; grounds of the judgment; appeal .... The course will also highlight the rights of the defendant in Qatari the criminal justice system.

Prerequisite:

LAWC 324

**LAWC 430 Practical Criminal Investigations****Credit Hours: 3**

This course provides a definition of “practical criminal investigation”, as well as its importance, development, and safeguards. It further highlights the functions and powers of the criminal investigation agencies, the characteristics of the criminal investigator, and the substantive and procedural rules which govern collection of evidence, discovery of crimes committed, and following legal and technical methods in collecting and preserving the evidence. Furthermore, the course aims to illustrate the use of scientific and technical legitimate methods in crime searching and evidence collection to reach the truth including trace analysis at the forensic crime scene whether liquids, solids, gassiness, artificial and human materials. The course also covers the following topics: handwriting emulation to discover forgery, material and microscopic traces, hair, fibers, sewing, rocks and soil analysis. It also focuses on defining other correlated sciences that are well connected with criminal investigations such as: forensic medicine, criminal chemistry, DNA test, and fingerprints test. The course moreover provides instructions regarding handling specific cases such as: abortion, sudden death, different types of body injuries, different types of burns, sexual offences, identification evidence, drowning, suffocation, wounds, forgery, counterfeiting, drugs and toxins.

Prerequisite:

LAWC 422

**LAWC 433 Oil & Gas Law****Credit Hours: 3**

This course examines the history, development and legal nature of agreements and contracts of exploration, production and sale of Oil and Gas. It focuses on the special legal distinctiveness of these legal instruments in the Arab Gulf States including the State of Qatar. The course instructor is advised to discuss with the students the terms of standard-forms of concession, exploitation, production agreement/contract/convention or other oil related agreement in order to clarify those special features. It is advisable, however, to introduce the students to the alternative means of settlement of Oil and Gas disputes, especially arbitration and conciliation.

Prerequisite:

LAWC 101

### **LAWC 443 International Criminal Law**

#### **Credit Hours: 3**

This is a new advanced course dealing with the international crime, which includes the violation of international order and values. It has double nature because it belongs to both criminal and international law. This double nature effects in many rules of it. The course will examine the definition concept and scope of the international crime. The course deals with the general elements of the international crime and the causes of permissibility in this branch of law such as: the legitimate defense, restoration, the fighters rights within the war and the intervention by force for humanity. The course focuses the criminal liability and the sanction in the international criminal law. The course will also deal with some specific acts that considered as international crimes such as: the aggression war, war crimes, unlawful use of weapons, genocide, crimes against humanity, apartheid, slavery and related crimes, piracy, crimes relating to international air communication, threat and use of for

Prerequisite:

LAWC 323

### **LAWC 449 Environment Laws and Regulations**

#### **Credit Hours: 3**

This new course deals with national and international laws and regulations which protect environment from degradation and pollution and the effectiveness of these legal instruments in achieving this goal.

### **LAWC 450 Law of Procedures in Civil and Commercial Matters II**

#### **Credit Hours: 3**

This course will cover both law of evidence and law of enforcement. It will therefore shed the light on the general theory of the law of evidence and the different substantive and procedural legal aspects of the methods of proof: writing, testimony, oath, declaration or confession, presumptions, expertise and inspection. On the other hand, the course will explain the general theory and practice of compulsory enforcement procedures of legal judgments, arbitral awards, commercial papers and other enforceable instruments by the judiciary (i.e. the enforcement court).

Prerequisite:

LAWC 316



**LAWC 451 Alternate Dispute Resolutions****Credit Hours: 3**

This is an advance course which will examine the theory and practice of international commercial arbitration in both national and international laws. It will cover all rules that govern arbitration agreements, arbitral tribunal, arbitral proceedings and arbitral awards. A considerable weight must be given to the New York Convention, the UNCITRAL Model Law and all regional and international instruments to which the State of Qatar is a party.

Prerequisite:

LAWC 217

**LAWC 459 Drafting of Business Contract****Credit Hours: 3**

This is an applied course which is intended to provide the students with the necessary legal English writing and negotiation skills that relate to both contracts and dispute management.

Prerequisite:

LAWC 217

**LAWC 460 Moot Court I****Credit Hours: 3**

Moot Court I has two main goals. One goal is to train students to serve as advocates in disputes that arise between governments and individuals that will be decided by the use of international law. Students will continue to develop their ability to read and analyze the law, as well as their persuasive writing skills, by preparing arguments for both sides of a legal issue as they participate in the writing of an appellate and appellee brief. They will also be introduced to the oral advocacy skills required to make a formal oral argument before an arbitral or judicial tribunal. Another goal of the course is to provide students with the unique skills that are necessary to participate in a Qatar University College of Law Moot or a regional or international Moot. Accordingly, deadlines for some assignments will be dictated by the requirements of a particular moot court competition and students will be expected to work on assignments throughout the semester. Top performing students may be in

Prerequisite:

(LAWC 111 OR LAWC 300) AND (LAWC 223 with Concurrency OR LAWC 310 with Concurrency)

**LAWC 464 International Investment Law****Credit Hours: 3**

This course introduces the students to the concept, origins and roles of the law of foreign investments; national standards v. international minimum standard; International efforts to regulate foreign investment (e.g. United Nations efforts, Efforts made by the World Bank, OECD efforts and the role of the World Trade Organization; regulation of investments under bilateral and regional investment treaties (BITs) and the national case-law on the treatment of foreign investment.

Prerequisite:

LAWC 217

### **LAWC 480 Moot Court II**

**Credit Hours: 3**

Moot Court II has two main goals. One goal is to continue to train students to serve as advocates in disputes that arise between governments and individuals that will be decided by the use of international law. Students will initially focus on analyzing legal authorities and issues so as to be able to present effective oral arguments to a judicial or arbitral panel. Students will then continue to develop their legal analysis and research skills, as well as their persuasive writing skills, by synthesizing various legal arguments related to international legal disputes from the perspective of a judicial officer. Another goal of the course is to provide students with the unique skills that are necessary to participate in a Qatar University College of Law Moot or a regional or international moot. While all students will practice and deliver final oral arguments as a part of the course, top students may be invited to represent QU at a Moot Court competition. Accordingly, the initial weeks o

Prerequisite:

LAWC 460

### **LAWC 484 GCC Law**

**Credit Hours: 3**

This course discusses the developments, institutions, and legislative issuance mechanisms of the Gulf Cooperation Council. It also explains the Council's economic treaties and execution of regulations among GCC countries, as well as the relations among the Council, GAT and WTO, and the similarities/differences between the Council and EU. It discusses the "Collective Legal Defense Right" and other common interest issues. Students who will study this course are expected to recognize the theories, concepts, and private principles of GCC.

### **LAWC 499 Legal Ethics**

**Credit Hours: 3**

This course is intended to cover rules and principles of legal ethics that are required to be followed by all those involved in legal profession. It begins with the legal ethics and responsibilities of judges and public prosecutors. It then concentrates on the client-lawyer relationship, proceeds through a lengthy analysis of the tension between the client-lawyer relationship and the lawyer's obligations to the justice system and society, and concludes with discussions of economic issues (billing, advertising and solicitation, legal services and pro bono work). The course specifically addresses both bias and substance abuse in the profession, and has among its recurring themes the pressures faced by young law firm associates, the effect of a law firm's "culture" on the ability to practice ethically, and the tension between acting morally while remaining within the bounds of legal ethics.

Prerequisite:

LAWC 213

**MAGT 101 Principles of Management****Credit Hours: 3**

This course focuses on the fundamental concepts of management including its characteristics, evolution and importance. Topics include the functions performed by managers, such as planning, organizing, directing and controlling. Current issues facing managers will also be discussed to provide students with the necessary skills they can build upon to succeed as future managers.

**Prerequisite:**

ENGL 004 OR ENGL 202 OR ENGL F073 OR ENGL F022TOEFL\_Inst Testing Prog 500 OR TOEFL Internet-based Test 061 OR Int Eng Lang Test Syst-IELTS 5.5 OR TOEFL Computer-based Test 173 OR OR ENGL 040

**MAGT 301 Organizational Behavior****Credit Hours: 3**

This course examines the behavior of individuals and groups in organizations. Among the topics covered include issues such as perception, learning, attitudes, motivation, contingency variables influencing structure, leadership and workgroups.

**Prerequisite:**

MAGT 101 OR MAGT 112

**MAGT 302 Human Resources Management****Credit Hours: 3**

This course focuses on various aspects of the human resource function in organizations with special emphasis on the policies and practice of human resource management. Among the topics to be covered include the concept of human resource management, its importance, evolution and functions including manpower planning, job description, recruitment and selection, wages and salaries, training and management development, performance appraisal, law, information systems, and current issues.

**Prerequisite:**

MAGT 101 OR MAGT 112

**MAGT 303 Entrepreneurship and Small Business Management****Credit Hours: 3**

This course focuses on the entrepreneurial process and the different kinds of entrepreneurial outcomes. Topics covered include opportunity identification through analysis of industry niches, skills needed in order to turn an opportunity into reality, business plans, launch decisions, and obtaining risk capital.

**Prerequisite:**

FINA 201 AND MAKT 101 AND ECON 112 AND (ACCT 116 OR ACCT 112)

**MAGT 304 Production & Operations Mgmt****Credit Hours: 3**

This course focuses on the production function in industrial organizations. Topics covered include various techniques utilized in decision making, production systems, and activities related to the design of systems, product design, demand forecast and corporate and tactical production planning as well as production and quality control.

Prerequisite:

MAGT 303

**MAGT 305 Comparative Management****Credit Hours: 3**

This course focuses on the analysis of managerial performance in different cultures. Topics covered include the examination of the international dimensions of organizational behavior in different countries and the varying socioeconomic, political, and legal variables that interact with culture to affect local and international management.

Prerequisite:

MAGT 304

**MAGT 306 International Business****Credit Hours: 3**

This course focuses on the management of business across national borders. Topics covered include the characteristics of international companies, theories of international trade and investment, cultural, social, economic, political and financial environments of international firms as well as the international dimension of the basic enterprise functions such as finance, production, marketing and personnel.

Prerequisite:

FINA 201 AND ECON 112

**MAGT 307 Internship in Business****Credit Hours: 3**

This course focuses on business internships that add a significant real-world component to students' education. It provides the opportunity for students to earn academic credit while gaining valuable work experience under the mentorship of a business professional in different industry sectors, i.e., services and manufacturing. An individualized assignment arranged with students and different business organizations providing guided experience in their field will be given. Students' internship experiences are assessed via a written internship report that will be evaluated by the students' organization supervisor and an assigned faculty member.

Prerequisite:

MAGT 304 AND (ACCT 116 OR ACCT 112) AND (ENGL 251 OR ENGL 252 OR ENGL 202 OR ENGL 004 OR ENGL F073 OR ENGL F022 OR TOEFL IBT 061 OR TOEFL 500 OR IELTS 5.5 OR TOEFL CBT 173)

### **MAGT 328 Business Planning for Entrepreneurs**

#### **Credit Hours: 3**

The course offers an introduction to the process of turning a new product idea into a successful start-up enterprise. It focuses on management processes related to the identification of new business opportunities, developing the business plan for a new venture and the entrepreneurial process of executing the first phases of new venture creation. Topics include idea conception, entrepreneurship, business planning, market research, entrepreneurial opportunities and strategies. The final deliverable is a complete business plan for a high growth venture.

Prerequisite:

MAGT 303 AND STAT 220

### **MAGT 329 Building & Sustaining Successful Enterprise**

#### **Credit Hours: 3**

This course will focus on the challenges of building and managing an enduring, successful company or renewing the vitality of an existing organization. Students will learn how to use well-researched theories about strategy, innovation and management to understand why things happen the way they do in businesses, and to understand what management tools, strategies and methods will and will not be effective, in the different circumstances in which our students find themselves.

Prerequisite:

MAGT 303

### **MAGT 401 Quantitative Methods**

#### **Credit Hours: 3**

This course focuses on the use of quantitative methods in managerial decision making. Topics covered include decision theory, introduction to linear and non-linear programming techniques and their applications in business and economics, integer programming, dynamic programming, simulation, inventory analysis, queuing theory, PERT, CPM and other quantitative methods for decision making.

Prerequisite:

MAGT 304 AND STAT 222

### **MAGT 402 Organization Theory**

#### **Credit Hours: 3**

This course examines the different theories of organization and how they are used in managing today's organizations. Topics covered include strategic and applied approach to organization theory that emphasizes decision-making. A balance of theory, research, and practice, focusing on how students as potential future

managers can use their knowledge of organization theory to be better managers and organization members to be presented.

Prerequisite:

MAGT 301

### **MAGT 403 E-Business**

**Credit Hours: 3**

This course focuses on issues beyond the extraordinary growth in e-commerce and the high level of dotcom failures to appreciate the continuing changes in the digital economy. Within this context, the e-business course aims are twofold: firstly, to appreciate the context for e-business, and secondly, to develop a framework for considering e-business initiatives and possible future developments. Topics covered include the concepts of e-business and e-commerce, internet market research, models of e-commerce, intranet and extranet, electronic payment systems, e-business strategy and implementation, e-business infrastructure, and current issues in e-business.

Prerequisite:

MIST 201 AND MAGT 306

### **MAGT 404 Project Management**

**Credit Hours: 3**

This course focuses on the various issues and techniques in managing a project. Topics covered include project life cycle, project definition, project planning, techniques of managing projects, project planning covering cost, quality and time dimensions, responsibility assignment and progress review.

Prerequisite:

STAT 220 OR STAT 153 OR STAT 155

### **MAGT 405 Strategic Management**

**Credit Hours: 3**

This course focuses on developing a corporate vision towards the integration of various organization functions by taking into account the organization's internal and external environments. It also tries to comprehend the strategic standing of the organization and proceed with strategic evaluation and implementation. Topics covered include environmental scanning, strategy formulation, strategy implementation and control, and other strategic issues.

Prerequisite:

FINA 201 AND MAKT 101

### **MAGT 406 Total Quality Management**

**Credit Hours: 3**

This course focuses on the concepts related to quality in all aspects of enterprise operations with special emphasis on the customer. Topics covered include the examination of workers' participation, teamwork and creative leadership, quality control, training, tools of total quality and obstacles facing total quality management.

Prerequisite:

MAGT 304

### **MAKT 101 Principles of Marketing**

#### **Credit Hours: 3**

This course focuses on the basic concepts of marketing. Topics covered include definition of marketing, evolution of marketing concept, basic issues facing marketing in the contemporary organization in addition to consumer behavior and market research and segmentation.

Prerequisite:

MAGT 101 OR MAGT 112

### **MAKT 301 Consumer Behavior**

#### **Credit Hours: 3**

This course focuses on examining an interdisciplinary study using behavioral science concepts to explain consumer motivation, information processing, and consumption behavior. Topics covered include information processing, involvement, affect and emotion, attitudes and attitude change, individual factors (e.g., personality), group processes (e.g., reference group and family/household influences), social influences (e.g., culture and subcultures), and consumption decision and post-decision processes. The relationship between each of these factors and marketing strategies will be a key concern and focal point.

Prerequisite:

MAKT 101

### **MAKT 303 International Marketing**

#### **Credit Hours: 3**

This course focuses on the policies and techniques adopted by a firm to select and utilize opportunities in the international market and adapt its marketing strategies to suit the international environment.

Prerequisite:

MAKT 101

### **MAKT 305 Integrated Marketing Communications**

#### **Credit Hours: 3**

This course examines the processes by which Integrated Marketing Communications (IMC) are planned, developed, executed, and measured. This includes understanding the role of communications in the success of marketing campaigns; modern communication theories; the overall marketing communication process; and



contemporary marketing communications tools (e.g. advertising, public relations, sales promotions, social media platforms, etc.). The course emphasizes the integration of these tools in coherent programs and provides students with the necessary knowledge to create coherent and fully integrated marketing campaigns.

Prerequisite:

(MAKT 300 OR MAKT 401) AND MAKT 301

### **MAKT 410 Strategic Marketing**

**Credit Hours: 3**

This course focuses on the strategic framework of knitting together profit goals and its impact on the marketing strategy, market and product business portfolio, market segmentation and positioning strategies.

Prerequisite:

MAKT 300 OR MAKT 401

### **MAKT 300 Marketing Research**

**Credit Hours: 3**

This course focuses on the techniques used in conducting marketing research and their applications in solving marketing problems. Different research methodologies and designs will be covered. students will also learn how to collect, analyze and interpret data to better make decisions and address marketing problems.

Prerequisite:

MAKT 101 AND STAT 220

### **MAKT 402 Sales Management**

**Credit Hours: 3**

This course examines the role of sales managers in line and staff planning. Topics covered include selection, organization, supervision, compensation, motivation of the sales force, and coordination of sales with other marketing functions.

Prerequisite:

MAKT 101

### **MAKT 403 E-Marketing**

**Credit Hours: 3**

This course examines the changes in marketing resulting from the move to the Internet by nonprofits, businesses, and government. It highlights the effective interactive marketing practices for consumer firms and business-to-business firms.

Prerequisite:

MAKT 101

**MAKT 404 Services Marketing****Credit Hours: 3**

This course focuses on the unique characteristics of the service environment, adapting marketing management concepts to the service business context. The course covers identifying and analyzing the various components of the extended services marketing mix and discussing key issues concerning the management and measurement of service quality and customer satisfaction. It provides an understanding of the critical role of service personnel and customers with respect to service delivery, service failure, and service recovery. It also examines relationship marketing and the overlap between marketing, operations and human resource functions in service organizations.

Prerequisite:

MAKT 301

**MAKT 406 Business to Business Marketing****Credit Hours: 3**

This course is intended to provide the student with the managerial aspects of industrial and business -to-business marketing. The similarities and the differences between consumer goods and business-to-business marketing are discussed, with specific focus on organization buying behavior and relationship marketing.

Prerequisite:

MAKT 101

**MAKT 407 Brand Management****Credit Hours: 3**

This course will introduce students to the concept of branding and the role that brands play for consumers, organizations, and other stakeholders. It will seek to equip students with the required knowledge, skills, and tool that brand managers need to develop the brand identity, manage the brand relationships with its stakeholders, grow the brand and leverage it, and assess brand performance. Students will gain both conceptual knowledge and practical experience in making strategic and tactical brand management decisions.

Prerequisite:

MAKT 305

**MARS 101 Intro to Marine Science****Credit Hours: 3**

History of Oceanography - The origin of Earth, its oceans, and life in the ocean - Marine provinces (continental margin, deep ocean basin) - The origin of the ocean basin - Chemical properties of the ocean - Physical properties of the ocean (waves, currents & tides) - The Marine Environment - Biological productivity - Life in the open ocean - Life on the ocean floor- Food web in marine environment - Factors affecting life in the ocean- Human interacts. Practical: Basic units - Ocean depth measurements - Bottom topography - Marine sediments- Waves and currents - Tides - Chemical constitutes of marine water - Taxonomic and morphological study on

selected specimens which represent different groups of marine organisms.

Prerequisite:

BIOL 101

### **MARS 222 Chemical Oceanography I**

**Credit Hours: 3**

It is an introduction to explore the chemistry of the ocean including the chemical composition, reactions taking place in the ocean and their kinetics. The course focuses on the chemical cycles and dynamics of elements as well as dissolved gases stoichiometry and extends to cover the chemistry of some specific marine environments.

Prerequisite:

MARS 101 AND CHEM 275

### **MARS 251 Marine Biology**

**Credit Hours: 3**

This course is intended to provide an overview of this diverse discipline. The first portion of the course focuses on the marine environment and an overview of the organisms found in the oceans. The next portion of the course covers the ocean edges, looking at specific habitat types such as, intertidal and sub-tidal habitats, estuaries, salt-marshes, coral reefs and mangroves.

Prerequisite:

MARS 101

### **MARS 325 Marine Pollution**

**Credit Hours: 2**

This course covers types and sources of pollutants and their impact on the marine environment. The course focuses on how human activities have induced changes to the marine environment, though discharge of anthropogenic chemicals including sewage, oil, pesticides, radioactivity and endocrine disrupting chemicals .The course has case studies from disposal, factory wastes, mining, radioactivity and other pollutants, and touches the methods of combating marine pollution and protection of the Arabian Gulf marine environment.

Prerequisite:

MARS 222

### **MARS 327 Plankton & Productivity**

**Credit Hours: 3**

This course covers physical aspects of the Ocean Environment; Chemical composition and characteristics of seawater; Primary production, algae of Phytoplankton; Phytoplankton group; Harmful species and their distribution; Zooplankton group; Flotation mechanisms; Phytoplankton crop; Factors limiting primary production.

Prerequisite:

MARS 251

### **MARS 455 Marine Ecology**

**Credit Hours: 3**

The Marine Ecology course is a broad survey of marine organisms and habitats. It focuses on the processes controlling marine ecosystems, communities, and populations, and demonstrates how general ecological principles apply to the ocean. Therefore, although we will be learning some details about marine Biota, our goal will be to integrate knowledge of their biological and physical environments into an understanding of the processes that determine their distributions, abundances, and activities.

Prerequisite:

MARS 251

### **MARS 458 Fisheries and Aquaculture**

**Credit Hours: 3**

This course focuses on the population structure in fishes, their reproduction and life strategies, their food requirements and growth. The aquaculture industry; identification of the characteristics of aquatic species; proper aquatic management practices; the fundamentals of aquatic nutrition; optimum health in aquatic animals; proper water quality requirements for aquaculture; structures and equipment needed in the aquaculture industry.

Prerequisite:

MARS 251

### **MARS 459 Environmental Impact Assessment**

**Credit Hours: 3**

Environmental Impact Assessment (EIA) is used to identify the environmental and social impacts of large-scale projects such as airport runways, hotels or coastal resorts prior to decision making. EIA can predict environmental impacts at an early stage in project planning and design, and find solutions to reduce adverse impacts, shape projects to suit the local environment and communities, and present the prediction and options to decision-makers.

Prerequisite:

MARS 251

### **MATH 101 Calculus I**

**Credit Hours: 3**

Limits and continuity. Differentiation. Applications of derivatives. Integration. Inverse functions. Transcendental functions.

Prerequisite:

(MATH 004 or MATH P100 or Scholastic Aptitude Test-SAT 550 or Scholastic Aptitude SAT New 570 or American College Testing-ACT 24 OR QUPM 235 or (Elementary Algebra 082 and College Level Math 095) ) and ( ( ENGL 040 or ENGL C002 or Total for Integrated Core 400) and (ENGL 041 or ENGL R002 or ESL Reading Skills 100) and (ENGL 042 or ENGL W002 or APL for Writing Workshop 225) ) or ( Total for Integrated Core 400 and ESL Reading Skills 100 and ESL Language Use 100) or TOEFL\_Inst Testing Prog 500 or TOEFL Internet-based Test 061 or TOEFL Computer-based Test 173 or Int Eng Lang Test Syst-IELTS 5.5 or ENGL 004 or ENGL 250 or ENGL 201 or ENGL 111 or ENGL 202)

## **MATH 102 Calculus II**

### **Credit Hours: 3**

Applications of the integral. Techniques of integration. Sequences and infinite series. Power series. Taylor series. Parametric equations and polar coordinates.

Prerequisite:

MATH 101

## **MATH 103 Intermediate Algebra**

### **Credit Hours: 3**

This course is an elementary course which provides the students with the basic concepts and skills about numbers, polynomials and rational expressions along with algebraic operations. Also, it furnishes students with basic facts about relations and functions along with sketching of graphs of certain functions.

Prerequisite:

(( ENGL 040 OR ENGL C002 OR Total for Integrated Core 400) AND (ENGL 041 OR ENGL R002 OR ESL Reading Skills 100) AND (ENGL 042 OR ENGL W002 OR APL for Writing Workshop 225) ) OR ( Total for Integrated Core 400 AND ESL Reading Skills 100 AND ESL Language Use 100) OR TOEFL\_Inst Testing Prog 500 OR TOEFL Internet-based Test 061 OR TOEFL Computer-based Test 173 OR Int Eng Lang Test Syst-IELTS 5.5 OR ENGL 004 OR ENGL 110 OR ENGL 201 OR ENGL 202

## **MATH 104 Basic Geometry and Measures**

### **Credit Hours: 3**

Basic Geometry and Measures (Math104) is meant to strengthen the basic concepts of geometry and measures. This course is very helpful in studying different shapes and their measurements. It begins with concepts of length, mass and capacity, estimating and making measurements using standard metric units. It also includes topics about the rectangular coordinates, angle-classification of triangles, polygons and areas, circles, solids. Finally, we focus on trigonometric ratios: sine, cosine tangent, and their inverses.

Prerequisite:

(OR ENGL 202 OR ENGL 111 OR ENGL 201 OR ENGL 250 OR ENGL 004 OR IELT 5.5OR CBT 173OR IBT 061OR T02 500AND) APLU 100 AND APRS 100 OR ( APIC 400 ) OR )APWS 225OR ENGL W002 AND (ENGL 042 OR ) APRS 100 OR ENGL R002 AND (ENGL 041 OR

**MATH 105 Mathematics in Society****Credit Hours: 3**

Mathematics in society is a math course that meets the needs of students majoring in non-science undergraduate programs not requiring calculus or discrete mathematics. The course develops students' mathematical understanding through an engaging and non-traditional design that connects theoretical math curriculum to daily life examples and applications regarding the local context. The course emphasizes topics that effectively and creatively convey the fundamental mathematical concepts to students. Specifically, the content focuses on improving students' numerical, statistical and logical reasoning skills through hands on activities, real life scenarios, and computer applications.

**MATH 119 Business Mathematics I****Credit Hours: 3**

This is the first course in the two-semester sequence of introductory Math courses designed to provide CBE students with the required Math skills, techniques, and knowledge presently in use in the areas of business and finance. Topics studied include: Mathematics of Finance, Systems of Linear Equations and Matrices, Linear Programming, Sets and Probability, Additional Topics in Probability, and Computational Tools in Finance.

Prerequisite:

MATH 103 OR MATH 002 OR MATH 004 OR MATH 021 OR MATH P100 OR American College Testing-ACT 21 OR Scholastic Aptitude Test-SAT 500 OR Elementary Algebra 082

**MATH 150 Mathematics in Society****Credit Hours: 3**

Mathematics in society is a math course that meets the needs of students majoring in non-science undergraduate programs not requiring calculus or discrete mathematics. The course develops students' mathematical understanding through an engaging and non-traditional design that connects theoretical math curriculum to daily life examples and applications regarding the local context. The course emphasizes topics that effectively and creatively convey the fundamental mathematical concepts to students. Specifically, the content focuses on improving students' numerical, statistical and logical reasoning skills through hands on activities, real life scenarios, and computer applications.

**MATH 203 Basic Analysis****Credit Hours: 3**

This course is required for the Bachelor degree in Education in the field of Primary School Teaching, with the purpose of preparing the students to teach in primary school. This course deals with reasoning and problem-solving and covers essential logic and methods of proof. Also, it deals with basic set properties, functions, and graphs.

Prerequisite:

MATH 103

**MATH 211 Calculus III****Credit Hours: 3**

Calculus III, (Math 211) is the last course in a series of 3 calculus courses. The course generalizes the concepts learned in both Calculus I and II to vector functions and functions of several variables. Preliminary concepts and tools such as dot products, cross products, vector parameterization, lines and planes in space are first introduced. Then differentiation and integration and their applications are covered in detail. In particular, optimization problems for several variables, areas and volumes using by multiple integrals are stressed.

Prerequisite:

MATH 102

**MATH 213 Differential Equations****Credit Hours: 3**

This course provides an introduction to ordinary differential equations with some applications. Topics to be covered include first and higher order differential equations, eigenvalues and eigenvectors, systems of linear first-order differential equations, Laplace transform and series solutions of linear equations. Upon completion of this course, students should be able to use basic analytic methods to solve differential equations and to model some physical problems.

Prerequisite:

MATH 211

**MATH 217 Mathematics-Engineering****Credit Hours: 3**

Mathematics for Engineers is a course which introduces some mathematical tools for solving and analyzing the problems arising in the mathematical modeling in engineering. A specified differential equation endeavors to match the known features of the application being modeled, as well as to be able to predict the systems' behavior in other circumstances. The course integrates theory and applications using a problem-based approach. This course prepares the students for future learning in relation to problem solving and decision-making, technical competence, teamwork and leadership.

Prerequisite:

MATH 211

**MATH 220 Foundations of Mathematics****Credit Hours: 3**

This course covers the foundations of mathematics needed in many forthcoming courses such as Number theory, Abstract Algebra, Real Analysis and Geometry. Major topics in the course include logic, methods of proof, set theory, relations, functions, countable sets, uncountable sets, denumerable sets, cardinality of sets and cardinal numbers.

Prerequisite:



MATH 101 OR MATH 103

### **MATH 221 Business Mathematics II**

**Credit Hours: 3**

This course covers some economic applications of mathematical concepts such as the linear and non linear functions, difference equations, partial derivatives, constrained and unconstrained optimization problems, definite and indefinite integration in addition to mathematics of finance.

Prerequisite:

(MATH 119) AND) APLU 100AND APRS 100OR (APIC 400OR ENGL 040 OR IELT 5.5OR T02 500OR CBT 173OR IBT 061OR ENGL F073 OR ENGL 202 OR ENGL 111 AND (ENGL 004 OR MATH 101 )

(MATH 119 or MATH 101 ) and ( ENGL 004 or ENGL 111 or ENGL 202 or ENGL F073 or TOEFL Internet-based Test 061 or TOEFL Computer-based Test 173 or TOEFL\_Inst Testing Prog 500 or Int Eng Lang Test Syst-IELTS 5.5 or ENGL 040 or ( Total for Integrated Core 400 and ESL Reading Skills 100 and ESL Language Use 100) )

### **MATH 222 Real Analysis**

**Credit Hours: 3**

Structure of point sets. Real numbers. Real sequences. Limits and continuity. Differentiation and mean value theorem. Riemann integral. Riemann-Stieltjes integral.

Prerequisite:

MATH 220

### **MATH 231 Linear Algebra**

**Credit Hours: 3**

This course introduces the basic concepts of linear algebra, including elementary matrices, solutions of linear systems, vector spaces and subspaces, determinants, eigenvalues and eigenvectors, linear transformations.

Prerequisite:

MATH 101

### **MATH 233 Abstract Algebra**

**Credit Hours: 3**

This course gives fundamental concepts of algebraic structures and their applications through the study of groups and rings. This course leads the students to think clearly, via problem solving, and to appreciate the power of abstraction. The course starts with the simple idea of a Relation and covers Binary Operations leading to the study of Groups, Cosets and finally an introduction to Rings and Fields.

Prerequisite:

MATH 220

### **MATH 251 Mathematics for Statistics**

**Credit Hours: 3**

Functions of Several Variables. Multiple Integrals. First Order Differential Equations. Introduction to Partial Differential Equations. Numerical Solution of Nonlinear Equations. Numerical Integration. Some Special Functions.

Prerequisite:

MATH 102

### **MATH 285 Mathematics for Electrical Engineering**

**Credit Hours: 3**

Complex numbers: Introduction to complex numbers, Fundamental operations with complex numbers, Elementary functions of complex variable, De Moivre's theorem and applications, Curves in the complex plane, Roots of complex numbers and polynomials Ordinary differential equations: Introduction to differential equations and differential operators, First order ordinary differential equations, Second order linear ODEs, Systems of linear differential equations, Laplace transform and series solutions of linear differential equations.

Prerequisite:

MATH 102 AND MATH 231

### **MATH 291 Financial Mathematics**

**Credit Hours: 3**

This course focuses on theory of compound interest and the mathematics of investment and credit. Major topics include measurement of interest, annuities, loan repayment schedules and consumer finance payments in general, sinking funds, yield rates on investments, and valuation of bonds and other securities. Provides background preparation for the professional exam FM given by the Society of Actuaries and the Casualty Actuarial Society.

Prerequisite:

MATH 102 OR MATH 221

### **MATH 292 Actuarial Sciences Problems Solving Lab**

**Credit Hours: 3**

This course is designed to equip students with skills and knowledge needed for the professional exams FM and P Society of Actuaries and the Casualty Actuarial Society. It builds on Math 291 and Stat 211 with additional emphasis on probability tools for risk management.

Prerequisite:

STAT 211 AND MATH 291

**MATH 312 Calculus IV****Credit Hours: 3**

This course covers the following major topics: Line integrals; Surface integrals; Fourier series; Some special functions; and Complex numbers.

Prerequisite:

MATH 211

**MATH 314 Partial Differential Equations****Credit Hours: 3**

This course covers first order partial differential equations, second order partial differential equations, elliptic partial differential equations, parabolic partial differential equations, and hyperbolic partial differential equations.

Prerequisite:

MATH 213

**MATH 324 Complex Analysis****Credit Hours: 3**

This course provides an introduction to the theory and application of complex variables and complex functions. The focus is on the fundamental theory as well as on how this theory leads to efficient integration techniques useful in calculating integrals in a variety of scientific problems. Topics to be covered include complex numbers and complex plane, complex functions, Cauchy-Riemann conditions, analytic functions and properties, elementary functions of complex variables, complex integration, Cauchy's theorem and Cauchy's integral formula, Taylor's and Laurent's series, singularities, residue theorem with applications to evaluation of real integrals

Prerequisite:

MATH 211

**MATH 335 Number Theory****Credit Hours: 3**

This is a first course in number theory. The course starts with the basic properties of integers and covers the Euclidean algorithm, the fundamental theorem of arithmetic and the linear Diophantine equations. The course also covers congruences and systems of congruences and their applications (Wilson, Fermat and Euler Theorems), elements of cryptography, perfect numbers, Mersenne primes, primitive roots and an introduction to quadratic residues and their applications.

Prerequisite:

MATH 220

**MATH 341 Modern Geometry****Credit Hours: 3**

This course focusses on an introduction to geometry from an axiomatic point of view which provides an important learning experience for prospective teachers of geometry as well as for the students who need to acquire mathematical maturity. The emphasis is on both the geometric foundations and the mathematical proofs in the setting of Euclidean and non-Euclidean geometry. Topics covered in the course include axiomatic systems, incidence geometry, axioms for plane geometry, neutral geometry, Euclidean geometry, and hyperbolic geometry.

Prerequisite:

MATH 231 OR MATH 232

**MATH 365 Scientific Computation and Programming****Credit Hours: 3**

This course covers the following major topics: Programming in FORTRAN; Operations; Arrays and subscripts in one dimension; Applications in differentiation and integration; Applications in linear algebra; Applications in numerical analysis; and Applications in mathematics and statistics.

Prerequisite:

MATH 231

**MATH 366 Numerical Analysis I****Credit Hours: 3**

Errors in numerical computation. Solutions of nonlinear equations. Direct methods for solving linear systems. Interpolation and polynomials approximations. Numerical differentiation. Numerical integration.

Prerequisite:

(CMPS 221 AND MATH 102 OR CMPS 223) OR CMPS 251

**MATH 368 Operations Research I****Credit Hours: 3**

This course provides an overview of operations research, linear programming, and the transportation problem.

Prerequisite:

MATH 231

**MATH 371 Advanced Mathematical Methods****Credit Hours: 3**

This course covers the following major topics: Some special functions; Method of eigenfunction expansions; Integral transforms; and Integral equations.

Prerequisite:

**MATH 314****MATH 391 Life Contingencies I****Credit Hours: 3**

This course introduces the mathematical theory of contingencies where stochastic approach is applied to survival and to costs and risks of life insurances. Topics include insurance, annuities, benefit premiums, and net reserves.

Prerequisite:

MATH 291

**MATH 392 Life Contingencies II****Credit Hours: 3**

This course is a continuation of the course Life Contingencies I. Major topics include benefit premiums and benefit reserves for life insurance and annuities, and multi-life and multiple-decrement models. On completion of this course, students should be ready to take the professional exam MLC given by the Society of Actuaries

Prerequisite:

MATH 391

**MATH 413 Theory of Differential Equations****Credit Hours: 3**

This course covers the following major topics: Linear system of differential equations; Nonlinear systems of differential equations; and Stability of linear differential equations.

Prerequisite:

MATH 314

**MATH 443 Introduction to Differential Geometry****Credit Hours: 3**

Prerequisite:

MATH 231

**MATH 466 Numerical Analysis II****Credit Hours: 3**

This course covers the following major topics: Iterative methods; Approximation theory; Eigenvalues; Numerical solutions of the initial value problems; Numerical solutions of the boundary value problems; and Numerical solutions of partial differential equations.

Prerequisite:

MATH 366

**MATH 471 Mathematical Modelling****Credit Hours: 3**

This course covers difference equations (Dynamical system 1), difference systems (Dynamical system 2), differential equations (Dynamical system 3), and Applications.

Prerequisite:

MATH 314

**MATH 496 Capstone Course****Credit Hours: 3**

This course is designed to expose students to new material in a current active field in Applied and Actuarial Mathematics and provides an opportunity to students to pursue in more depth, the study of Applied and/or Actuarial Math.

**MATH 498 Special Topics****Credit Hours: 3**

This course offers an in-depth exploration of a special topic, issue, or current trend in the field of study.

**MATH 499 Internship**

This internship course adds a significant real-world practical component to students' education

**MATH P100 Pre-Calculus****Credit Hours: 3**

This course is a pre-calculus course to help prepare students for calculus in which topics such as Solve Quadratic and Rational Inequalities, Graphs and Functions, Exponential and Logarithmic functions, values of Trigonometric functions of acute angles, and identify the equations of Ellipses & Hyperbolas will be covered. In addition, the course will provide students with skills, knowledge, and mathematical maturity necessary for success in the Calculus courses.

Prerequisite:

(MATH 021 or American College Testing-ACT 21 or Scholastic Aptitude Test-SAT 500 or Scholastic Aptitude SAT New 530 or Elementary Algebra 082 or MATH 003 OR QUPM 200) and ((ENGL 020 and ENGL 021) or (ENGL 020 and ESL Reading Skills 063) or (Total for Integrated Core 269 and ENGL 021) or (Total for Integrated Core 269 and ENGL R001) or (Total for Integrated Core 269 and ESL Reading Skills 063) or (ENGL C001 and ENGL R001 or (ENGL C001 and ESL Reading Skills 063) or ENGL 002 or ENGL 003 or ENGL 004 or TOEFL\_Inst Testing Prog 500 or TOEFL Internet-based Test 061 or TOEFL Computer-based Test 173 or Int Eng Lang Test Syst-IELTS 5.5)

**MCOM 103 Media and Society****Credit Hours: 3**

This course introduces students to the basics of communication and provides an overview of the history and development of the various mass media. It deals with issues pertained to the role of communication media in

society, and highlights issues of press freedom and social responsibilities of the media; role of media in fostering diversity; and the impact of mass media on society. The course provides a critical evaluation of media content in relation to social and cultural variables of society.

### **MCOM 212 Visual Communication**

#### **Credit Hours: 3**

The course provides an introduction to the primary principals and concepts that professional communicators use to design and produce visually pleasing and effective messages in a variety of media. Includes assignments that apply concepts and introduce visual communication software applications. It focuses on main design principles used in planning communications materials, such as proximity, alignment, repetition, proportion, contrast, balance, unity and rhythm.

Prerequisite:

MCOM 103 OR MCOM 101

### **MCOM 215 Multimedia Report. & Writing I**

#### **Credit Hours: 3**

The course is an introduction to creating, repurposing and assembling content for distribution across integrated media platforms. Audio slideshows, video with sound, computer-based management of photos/video, Web-related skills. It provides students with a hands-on experience in writing Web content using basic HTML, creating and maintaining blogs with journalistic content, creating a Web news story and creating an audio/video news story.

Prerequisite:

MCOM 212

### **MCOM 222 Communication Theories**

#### **Credit Hours: 3**

This course deals with studying the most important communication theories and models, which emerged since the 1928s and their relationship to the practical media practices and applications. The course pays special attention to the powerful effects theories, the selective effects theories, the indirect effects theories, as well as the critical approach.

Prerequisite:

MCOM 103 OR MCOM 101

### **MCOM 223 Media Writing**

#### **Credit Hours: 3**

In this course students are taught the basic news forms with emphasis on the structure of news stories for the print and electronic media, as well as public relations news writing. The course includes a theoretical element that focuses on historical evolution of news writing, news values, news worthiness and the styles of news



presentation, including headlines, body and conclusion.

Prerequisite:

MCOM 103 OR MCOM 101

### **MCOM 226 Special Topics in Mass Communication**

**Credit Hours: 3**

This course considers important current issues in mass communication fields. Topics may vary from semester to semester depending on the current issues in the field. The content will be geared towards the three concentrations of strategic communication, journalism or broadcasting. The course will provide students with the expertise of academicians/practitioners in the field.

Prerequisite:

MCOM 103 OR MCOM 101

### **MCOM 303 Women and Media**

**Credit Hours: 3**

This course encourages a foundational understanding of women and mass media. It helps students gain an understanding of the relationship between women and the mass media from global and regional perspectives. The course focuses on the mass media representation of women and gender roles, including whether and/or how women representation in the mass media has changed over time, what forces have affected women representation, and the current state of women representation.

Prerequisite:

MCOM 103 OR MCOM 101

### **MCOM 315 Comm. Research Methods**

**Credit Hours: 3**

The course is designed to train the students in conducting social science research through a hands-on approach that introduces the basic steps and stages of scientific research. The course teaches quantitative and qualitative research methods including descriptive and historical methods; survey and content analysis, sampling procedures, questionnaire construction and analysis of data.

Prerequisite:

MCOM 103

### **MCOM 317 Media Law and Ethics**

**Credit Hours: 3**

The course focuses on the legal and ethical dimensions involved in the practice of journalism, and highlights such issues and concepts like the rights and duties of journalists, freedom of the press, social responsibility, fairness, accuracy, privacy, libel, contempt, obscenity and other ethical problems. The course also evaluates

Qatar Press Law within the context of international media laws and ethics.

Prerequisite:  
MCOM 222

### **MCOM 318 Global Communication**

#### **Credit Hours: 3**

The course discusses the economic, political and cultural dimensions of global communication. It analyses the political and cultural implications of globalization including the effects of corporate multinational control of global communication and American hegemony of the global scene. Issues covered include global mass communication systems, new communication technologies and their impact, imbalances in media development between the north and the south, imbalances in news and information flow and, finally, the positive and negative impact of globalization on current human communities.

Prerequisite:  
MCOM 222

### **MCOM 341 News Reporting, Writing and Editing Arabic**

#### **Credit Hours: 3**

This course aims to provide students with a background of news writing and editing with special emphasis on how to conduct face-to-face interviews, telephone interviews, new conferences, as well as preparation and writing of feature stories based on journalistic investigations. The course helps the students publish their work in department's media as well as the local media.

Prerequisite:  
MCOM 215 OR MCOM 223

### **MCOM 342 News Reporting, Writing and Editing English**

#### **Credit Hours: 3**

The course is designed to give students a foundation of research, reporting, writing and editing skills that will help them throughout their time in the department and into their professional careers. The course also provides training in advanced journalism skills, including writing reports, columns, editorials, opinion articles and features. The students will have the opportunity of having their reports, news stories, and /or articles published in the local or departmental publications.

Prerequisite:  
MCOM 215 OR MCOM 223

### **MCOM 343 Online Journalism**

#### **Credit Hours: 3**

The best way for students to learn the craft of journalism is by doing journalism. Students in this class are expected to start thinking of themselves as real working journalists. Most assignments will take students outside

of the classroom, off the campus and into the real world. Also, students will be required to use the latest technology in the field.

Prerequisite:

MCOM 342 OR MCOM 341

### **MCOM 345 Newspaper Design and Production**

**Credit Hours: 3**

This course focuses on enabling students to produce content-oriented design, typography and layout. Students will be trained to use the latest desktop publishing software as well as other digital technology. Students will be required to use multi-media and graphic designs for lay out of newspapers, magazines, newsletters and online publications.

Prerequisite:

MCOM 215 OR MCOM 223

### **MCOM 346 Internet-Assisted Reporting**

**Credit Hours: 3**

This course will build on traditional methods of computer-assisted reporting and research methods to incorporate the tools of the internet, like social media to: Find new story ideas, trends and sources, connect with readers and viewers in new ways, enhance the quality of their reporting and research skills. The course will strive to prepare student-journalists to adapt to whatever comes with the Internet of the future.

Prerequisite:

MCOM 342

### **MCOM 348 Investigative Journalism**

**Credit Hours: 3**

This course is designed to help students to learn to report and write in depth. Students in this class are expected to start thinking of themselves as real working journalists. Students will develop their tools of critical thinking in conceptualizing, developing and writing stories. They will learn advanced interviewing techniques, investigative research methods and the interpretation of trends and surveys. The course will focus on the analysis and practice of complex storytelling, including the use of narrative techniques

Prerequisite:

MCOM 215

### **MCOM 349 Sports Journalism**

**Credit Hours: 3**

This course aims to help students develop practical skills in print, online, radio and TV sports reporting. Cohorts will be encouraged to assume the professional role of journalists working for newspapers, television, radio and the web in efficiently sourcing, gathering and producing journalistic material. Students will report on real sports

events in an active learning environment. Trainers and guest lecturers from various sports media agencies and networks will be sharing their practical expertise in introducing students to the world of sports journalism.

Prerequisite:

MCOM 222

### **MCOM 350 Multimedia Reporting and Writing II**

**Credit Hours: 3**

This is an advanced course that aims to provide students with more practical practice of Multimedia Reporting and Writing 1. It is designed for students of online journalism to work in a team of journalists to apply what they have learned about convergent journalism to several major stories from the real world.

Prerequisite:

MCOM 215

### **MCOM 360 Photojournalism**

**Credit Hours: 3**

This course introduces students to the art and science of photography as it applies to journalism. It aims to build skills of photography, including camera and equipment operation, shooting for the press and digital editing. Students also learn the fundamentals of photojournalism production, the standards and ethics of photography and the symbolic meaning of the image. By the end of this course, students will know how to take the perfect shot, and will be able to work as members of a news-gathering team and will lay out photo stories for newspaper, magazine and online news platforms.

Prerequisite:

MCOM 212

### **MCOM 361 Broadcast News Reporting and Writing I**

**Credit Hours: 3**

This course focuses on the following: Writing journalism for different media; writing journalism for different publics; writing journalism for different genres (news, features, opeds, profiles); media law and ethics; research methods; broadcast news writing for diversity in a globalized world; a practical guide to producing broadcast news; critical journalism and independence.

Prerequisite:

MCOM 350

### **MCOM 363 Announcing**

**Credit Hours: 3**

This course will introduce the basics of announcing skills. Students will be trained on pronunciation, rate, pacing and articulation. They will also be required to use vocal variety and vocal variety. By the end of the course students should be able to present different genres and they will be able to recognize the difference

between good and bad announcing.

Prerequisite:

MCOM 215 OR MCOM 223

### **MCOM 364 Broadcast Production**

#### **Credit Hours: 3**

This course introduces students to the basic concepts of audio and video production. The students are trained on the operation of digital video cameras, TV studio cameras, digital audio recorders, the different types of microphones, lights and lighting styles. The students are trained in basic treatment, synopsis and script writing for a variety of radio and TV programs. The students produce Public Service Announcements (PSAs), documentaries, and Radio and TV program in which the PSAs and the documentaries are inserted.

Prerequisite:

MCOM 215 OR MCOM 223

### **MCOM 365 Script Writing**

#### **Credit Hours: 3**

This course helps students in developing skills of preparing and writing scripted dramatic material. Students are trained in script writing and introduced to the differences between TV and movies scripts. It emphasizes the important elements, such as theme, story, dialogue, which shape the process of developing and writing a script.

Prerequisite:

MCOM 215

### **MCOM 366 Broadcast Directing**

#### **Credit Hours: 3**

This course focuses on the principles of radio and television directing, such as the techniques of mixing sound with music, and using sound effects according to the type of program. The skills of broadcast directing, such as switching between the shots, the basics of good television composition, and the technical problems involved.

Prerequisite:

MCOM 212

### **MCOM 367 Broadcast News Reporting and Writing II**

#### **Credit Hours: 3**

This hands-on course explores more advanced aspects of writing and reporting in the area of broadcast. It specifically delineates the differences between writing for audio and writing for the image. The course also provides the different techniques and approaches to writing for different genres, namely hard news, soft news, features, opinions and profiles.

Prerequisite:

MCOM 361

**MCOM 381 Principles of Public Relations**

**Credit Hours: 3**

The course highlights the principles and the essential foundations of public relations, and it explains the most important concepts and terminology in the field. The course also discusses the professional and ethical guidelines in designing, applying and evaluating PR activities, and it explains the stages of successful planning of public relations.

Prerequisite:

MCOM 222 OR MCOM 101 OR MCOM 103

**MCOM 382 Organizational Communication**

**Credit Hours: 3**

The course introduces the concept of organizational communication and its various principles, and puts special emphasis on learning and practicing the skills of effective organizational communication for institutional management through case-study model. The course adopts a methodology that tries to bridge the gap between theory and practice by putting students in real case-studies of organizational communication to handle

Prerequisite:

MCOM 103 OR MCOM 101

**MCOM 383 Principles of Advertising**

**Credit Hours: 3**

This course is an introduction to advertising in terms of concepts, procedures, design and campaigns. It will also compare the types of advertisements created for print and broadcast media with special emphasis on the effects of the new media on the advertising industry and audience. Students will be expected to criticize and evaluate advertisements. Furthermore, they will be expected to conduct research on consumers and the market and to create advertisements and advertising campaigns based on the results of their research

Prerequisite:

MCOM 222 OR MCOM 212

**MCOM 384 Advertising Copy Writing and Design**

**Credit Hours: 3**

In this course the students are introduced to the basics of applying psychological and cognitive knowledge to creative advertising designs. Students learn how to use graphics and multimedia in designing ads, and are trained in the design and layout of attractive print and electronic ads. Students are expected to develop their own portfolio for the work they do during the course.

Prerequisite:

**MCOM 383****MCOM 386 Public Relations and New Media****Credit Hours: 3**

This course focuses on the assessment of the tactical and strategic implications of digital technology for profit and not-for-profit organizations. Module content includes an examination of the potential of digital technologies for public relations campaigns, the particular challenges of online communication and the planning, management and evaluation of interactive communications campaigns. Students will be required to apply the digital technologies to their PR campaigns.

Prerequisite:

MCOM 215

**MCOM 388 Public Relations Writing and Presentations****Credit Hours: 3**

The course focuses on public relations writing and the preparation of presentations for public relations purposes. The course focuses on writing newsletters, press releases, pamphlets and brochures; as well as the preparation and delivery of presentation for the organization's audiences. The course teaches students techniques and writing styles which are used for the production of publications and for presentations. Students prepare samples of such publications and presentations for evaluation.

Prerequisite:

MCOM 381

**MCOM 447 Journalism Internship****Credit Hours: 3**

This course provides students with an opportunity for actual training, and on-site professional experience in local newspapers, Qatar News Agency or Al Jazeera Online. This provides students with a hands-on experience in the professional field. Students are supervised by faculty member and professional trainer and are required to turn in two reports.

Prerequisite:

MCOM 341 OR MCOM 344 AND MCOM 342

**MCOM 450 Multimedia Journalism - Capstone****Credit Hours: 4**

This is a capstone course which is designed to stimulate students to conduct group projects, or to develop individual portfolios, in the production of at least two issues of laboratory/web newspapers or magazines under the supervision of a faculty member. Students are given hands-on experience as a reporters and editors as they produce the issues.

Prerequisite:



MCOM 343 AND (MCOM 342 OR MCOM 344)

### **MCOM 452 Magazine Writing**

**Credit Hours: 3**

The course focuses on writing and reporting for magazines. It also introduces the basic features of writing, information gathering and analysis for specialized and general circulation magazines. The course includes also practical training in interviewing, investigation, and developing portfolios. It will emphasize the difference between writing news and feature stories.

Prerequisite:

MCOM 341

### **MCOM 465 Web-Content for Radio**

**Credit Hours: 3**

This course is designed to give the student an understanding of radio delivered via the Internet and the opportunity to produce and deliver digital audio content. Students are introduced to the radio industry and radio production standards for the Internet. Using professional recording and mixing equipment the students learn the basics of telling a good story. Each student goes through the process of writing for radio, in-depth reporting, imaginative use of sound, and high production values.

Prerequisite:

MCOM 215

### **MCOM 467 Broadcast Internship**

**Credit Hours: 3**

This course provides an opportunity to the student to acquire practical skills in an area of mass communication (Public Relations, Broadcast Production, Print / Online Journalism). Each student is required to spend 10 hours weekly for 8 weeks in his or her designated institution under the direct supervision of a training field mentor from the institution and an academic supervisor from the university.

Prerequisite:

MCOM 364 OR MCOM 362 AND MCOM 361

### **MCOM 469 TV Documentary Production**

**Credit Hours: 3**

This course introduces key concepts of the documentary film, its different modes, its various elements, the factors needed for its success, as well as the various stages of producing it. The student is taken through training in preparing the treatment, synopsis, script, scheduling, shot list, and storyboards. The student is also taken through the fundamental elements of production and post-production of a major project.

Prerequisite:

MCOM 361

**MCOM 470 Broadcast Capstone****Credit Hours: 4**

In this course, the student uses the various technical, analytical and thematic skills in the field of radio and television in the context of a complex and multi-layered graduation project. This could include, but not limited to, producing documentaries, features, talk shows, audio and video essays, and experimental pieces. Each project must go through the stages of idea development, writing and presenting a production folder, presenting a rough-cut (rough edit) of the work, and finally presenting the finished mastered work.

Prerequisite:

(MCOM 361 OR MCOM 362) AND MCOM 350

**MCOM 487 PR-AD Internship****Credit Hours: 3**

This course provides an opportunity to the student to acquire practical skills in an area of mass communication (Public Relations, Broadcast Production, Print / Online Journalism). Each student is required to spend 10 hours weekly for 8 weeks in his or her designated institution under the direct supervision of a training field mentor from the institution and an academic supervisor from the university.

Prerequisite:

MCOM 388 AND MCOM 384

**MCOM 490 Strategic Communication “Capstone”****Credit Hours: 4**

This course allows the students to practically apply all PR and advertising theories and concepts through the design of public relations or advertising campaigns in the context of a graduation project. The course practically engages the students in the various stages of the campaign, and the choice of the suitable techniques, and the measurement and evaluation of campaign results.

Prerequisite:

MCOM 388 AND MCOM 384

**MCOM 491 Strategic Communication****Credit Hours: 3**

This course defines strategic communication and provides a foundation for creating persuasive messages used in advertising and public relations. It offers challenges of organizational strategies and introduces models and plans to help organizations in reaching target audiences within the time and budget limits.

Prerequisite:

MCOM 381

**MCOM 492 Social Marketing****Credit Hours: 3**

Social marketing is one of the fields that addresses social issues that threaten the quality of life with the objective of a positive behavioural change of its target audience in regards to these issues. The course provides the student with a different perspective in marketing which is social marketing. A lot of companies in their efforts to practice corporate social responsibility are turning to social marketing as a means of responding and helping in the needs of society or a community

Prerequisite:

MCOM 381

### **MCOM 493 Public Opinion Research**

**Credit Hours: 3**

This course aims to provide students with knowledge about public opinion history, theories, concepts and research methods. Through this course students will learn how public opinion affects social, political, cultural, and economic phenomena. This is a practical course where students will apply the research methods learned in analysing public opinion in a variety of contexts.

Prerequisite:

MCOM 381

### **MECE 212 Electromechanical System & Actuators**

**Credit Hours: 3**

This course introduces students to different types of electrical and fluid actuators that are being used in mechatronic systems. Electrical actuators will include: solenoids, DC motors, AC motors, stepper motors, and linear motors. As for the fluid actuators, hydraulic and pneumatic systems will be covered which includes: hydraulic pumps, control valves, cylinders and motors, hydraulic circuits, air compressors, pneumatic valves, pneumatic cylinders and motors, and pneumatic circuits. Practical examples on using the aforementioned actuators in real life mechatronic systems will be provided.

Prerequisite:

ELEC 201

### **MECE 321 Mechanical Mechanism**

**Credit Hours: 3**

Basic concepts. Kinematics fundamentals. Graphical linkage synthesis. Analysis of displacement, velocity, and acceleration of linkages. Gears and gear trains. Cams and cam design. Force analysis. Balancing of Machines. Carrying out laboratory experiments

Prerequisite:

MECH 223 AND GENG 111

**MECE 325 Power Electronics & Drives**

Credit Hours: 3

This is an introductory course in power electronics and drives. It covers some basic elements of electric drive systems such as speed-torque characteristics of electric motors and industrial loads and power electronics converters. Speed control of electric motors with their starting and braking methods. Transient analysis of loaded motors. Special forms of individual- and multi-motor drives.

Prerequisite:

ELEC 231 AND MECE 212

**MECE 350 Intelligent Manufacturing Processes**

Credit Hours: 3

The course is designed to provide students with an overview of modern intelligent manufacturing processes with a focus on those processes that are more common in industry such as material removal, casting, forming and joining. Mathematical models based on constitutive concepts will be presented along with empirical models that describe the various manufacturing processes in order to provide the student with a better understanding of the various parameters involved. Hands-on projects on modern manufacturing processes.

Prerequisite:

GENG 231

**MECE 352 Control Systems**

Credit Hours: 3

Introduction to control systems. Mathematical models for mechanical, pneumatic, electrical, and hydraulic feedback systems. Block diagram and transfer functions. Systems time and frequency responses. PID controller design. Performance specifications of feedback control systems: stability, transient response and steady state error. Analysis and design of systems by means of root-locus and frequency response methods. Compensation techniques. State space representation. Computer-aided control system design of single input single output systems using MATLAB. Carryout laboratory experiments.

Prerequisite:

MATH 217

**MECE 361 Industrial Automation and Robotics**

Credit Hours: 3

Basic concept of industrial automation, automation hierarchy, Programmable logic controllers (PLC): Hardware and Software, Robotics for Industrial Automation, basics of mathematical modeling, design, planning, and control of robotic systems, rigid body transformation and geometry, forward and inverse kinematics, velocities and Jacobian of linkages, dynamics, trajectory planning and control.

Prerequisite:

MECE 321 AND MECE 352

**MECE 399 Practical Training**

Credit Hours: 3

Supervised 8 weeks training period at any approved engineering concern (consulting, contracting, industrial, government), intended to provide students with hands-on experience at the work place. Evaluation is based on daily performance, supervisors' input, student's report, and a short presentation.

**MECE 428 Mechatronics Engineering Design**

Credit Hours: 3

This course introduces students to the overall design concept and steps within multiple realistic constraints and standards through practical examples oriented around a number of mechatronics engineering projects by integrating electrical, electronic, mechanical, and software components towards building mechatronic devices and systems. Seminars are presented by invited speakers from the industry covering contemporary engineering issues, ethical issues, engineering skills, creativity, and various other issues that help students in their future careers. The course includes a Lab for their class design project implementation.

**MECE 450 Selected Topics in Mechatronics Transportation Systems**

Credit Hours: 3

Advanced Topics in Mechatronics Transportation may include "but are not limited to" the following: Vehicle Design Powertrain and Performance, Vehicle Electrification and Hybridization, Vehicle Dynamics, Mechatronics Modelling for Vehicle Systems, Automotive Control and Simulation, Advanced Control and Optimization.

Prerequisite:

MECE 325 AND MECE 352

**MECE 460 Motion Dynamics and Control**

Credit Hours: 3

Introduction to dynamics of 3D motion. Application of control techniques in motion problems and applications. Mathematical modelling of electromechanical systems. State space analysis and design techniques. Case studies of motion control in satellite, aviation, manufacturing industry and transportation systems. Computer-aided control system design using MATLAB. Carry out team project.

Prerequisite:

MECE 352

**MECE 462 Sustainable Energy Systems**

Credit Hours: 3

This course aims to introduce students to concepts of sustainable energy from an electrical and systems engineering perspective with emphasis on electric power systems. Solar, wind, hydroelectricity, hydrogen, biomass and geothermal energy conversion as well as main storage technologies will be discussed. Topics include smart grids and the roles of energy storage, along with analysis and optimization of energy systems. The course consists of lectures, literature review, and student projects.

Prerequisite:

MECE 325 AND GENG 360 co-requisite

### **MECE 463 Design of Medical Devices**

Credit Hours: 3

Clinical needs identification. Innovation and design processes for medical devices. Manufacturing techniques and requirements. Risk analysis. Financing. Ethical and legal issues. Regulation of medical devices. Intellectual property.

Prerequisite:

ELEC 366 AND ELEC 371

### **MECE 464 Fatigue of Machine Components**

Credit Hours: 3

Mechanical and microstructural aspects of nucleation and growth of cracks under cyclic and random loading conditions in machine components and structures including notch effects, weld details, cumulative damage and fatigue crack propagation.

Prerequisite:

MECH 223

### **MECE 465 Artificial Intelligence and Intelligent Systems**

Credit Hours: 3

This introductory course aims to present an overview of the main concepts, methods, and algorithms in optimization and machine learning, starting with fundamentals of optimization (in the concept of ML), supervised and unsupervised learning, classification and linear regression. Selected applications will be covered in data mining, 1D/2D signal analysis, and pattern recognition.

Prerequisite:

GENG 200

### **MECE 498 Senior Design Project I**

Credit Hours: 3

Students are trained on how to tackle practical design projects in the mechatronics engineering field. They are required to demonstrate their ability to conduct a literature survey, propose solution ideas, perform the relevant calculations and comparisons, and implement and test their selected design solutions.

Prerequisite:

MECE 428 with concurrency

**MECE 499 Senior Design Project II**

Credit Hours: 3

Continuation of MECE 498.

Prerequisite:

MECE 498

**MECH 210 Statics & Dynamics**

Credit Hours: 3

Principles of mechanics. Concepts of free-body diagram, principles of equilibrium of particles and rigid bodies. Fundamental concepts of kinematics and kinetics. Plane motion of rigid bodies. Rectilinear and curvilinear motion of particles. Newton's 2nd law. Dynamics of system of particles. Energy and momentum methods

Prerequisite:

MATH 101 AND PHYS 191 Concur.

**MECH 213 Engineering Measurements****Credit Hours: 2**

Introduction to techniques of engineering measurements. Data acquisition and processing systems. Calibration of instruments, response time, and error analysis. Measurements of basic physical quantities (for example force, stress, strain, temperature, viscosity, pressure, velocity, flow rate, heat flux, surface irregularities, frequency). Carry out and design laboratory experiments.

Prerequisite:

GENG 200 AND PHYS 193

**MECH 221 Engineering Mechanics I-Statics****Credit Hours: 3**

Fundamental concepts and principles of mechanics, vectors, and force systems. Centroids and centers of gravity, Moments of inertia. Concepts of free-body- diagram, principles of equilibrium of particles and rigid bodies in two and three dimensions

Prerequisite:

PHYS 191

**MECH 222 Engineering Mechanics II-Dynamics****Credit Hours: 3**

Fundamental concepts of kinematics and kinetics with application of particles and plane motion of rigid bodies. Rectilinear and curvilinear motion of particles. Newton's second law, impulse and momentum methods, impact. Dynamics of systems of particles. Kinematics of rigid bodies. Plane motion of rigid bodies: Forces and accelerations



Prerequisite:

GENG 221 OR MECH 221

### **MECH 223 Solid Mechanics**

#### **Credit Hours: 3**

Axial stress and strain, statically indeterminate members, thermal stresses. Multiaxial loading. Torsion of circular shafts, flexure of beams, transverse loading, combined stresses. Carrying out laboratory experiments.

Prerequisite:

GENG 221 OR MECH 221 OR MECH 210 OR GENG 210

### **MECH 224 Introduction to Design**

#### **Credit Hours: 3**

This course introduces mechanical engineering, the design process and skills, and explores unique challenges of solving problems. It provides students with practical experience of translating engineering design theory into practice. Skills developed will enable students to create a concept, provide justification and documentation, build and test a working prototype, report on the proposed manufacture of the product using current engineering practices, whilst ensuring economic viability. Students will also learn how to conduct market analysis and develop a basic business plan.

Prerequisite:

GENG 106 AND GENG 111

### **MECH 230 Manufacturing Processes**

#### **Credit Hours: 3**

Engineering materials, introduction to entrepreneurship, manufacturing processes: casting, welding, forming, sheet metal working and joining processes. Hand work and hand tools, concept of machining processes, turning, drilling milling, and grinding. Metrological concepts. Industrial safety. Laboratory experiments.

Prerequisite:

GENG 231

### **MECH 241 Thermofluids**

#### **Credit Hours: 3**

Fundamental knowledge of basic concepts and definitions used in thermal science. Basic hydrostatics and atmospheric science. Properties of pure substances, ideal gases. Work and heat. The first law of thermodynamics and its application to systems and control volumes. The second law of thermodynamics and the concept of efficiency. The entropy and irreversibility. Basic evaluation techniques of heat transfer modes involving conduction, convection and radiation. Carry out laboratory experiments.

Prerequisite:

## PHYS 191

**MECH 321 Mechanical Mechanisms****Credit Hours: 3**

Basic concepts. Kinematics fundamentals. Graphical linkage synthesis. Analysis of displacement, velocity, and acceleration of linkages. Gears and gear trains. Cams and cam design. Force analysis. Balancing of Machines. Carrying out laboratory experiments

Prerequisite:

(GENG 222 OR MECH 222) AND GENG 111

**MECH 322 Mechanical Vibrations****Credit Hours: 3**

Introduction: elements of vibrating systems, examples of vibratory motions, simple harmonic motion, vector representation. Systems with single and multiple degrees of freedom: linear and torsional vibrations, damped and undamped free vibrations, forced vibrations, vibration isolation. Vibration absorbers. Vibration measurement instruments. Properties of vibrating systems: Eigenvalues and Eigenvectors, modal matrix and normal mode summation. Field and computer-based applications. Carrying out laboratory experiments.

Prerequisite:

(GENG 222 OR MECH 222) AND MATH 217

**MECH 330 Machine Design****Credit Hours: 3**

Three dimensional stresses, stress concentrations, and fatigue failure theories. Design/selection of mechanical machine elements such as: shafts, keys, coupling, bearings (journal and anti-friction); spur, helical, bevel and worm gears; clutches and brakes; springs and fasteners. Discussion of case studies on power transmission system. Laboratory sessions to focus on drawing machine assemblies by using a computer aided design (CAD) software with consideration of manufacturing aspects of the design (limits and fits). Individual design project on basic transmission system.

Prerequisite:

MECH 223 AND MECH 321

**MECH 331 Machining & Forming Process****Credit Hours: 3**

Theory and applications of metal cutting; basic principles; significant features of current research. Chip formation mechanics, tool life and machinability, economics of metal removal, and precision engineering. Metal forming processing, include, casting, forging, sheet metal, rolling, extrusion, and welding. Carrying out laboratory experiments.

Prerequisite:

**MECH 230 AND MECH 223****MECH 333 Introduction to Mechatronics and Measurement Systems****Credit Hours: 3**

Examples of mechatronics systems. Sensors and actuators. Methods of sensing and actuation including mechanical, electrical, pneumatic and hydraulic. Basic electrical circuit analysis and modelling of electromechanical systems. Fundamentals of control system design. Programmable Logic Controllers. Experiments to support the course including the use of computer software such as MATLAB for analysis. A group project will expose students to simple mechatronic systems.

Prerequisite:

MECH 217

**MECH 342 Thermodynamics****Credit Hours: 3**

Steam and gas power cycles. Ideal and Actual cycles. Refrigeration cycles: ideal and actual vapor compression cycle, gas refrigeration cycles, absorption systems. Thermodynamic relations. Gas mixtures: Dalton and Amagats principles. Gas-vapor mixtures: dew point, adiabatic saturation process, Psychrometric chart, air conditioning processes. Chemical reactions with application to combustion processes: Enthalpy of formation, A/F ratio, enthalpy of reaction, Adiabatic flame temperature. Carrying out laboratory experiments.

Prerequisite:

MECH 241

**MECH 343 Fluid Mechanics****Credit Hours: 3**

Fundamental concepts. Properties of fluids. Fluid Statics. Momentum and energy equations, applications. Bernoulli equation, applications. Dimensional analysis and similitude. Introduction to viscous flows and boundary layers. Internal flows, laminar and turbulent flows. Head loss and friction factor. Flow over immersed bodies (external flow). Lift and drag. Carrying out laboratory experiments.

Prerequisite:

MECH 241 AND MATH 217

**MECH 344 Heat Transfer****Credit Hours: 3**

Introductory remarks. Conduction: one dimensional conduction in various geometries, conduction with volumetric energy sources, conduction through composite medium, extended surfaces (fins). Transient conduction. Forced convection: boundary layers, internal and external flows (laminar and turbulent). Natural convection: external flow and flow in enclosures. Basic introduction of heat exchangers. Radiation: properties, shape factor, analysis of radiation in a non-participating media. Carrying out laboratory experiments.

Prerequisite:

**MECH 343****MECH 361 Control Systems****Credit Hours: 3**

Introduction to control systems. Mathematical models for mechanical, pneumatic, electrical, and hydraulic feedback systems. Transfer functions. State space representation. System time and frequency responses. Basic control action and industrial automatic controls. Performance specifications of feedback control systems. Analysis and design of systems by means of root-locus and frequency response methods. Compensation techniques. Computer-aided control system design of single input single output systems. Laboratory experiments.

Prerequisite:

MECH 322

**MECH 399 Practical Training****Credit Hours: 3**

Students spend a period equivalent to eight weeks of practical training in an engineering organization. This course aims at providing the students with technical and practical skills by participating in engineering activities and performing assignments through training programs. The program is jointly specified by the department and industrial organizations.

Prerequisite:

GENG 107 AND MECH 441

**MECH 410 Fire Protection Science Technology****Credit Hours: 3**

Fire chemistry and behavior including: fire basics; fires from gas, liquid and solid phase fuels; heat release rate; ignition; fire dynamics; explosions and fire modeling. Fire systems design including systems and devices to detect and to suppress fire. Fire hazard recognition, hazardous materials and their storage, origin and cause of fires. Fire prevention, fire protection technology, and fire suppression systems. Fire safety standards and codes (Qatar Civil Defense Fire Code and NFPA 1). Hands-on lab and video demonstrations.

Prerequisite:

MECH 223

**MECH 425 Finite Element Method****Credit Hours: 3**

Fundamental concepts of the finite element method for linear stress and deformation analysis of mechanical components. Development of truss, beam, frame, plane stress, and plane strain elements. Practical modeling techniques and use of general-purpose codes for solving practical stress analysis problems.

Prerequisite:

**MECH 223****MECH 426 Computer Aided Design****Credit Hours: 3**

Basic elements of CAD and relevance to current industrial practice. Input and output devices for geometric modeling systems. Representation of curves and curved surfaces. Graphical programming languages, and development of interactive 3-D computer graphics programs. Numerical optimization and its application to parameter design.

Prerequisite:

MECH 323 OR MECH 330

**MECH 427 Mechanics of Composite Materials****Credit Hours: 3**

Analysis, design and applications of laminated and chopped fiber reinforced composites. Micro- and macro-mechanical analysis of elastic constants, failure and environmental degradation. Design project.

Prerequisite:

MECH 223 AND GENG 231

**MECH 428 Acoustical Engineering****Credit Hours: 3**

This course teaches the basic concepts of acoustics necessary to understand environmental and industrial noise. Students will be able to understand and carry out noise measurements, interpret them according to standards. The course also equips students with the ability to design simple means to reduce the adverse effect of noise in specific places. Students will gain hands on experience through a project and laboratory experiments.

Prerequisite:

MECH 322

**MECH 429 Structural Vibration****Credit Hours: 3**

The course will cover the fundamental concepts of vibration modelling in structures. Theoretical and experimental model analysis will be covered as well as wave methods for modelling structures. The limitation of each modelling approach will be highlighted and piping vibration will be emphasized as an application.

Prerequisite:

MECH 322

**MECH 430 Machine Condition Monitoring****Credit Hours: 3**

This course outlines the general approach of maintenance, details various types of maintenance strategies and covers how a maintenance department is administratively organized and managed. The tools used in predictive maintenance are discussed. A systematic approach to fault diagnosis and failure prevention in a broad range of machinery used in various industries is adopted. Troubleshooting by different techniques with a special emphasis on vibration analysis, allows students to inspect machinery and make an accurate diagnosis.

Prerequisite:

MECH 322

**MECH 431 Failure Analysis****Credit Hours: 3**

Function of failure analysis. Techniques of failure analysis (investigation procedure). Testing used in failure analysis (Mechanical, Metallurgical, and NDT). Types of failure. Designing against failure. Failure due to excessive elastic deformation. Failure due to distortion. Brittle fracture (Fast fracture). Fatigue failure. Failure due to creep. Wear. Corrosion and oxidation. Practical: Case study from industry. Laboratory experiments.

Prerequisite:

GENG 231 AND MECH 223

**MECH 432 Welding & Casting Technologies****Credit Hours: 3**

Importance of welding and casting in industry, Welding processes, Weldability of metals, welding defects, Designing of welded joints, Welding positions. Oxy-acetylene welding, Arc welding and Arc characteristics, Welding electrodes in SMAW, GTAW and GMAW, Submerged and Plasma arc weldings, Resistance welding, Castability of metals, Solidification of metals, Casting processes, Design of casings. Experiments in Welding processes, Welding Metallurgy, NDT, and Casting metallurgy and casting Techniques. Laboratory experiments.

Prerequisite:

MECH 230

**MECH 433 Modern Machining Techniques****Credit Hours: 3**

Current trends in manufacturing techniques. Advanced machining. Thermal machining, Chemical and electrochemical machining. Mechanical machining, Abrasive machining. Hybrid machining. and Rapid prototyping. Computer numerical controlled machining. Approach to flexible manufacturing systems and computer integrated manufacturing systems. Laboratory experiments.

Prerequisite:

MECH 230

**MECH 434 Biomaterials and Tissue Engineering****Credit Hours: 3**

This course covers the fundamentals of the properties and biocompatibility of metallic, ceramic, polymeric, and biological materials that are utilized in devices and biotechnology. New trends in biomaterials such as prosthetics, and new families of polymers, biopolymers, and composites with specific clinical properties will be discussed. A set of medical devices used in everyday clinical life will also be examined.

Prerequisite:

GENG 231

**MECH 435 Corrosion Engineering****Credit Hours: 3**

Cost of corrosion, Electrochemical principles of corrosion, How to predict the corrosion in industry, Mechanical and metallurgical factors affecting corrosion, Corrosion rate measurements, Polarization, Passivity, Uniform corrosion, Bi-metallic corrosion, Crevice and Pitting corrosion, Inter-granular corrosion, De-alloying, Erosion-corrosion, Stress corrosion cracking and Hydrogen damage, Corrosion-fatigue. Modern electrochemical principles of corrosion, Cathodic protection, Coating, Designing against corrosion.

Prerequisite:

GENG 231

**MECH 438 3D Printing: Theory and Application****Credit Hours: 3**

Principles of additive manufacturing and its contributions to the fourth industrial revolution; standards of 3D printing (additive manufacturing) technology and its applications in various industries such as automotive, health, constructions, and aerospace; business opportunities in additive manufacturing and future trends; hands-on experience on the use of additive manufacturing for specific design examples

Prerequisite:

GENG 111

**MECH 441 Energy Systems Lab****Credit Hours: 1**

Application of basic measurement techniques and theoretical background gained in energy-related courses in conducting and designing laboratory experiments on complete thermofluid systems. Emphasis is given to parametric effects on the performance of internal combustion engines, compressors, turbines, centrifugal pumps, heat exchangers, air conditioning /refrigeration and similar systems.

Prerequisite:

(MECH 342 AND MECH 213) AND MECH 344 Concur.



**MECH 442 Refrigeration and AC****Credit Hours: 3**

Basic refrigeration concepts, refrigerants. Multistage and cascaded vapor-compression systems, liquid-to-suction heat exchangers, inter-coolers. Absorption refrigeration. Air and steam jet cooling. Thermoelectric refrigeration and flash cooling. Cooling load estimation. Refrigeration equipment component selection. Liquefaction. Air conditioning: human comfort, psychrometry, heating, cooling, humidification, dehumidification and mixing. Summer and winter A/C processes. Recirculating air, the sensible heat factor. A/C thermal load estimation. Component selection and duct design.

Prerequisite:

MECH 342

**MECH 443 Heat Transfer Systems****Credit Hours: 3**

Advanced conduction: Basic equation and boundary conditions, analytical and numerical solutions of steady and unsteady conduction. Convection: basic relations of convection, analytical solutions of some simple flows (forced and natural convection). Design and rating of heat exchangers. Heat transfer in condensing and boiling processes. Energy exchange by radiation. Radiative heat transfer in furnaces. Solar collectors and concentrators. Laboratory experiments.

Prerequisite:

MECH 344

**MECH 445 Fluid Systems****Credit Hours: 3**

Compressible flow: fundamental concepts, isentropic compressible flow with area change, normal shock waves, performance of nozzles, frictional flow in constant-area ducts (Fanno flow), flow in constant-area ducts with heat transfer (Rayleigh Flow). Potential flow: stream function, velocity potential, and solution of simple flows. Viscous flow: differential formulations, solution of simple flows. Analysis flow in pipeline networks. Use of commercial software.

Prerequisite:

MECH 343

**MECH 446 Turbo Machines****Credit Hours: 3**

Classification of turbomachines, dimensional analysis, specific speed, prototype and model testing, basic laws. Incompressible flow turbomachines: centrifugal and axial flow pumps, Eulers theory, characteristics and laboratory testing, cavitation in pumps, hydraulic turbines, and system matching. Compressible flow turbomachines: centrifugal compressors and fans, impeller and diffuser design, optimum design of compressor inlet, choking in a compressor stage, axial flow compressors and turbines, reaction ratio, stage loading, stage

efficiency, radial flow turbines, Laboratory experiments.

Prerequisite:

MECH 343 AND MECH 241

### **MECH 447 Heat Engines**

#### **Credit Hours: 3**

Internal versus external combustion engines. Automotive engines: Air standard cycles, fuels and combustion, combustion in spark ignition and compression ignition engines, actual gas cycles, supercharging, knocking, fuel rating. Gas turbine engines: actual cycles, optimum operation, application to turbo-fan, turbo-prop, and turbojet engines. Non-conventional engines. Carrying out laboratory experiments and Term Projects.

Prerequisite:

MECH 342

### **MECH 448 Design of Energy Systems**

#### **Credit Hours: 3**

Applications of thermo-fluids principles to design an integrated energy system. Examples include power generation, air conditioning, and industrial processes. Students work in teams on projects incorporating engineering standards, realistic constraints that may include economic, environmental, ethical, social, political, health and safety considerations. Term project.

Prerequisite:

(MECH 330 OR MECH 323) AND MECH 441

### **MECH 463 Mechatronics Sys Des**

#### **Credit Hours: 3**

Introduction and definition of Mechatronics. Analog and digital circuit fundamentals. Microprocessor architecture and applications, Data Acquisition systems. Actuation systems: Mechanical, Hydraulic and pneumatic systems. Electric actuation systems. Basic types of sensors. Programmable Logic Controllers (PLC). Application to intelligent systems. Carry out laboratory experiments.

Prerequisite:

MECH 213 AND MECH 361

### **MECH 464 Introductions to Robotics**

#### **Credit Hours: 3**

Overview of robotics. Robot coordinate systems. Direct and inverse kinematics. Introduction to manipulator dynamics. Robot sensors and actuators. Control strategies: robot specification and selection, economic justification. Safety and implementation.

Prerequisite:

MECH 321 AND MECH 361

**MECH 471 Selected Topics I**

**Credit Hours: 3**

Selected topics that meet student interests and reflects recent trends in one of the fields of mechanical engineering.

**MECH 472 Selected Topics II**

**Credit Hours: 3**

Selected topics that meet student interests and reflects recent trends in one of the fields of mechanical engineering.

**MECH 483 Operations Management**

**Credit Hours: 3**

Presents a broad conceptual framework for the operation management and management of science. Topics include: Decision Making, role of quantitative models, Forecasting, capacity planning, aggregate planning, materials management and inventory theory, Total Quality Management.

Prerequisite:

GENG 200

**MECH 485 Engineering Management**

**Credit Hours: 3**

Engineers as managers. Engineering management functions. Total quality management: principles and approaches, techniques and applications. Personnel management, team working and creativity. Communication in the organization. Management of engineering projects. Engineers and the law. Liability. Project planning and control using activity network analysis.

**MECH 486 Quality Analysis and Control**

**Credit Hours: 3**

Analysis & design of quality control systems, Statistical Process Control (SPC) design and implementation. Control charts for attributes and variables. Process capability analysis, techniques. Quality management and recent developments.

Prerequisite:

GENG 200

**MECH 487 Senior Design I**

**Credit Hours: 3**

Solving complex engineering problems, detail design and development process including case studies; project management, design for manufacturability, design for assembly, design for sustainability, design for cost, detailed design specifications; application of codes and standards, intellectual property, product liability and

ethical responsibility. Solution of a real-world design problem; recommendation of alternative solutions subject to realistic constraints such as economics, environment, sustainability, manufacturability, health and safety, society, and manufacturability; cost and life cycle issues. Beginning of capstone design projects.

Prerequisite:

(MECH 330 OR MECH 323) AND (GENG 360 with concurrency)

### **MECH 488 Senior Design II**

#### **Credit Hours: 3**

This is the senior capstone design course. Engineering design is the process of devising a system, component, or to meet desired needs and specifications within realistic constraints. It is an iterative, creative, decision-making process in which the basic sciences, mathematics, and engineering sciences are applied to convert resources into solutions. It involves identifying opportunities, developing requirements, performing analysis and synthesis, generating multiple solutions, evaluating solutions and risks against requirements and making trade-offs, with the purpose of obtaining a high-quality solution.

Prerequisite:

MECH 487

### **MECH 499 Independent Study**

#### **Credit Hours: 3**

Independent research of a topic not previously studied in other mechanical engineering courses. Offered under the supervision of a faculty member. A formal report is required.

### **MEDI 101 Human Structure and Function I**

#### **Credit Hours: 4**

Human Structure and Function-I is the first of a two-course sequence examining the terminology, structure, function, and interdependence of the human body systems. This course includes a study of the cells, chemistry, tissues, general embryology, and integumentary, musculoskeletal, respiratory, digestive and urogenital systems. In conjunction with classroom instruction, the anatomy and physiology online lab component for this course requires students to apply knowledge from the classroom to online experiments and critical thinking application exercises.

### **MEDI 102 Medical Education**

#### **Credit Hours: 3**

This course introduces students to the knowledge, skills and attitude needed in order to be a self-directed, life-long learner. Study skills which encourage deep learning should be inculcated and developed at an early stage of education. Students will explore through active learning the broad scope of health and related medical sciences; their future job responsibilities; and competencies they should acquire in order to respond to societal needs and expectations. The context of health and wellness will be used in training the students to apply study skills which support critical thinking and life-long learning.

**MEDI 103 Human Structure & Function II****Credit Hours: 4**

Human Structure and Function II is the second of a two-course sequence examining the terminology, structure, function, and interdependence of the human body systems. This course includes a study of the cells, chemistry, tissues, general embryology, and integumentary, musculo-skeletal, respiratory, digestive and urogenital systems. In conjunction with classroom instruction, the anatomy and physiology online lab component for this course requires students to apply knowledge from the classroom to online experiments and critical thinking application exercises.

Prerequisite:

MEDI 101 Concur.

**MEDI 201 Introduction to Problem Based Learning****Credit Hours: 0**

This course builds on MED102. Students are introduced to the different learning sites in the college and community. The different student-centered learning strategies: PBL, TBL, portfolios and the clinical skill lab are revisited.

Prerequisite:

MEDI 102, MEDI 103, CHEM 101, PUBH 151 (all pre-requisites with concurrency)

**MEDI 202 Genes to community****Credit Hours: 7 CH**

This course is structured around six problems representing from conception, embryogenic, newborn, child, adult and elderly. Population-health related concepts, demography, morbidity and mortality rate and the concept of family health and its relation to community health are introduced. Clinical skills are introduced. Students are introduced to general communication skills, followed by communication with patients, medical interview and history taking skills. Principles of ethics, professionalism and medical law are introduced. Research-based learning is introduced and practiced from day one.

Prerequisite:

MEDI 102, MEDI 103, CHEM 101, PUBH 151 (all pre-requisites with concurrency)

**MEDI 203 Body Defense****Credit Hours: 8 CH**

Students are introduced to concepts how we protect ourselves, bodily reaction to external risk factors, the internal milieu and homeostasis. It integrates basic concepts from Biochemistry, Genetics, Physiology, Anatomy, Immunology, Pharmacology, Psychology, Pathology and Microbiology. Most of the clinical training takes place in the clinical skill labs with simulated patients. Ethical principles, professional and personal development are continuously revisited. The concepts of healthy lifestyle, health enhancement, and population health are introduced and applied to Qatar health statistics.

Prerequisite:

MEDI 102, MEDI 103, CHEM 101, PUBH 151 (all pre-requisites with concurrency)

### **MEDI 204 Cardiovascular System**

**Credit Hours: 5 CH**

This unit is structured around five common cardiovascular problems. Students learn basic medical sciences underpinning patient presenting symptoms, clinical examination and management. The concept of risk and risk reduction related to cardiovascular diseases are introduced. Behavior modification, healthy lifestyle, and socioeconomic concept of health are studied. History taking and physical examination skills of the cardiovascular system and vital signs are developed while working with simulated patients and real patients. Students continue their weekly review and critiquing of articles.

Prerequisite:

MEDI 201, MEDI 202, MEDI 203 (all pre-requisites with concurrency)

### **MEDI 205 Blood**

**Credit Hours: 4 CH**

This course introduces new concepts related to blood as a system. Basic medical sciences related to the process of hematopoiesis, types of anemia and pathophysiology of blood cell malignancies and coagulation disorders. Epidemiological concepts related to diagnostic tests are exemplified through the four problems. Clinical skills related to examination of the lymphatic system and procedures like blood transfusion, ordering and interpretation of hematological investigations will be practiced.

Prerequisite:

MEDI 201, MEDI 202, MEDI 203 (all pre-requisites with concurrency)

### **MEDI 206 Respiratory System**

**Credit Hours: 5**

This unit is closely linked to the cardiovascular system. The normal structure, function and the underlying pathophysiological concepts related to common respiratory problems are introduced. Students develop the skills of history taking and analysis of common symptoms and signs in patients with respiratory problems. Students continue to develop competence in EBM practice, clinical epidemiology and biostatistics. Through the community-based program, students recognize the importance of primary healthcare, preventive medicine and socioeconomic concept of health and illness.

Prerequisite:

MEDI 201, MEDI 202, MEDI 203 (all pre-requisites with concurrency)

### **MEDI 207 Medicine and the Arts**

**Credit Hours: 3**

This course provides students with the knowledge, skills and attitudes to develop an appreciation for the arts and humanities, and an understanding of their connection to medicine. The course selectively explores elements

and genres in visual art, music, poetry, film and drama and considers them in the context of medical themes. In addition to studying a selection of masterpieces in various art forms, the course has a practical component. By engaging students in creative work on medical themes, including activities like acting, drawing, writing poetry, watching (and discussing) films, the course aims to hone students' critical thinking skills, creative aptitudes and emotional intelligence. Working in small groups, in a Team Based Learning (TBL) environment, students will also apply and further develop their search techniques, self-learning and presentation skills

### **MEDI 301 Gastrointestinal system & nutrition**

#### **Credit Hours: 7**

The course introduces to concepts and principles of the gastrointestinal (GI) system, nutrition and metabolism. Biochemical principles related to metabolism and nutrition will revisit. Nutrition and healthy lifestyle are emphasized. Students develop skills in health informatics, data management and critical appraisal. They conduct community-based research through a health promotion project. Clinical skills related to history taking, clinical reasoning, examination of the abdomen and GI track are practiced in skill labs mainly with simulated patients with limited exposure to real patients.

#### **Prerequisite:**

MEDI 204, MEDI 205, MEDI 206 (all pre-requisites with concurrency)

### **MEDI 302 Renal system**

#### **Credit Hours: 5**

The course will introduce the major concepts related to the renal system including normal structure, function and pathophysiology of the renal system. Prevalence and incidence of renal diseases and impact of renal failure on the patient and community, the burden of illness concept, prevention and economies of dialysis and transplantation, will be introduced.

Clinical Skills will focus on examination of the renal system and external genitals, transplantation ethics and EBM practice in relation to the renal system.

#### **Prerequisite:**

MEDI 204, MEDI 205, MEDI 206 (all pre-requisites with concurrency)

### **MEDI 303 Endocrine system**

#### **Credit Hours: 5**

The course introduces to principles of the endocrine system. Clinical skills will focus on examination of patients with diabetes and thyroid diseases. Students learn to identify anatomical features of the hypothalamus, pituitary, thyroid gland and adrenal glands and to understand the functions of each gland, its hormonal regulation and the principles and clinical relevance of hormone assays. The student will be able to identify complex ethical issues related to confidentiality, notification and treatment choices that may arise in serious diseases.

#### **Prerequisite:**

MEDI 204, MEDI 205, MEDI 206 (all pre-requisites with concurrency)



**MEDI 304 Reproductive system****Credit Hours: 5**

The course provides a foundational knowledge of the reproductive system and medicine. It builds on the learning in the renal and endocrine systems. Sexually transmitted diseases, prevention, screening and treatment are introduced. Clinical skills focus on history taking and examination related to the reproductive system, examination of pregnant women, and normal delivery. Family planning and sexual health are discussed. In primary healthcare centers, students will learn principles of antenatal care, mother and child health services. The involvement in community-based research, critical appraisal, and EBM continue.

Prerequisite:

MEDI 301, MEDI 302, MEDI 303 (all pre-requisites with concurrency)

**MEDI 305 Musculoskeletal system & neuroscience I****Credit Hours: 9**

The course emphasizes the normal and abnormal structure and function of the musculoskeletal system, spinal cord and peripheral nerves. Students will learn how to take history from patients with a problem related to bones, joints and peripheral nerves. History taking and physical examination of the musculoskeletal system and peripheral nerves constitutes the main bulk of clinical skill training in this unit.

Prerequisite:

MEDI 301, MEDI 302, MEDI 303 (all pre-requisites with concurrency)

**MEDI 401 Neuroscience II & Mental Health I****Credit Hours: 10**

The unit builds on Neuroscience I. It introduces central nerves system, brain normal structure and function and pathology, mental health, normal and abnormal behavior. Clinical skills focus on the examination of the nervous system. Students will be introduced to the importance of mental health, magnitude of mental problems, substance abuse, addiction and behavioral changes. Ethics and rights of patients with a mental disease will be discussed. Critical appraisals of the literature, EBM continue at a more advanced level.

Prerequisite:

MEDI 304, MEDI 305(all pre-requisites with concurrency)

**MEDI 402 Multi-System****Credit Hours: 5**

The unit introduces multi-system problems, which covers problems like diabetes, lymphoma and others. Following a holistic approach, this course demonstrates the relation between different body organs and systems. Students at this phase of the curriculum will be able to demonstrate competence in taking focused history and physical examination of all body systems.

The problems in this unit cover important concepts of pathology, pathophysiology and pharmacology related to common health problems in different organ systems not previously covered.

Prerequisite:

MEDI 304, MEDI 305 (all pre-requisites with concurrency)

### **MIST 201 Introduction to Management Information System**

#### **Credit Hours: 3**

This course provides students with the basic concepts of information systems as well as the use and management of current information technologies for business processes. Course emphasizes electronic commerce, information technology contribution to competitive advantage, and enterprise resource planning.

Prerequisite:

((MAGT 101 or MAGT 112) and (ENGL 250 or ENGL 202 or ENGL 004 or ENGL 040 or ENGL F073 or ENGL F022 or TOEFL IBT 061 or TOEFL 500 or IELTS 5.5 or TOEFL CBT 173 or (Total for Integrated Core 400 and ESL Reading Skills 100 and ESL Language Use 100))

### **MIST 301 Introduction to Program in Business**

#### **Credit Hours: 3**

This course introduces the student to basic concepts of programming logic and design. Areas studied include the use of computers as a problem-solving tool, methodology for algorithm design, and for structured modular implementation.

Prerequisite:

MIST 201

### **MIST 302 Database Management Systems**

#### **Credit Hours: 3**

This course covers concepts and methods in design, implementation, and maintenance of the database for a management information system. The course develops an understanding of database development including data modeling, normalization, and implementation in the relational model using SQL, to develop an understanding of database administration, and to explore other database models including the object-orientated model.

Prerequisite:

MIST 201

### **MIST 303 Systems Analysis & Design**

#### **Credit Hours: 3**

This course provides students with the foundation in systems analysis and design concepts, methodologies, techniques, and tools. Students will analyze system requirements, design software solutions, and adopt appropriate development approaches such as the object-oriented approaches, rapid application development (RAD), and joint application development (JAD).

Prerequisite:

## MIST 201

### **MIST 304 Data Communication & Networking**

#### **Credit Hours: 3**

This course introduces students to all aspects of current computer networks. Topics include cabling, signaling, serial, wide and local area networks, network protocols and network operating systems, and mixture of equipment, including serial, Integrated Services Digital Network (ISDN), LAN servers, clients, analyzers and bridges/routers.

Prerequisite:

MIST 201

### **MIST 310 Systems Analysis and Design**

#### **Credit Hours: 3**

This course will introduce various methods to analyse system requirements and design software solutions. It will focus on object-oriented methodologies and provide students with hands-on experience in developing deliverable such as context diagrams, data flow diagrams, use cases, class diagrams, and test plans.

Prerequisite:

(MATH 119 OR MATH 101) AND MIST 201

### **MIST 320 Data & Information Management**

#### **Credit Hours: 3**

This course covers concepts and methods in design, implementation, and maintenance of the data and knowledge management systems. The course develops an understanding of database development, database administration, and knowledge management.

Prerequisite:

MATH 119 OR MATH 101) AND MIST 201

### **MIST 330 IT Infrastructure and Enterprise Architecture**

#### **Credit Hours: 3**

This course provides an understanding of the nature and role of the various components of organizational technology infrastructure. It focuses on different forms of enterprise architectures and provides an overview of the methodologies most commonly used to analyze and manage enterprise architectures. In addition, the course introduces information and systems security and introduce different methods and strategies to manage security risks.

Prerequisite:

MIST 201

**MIST 331 Enterprise Systems****Credit Hours: 3**

This course discusses how modern management information systems are structured, how they are managed and the issues in integrating them to support effective business operations and decision making. Students will learn about the integrated nature of business processes, critical success factors in enterprise system implementation, and gain hands-on experience with a major enterprise system.

Prerequisite:

MIST 201

**MIST 360 Strategy, Management, and Acquisition****Credit Hours: 3**

This course is focuses on developing the ability to critically assess existing IS infrastructures and emerging technologies as well as how these enabling technologies align with and support organizational strategy. It explores the acquisition, staffing, development and implementation of plans and policies to achieve efficient and effective information systems. Students will use various techniques to perform cost-benefit analysis, risk assessment, and other decision- making analysis techniques.

Prerequisite:

MIST 201

**MIST 390 Special Topics in Information Systems****Credit Hours: 3**

This course offers an in-depth exploration of a special topic, issue, or current trend in the information systems field. This course will include special topics or issues that are not addressed in other courses. The topics or issues will be subject to the department approval.

Prerequisite:

MIST 201

**MIST 420 Business Intelligence****Credit Hours: 3**

The course provides students with an understanding of the principles of decision making in organizations, an appreciation of the concepts of business intelligence systems (BI) across various disciplinary areas, and the acquisition of basic skills in the use and construction of BI systems. Students will gain hands-on experience with major BI applications.

Prerequisite:

MIST 320 OR MIST 302

**MIST 440 Applications Development****Credit Hours: 3**

This course will introduce the fundamental concepts of application design and development. Students will learn the basic programming skills, program design, program development (including data structures), problem solving, and event driven programming. It will include the use of logical and physical structures for both programs and data and provide hands-on experience in designing and developing programs and interfaces.

Prerequisite:

(MIST 310 OR MIST 302) AND (MIST 320 OR MIST 303 )

### **MIST 443 Internet Applications Development**

**Credit Hours: 3**

This course will examine how the Internet and the World Wide Web are used for business purposes. Students will learn various tools to develop good websites for organizations and will develop hands-on skills on building websites to market products or services and to establish a simulated business on the Internet. Students will use tools and techniques for project management, project analysis, design, and implementation.

Prerequisite:

(MIST 310 OR MIST 302) AND (MIST 320 OR MIST 303)

### **MIST 450 IT Governance and Security**

**Credit Hours: 3**

This course provides an overview of the field of information and systems security, defines the key processes and actors, and presents the management framework of information security primarily used by businesses. In this course, students will be introduced to the risk analysis and assessment strategies, concepts, methods, and techniques that enable them to define the scope of protection to meet the objectives of the business organization, and to make sound recommendations, given the risks, legal requirements, and organizational objectives

Prerequisite:

MIST 330 OR MIST 304

### **MIST 460 Information Systems Project Management**

**Credit Hours: 3**

This course introduces generic project management methods and techniques (e.g. PMI) as well as techniques specific to software projects (e.g., Agile Methods and Extreme Programming) and demonstrates how software projects are different from other types of projects. The course will cover best practices and software project management standards such as Capability Maturity Model Integration (CMMI) as well as the ISO/IEC and IEEE/EIA 1058 and 12207 standards.

Prerequisite:

(MIST 310 OR MIST 302) AND (MIST 320 OR MIST 303)

**NUTR 221 Principles of Food Science and Nutrition****Credit Hours: 2**

An overview of the interactions among basic disciplines of science and technology which are integrated into the development of more wholesome, stable, and nutritious food products. General principles are stressed using examples which demonstrate the progression of raw agricultural commodities through the integrated technologies which result in commercial food products.

**NUTR 223 Introduction to Dietetic Profession****Credit Hours: 2**

This course introduces the student to the profession of dietetics. It provides an overview of the many career directions and opportunities open to dietitians both clinically and in the community. It covers professional trends affecting dietetics and nutrition practice, and current issues affecting dietetics practice. Specific topics include Professional conduct and the Code of Ethics for Dietetics Practice, Evidence Based Practice in Dietetics, and the Nutrition Care Process.

Prerequisite:

CHEM 351

**NUTR 231 Human Nutrition****Credit Hours: 3**

This course emphasizes the physiological and biochemical aspects of vitamins, minerals, fiber, energy and macronutrients. Students are introduced to topics of current human nutrition interests e.g. antioxidants, eicosanoids. Students are trained in this course to use interactive electronic learning and literature searching strategies.

Prerequisite:

CHEM 351

**NUTR 319 Quantity of Food Production & Equipment****Credit Hours: 3**

Principles of quantity food production and presentation, including stocks, sauces, soups, sandwiches, breakfast preparation, short order cooking, deep fat frying, grilling, meat cutting, vegetable and salad preparation, basic principles and techniques of baking; portion control, yield tests, recipe conversion and costing; principles of sanitation in quantity food production; principles underlying safe operation and cleaning of commercial food equipment

Prerequisite:

NUTR 321

**NUTR 320 Introduction to Dietetic and Nutrition Practice****Credit Hours: 1**

This course introduces students to the profession of dietetics and provide overview of the many career directions and opportunities open to dieticians both clinically and in the community.

Prerequisite:

NUTR 221

**NUTR 321 Food Chemistry****Credit Hours: 3**

This course is designed to enable the students achieving a good knowledge about the biodiversity and principles of classification of living organisms which started from the most microscopic (micro- ) organisms like Bacteria and Protozoa passing through Algae and Fungi up to Plants and Animals. The course covers the biological interactions between living organisms including the beneficial relations like symbiosis up to the most harmful one such as parasitism.

Prerequisite:

CHEM 351

**NUTR 329 Nutrition Education and Communication****Credit Hours: 2**

Principles of nutrition communication and education theories applied to individual and group patient education will be addressed. This course aimed at improving students' interviewing skills and counseling techniques. The course will discuss the different educational programs that are focused on the improvement of nutritional knowledge, status through increasing positive health behavior.

Prerequisite:

NUTR 338 OR NUTR 334

**NUTR 335 Nutritional Metabolism I****Credit Hours: 2**

Digestion and absorption of macronutrients. Body fluids and electrolytes balance. Concepts of balance, flux, turnover and metabolic pools. Energy metabolism at the cellular level. Metabolic pathways of synthesis and degradation of lipids, carbohydrates, proteins and amino acids. Macronutrients' metabolism in major organs and tissues. Substrate flux in long term and short term fasting. Apoptosis, nutritional genomics.

Prerequisite:

CHEM 351 AND CHEM 352



**NUTR 336 Nutritional Metabolism II****Credit Hours: 2**

Mechanism of action, metabolism and interaction with other nutrients of water and lipid soluble vitamins, macro-minerals, trace elements and ultra-trace elements.

Prerequisite:

NUTR 231 OR NUTR 331

**NUTR 338 Nutrition through the Lifespan****Credit Hours: 3**

This course is designed to provide students with a view of the life cycle as a whole, with each life cycle stage supported by the nutrition that is essential for a good development. Nutritional needs are presented on the basis of both physical and psychosocial. development.

Prerequisite:

NUTR 231

**NUTR 340 Assess of Nutritional Status****Credit Hours: 3**

Practical techniques in evaluation of nutritional status for individuals and groups. Anthropometrics measurements and their reference values. Biochemical indicators of deficiencies, excesses and storage of nutrients in the human body, and their reference values. Evaluation methods of dietary intakes and consumption. Modern techniques for body composition measurements (BIA, DXA, CT, MRI, NAA) will be covered.

Prerequisite:

NUTR 231

**NUTR 352 Nutritional Metabolism****Credit Hours: 3**

This course covers metabolic pathways and physiological functions of macronutrients (carbohydrate, lipids and protein) at molecular, cellular, tissue, organ and system level. Mechanism of action, metabolism and interaction with other nutrients of water and lipid soluble vitamins, macro-minerals, trace elements and ultra-trace elements will be discussed

Prerequisite:

CHEM 351 AND CHEM 352

**NUTR 353 Nutrition Education and Communication****Credit Hours: 3**

Principles of nutrition communication and education theories applied to individual and group patient education will be addressed. This course aimed at improving students' interviewing skills and counseling techniques. The

course will discuss the different educational programs that are focused on the improvement of nutritional knowledge, status through increasing positive health behavior.

Prerequisite:

NUTR 338

### **NUTR 439 Meal Planning and Evaluation**

**Credit Hours: 2**

This course aims to introduce the nutritional value and the characteristics of food groups, principles and guidelines for diet-planning, diet-planning guides with emphasis on food group plans and exchange lists, and approaches of applying diet-planning guides in meals planning and methods of meals evaluation.

Prerequisite:

NUTR 231

### **NUTR 441 Food Safety and Quality Control**

**Credit Hours: 3**

This course will provide comprehensive information on food safety; food contamination i.e. microbial, chemical, plant and animal adulterants and radioactive materials. Routes of contamination of major food groups, analysis and control. Fields and concepts of the quality systems of foods. Risk analysis and management of the food chain. Sensory properties of foods and statistical means of quality control. Food standards and regulations. National and international agencies related to food control.

Prerequisite:

NUTR 321

### **NUTR 442 Management of Food Services Operations I**

**Credit Hours: 2**

The course purpose is to introduce management theories and principles, and the effective use of resources in the design and administration of food service facilities. Design of floor plans and equipment selection for various institutional food service operations are included. Consideration is given to operating environmentally safe and efficient facilities with emphasis on sanitation and safety. Administrative and leadership responsibilities of the food service manager are emphasized.

Prerequisite:

NUTR 319 OR NUTR 322

### **NUTR 443 Management of Food Services Operations II**

**Credit Hours: 2**

The application of principles of management as they relate to the administration of human, physical and financial resources of food and nutrition services. In addition, emphasis is placed on food costing, labor issues, diversity, marketing, accounting, and budgeting for institutional food service.

Prerequisite:

NUTR 442 OR NUTR 325

### **NUTR 450 Medical Nutrition Therapy I**

**Credit Hours: 3**

The course provides detailed information on the role of nutrition in prevention and treatment of disease. This course covers conditions most seen in dietetic clinics; obesity, diabetes, dyslipidemia, iron deficiency anemia, osteoporosis and the more common disease of inborn error of metabolism. The disease process, related biochemical issues, nutritional assessment, medical nutrition therapy and food and fluid issues are discussed in details for each disease.

Prerequisite:

(NUTR 340 OR NUTR 433) AND NUTR 439

### **NUTR 451 Medical Nutrition Therapy II**

**Credit Hours: 3**

This is the second course in medical nutrition therapy following Medical Nutrition Therapy I. The course introduces students to the etiology of nutrition related diseases of the digestive system. Liver and pancreas, renal system, oncology and metabolic stress and eating disorders. The disease process, related biochemical issues, nutritional assessment, medical nutrition therapy and food and fluid issues are discussed in details for each disease. Enteral and parenteral nutrition support are also covered in this course..

Prerequisite:

NUTR 450 OR NUTR 351

### **NUTR 453 Medical Nutrition Lab II**

**Credit Hours: 1**

This course deals with diseases covered by the course medical nutrition therapy 2 (NUTR451) and should be taken concurrently. Sessions include self-study modules, tutorials, case studies and simulated clinical set ups.

Prerequisite:

NUTR 450

### **NUTR 454 Medical Nutrition Laboratory I**

**Credit Hours: 1**

This course deals with diseases covered by the course medical nutrition therapy 1 (NUTR351) and should be taken concurrently. Sessions include self-study modules, tutorials, case studies and simulated clinical setups.

Prerequisite:

(NUTR 340 OR NUTR 433) AND NUTR 439

**NUTR 456 Professional Issues in Dietetics and Nutrition****Credit Hours: 1**

This course covers professional issues and trends affecting dietetics and nutrition practice, planning for professional advancement and conduct “Code of Ethics for Dietetic Practice”.

Prerequisite:

NUTR 433 OR NUTR 340

**NUTR 457 Public Health Nutrition****Credit Hours: 3**

The study of social, economical and environmental impact on the nutritional status off the community. Nutrition epidemiology. Methods of nutritional surveys. Nutrition surveillance systems. Preventive and control measures for community nutritional problems. Combating chronic problems related to diet. Nutritional and chronic disease in Arab countries with emphasis on GCC. Development of science-based and food-based dietary guidance. The role of the food industry in community nutrition. Food distribution systems.

Prerequisite:

NUTR 433 OR NUTR 340

**NUTR 460 Food Service Operations****Credit Hours: 3**

This course is an introduction to management systems and the effective use of resources in the design and administration of food service facilities. Functions and responsibilities related to the management of these systems, including planning, site design, marketing, human resource management and cost accounting as it relates to equipment, food and labor are also discussed

Prerequisite:

NUTR 319

**NUTR 470 Clinical Pediatric Nutrition****Credit Hours: 3**

Nutrition assessment, diagnosis, intervention, and monitoring/evaluation of growth and development of hospitalized pediatric patients and those with special health care needs. Includes acute and critical illness, developmental disorders, failure to thrive, inherited metabolic diseases, low birth weight, and chronic diseases.

Prerequisite:

NUTR 450

**NUTR 490 Capstone Course****Credit Hours: 3**

The student is directed to undertake a clinical or community project in a specific subject under supervision of a staff member. The course is intended to reflect different skills and competencies acquired by the student in

different courses.

Prerequisite:

(NUTR 450 OR NUTR 351) AND NUTR 492

### **NUTR 491 Nutrition Seminar**

#### **Credit Hours: 1**

Students will be required to present a seminar in selected topics in human nutrition and dietetics. Topics will be selected in areas that are currently under active research. Presented by students, faculty and invited speakers.

Prerequisite:

( NUTR 450 OR NUTR 351) AND NUTR 492

### **NUTR 492 Res Meth in Nutrition**

#### **Credit Hours: 1**

Students learn research methods used in nutrition and dietetics research. The course cover study designs e.g. cross-sectional, prospective, controlled studies and clinical trials. The course builds upon students' basic knowledge of statistics to introduce them to the statistical methods used in these studies.

Prerequisite:

(NUTR 433 OR NUTR 340 )

### **NUTR 494 Supervised Dietetic Practice I**

#### **Credit Hours: 10**

Students spend 15 of 30-weeks in a supervised dietetic practice (dietetic internship). The program provides interdisciplinary practicum that will prepare dietetic interns to attain entry-level competencies in nutrition therapy, food service systems management, and public health nutrition. Students will conduct training during two semesters, rotating through various clinical, public health and foodservice departments. Interns will be required to demonstrate proficiency in a defined set of competencies.

Prerequisite:

NUTR 490

### **NUTR 495 Supervised Dietetic PracticeII**

#### **Credit Hours: 10**

Students spend 15 weeks of a total of 30 weeks of supervised dietetic practice (dietetic internship). The program provides interdisciplinary practicum that will prepare dietetic interns to attain entry-level competencies in nutrition therapy, food service systems management, and public health nutrition. Students will conduct training during two semesters, rotating through various clinical, public health and foodservice departments. Interns will be required to demonstrate proficiency in a defined set of competencies.

Prerequisite:

NUTR 494

### **PHAR 200 Medicinal Chemistry I**

#### **Credit Hours: 2**

Medicinal Chemistry I (PHAR200) is the first of a series of two medicinal chemistry courses. The course has been designed to introduce first year students to concepts required to understand drugs as organic molecules whose biological activities are derived from their chemical structures and physico-chemical properties. This will be achieved by first reviewing fundamental principles in organic chemistry, which will subsequently allow students to make clear connections between physical organic and biological chemistry, and ultimately the general principles of medicinal chemistry (such as ADME principles, drug metabolism and structure-activity relationships). The course also includes a brief overview of the pharmaceutical industry, drug design and development, and those regulatory factors and agencies associated with drug development.

### **PHAR 201 Medicinal Chemistry II**

#### **Credit Hours: 2**

Medicinal Chemistry II (PHAR201) is the second of a series of two medicinal chemistry courses. The course has been designed to offer applications on what had been covered in PHAR200. Students will use their understanding of concepts such as drug receptor interactions, physicochemical properties, ADME, drug metabolism, and structure activity relationship on different classes of drugs. The course will cover in details drug groups that are used to treat different diseases, including, but not limited to, epilepsy, schizophrenia, Parkinson disease, depression, allergies, ulcers, diabetes, hypertension, pain, influenza, AIDS and cancer. For each drug class, students will learn the mechanism of action, detailed SAR, side effects, drug-drug interaction (if applicable) and drug metabolism. Students will advise to use a computerized chemical drawing program (Symyx draw) as a learning tools to facilitate the drawing and the memorization of chemical structures.

Prerequisite:

PHAR 200

### **PHAR 210 Pharmaceutics I**

#### **Credit Hours: 3**

Pharmaceutics I (PHAR210) is the first of a series of four (PHAR210, PHAR310, PHAR311, PHAR410) pharmaceutics courses. This course focuses on physical pharmacy, which is the research area of pharmacy that applies theoretical principles and practical research methods of science to the research on pharmaceutical phenomena and to the practice of pharmacy. The aim of the course Pharmaceutics I is to provide an insight into a number of physicochemical basics and to explain these within a pharmaceutical context. The course broadens the knowledge offered in general organic chemistry and physics courses and provides the required knowledge and foundation necessary for future courses that focus on pharmaceutical dosage forms, pharmacokinetics and bio-pharmaceutics which build upon and critically rely on Pharmaceutics I.

**PHAR 220 Foundations of Pharmacology & Pharmacotherapeutics****Credit Hours: 1**

Foundations of Pharmacology and Therapeutics (PHAR220) is designed to provide first year students with an introduction to general pharmacologic and therapeutic principles and concepts, and provides a broad overview of the pharmacological and therapeutic properties of select common drugs. The course provides students with a fundamental vocabulary and background for future courses in the program. This course is intended to prepare students for the series of integrated Pharmacology (PHAR320, PHAR321, PHAR420, PHAR421) and Therapeutics (PHAR380, PHAR381, PHAR480, PHAR481) courses that will be delivered during the second and third years of the program.

**PHAR 221 Foundations of Pharmacology & Pharmacotherapeutics II****Credit Hours: 1**

Foundations of Pharmacology and Therapeutics II (PHAR221) is a continuation of Foundations of Pharmacology and Therapeutics I (PHAR220). It is designed to provide first year students with an introduction to general pharmacologic and therapeutic principles and concepts and provide a broad overview of the pharmacological and therapeutic properties of select common drugs. The course provides students with a fundamental vocabulary and background for future courses in the program. This course is intended to prepare students for the series of integrated Pharmacology (PHAR320, PHAR321, PHAR420, PHAR421) and Therapeutics (PHAR380, PHAR381, PHAR480, PHAR481) courses that will be delivered during the second and third years of the program.

**PHAR 230 Pharmacy & Health Care****Credit Hours: 2**

Pharmacy and Health Care I (PHAR230) is the first of a series of two pharmacy and health care courses. The course is designed to introduce first year students to the role of the pharmacist within the health care system. Pharmacy and Health Care I is a survey course in the sense that it will sample from a broad range of related topics designed to inform students of current trends and challenges in pharmacy practice and health care. Pharmacy and Health Care I intends to be a launching point for specialized education and is designed to begin developing competence in the practice of pharmacy.

**PHAR 231 Pharmacy & Health Care II****Credit Hours: 2**

Pharmacy and Health Care II (PHAR 231) is the second in a series of two pharmacy and health care courses. The course follows PHAR230 is designed to continue with the introduction of the first year students to the role of the pharmacist within the health care system. PHAR231 is also a survey course in that it continues to sample from a broad range of related topics designed to inform students of current trends and challenges in pharmacy practice and health care.

Prerequisite:

PHAR 230



**PHAR 240 Professional Skills I****Credit Hours: 2**

Professional Skills I (PHAR240) is the first of a series of six (PHAR240, PHAR241, PHAR340, PHAR341, PHAR440, PHAR441) pharmacy professional skills courses. PHAR240 is an introduction to the prescribing process, medication dispensing practice, drug information, patient care process used in pharmacy practice, and the language and terminology of medicine. This course is also an introduction to interpersonal communication theory and provides a foundation for development of the skills needed to interact with patients, customers and other health care professionals.

**PHAR 241 Professional Skills II****Credit Hours: 2**

Professional Skills II (PHAR241) continues and expands on the themes and subjects covered in Pharmacy Professional Skills I (PHAR240). PHAR241 covers drug information accessing, evaluating, and provision, dispensing specific drug formulations, pharmaceutical calculations, health promotion, and health outcomes. This course also serves as an introduction to interpersonal communication theory and provides a foundation for the development of the skills needed to interact with patients, families, and other health care professionals. All workshops conducted in an environment that encourages the utilization of adequate communication skills and the language and terminology of medicine.

Prerequisite:

PHAR 240

**PHAR 250 Microbiology for Pharmacy****Credit Hours: 3**

Microbiology for Pharmacy (PHAR250) is designed to be a general microbiology course which includes the discussion of: bacterial structures and physiology; bacterial, fungal and viral infectious agents; the response of the host to infection by innate and acquired immune responses; and the control of infectious agents by drug therapy and vaccination.

**PHAR 305 Pharmacy Research, Evaluation and Presentation Skills I (PREP skills I)****Credit Hours: 1**

Pharmacy Research, Evaluation and Presentation Skills I (PHAR305) is the first of six (PHAR305, PHAR 306, PHAR405, PHAR406, PHAR505, PHAR506) courses designed to introduce the students to the detailed aspects of optimizing research design for clinical and basic research. The material presented builds on the content covered in previous non-pharmacy statistics and research design courses. Design strategies for varying types of health care-related research, as well as skills for critical evaluation of research studies and literature will be a primary focus. In addition, oral presentation and debating skills will be developed.

**PHAR 306 Pharmacy Research, Evaluation and Presentation Skills II (PREP skills II)Credit Hours: 1**

Pharmacy Research, Evaluation and Presentation Skills II (PHAR306) is the second of six (PHAR305, PHAR306, PHAR405, PHAR406, PHAR505, PHAR506) courses designed to introduce the students to the detailed aspects of optimizing research design for clinical and basic research. The material presented builds on

the content covered in previous non-pharmacy statistics and research design courses. Design strategies for varying types of health care-related research, as well as skills for critical evaluation of research studies and literature are a primary focus. In addition, skills for research findings dissemination through oral presentation and poster writing will be developed.

### **PHAR 310 Pharmaceutics II**

#### **Credit Hours: 2**

Pharmaceutics II (PHAR310) is the second of a series of four (PHAR210, PHAR310, PHAR311, PHAR410) pharmaceutics courses and is designed to provide pharmacy students with an understanding of the science of formulation and dispensing of liquid dosage forms and their delivery systems. In particular, this course will cover an in depth knowledge regarding pharmaceutical solutions, suspensions and emulsions. The composition, preparation, performance (both in vitro and in vivo) and the implications and relationship with patient-centered care in relation with liquid dosage forms will also be discussed. The lab component of this course will focus on contemporary compounded prescriptions that will train the student on the pharmaceutical skills and the practical concepts involved in the preparation, use, and evaluation of liquid dosage forms.

Prerequisite:

PHAR 210

### **PHAR 311 Pharmaceutics III**

#### **Credit Hours: 2**

Pharmaceutics III (PHAR311) is the third of a series of four (PHAR210, PHAR310, PHAR311, PHAR410) pharmaceutics courses and is designed to provide pharmacy students with an understanding of the science of formulation and dispensing of solid, semisolid and gaseous dosage forms and their delivery systems. In particular, this course covers an in depth knowledge regarding tablets, capsules, ointments, creams, suppositories and inhalers. The composition, preparation, performance (both in vitro and in vivo) and the implications and relationship with patient-centered care in relation with solid, semisolid and gaseous dosage forms are also discussed. The lab component of this course will focus on contemporary compounded prescriptions that will train the student on the pharmaceutical skills and the practical concepts involved in the preparation, use, and evaluation of tablets, lozenges, capsules, ointments, creams and suppositories.

Prerequisite:

PHAR 310

### **PHAR 316 Basic Pharmacokinetics**

#### **Credit Hours: 1**

Pharmacokinetics I is designed to introduce the pharmacy student to the basic principles of pharmacokinetics including the absorption, distribution, metabolism and elimination of drugs and metabolites in the human body, drug transport, parenteral and enteral routes of drug administration, and factors effecting these processes. Mathematical pharmacokinetic models and drug delivery processes are also studied.

**PHAR 317 Clinical Pharmacokinetics****Credit Hours: 1**

Pharmacokinetics II is designed to assist the pharmacy student in gaining a greater appreciation of the fundamental concepts of the pharmacokinetic processes and to assist the student in using these concepts for the rational design and monitoring of individualized dosage regimens for commonly used and low therapeutic-index drugs with the aim of improving the therapeutic management of patients.

**PHAR 320 Pharmacology I****Credit Hours: 2**

Pharmacology I (PHAR320) is the first of a series of four (PHAR320, PHAR321, PHAR420, PHAR421) pharmacology courses and is designed to provide an understanding of how drugs exert their effects on living systems. This course is integrated with the pathophysiology and therapeutics course series, and is delivered in a disease-based approach. Drug classes and representative agents are covered in the context of the systems and diseases discussed. For this course, this will include a review of basic concepts and drug classes used for neurologic, psychiatric, eyes, ears, nose and throat, respiratory, gastrointestinal and urologic disorders. For each therapeutic drug classification, topics to be covered include representative drugs, chemical structures, mechanism(s) of action, pharmacokinetic characteristics, toxicity profiles and related pharmacological issues. These topics will complement content taught in the balance of integrated courses. Students will also become familiar with common abbreviations.

Prerequisite:

PHAR 220

**PHAR 321 Pharmacology II****Credit Hours: 2**

Pharmacology II (PHAR321) is the second of a series of four (PHAR320, PHAR321, PHAR420, PHAR421) pharmacology courses and is designed to provide an understanding of how drugs exert their effects on living systems. The course is integrated with the pathophysiology and therapeutics course series and is delivered in a disease-based approach. Drug classes and representative agents will be covered in the context of the systems and diseases discussed. For this course, this will include a review of drug classes used for cardiovascular, dermatologic, bone and joint disorders. For each therapeutic drug classification, topics to be covered include representative drugs, chemical structures, mechanism(s) of action, pharmacokinetic characteristics, toxicity profiles and related pharmacological issues. These topics will complement content taught in the balance of integrated courses. Students will also become familiar with common abbreviations and vocabulary terms related to drug therapy.

Prerequisite:

PHAR 320

**PHAR 330 Structured Professional Practice Experience I****Credit Hours: 4**

SPEP I (PHAR330) is the first of a series of six (PHAR330, PHAR430, PHAR530, PHAR531, PHAR532, PHAR533) courses designed to provide students with a variety of practice-based opportunities that apply the knowledge and skills gained through campus-based learning. These opportunities will occur in select hospital, community and clinic-based pharmacy practice sites and are structured around a number of formalized activities, each designed to lead to the attainment of specific learning objectives. Select pharmacy practitioners will serve as mentors, role models, trainers and assessors of student learning.

**PHAR 340 Professional Skills III****Credit Hours: 2**

Pharmacy Professional Skills III (PHAR340) is the third of a series of six (PHAR240, PHAR241, PHAR340, PHAR341, PHAR440, PHAR441) courses. PHAR340 continues with the development of knowledge and skills related to pharmaceutical care, medication prescribing and dispensing processes, and drug information resource retrieval and application in pharmacy practice. This course continues exercising interpersonal communication and development of the skills needed to interact with patients, families and other health care professionals.

Prerequisite:

PHAR 241

**PHAR 341 Professional Skills IV****Credit Hours: 2**

Pharmacy Professional Skills IV (PHAR341) is the fourth of a series of six (PHAR240, PHAR241, PHAR340, PHAR341, PHAR440, PHAR441) courses. PHAR341 continues with the development of knowledge and skills related to pharmaceutical care, medication prescribing and dispensing processes, and drug information resource retrieval and application in pharmacy practice. This course continues exercising interpersonal communication and development of the skills needed to interact with patients, families and other health care professionals.

Prerequisite:

PHAR 340

**PHAR 350 Pharmacy Law, Ethics and Patient Safety****Credit Hours: 1**

Pharmacy Ethics and Law and patient safety is a course that focuses on legal, cultural, and ethical aspects of pharmacy practice and research, patient safety and medication errors. The course is designed to build on concepts introduced in previous courses and is intended to provide the student with a more in depth understanding of the related issues in both a local and international environment.

**PHAR 359 Interpretation of Lab Data I****Credit Hours: 1**

Interpretation of Lab Data I (PHAR359) is designed to focus on the clinical interpretation of the various tests performed in clinical chemistry, hematology, microbiology and imaging (e.g. x-ray, ultrasound). The course

will focus on the physiological basis for the test, the basic principles and procedures for the test, and the clinical significance of the test results, including quality control and normal values. The course is integrated with the physical assessment course and is delivered in an anatomical system-based approach to health management. The systems that will be covered include the nervous system, head and neck systems, respiratory system, gastrointestinal system, genitourinary system, cardiovascular system, peripheral vascular system, musculoskeletal and the dermatologic systems.

### **PHAR 360 Interpretation of Lab Data II**

#### **Credit Hours: 1**

Interpretation of Lab Data II (PHAR360) is designed to focus on the clinical interpretation of the various tests performed in clinical chemistry, hematology, microbiology and radiology. The course will focus on the physiological basis for the test, the basic principles and procedures for the test, and the clinical significance of the test results, including quality control and normal values. The course is integrated with the physical assessment course and is delivered in an anatomical system-based approach to health management. The systems that will be covered include the nervous system, head and neck systems, respiratory system, gastrointestinal system, genitourinary system, cardiovascular system, peripheral vascular system, musculoskeletal and the dermatologic systems.

### **PHAR 361 Patient Assessment Lab I**

#### **Credit Hours: 1**

Patient Assessment Laboratory I (PHAR361) is designed to introduce the pharmacy students to the various techniques and tools necessary to conduct physical examinations and to monitor changes caused by common disease states and drug therapy. In addition this course helps the students in interpreting physical findings and evaluating patient information in order to make appropriate decisions regarding the health of the patient, and his or her drug therapy needs and problems and to intervene in order to resolve the identified drug related problems and to ensure outcomes of drug therapy are met. This course will be delivered in an anatomical system-based approach to health management. The systems that will be covered include the nervous system, head and neck systems, respiratory system, gastrointestinal system, genitourinary system, cardiovascular system, peripheral vascular system, musculoskeletal and the dermatologic systems.

### **PHAR 362 Patient Assessment Lab II**

#### **Credit Hours: 1**

Patient Assessment Laboratory II (PHAR362) is designed to introduce the pharmacy students to the various techniques and tools necessary to conduct physical examinations and to monitor changes caused by common disease states and drug therapy. In addition, this course helps the students in interpreting physical findings and evaluating patient information in order to make appropriate decisions regarding the health of the patient, and his or her drug therapy needs and problems and to intervene in order to resolve the identified drug-related problems and to ensure outcomes of drug therapy are met. This course will be delivered in an anatomical system-based approach to health management. The systems that will be covered include the nervous system, head and neck systems, respiratory system, gastrointestinal system, genitourinary system, cardiovascular system, peripheral vascular system, musculoskeletal and the dermatologic systems.

**PHAR 370 Pathophysiology I****Credit Hours: 1**

Pathophysiology I (PHAR370) describes the incidence, etiology and clinical manifestations of local and systemic body responses which reflect adaption and course of a disease process. PHAR370 is integrated with the courses in pharmacology and pharmacotherapy and is delivered in anatomical system-based approach to health management. The systems that will covered include the nervous system, head and neck systems, respiratory system and the gastrointestinal system.

**PHAR 371 Pathophysiology II****Credit Hours: 1**

Pathophysiology II (PHAR371) describes the incidence, etiology and clinical manifestations of local and systemic body responses which reflect adaption and course of a disease process. PHAR371 is integrated with the courses in pharmacology and pharmacotherapy and is delivered in anatomical system-based approach to health management. The systems that will covered include the nervous system, head and neck systems, respiratory system, gastrointestinal system, genitourinary system, cardiovascular system, peripheral vascular system, musculoskeletal and the dermatologic systems.

**PHAR 380 Pharmacotherapy I****Credit Hours: 3**

Pharmacotherapy I (PHAR380) is the first of a series of four (PHAR380, PHAR381, PHAR480, PHAR481) courses dealing with drug-based therapeutics. The course is integrated with the pathophysiology and pharmacology course series and is delivered in a disease-based approach to health management. For this course, this will include a review of the therapeutics for neurologic, psychiatric, ophthalmic, otic, respiratory, gastrointestinal and urologic disorders. For each system, topics to be covered include epidemiology and etiology, clinical presentation, investigations, diagnosis, goals of therapy, therapeutic choices, treatment algorithms (including clinical practice guidelines), dosing and pharmacoeconomic considerations. Students will also become familiar with relevant patient management issues. These topics will complement content taught in the balance of integrated courses.

Prerequisite:

PHAR 221

**PHAR 381 Pharmacotherapy II****Credit Hours: 3**

Pharmacotherapy II (PHAR381) is the second of a series of four (PHAR380, PHAR381, PHAR480, PHAR481) courses dealing with drug-based therapeutics. The course is integrated with the pathophysiology and pharmacology course series and is delivered in a disease-based approach to health management. For this course, this will include a review of the therapeutics for cardiovascular, renal, dermatologic, bone and joint disorders. For each system, topics to be covered include epidemiology and etiology, clinical presentation, investigations, diagnosis, goals of therapy, therapeutic choices, treatment algorithms (including clinical practice guidelines), dosing and pharmacoeconomic considerations. Students will also become familiar with relevant patient



management issues. These topics will complement content taught in the balance of integrated courses.

### **PHAR 390 Integrated Case-Based Learning I**

#### **Credit Hours: 2**

Integrated Case-based Learning I (PHAR390) is the first in a series of five (PHAR390, PHAR391, PHAR490, PHAR491, PHAR590) courses and involves case studies and other activities aimed at integrating scientific and clinical concepts from across all courses in a problem-based learning environment. Patient case complexity increases across the sequentially delivered courses. For this course, emphasis will be on the comprehensive delivery of pharmaceutical care to patients with psychiatric, neurologic, respiratory, and pain disorders and will apply knowledge gained in the balance of integrated courses. Patient and disease management will occur in the context of a virtual health care environment.

### **PHAR 391 Integrated Case-Based Learning II**

#### **Credit Hours: 2**

Integrated Case-based Learning II (PHAR391) is the second in a series of five (PHAR390, PHAR391, PHAR490, PHAR491, PHAR590) courses and involves case studies and other activities aimed at integrating scientific and clinical concepts from across all courses in a problem-based learning environment. Patient case complexity increases across the sequentially delivered courses. For this course, emphasis will be on the comprehensive delivery of pharmaceutical care to patients with cardiovascular, renal, dermatologic, bone and joint disorders. These topics will complement content taught in the balance of integrated courses. Patient and disease management will occur in the context of a virtual health care environment.

Prerequisite:

PHAR 390

### **PHAR 405 Pharmacy Research, Evaluation and Presentation Skills III (PREP skills III)**

#### **Credit Hours: 1**

Pharmacy Research, Evaluation and Presentation Skills III (PHAR 405) is third of six (PHAR 305, PHAR 306, PHAR 405, PHAR 406, PHAR 505, PHAR 506) courses designed to introduce the students to the detailed aspects of optimizing research design for clinical and basic research. The material presented builds on the content covered in previous non-pharmacy statistics and research design courses. Design strategies for varying types of health care-related research, as well as skills for critical evaluation of research studies and literature will be a primary focus. In addition, oral presentation and debating skills will be developed.

Prerequisite:

PHAR 306

### **PHAR 406 Pharmacy Research, Evaluation and Presentation Skills IV (PREP skills IV)**

#### **Credit Hours: 1**

Pharmacy Research, Evaluation and Presentation Skills IV (PHAR406) is fourth of six (PHAR305, PHAR306, PHAR405, PHAR406, PHAR505, PHAR506) courses designed to introduce the students to the detailed aspects of optimizing research design for clinical and basic research. The material presented builds on the content



covered in previous non-pharmacy statistics and research design courses. Design strategies for varying types of health care-related research, as well as skills for critical evaluation of research studies and literature will be a primary focus. In addition, oral presentation and debating skills will be developed.

Prerequisite:

PHAR 405

### **PHAR 410 Pharmaceutics IV**

#### **Credit Hours: 2**

Pharmaceutics IV (PHAR410) is the fourth of a series of four (PHAR210, PHAR310, PHAR311, PHAR410) pharmaceutics courses and is designed to introduce pharmacy students to the basic principles governing the applications of radio-pharmacy in medical diagnosis and therapy. The status of current biotechnology-based pharmaceuticals and biotechnology related matters will be addressed. Additionally, the different techniques utilized in the analysis of pharmaceutical products will be introduced.

Prerequisite:

PHAR 311

### **PHAR 415 Basic and Clinical Toxicology**

#### **Credit Hours: 2**

Toxicology (PHAR415) is an introductory toxicology course for pharmacy students. It is designed to provide a basic understanding of toxicology as it pertains to drugs and common toxins and toxicants likely to be encountered in pharmacy practice. Topics to be covered will include principles of toxicology, selected potential toxins and toxicants, signs, symptoms and mechanisms of toxicity, the outcomes of exposure to toxic levels of therapeutic agents, drugs of abuse and common toxins and toxicants, and the use of antidotes when available and their mechanisms of action. In addition, students will learn about the availability and use of clinical resources for identifying unknown toxicants and information resources on toxins and toxicants.

### **PHAR 420 Pharmacology III**

#### **Credit Hours: 2**

Pharmacology III (PHAR420) is the third of a series of four (PHAR320, PHAR321, PHAR420, PHAR421) pharmacology courses designed to provide an understanding of how drugs exert their effects on living systems. The course is integrated with the pathophysiology and therapeutics course series and is delivered in a disease-based approach. Drug classes and representative agents will be covered in the context of the systems and diseases discussed. For this course, this will include a review of drug classes used for treating cancer (including anti-emetics), leukemias, anemias, immunosuppressants, endocrine-metabolic disorders including diabetes, obesity, osteoporosis, thyroid disorders and hypothalamic, pituitary and adrenal disorders. For each therapeutic drug classification, topics to be covered will include representative drugs, chemical structures, mechanism(s) of action, pharmacokinetic characteristics, toxicity profiles and related pharmacological issues. These topics will complement conte

Prerequisite:

**PHAR 321****PHAR 421 Pharmacology IV****Credit Hours: 2**

Pharmacology IV (PHAR421) is the fourth of a series of four (PHAR320, PHAR321, PHAR420, PHAR421) pharmacology courses designed to provide an understanding of how drugs exert their effects on living systems. The course is integrated with the pathophysiology and therapeutics course series and is delivered in a disease-based approach. Drug classes and representative agents will be covered in the context of the systems and diseases discussed. For this course, this will include a review of drug classes used for managing gynecologic disorders and infectious diseases including bacterial, fungal, protozoal and viral infections. Topics to be covered will include representative drugs, chemical structures, mechanism(s) of action, pharmacokinetic characteristics, toxicity profiles and related pharmacological issues. These topics will complement and complete content taught in the balance of the integrated courses. Students will also become familiar with common abbreviations and vocabulary terms rel

Prerequisite:

PHAR 420

**PHAR 425 Phytotherapy****Credit Hours: 2**

Phytotherapy (PHAR 425) is designed to introduce students in their third professional year to phytopharmaceuticals, utilizing an evidence-based approach. The course will build on previous knowledge in organic and medicinal chemistry, as well as pharmacology and pharmacotherapy. The focus is on herbs with proven clinical efficacy and discussions will include plant name, part used, adverse effects, contraindications, potential drug interactions, dose, mechanism of action and clinical evidence. A comparison between herbal preparations and other drugs in the management of specific conditions will be included to stimulate rational and evidence-based approaches to therapeutic recommendations.

**PHAR 430 Structured Professional Practice Experience II****Credit Hours: 4**

SPEP II (PHAR430) is the second of a series of six (PHAR330, PHAR430, PHAR530, PHAR531, PHAR532, PHAR533) courses designed to provide students with a variety of practice-based opportunities that apply the knowledge and skills gained through campus-based learning. These opportunities will occur in select hospital, community and clinic-based pharmacy practice sites and are structured around a number of formalized activities, each designed to lead to the attainment of specific learning objectives. Select pharmacy practitioners will serve as mentors, role models, trainers and assessors of student learning.

Prerequisite:

PHAR 330

**PHAR 440 Professional Skills V****Credit Hours: 2**

Pharmacy Professional Skills V (PHAR440) is the fifth of a series of six (PHAR240, PHAR241, PHAR340, PHAR341, PHAR440, PHAR441) courses. PHAR440 continues with the development of knowledge and skills related to pharmaceutical care, medication prescribing and dispensing processes, and drug information resource retrieval and application in pharmacy practice. This course continues exercising interpersonal communication and development of the skills needed to interact with patients, families and other health care professionals.

Prerequisite:

PHAR 341

### **PHAR 441 Professional Skills VI**

#### **Credit Hours: 2**

Pharmacy Professional Skills VI (PHAR441) is the final course in the series of six (PHAR 240, PHAR 241, PHAR 340, PHAR 341, PHAR 440, PHAR 441) courses. PHAR 441 continues with the development of knowledge and skills related to pharmaceutical care, medication prescribing and dispensing processes, and drug information resource retrieval and application in pharmacy practice. This course continues exercising interpersonal communication and development of the skills needed to interact with patients, families and other health care professionals.

Prerequisite:

PHAR 440

### **PHAR 444 Drugs in Sport**

#### **Credit Hours: 2**

This course is designed to introduce undergraduate students in healthcare and/or sport-related programs to an evidence-based approach to the safe and effective use of drugs in sports. The course covers reasons for athletes to take drugs; international perspective regarding doping and anti-doping in sport; national and international regulations of doping in sport; the World Anti-doping Agency (WADA) prohibited list, Cologue list and testing and monitoring for drugs used in sport. It also includes the prevalence of drug misuse in sport and the role of athlete support personnel in sporting events and in preventing the use of prohibited substances by athletes.

### **PHAR 445 Research in Pharmacy I**

#### **Credit Hours: 2**

Pharmacy Elective I (PHAR445) is the first in a series of three successive elective courses for P-3 and P-4 students. PHAR 445 is delivered as a two-part course which provides the students with an opportunity to enhance their research skills. The first component of PHAR445 involves the required attendance and participation at the biweekly Faculty Research Seminar. The second component is a research opportunity for students, whereby they work in a 2:1 relationship with a full-time faculty member on an assigned directed studies project. The goal of this course is to provide an opportunity for students to further advance their understanding of selected pharmacy topics and to further enhance their research skills. Projects will be variable in focus, with clearly defined and achievable research objectives, study design and activities. Projects will be pre-approved by course coordinators, completed within one semester and will not require external funding.

These projects will enhance the stu

### **PHAR 446 Rx Elective II**

#### **Credit Hours: 3**

Pharmacy Elective II (PHAR446) is the second in a series of three successive elective courses for P-3 and P-4 students. PHAR 446 is delivered as a three-part course which provides the students with an opportunity to enhance their critical thinking, literature evaluation and formal debating skills. The first component of PHAR446 involves the required attendance and participation at the biweekly Faculty Research Seminar. The second component is a weekly “journal club”, lead by a faculty member. Journal clubs have become a popular mechanism for published study review and critique, and to keep abreast of the literature, and we will employ this process in this course. The third component involves conducting formal debates on a pharmacy related topic. Pharmacy deals with constant change and debate is a process that determines how that change should occur. In this course, students will be introduced to “formal” debate and develop some fundamentals debating skills.

### **PHAR 450 Healthcare Delivery Systems**

#### **Credit Hours: 1**

Healthcare Delivery Systems (PHAR450) is a course designed to expand upon content introduced in Pharmacy and Health Care (PHAR230) and the Professional Skills (PHAR240-341) course series, as well as experiences gained during the SPEP-1 (PHAR330) clerkship. This course is intended to better prepare students to be knowledgeable about the various healthcare settings in which they may ultimately work. The specific goal of the course is to further improve the students understanding of the development, organization, components and characteristics of contemporary health care systems. This will be undertaken through a detailed exploration of the variables that must be considered when implementing optimal pharmacy services in a hospital and community environment.

### **PHAR 470 Pathophysiology III**

#### **Credit Hours: 1**

Pathophysiology III (PHAR470) describes the incidence, etiology and clinical manifestations of local and systemic body responses which reflect adaption and course of a disease process. PHAR470 is integrated with the courses in pharmacology and pharmacotherapy and is delivered in anatomical system-based approach to health management. The systems that will covered include the metabolic-, endocrine-, hematological/immune- and reproductive systems. The basic cellular mechanisms in tumor formation and common oncological diseases will also be covered.

Prerequisite:

PHAR 371

### **PHAR 471 Pathophysiology IV**

#### **Credit Hours: 1**

Pathophysiology IV (PHAR471) describes the incidence, etiology and clinical manifestations of local and systemic body responses which reflect adaption and course of a disease process. PHAR471 is integrated with

the courses in pharmacology and pharmacotherapy and is delivered in anatomical system-based approach to health management. The topics that will be covered include disorders of the female reproductive system and local and systemic infectious diseases.

### **PHAR 480 Pharmacotherapy III**

#### **Credit Hours: 3**

Pharmacotherapy III (PHAR480) is the third of a series of four (PHAR380, PHAR381, PHAR480, PHAR481) courses dealing with drug-based therapeutics. The course is integrated with the pathophysiology and pharmacology course series and is delivered in a disease-based approach to health management. For this course, this will include a review of the therapeutics for oncologic/haematologic, immunologic, and endocrinologic disorders. For each system, topics to be covered include epidemiology and etiology, clinical presentation, investigations, diagnosis, goals of therapy, therapeutic choices, treatment algorithms (including clinical practice guidelines), dosing and pharmacoeconomic considerations. Students will also become familiar with relevant patient management issues. These topics will complement content taught in the balance of integrated courses.

Prerequisite:

PHAR 381

### **PHAR 481 Pharmacotherapy IV**

#### **Credit Hours: 3**

Pharmacotherapy IV (PHAR481) is the fourth of a series of four (PHAR380, PHAR381, PHAR480, PHAR481) courses dealing with drug-based therapeutics. The course is integrated with the pathophysiology and pharmacology course series and is delivered in a disease-based approach to health management. For this course, this will include a review of the therapeutics for obstetric and gynecologic disorders and infectious diseases. For each system, topics to be covered include epidemiology and etiology, clinical presentation, investigations, diagnosis, goals of therapy, therapeutic choices, treatment algorithms (including clinical practice guidelines), dosing and pharmacoeconomic considerations. Students will also become familiar with relevant patient management issues. These topics will complement content taught in the balance of integrated courses.

Prerequisite:

PHAR 480

### **PHAR 485 Pediatrics/Geriatrics**

#### **Credit Hours: 1**

Pediatrics/Geriatrics is a course designed to introduce pharmacy students to general considerations pertaining to two special patient populations. The course is designed to complement and expand on content previously introduced in other courses. Topics covered include medical and drug-related issues that affect early and late age groups, including the pharmacological aspects of pediatric development and the aging process. Challenges in the delivery of pharmaceutical care to these groups will be discussed.

### **PHAR 488 Pharmacogenomics and Precision Medicine**

#### **Credit Hours: 3**

This course will address the emerging fields of pharmacogenomics and personalized 'precision' medicine. Pharmacogenomics and molecular medicine are creating opportunities for patient-specific treatments and health care. It will provide students with the opportunity to understand the field of genomics and the medical, social, ethical, and legal issues associated with the availability of personal genomic information. The format of the course will be a series of lectures, student presentations, in class discussion and a site visit to the Genetics Core Unit

Prerequisite:

PHAR 317 AND PHAR 405

### **PHAR 490 Integrated Case-Based Learning III**

#### **Credit Hours: 2**

Integrated Case-based Learning III (PHAR490) is the third in a series of five (PHAR390, PHAR391, PHAR490, PHAR491, PHAR590) courses and involves case studies and other activities aimed at integrating scientific and clinical concepts from across all courses in a problem-based learning environment. Patient case complexity increases across the sequentially delivered courses. For this course, emphasis will be on the comprehensive delivery of pharmaceutical care to patients with cardiovascular, renal, dermatologic, bone and joint disorders. These topics will complement content taught in the balance of integrated courses. Patient and disease management will occur in the context of a virtual health care environment.

Prerequisite:

PHAR 391

### **PHAR 491 Integrated Case-Based Learning IV**

#### **Credit Hours: 2**

Integrated Case-based Learning V (PHAR491) is the fourth in a series of five (PHAR390, PHAR391, PHAR490, PHAR491, PHAR590) courses and involves case studies and other activities aimed at integrating scientific and clinical concepts from across all courses in a problem-based learning environment. Patient case complexity increases across the sequentially delivered courses. For this course, emphasis will be on the comprehensive delivery of pharmaceutical care to patients with cardiovascular, renal, dermatologic, bone and joint disorders. These topics will complement content taught in the balance of integrated courses. Patient and disease management will occur in the context of a virtual health care environment.

Prerequisite:

PHAR 490

### **PHAR 499 Industrial and Regulatory Pharmacy**

#### **Credit Hours: 3**

This course is designed to provide pharmacy students with in-depth understanding of different facets of drug production including research and development, equipment used, manufacturing processes, documentation and associated regulatory aspects. This course will prepare students to apply knowledge in the manufacture and quality control testing of dosage formulations and drug products according to internationally recognized

standards. Coverage includes the science of dosage form design, packaging materials and labelling, production management, quality assurance and control, and regulations in the pharmaceutical industry.

Prerequisite:

PHAR210 AND PHAR310 AND PHAR311

### **PHAR 505 Pharmacy Research, Evaluation and Presentation Skills V (PREP skills V)**

**Credit Hours: 1**

Pharmacy Research, Evaluation and Presentation Skills V (PHAR 505) is fifth of six (PHAR 305, PHAR 306, PHAR 405, PHAR 406, PHAR 505, PHAR 506) courses designed to introduce the students to the detailed aspects of optimizing research design for clinical and basic research. The material presented builds on the content covered in previous non-pharmacy statistics and research design courses. Design strategies for varying types of health care-related research, as well as skills for critical evaluation of research studies and literature will be a primary focus. In addition, oral presentation and debating skills will be developed.

Prerequisite:

PHAR 406

### **PHAR 506 Pharmacy Research, Evaluation and Presentation Skills VI (PREP skills VI)**

**Credit Hours: 1**

Pharmacy Research, Evaluation and Presentation Skills VI (PHAR506) is the sixth and final installment of the 6-course PREP series designed to introduce the students to the detailed aspects of optimizing research design for clinical and basic research. The material presented builds on the content covered in previous PREP courses and non-pharmacy statistics and research design courses. In PHAR506, students will be required to moderate one paper session and submit three pharmacy review articles based on preselected scientific journals. The goal of this course is to enhance scientific writing skills. In addition, peer mentoring and critical evaluation of scientific literature skills will be further developed.

Prerequisite:

PHAR 505

### **PHAR 525 Pharmacoeconomics**

**Credit Hours: 2**

The PHAR525 course starts by providing brief understanding of the approach to resource allocation in relation to health sector. It analyzes the 'market' for health care in terms of efficiency and equity. The bulk of the course then goes to define pharmacoeconomics and to provide an outline for the understanding and application of its concepts at a patient and policy level. It presents various techniques, tools and strategies to evaluate the economic contribution of drug therapies. The course also follows up on some of the contents in courses PHAR231, PHAR305 and PHAR405, regarding pharmacoepidemiology, describing strengths and weaknesses of different epidemiological studies design, including the basic concepts and methods of biostatistics, with a focus on their place in practice as well as the pharmacoeconomics research.



**PHAR 530 Structured Professional Practice Experience III****Credit Hours: 4**

SPEP III (PHAR530) is the third of a series of six (PHAR330, PHAR430, PHAR530, PHAR531, PHAR532, PHAR533) courses designed to provide students with a variety of practice-based opportunities that apply the knowledge and skills gained through campus-based learning. These opportunities will occur in select hospital, community and clinic-based pharmacy practice sites and are structured around a number of formalized activities, each designed to lead to the attainment of specific learning objectives. Select pharmacy practitioners will serve as mentors, role models, trainers and assessors of student learning.

Prerequisite:

PHAR 430

**PHAR 531 Structured Professional Practice Experience IV****Credit Hours: 4**

SPEP IV (PHAR531) is the fourth of a series of six (PHAR330, PHAR430, PHAR530, PHAR531, PHAR532, PHAR533) courses designed to provide students with a variety of practice-based opportunities that apply the knowledge and skills gained through campus-based learning. These opportunities will occur in select hospital, community and clinic-based pharmacy practice sites and are structured around a number of formalized activities, each designed to lead to the attainment of specific learning objectives. Select pharmacy practitioners will serve as mentors, role models, trainers and assessors of student learning.

**PHAR 532 Structured Professional Practice Experience V****Credit Hours: 4**

SPEP V (PHAR532) is the fifth of a series of six (PHAR330, PHAR430, PHAR530, PHAR531, PHAR532, PHAR533) courses designed to provide students with a variety of practice-based opportunities that apply the knowledge and skills gained through campus-based learning. These opportunities will occur in select hospital, community and clinic-based pharmacy practice sites and are structured around a number of formalized activities, each designed to lead to the attainment of specific learning objectives. Select pharmacy practitioners will serve as mentors, role models, trainers and assessors of student learning.

**PHAR 533 Structured Professional Practice Experience VI****Credit Hours: 4**

SPEP VI (PHAR533) is the sixth of a series of six (PHAR330, PHAR430, PHAR530, PHAR531, PHAR532, PHAR533) courses designed to provide students with a variety of practice-based opportunities that apply the knowledge and skills gained through campus-based learning. These opportunities will occur in select hospital, community and clinic-based pharmacy practice sites and are structured around a number of formalized activities, each designed to lead to the attainment of specific learning objectives. Select pharmacy practitioners will serve as mentors, role models, trainers and assessors of student learning.

**PHAR 535 Pharmacy Leadership Management, and Marketing****Credit Hours: 2**

The Pharmacy Management course aims to provide comprehensive management overview in terms of concepts and techniques to students who are entering employment in any capacity within the field of pharmacy. This involves fostering the acquisition of knowledge and skills required to excel in the areas of entrepreneurship, resource management, business operations, value added services, marketing and risk management. Group discussions with some role models in the field of management will be utilized to enhance learning, facilitate communication, critical thinking, problem solving, and team building skills. The course follows up on some of the contents in courses PHAR450 (Health Care Delivery System) regarding pharmacy administration while giving more focus and details to resource management, risk management and managing value added services.

**PHAR 545 Research in Pharmacy II****Credit Hours: 3**

Pharmacy Elective III (PHAR545) is the third in a series of three successive elective courses for P-3 and P-4 students. In 10AY, PHAR545 will be delivered as a two-part course which will provide the student with an opportunity to enhance their research skills. The first component of PHAR545 will involve the required attendance and participation at the Faculty Research Seminar. The second component will be a research opportunity for students whereby they work in a 2:1 relationship with a full-time faculty member on an assigned directed studies project. The goal of this course is to provide an opportunity for students to further advance their understanding of selected pharmacy topics and to further enhance their research skills. Projects will be variable in focus, with clearly defined and achievable research objectives, study design and activities. Projects will be pre-approved by course coordinators, completed within one semester and will not require external funding. These projects will

**PHAR 590 Integrated Case-Based Learning V****Credit Hours: 2**

Integrated Case-based Learning V (PHAR590) is the final course in a series of five (PHAR390, PHAR391, PHAR490, PHAR491, PHAR590) courses and involves case studies and other activities aimed at integrating scientific and clinical concepts from across all courses in a problem-based learning environment. Patient case complexity increases across the sequentially delivered courses. For this course, emphasis will be on the comprehensive delivery of pharmaceutical care to patients with multiple co-morbidities. In addition, this course will include some didactic lectures on topics which have not yet been addressed in the Pharmacotherapy series. These topics will complement content taught in the balance of integrated courses. Patient and disease management will occur in the context of a virtual health care environment, emphasizing transitioning patients throughout the continuum of care with consideration of the social and economic dimensions of medication management.

Prerequisite:

PHAR 491

**PHIL 100 Logic and Critical Thinking****Credit Hours: 3**

In this course, we will study and practice the basic principles and methods of logic and critical thinking.

**PHIL 110 Introduction to Philosophy****Credit Hours: 3**

This course is an overview to the problems of philosophy throughout ages. It tackles the following topics: Various definitions of philosophy and its methodology – classification of sciences – historical overview of the developing stages in philosophy from the Greek era until now– the relation between science and philosophy – relation between religion and philosophy – Epistemology: possibility of knowledge, its sources and nature – Ontology: nature of being, materialism and spiritualism – Axiology: logic as the study of truth, ethics as the study of morals, and aesthetics as the study of norms of beauty. – The problem of body and mind.

**PHIL 114 Critical Thinking****Credit Hours: 3**

Through this course, students come to learn the required skills that help enhance man's thinking to come to better decision-making and problem solving. The content of this course is as follows: Why & What Critical Thinking is - Vagueness and Ambiguity - Language And Definition - Types of Definitions: Stipulative , Reportive, Synonym and Example Definitions, Avoiding Definition Mistakes - Types of Disagreements: Factual , Verbal, Interpretive and Evaluative - Common Mistakes In Thinking – Reasoning: Patterns Of Deductive Thinking , Inductive Thinking - Modes of Proof: topics for reading and writing to be selected from different disciplines, such as: history, economics, social issues, natural science, and ethics as application of thinking skills.

Prerequisite:

ENGL 202 OR CBT 173 OR IELT 5.5 OR T02 500 OR IBT 061 OR ENGL F073 OR ENGL 004

**PHIL 120 The Principles of Professional Ethics****Credit Hours: 3**

Complex and challenging ethical issues arise in professional life; accordingly, “the professional ethics” course will help professionals and students to explore the ethical responsibilities in their professions and jobs. This course discusses the fundamentals of normative and descriptive ethics and their practical applications for the professions in general. This done through examination of various moral problems, that arise in many fields (such as University life, Business- Medicine-Sciences- Institutions, companies.)

**PHIL 200 Introduction to Ethics****Credit Hours: 3**

In this course, we will study some of the main ethical theories in the history of philosophy, and consider these theories in light of real the ethical problems we face in human life.

**PHIL 210 Islamic Philosophy****Credit Hours: 3**

In this course, we will study some of the major problems and figures in classical Islamic philosophy.

Prerequisite:

PHIL 110

**PHIL 300 Knowledge & Reality****Credit Hours: 3**

In this course, we will study some of the main problems and theories in late modern and contemporary epistemology and metaphysics.

Prerequisite:

PHIL 100 AND PHIL 110

**PHIL 310 Philosophy and Contemporary Life****Credit Hours: 3**

In this course, we will examine the philosophical dimensions of some of the most urgent and controversial issues facing humanity in today's world

Prerequisite:

PHIL 200

**PHIL 320 Asian Values****Credit Hours: 3**

This course will cover the main themes of the major philosophies and religions of the Far East, including Hinduism, Buddhism, Taoism, and Confucianism. Additionally, we will explore some of the ways in which people in today's Far Eastern societies relate to and discuss contemporary global ethical problems.

Prerequisite:

PHIL 110

**PHIL 330 Philosophy of History****Credit Hours: 3**

This course will cover the main problems concerning the nature and limits of historical knowledge, the relation between history and other disciplines, and the existence, nature, and kinds of historical laws, as these are examined in the writings of Ibn Khaldun, Hegel, Marx, and others.

Prerequisite:

PHIL 110

**PHIL 400 Philosophy of Natural and Human Science****Credit Hours: 3**

This course introduces the students to the main problems and ideas in the philosophy of natural and human sciences, such as; the relationship between philosophy and science, logic of science and its philosophy, methodology of testing scientific theories, and the problem of induction, in addition to the problems raised in the human science such as the gap between the natural and human sciences, and the theories of games and rationality in social and human sciences.

Prerequisite:

PHIL 300

**PHIL 410 Special Topics****Credit Hours: 3**

The special topics course will provide in-depth focus on a specific philosophical topic, thinker, or school of thought. The topic of each Special Topics course will be announced each term, and will be designed to engage the student in a wide range of philosophical skills and subject areas, and on problems that are highly relevant to the students' lived circumstances.

Prerequisite:

PHIL 100 AND PHIL 110

**PHYS 101 General Physics I****Credit Hours: 3**

Vectors - motion in one dimension - motion in a plane - Newton's laws - work and energy - potential energy - momentum - rotational motion - dynamics of rotational motion - elasticity - fluid mechanics.

Prerequisite:

MATH 101 AND ( ( ENGL 040 OR ENGL C002 OR APIC 400) AND (ENGL 041 OR ENGL R002 OR APRS 100) AND (ENGL 042 OR ENGL W002 OR APWS 225) ) OR ( ACCUPLACER Integrated Core minimum score of 400 (APIC 400) AND ESL Reading Skills minimum score of 100 (APRS 100) AND ESL Language Use minimum score of 100 )  
OR TOEFL 500 OR TOEFL IBT 061 OR TOEFL CBT 173 OR IELTS 5.5 OR ENGL 004 OR ENGL 111 OR ENGL 250 OR ENGL 201 OR ENGL 202)

**PHYS 102 General Physics II****Credit Hours: 3**

Periodic motion - mechanical waves - superposition of waves - sound- heat and temperature - quantity of heat - mechanism of heat transfer- thermal properties of matter - the first law of thermodynamics- the second law of thermodynamics - the nature and propagation of light - geometric optics - optical instruments.

Prerequisite:

**PHYS 101****PHYS 103 General Physics Lab****Credit Hours: 1**

This is the Lab course covering the subject matter of PHYS101, and PHYS102 and designed to be taken concurrently with PHYS102. The course presents an introduction to the methods of experimental physics. Emphasis is placed on developing students' skills in experimental techniques, data analysis, and scientific reporting of lab work. During the course, students will execute a series of experiments on Kinematics of motion, Kinetic and potential energy, Oscillatory motion, Thermal properties of matter, and Viscosity. The course includes computer-based experiments in Classical Mechanics

Prerequisite:

PHYS 102 Concur.

**PHYS 110 General Physics For Biology****Credit Hours: 3**

This course is designed primarily to be appropriate for students planning to major in Nutrition, Pharmacy, and Biological and Environmental sciences. It is algebra- and trigonometry-based study of some selected topics drawn from classical and modern Physics, with an emphasis on applications to the course-targeted specialty areas. Topics studied include Classical description of motion in terms of force and energy, States of matter, Elasticity and elastic modulus, Basic of Fluid mechanics, Thermal properties of matter, Electrostatics, Electrodynamics, Elements of Electric Circuits, Electricity and the human body, Sound and light, Optical instruments, and Radiation and Radiation protection.

**PHYS 111 Practical Physics For Biology****Credit Hours: 1**

This is the Lab-based course to supplement the lecture material of PHYS 110. The course presents an introduction to the methods of experimental physics. Emphasis is on developing student's skills in experimental techniques, data analysis, and scientific reporting of lab work. During the course, students execute a series of experiments on Dynamics of motion, Oscillatory motion, Thermal properties of matter, geometrical optics, Viscosity, Spectroscopy, and Radioactivity. The course includes computer-based experiments in Classical Mechanics.

Prerequisite:

PHYS 110 Concur.

**PHYS 115 Electricity and Magnetism****Credit Hours: 3**

This is the second course in the two-semester sequence of calculus-based introductory physics courses designed to meet the needs of student majoring in Engineering. The course is a continuation of the survey of the concepts and principles of classical Physics presented in PHYS191. Topics that will be studied include electrostatics, electric charge and electric field, Coulomb's law, electric potentials, capacitance and dielectric, currents,

resistance, Ohm's law, electromotive force, direct current circuits, magnetism, magnetic field and magnetic forces, sources of magnetic field, Biot-Savart law, and Ampere's law, induction, Faraday's law, Maxwell's equations, and electromagnetic radiation.

Prerequisite:

PHYS 101 AND PHYS 120 AND MATH 102

### **PHYS 116 Electricity and Magnetism Lab**

**Credit Hours: 1**

This is the Lab course covering the subject matter of PHYS 115. The course presents an introduction to the methods of experimental physics. Emphasis is on experimental, data analysis, and written presentation skills of lab work. During the course students execute a series of experiments on electrostatic fields, Magnetic fields, Induction, DC circuits, and AC circuits.

Prerequisite:

PHYS 115

### **PHYS 120 General Physics Lab I**

**Credit Hours: 1**

This course is the first of two general physics laboratory courses. It treats the subjects of classical mechanics covered in the PHYS191 lectures. This laboratory course gives an introduction to the methods employed in experimental physics. This involves data taking, data analysis, error analysis, and scientific reporting of the results. Several different experiments will be conducted.

Prerequisite:

PHYS 101

### **PHYS 183 Introduction to General Physics**

**Credit Hours: 3**

This course aims to investigate physical principles encountered in elementary schools. It is algebra and trigonometry-based and covers essential topics from classical and modern Physics, with emphasis on experimental laboratory work. Topics include: Measurements and Units, Classical description of motion in terms of force and energy, States of matter, Elasticity and elastic modulus, Heat and Thermal properties of matter, Electrostatics, Electrodynamics, Elements of Electric Circuits, Magnetostatics, Magnetic effects of electric current, Electromagnetic Induction, Wave Motion, Sound and light, Optics, and Atomic Structure of Matter.

Prerequisite:

(( ENGL 040 OR ENGL C002 OR Total for Integrated Core 400) AND (ENGL 041 OR ENGL R002 OR ESL Reading Skills 100) AND (ENGL 042 OR ENGL W002 OR APL for Writing Workshop 225) ) OR ( Total for Integrated Core 400 AND ESL Reading Skills 100 AND ESL Language Use 100) OR TOEFL\_Inst Testing Prog 500 OR TOEFL Internet-based Test 061 OR TOEFL Computer-based Test 173 OR Int Eng



Lang Test Syst-IELTS 5.5 OR ENGL 004 OR ENGL 111 OR ENGL 250 OR ENGL 201 OR ENGL 202

### **PHYS 191 General Phys I -Engineering**

#### **Credit Hours: 3**

- Physics and Measurements: Units and Physical Quantities- Vectors- Motion in One Dimension- Motion in Two Dimension- Horizontal Motion- Vertical Motion- Projectile Motion- Kinematic Equations.
- The Laws of Motion: Newton's First Law- Newton's Second Law- Some Applications of Newton's Laws- Circular Motion and its Application.
- Work and Energy: Kinetic Energy- Work Done by Constant Force- Work Energy Theorem- Potential Energy- Conservation of Energy- Quantization of Energy.
- Linear Momentum and Collision: Linear Momentum- Impulse of Momentum- Collisions- Elastic and Inelastic Collision- The Center of Mass- Motion of a System of Particles.
- Rotational Motion: Angular Position, Velocity and Acceleration- Rotational Kinematic Motion Equations- Angular and Linear Quantities- Rotational Kinetic Energy- Calculations of Moments of Inertia- Torque- Work, Power and Energy in Rotational Motion- Rolling Motion of a Rig

Prerequisite:

MATH 101

### **PHYS 192 General Physics for Engineering Laboratory I**

#### **Credit Hours: 1**

This is the Lab-based course covering the subject matter of PHYS 191. The course presents an introduction to the methods of experimental physics. Emphasis is on developing student's skills in experimental techniques, data analysis, and scientific reporting of lab work. During the course students execute a series of experiments on Kinematics of motion, kinetic and potential energy, Oscillatory motion, Thermal properties of matter, and Viscosity. The course includes computer-based experiments Classical Mechanics.

Prerequisite:

PHYS 191 Concur.

### **PHYS 193 General Physics for Engineering II**

#### **Credit Hours: 3**

Electrostatics: Electric charges, atomic structure, charging and induction, Coulomb's law, the electric field and lines of force, Gauss's law, potential and potential energy, capacitors, stored energy in capacitors. The Electric Current: Resistors, electromotive force. Magnetic Properties of Matter: Magnetic material, molecular theory of magnetism, magnetization and magnetic intensity, ferromagnetic, hysteresis. Magnetic Fields and Magnetic Forces: Magnetism and magnetic fields, magnetic flux, motion of charged particles in magnetic fields, force on a conductor, torques on current loops, Biot-Savart law, force between parallel conductors, Ampere's law, motional electromotive force, Faraday's law, Lenz's law, self and mutual inductance, energy associated with inductors. Light: Nature of light, sources of light, light waves and their speed, the laws of reflection and refraction of light, absorption and illumination. Wave Phenomena: Interference, diffraction, polarization of

light.

Prerequisite:

(PHYS 191 OR PHYS 103) AND (PHYS 192 OR PHYS 101 ) OR PHYS 181 OR PHYS 180

### **PHYS 194 Experimental General Physics for Engineering II**

**Credit Hours: 1**

This is the Lab course covering the subject matter of PHYS 193. The course presents an introduction to the methods of experimental physics. Emphasis is on experimental, data analysis, and written presentation skills of lab work. During the course students execute a series of experiments on electrostatic fields, Magnetic fields, Induction, DC circuits, and AC circuits.

Prerequisite:

PHYS 193 Concur. AND PHYS 191 AND PHYS 192

### **PHYS 201 Renewable Energy**

**Credit Hours: 2**

Electric charge and electric field: Coulomb's law and Gauss's law. Electric potential - capacitance and dielectric - current - resistance - electromotive force - direct current circuits. Magnetic field and magnetic forces - sources of magnetic field: the force between parallel conductors - Amper's law and its applications - electromagnetic induction: Faraday's law, Lenz's law, Maxwell's equations - inductance - alternating current: L-R-C series and parallel circuits, resonance circuits, filters, transformers

Prerequisite:

PHYS 102 AND PHYS 103

### **PHYS 219 Electronics 1**

**Credit Hours: 2**

Field effect transistors: JFET and MOSFET construction as well as characteristics - Field effect transistor applications - thyristors: the four layer diode, silicon controlled rectifier, unijunction transistor - frequency effects: frequency response of an amplifier, cutoff frequencies- operational amplifier: theory, negative feedback - operational amplifier circuits and applications: linear circuits, non-linear circuits - oscillators: relaxation oscillator, quartz crystals oscillator- regulated power supplies - communication circuits.

Prerequisite:

PHYS 116

### **PHYS 223 Electronics Lab 1**

**Credit Hours: 1**

It treats the subjects of electronics covered in the PHYS 219 lectures. This laboratory course gives experience with experiments related to the electronics elements such as diodes and transistors, and it explore the results

from of the fundamental circuits.

Prerequisite:

PHYS 219

### **PHYS 229 Introductory Modern Physics**

#### **Credit Hours: 3**

The course covers basics of quantum mechanics and its origin, Schrödinger equation, quantum structure of atoms, dual nature of light, Heisenberg uncertainty principle, hydrogen atom, and special relativity.

Prerequisite:

PHYS 115

### **PHYS 230 Introductory Modern Physics Lab**

#### **Credit Hours: 1**

It treats the subjects of modern physics covered in the PHYS 229 course. This laboratory course gives experience on practical modern physics subjects which are challenging at different levels of knowledge.

Prerequisite:

PHYS 229

### **PHYS 251 Vibrations and Waves**

#### **Credit Hours: 2**

This course deals with vibrations and waves in mechanical as well as electromagnetic systems. It includes free and forced vibrations, wave propagation, wave resonance, and discrete and continuous modes of systems.

Prerequisite:

PHYS 116

### **PHYS 258 Thermodynamics and Statistical Physics**

#### **Credit Hours: 3**

Explore both first as well as second law of thermodynamics. The Boltzman distribution with some applications. thermodynamic potentials - special equilibrium conditions. Maxwell's relations - the third law of thermodynamics. Phase equilibrium. Heat capacity of solids - perfect classical gas.

Prerequisite:

PHYS 116 AND MATH 211

**PHYS 260 Thermodynamics and Statistical Physics Lab****Credit Hours: 1**

The students will test experimentally the subjects of heat and thermal physics covered in the theoretical course. The laboratory course gives experience with experiments in thermal properties of materials, heat transfer concepts and understanding the thermodynamics laws.

Prerequisite:

PHYS 258

**PHYS 301 Electromagnetic Theory****Credit Hours: 3**

This course covers the following topics: Electrostatics - direct current in electric circuits - dielectrics - magnetic fields - magnetic materials – alternating currents - Maxwell's equations - electromagnetic waves.

Prerequisite:

PHYS 303 AND PHYS 115

**PHYS 303 Mathematical Methods of Physics****Credit Hours: 3**

The course include the main frame of mathematical treatment needed for the advanced physics courses of the level of 3rd and 4th years. It also includes ordinary differential equations as well as partial differential equations. It discuss the following special equations Legendre, Bessel, and Legendre polynomials as well as the special functions of Bessel, Laplace, Poisson, and wave equation.

Prerequisite:

MATH 211

**PHYS 322 Advanced Electronics****Credit Hours: 2**

The course covers digital electronic systems including signals and switches. It covers basic principles of logic gates (such as and, or, and nor gates), reduction techniques, and programmable logic devices. It includes arithmetic circuits and operations, multiplexers, code converters, flip-flops, and digital logic and its characteristics. It covers examples of digital design and counter circuits

Prerequisite:

PHYS 223

**PHYS 324 Advanced Electronics II Lab****Credit Hours: 2**

This is the lab of digital electronics course. The lab covers experiments on digital electronic systems. The experiments cover logic gates, programmable logic devices. Experiments on arithmetic circuits and operations, multiplexers, code converters, flip-flops, and digital logic, and counter circuits.

Prerequisite:

PHYS 322

### **PHYS 331 Classical Mechanics**

**Credit Hours: 3**

This course covers the following topics: Motion in non-inertial frame of reference - calculus of variations - Lagrangian method - Hamilton's principle - generalized coordinates - the dynamics of a rigid body - theory of small oscillations.

Prerequisite:

PHYS 303 AND PHYS 101

### **PHYS 333 Quantum Mechanics I**

**Credit Hours: 3**

This course covers the following topics: Postulates of quantum mechanics - the operator - the eigenvalue value - the eigenvalue equation - the harmonic oscillator - Schrodinger's equation in three dimension: the hydrogen atom, the angular momentum, the spin and the 1/2 spin particles.

Prerequisite:

PHYS 303 AND PHYS 229

### **PHYS 341 Solid State Physics I**

**Credit Hours: 2**

This course covers the following topics: Crystal structure and bonding - diffraction methods - defects in materials- lattice vibrations in solid - free electron model - band theory - physical properties: mechanism of electrical and thermal conduction.

Prerequisite:

PHYS 229 AND PHYS 230

### **PHYS 353 Introductory Nuclear Physics**

**Credit Hours: 3**

General properties of nuclei and binding energy - properties of nuclear forces and nuclear stability - radioactivity as well as radioactive decay - successive radio active transformations as well as equilibrium - different modes of decay - natural radioactive decay series - interaction between ionizing radiation and matter - detectors of radiation - introductory to elementary particle and high energy physics.

Prerequisite:

PHYS 230 AND PHYS 229

**PHYS 354 Introductory Nuclear Physics Lab****Credit Hours: 1**

It treats the subjects of nuclear physics (1) covered in the PHYS 351 lectures. This laboratory course gives experience with some experiments related to radiation detection and properties.

Prerequisite:

PHYS 353

**PHYS 361 Properties of Matter****Credit Hours: 3**

This course presents the main description of techniques essential for materials' characterization to explain their physical properties, mainly, non-destructive methods. Different microstructures production and treatment techniques will be given. Microstructure investigations different techniques will be explained. Theory behind mechanical tests will be discussed.

Prerequisite:

PHYS 341

**PHYS 375 Optics****Credit Hours: 2**

This course covers the following topics: Wave phenomena - electromagnetic wave propagation - radiation - coherence - interference - diffraction - polarization and scattering.

Prerequisite:

PHYS 251

**PHYS 378 Computational Physics****Credit Hours: 2**

This course presents the main concepts of numerical analysis. The course includes modelling mathematically physical systems, numerical algorithms, numerical methods and their applications to mathematical models, using computer to simulate physical systems, Monte-Carlo simulation and its applications.

Prerequisite:

PHYS 303 AND MATH 285

**PHYS 376 Optics Lab****Credit Hours: 1**

Basic experiments of optics containing Geometrical and Physical Optics. The first part (Geometrical) includes experiments on Refraction at Single Spherical or Plane Surfaces, Thin Lenses, Thin Prisms, and Mirrors. The second part (Physical) includes experiments on Reflection, Refraction, Dispersion, Interference and Diffraction, Polarization, and Michelson Interferometer.

Prerequisite:

PHYS 375

### **PHYS 440 Solid State Physics II**

**Credit Hours: 2**

This course covers the following topics: Thermal properties of materials, thermal analysis techniques and the evaluation of thermodynamic function and magnetism, diamagnetic susceptibility, paramagnetism, ferromagnetic state, dielectric properties of solid, atomic polarizability and macroscopic polarization, dielectric constant, a. c conductivity, optical properties of solids, absorption, transmission of UV in solids, IR spectroscopy, optical constants of materials, ferromagnetic materials and phase transition, phase transition (Landau theory), transitions of the first and second orders, piezoelectric, and pyro-electric materials.

Prerequisite:

PHYS 341

### **PHYS 442 Solid State Physics II Lab**

**Credit Hours: 1**

This laboratory includes experimental work on x-ray crystallography, electrical resistivity, Hall Effect and magnetoresistance, photoconductivity, magnetism, electron paramagnetic resonance, superconductivity, liquid crystals, liquid helium, and Mossbauer Effect.

Prerequisite:

PHYS 341

### **PHYS 445 Semiconductors**

**Credit Hours: 3**

This course covers the following topics: Elemental and compound semiconductors. Crystal structures. Doping. Electrons in Semiconductors; free electrons, electron and hole effective masses. Carriers Concentrations; Intrinsic and Extrinsic semiconductors. Conduction in Semiconductors; mobility, Hall effect and magnetoresistivity, electrical measurements. Optical Properties of Semiconductors; optical properties and constants, phonon absorption, shallow donors and acceptors, band-gap absorption, excitons, free carrier absorption, cyclotron resonance. Solid State Electronics; inhomogeneous semiconductors, diffusion currents and diffusion length, p-n junction in equilibrium, biased p-n junction, applications of p-n junctions. Growth and Doping of Semiconductors; growth of bulk crystals, epitaxial growth, diffusion doping of semiconductors, ion implantation. Heterostructures and Nanoelectronics.

Prerequisite:

PHYS 341



**PHYS 452 Advanced Nuclear Physics****Credit Hours: 2**

Nuclear models: the liquid drop model, the shell model, vibrational and rotational model, nuclear reactions including fission and fusion, neutron physics, and accelerators.

Prerequisite:

PHYS 354

**PHYS 453 Advanced Nuclear Physics Lab****Credit Hours: 1**

This course covers the following topics: Nuclear electronic devices and electronic signals. Gamma-ray spectroscopy using NaI (TI) detector; spectra analysis, energy calibration, energy resolution, activity of radioactive sources. Absorption of radiation and mass absorption coefficient. Alpha spectroscopy using surface barrier detector. Time coincidence technique.

Prerequisite:

PHYS 452

**PHYS 456 Radiation Physics****Credit Hours: 3**

This course covers the following topics: Kinds of radiation and the need of measurements - conventional sources of radiation and the manufacture of radio-isotopes - exposure to natural radiation - radiation arising from technological civilization- radiation quantities and units - protection from various radiation sources - uses of radiation in various fields - organ doses in prescribed X-ray - radiographic images (AP-LAT-mammography - computed tomography) - biological effects of radiation - radiation detectors used in personal dose determination - descriptive terminology of radon as a health hazard to human - different techniques used in radon measurements.

Prerequisite:

PHYS 354

**PHYS 462 Statistical Mechanics****Credit Hours: 2**

This course relates the behaviour of the microstructure to the bulk properties. It introduces terminologies like phase space in which one can find an observable as an ensemble average. Accordingly, it covers topics like the kinetic theory of an ideal gas, canonical and micro canonical ensembles as well as Boltzmann distribution.

Prerequisite:

PHYS 333

**PHYS 475 Laser Physics and Its Applications****Credit Hours: 3**

Laser fundamentals including laser systems: gas, semiconductor, liquid dye, solid state, and free electron. Laser beam properties including: line-width, divergence, brightness, duration of pulsed beams, frequency doubling, and phase conjugation. Laser applications including: range finding, industrial applications, medical applications, information transmission and data storage, laser printing, laser holography, laser safety.

Prerequisite:

PHYS 333

**PHYS 482 Cosmic Rays and Particle Physics****Credit Hours: 3**

This course integrates the nuclear and radiation courses offered to our students by an introduction to related processes exists in cosmology. The course introduces for our Galaxy, the interstellar matter, star formation and planetary systems. It offers the essential information on compact objects, large-scale structures and magnetic fields. Besides, the course stresses concepts related to Astroparticle Physics like the acceleration and propagation of cosmic ray. The techniques of detecting cosmic particles and radiation are also included. The course will also cover the dynamics of high energy particles and magnetic fields in the cosmos. Basics of observation of cosmic rays, astrophysical environment of the Earth and Solar System and sources of energy of cosmic rays are provided.

Prerequisite:

PHYS 333

**PHYS 410 Atomic and Molecular Physics****Credit Hours: 3**

This course covers the fundamental of atomic structure as well as the interaction between fields and atoms. It includes atomic spectra, electronic transitions, excited states, hydrogen as well as multi-electron atomic systems, and lasers. It also explores the bonds among atoms and molecules, degrees of freedom (vibrational, electronic, as well as rotational), theory of elementary group. Experimental methods and techniques applied for Atomic and Molecular Physics.

Prerequisite:

PHYS 230

**PHYS 433 Quantum Mechanics II****Credit Hours: 3**

This course discusses Matrix representation of quantum mechanics, total angular momentum theory, and perturbation methods in quantum mechanics.

Prerequisite:

PHYS 333

**PHYS 493 Special Topics****Credit Hours: 3**

The course covers an advanced subjects with a teaching load of 3 CH.

**PHYS 490 Internship****Credit Hours: 0**

The internship is designed to provide students practical training in the field of concentration.

**PHYS 499 Senior Project****Credit Hours: 0**

This course is intended to apply the achieved physical concepts and skills in previous courses to a particular research problem.

**POPL 100 Introduction to Public Policy and Analysis****Credit Hours: 3**

Public policy incorporates policy formulation, analysis, evaluation and management as well as an understanding of the policy process in order to analyze and implement public policy. Through this course, students develop competence in important analytical tools for the study of public policy. Students learn how to evaluate implications of policies for efficiency and equity, and to employ basic research methods to interpret and present data relevant to policy

considerations. The course also establishes the conceptual foundations and craft skills relevant to policy analysis. Students learn how to define policy problems, determine goals, design policy alternatives, and systematically assess trade-offs to make recommendations

**POPL 200 Ethical Development of Public Policy****Credit Hours: 3**

The course examines major moral controversies in public life and seeks to help students develop the skills required for thinking and writing about the ethical considerations that ought to shape public institutions, guide public authorities, and inform the public's judgments

**POPL 210 Disaster Planning and Crisis Management Fundamentals****Credit Hours: 3**

Disaster-planning focuses on understanding evidence-based best practices for disaster operations and all aspects of disaster resilience. It center on the role leadership plays in guiding disaster operations and policy across all phases of the disaster life cycle from preparedness to response, recovery and future risk reduction. Specific topics covered include organizational theories of disaster management, logistics/supply chain management, decision-analytic frameworks and methods, approaches and issues related to protection of beneficiaries and staff, and advocacy in crisis management settings. Learning objectives focus on developing student competencies in these areas

**POPL 221 International Energy Issues****Credit Hours: 3**

Economic growth requires constantly growing use of energy, the Middle East plays a vital role as exporters of hydrocarbons to the rest of the world. The course will cover: 1) Global energy demand and supply scenarios and the role of the Middle East; 2) The functioning of the global oil market and the potential role of major oil exporters; 3) The resource curse, economic diversification, and the experience of the Gulf countries; 4) Oil, accountability, and conflicts; 5)

The global gas market and the role of Qatar; and 6) Rational use of energy, renewable energy sources, and nuclear energy

### **POPL 228 Introduction to Energy Law and Policy**

#### **Credit Hours: 3**

This course will cover the major types of regulation and market oversight that apply to energy systems. Topics covered will include extraction of oil and gas; siting and regulation of infrastructures; operation and control of the international market for crude oil and products; basic principles of rate regulation and public utilities; regulatory reform in electricity and gas; stranded costs such as nuclear power investments; major environmental regulations that apply to the energy sector and the implications of new climate change and renewable energy mandates for the electric power sector. Most of the course will be empirical, but attention will be given to major theories of market failure as well as theories from political economy that explain when, why, and how governments regulate energy systems, as well as how energy issues are entangled in deeper social and environmental contexts

### **POPL 229 Public Finance**

#### **Credit Hours: 3**

This course provides a wide treatment in the introduction to the economic analysis of public policy issues. The course deals with microeconomic theory, and the use of analytical tools in their application to key policy case studies of spending, taxing and financing activities of government. Focus is given to new developments in public economics such as behavioral public economics and policy innovations

Prerequisite:

MATH 119

### **POPL 230 Climate Change Policy Analysis**

#### **Credit Hours: 3**

This course analyses current policy options for mitigating and adapting to long-term climate change. The course will examine various policy approaches including the regulatory approach and the market-based approaches, with a particular emphasis on cap-and-trade and carbon taxation. Various models for designing a cap-and-trade system will be studied, including the European experience and regional programs in the United States. Special attention will be paid to methods for setting initial prices and accounting for discounts. The course will focus primarily on national level carbon management policies, but international agreements will also be included, as well as equity considerations on a global level

**POPL 232 Energy & Environmental Economics****Credit Hours: 3**

There is currently a strong need for high-quality policy development in the economics of energy production and consumption and Environment. Government leaders operating in these domains need scientific data to make informed decisions, especially from an economic point of view. The goal of this course is to improve knowledge on specific global energy issues and Environment from an economic perspective to improve the information available to decision makers in this field

**POPL 241 Community-Based Policy Development and Analysis****Credit Hours: 3**

The course has two primary learning objectives. First, it examines the moving parts of the policy process at the community level, including the primary actors and institutions involved in each stage of the policy making process, as well as the core theories and concepts for understanding these stages, which include: agenda-setting, policy formulation, policy adoption, and implementation. Second, the course will provide the necessary tools for students to successfully negotiate the policy process. In particular, students will develop the communication skills and strategies to participate in the policy process through a combination of writing and oral presentation assignments. Course topics will be explored through reading and discussion of both scholarly work and case studies

**POPL 242 Law and Public Policy****Credit Hours: 3**

This course addresses legal systems and criminal justice policy. Emphasis is on the examination of media and political forces that shape criminal justice responses and policy initiatives. In the context of theoretical paradigms, the impact of race, class, economics, and gender on development of criminal justice, legal systems and public policy is examined.

**POPL 245 Introduction to the Theory and Practice of Urban Planning****Credit Hours: 3**

Within this course, analysis and discussion are devoted to planning models, planning decisions, and alternative planning roles. Students will focus their studies on comprehensive and strategic planning, community participation, new urbanism concepts, equity concerns, and planning at local, regional, and state levels

**POPL 285 Impact Assessment Studies****Credit Hours: 3**

This course will explore the key elements and analytic techniques used in impact assessment from an urban planning perspective. It will investigate how application of urban planning impact assessment affects project outcomes. Students will be introduced to the requirements of laws as well as standard methodologies for conducting assessments. Case studies will be used to illustrate the effect of the impact assessment on design and implementation of projects or governmental actions. Practical assignments will give students an introduction to the state of practice and the range of analytic techniques used in impact assessment

**POPL 300 Principles and Tools for Evidence-Based Policy Decision Making****Credit Hours: 3**

This course introduces students to the evaluation of social programs for policy-based decisionmaking. Focus is on the principles for the development of impact evaluations; the assessment of whether the program was implemented as planned; the quality of the program's services; the relationship among the program operation rules, the evaluation design, and potential ethical challenges; the examination of the benefits and costs of changes; and the influence of impact evaluations in public policies

**POPL 320 Energy Risk Management****Credit Hours: 3**

This course provides an overview of key issues related to energy risk management. Some of the key topics to be addressed are: managing pricing risks associated with changing market conditions and deregulation; tools used to manage volatility, including futures and options for energy risk management; environmental risk management, and risk financing for the energy sector

Prerequisite:

POPL 228

**POPL 321 Energy: Science, Technology, and Human Usage****Credit Hours: 3**

This course covers the technologies by which humans appropriate energy for industrial and societal use. The course also covers the physics and economics of the resulting human energy system; fuel sources and relationship to energy flows in the Earth system; and modeling and simulation of energy production and use. The goal is to provide a technical foundation for students interested in careers in the energy industry or in energy policy

**POPL 325 International Law & Security****Credit Hours: 3**

This course will examine the key principles in international law and apply them to contemporary international security challenges. The role of states and non-state actors and how they operate with international law in their responses to global security threats will be examined through a case study approach issues such as the use of force, human rights, terrorism, environmental threats, and drug trafficking will be examined

**POPL 330 International Environmental Climate Change Politics and Policy****Credit Hours: 3**

This course focuses on the international frameworks for responding to climate change. It includes a review of the history of international responses to climate change, highlights the negotiations—what is agreed, what is outstanding, and where the fault lines exist—and then examines efforts at integrating climate change into various international institutions. The course includes an examination of how climate change is likely to affect the ability of countries to fulfill their international commitments under other agreements. The course also examines the role of a range of international organizations such as the World Trade Organization, the World

Intellectual Property Organization, the UN Security Council, and the UN High Commissioner for Refugees

Prerequisite:

POPL 230

### **POPL 335 Science, Technology & Policy**

**Credit Hours: 3**

This course will provide students an introduction to several aspects of science and technology related policies including briefings on: (a) cyber security, nuclear policy and bio-ethics; (b) institutions funding and effecting science policies; and (c) some of the fundamentals of science that influence policy. The course provides framework for discussion on the basis, challenges, and limitations of policies that promote and guide scientific inquiry and applications

### **POPL 340 Organizational Behavior and Management in Public Service Agencies**

**Credit Hours: 3**

The course covers the following topics: organization structure and bureaucracy, management issues and processes, managerial psychology, managing diversity, leadership, strategic planning, interorganizational relations, administrative law, human resource management, labor relations, personnel administration, performance measurement, program evaluation, information management, and ethics of public service. Each section of the course uses a different aspect of Public Policy or public management to emphasize these topics. The objectives of the course are achieved by using case studies, simulation exercises, class visitors, and practical exercises that complement the assigned readings and class discussions

### **POPL 345 Diversity & Community Development**

**Credit Hours: 3**

Faced with the challenge of meeting the needs of diverse communities, managers in local governments must develop innovative, cost effective ways to deliver public services. This course focuses upon topics such as economic growth and personal wellbeing; economic inequality and poverty; intra household resource allocation and gender inequality; population change, credit markets and microfinance; labor markets and trade policy.

Prerequisite:

POPL 100

### **POPL 350 Housing & Community Development**

**Credit Hours: 3**

This course offers an intensive analysis of the major public policy issues and methodological problems encountered in the production, financial, and consumption sectors of housing program design at the national, regional, and local levels. Students develop various analytical skills that will assist them in the evaluation of policy-making processes and in the development of appropriate strategies for housing program effectuation from an urban growth management perspective. Students also will examine and evaluate current housing issues in the context of the rapid urbanization, with an emphasis on the issues of: housing inventories, residential location, residential financing, household movement, housing densities, design types, specific public housing



policies, and the social, economic, and political aspects of housing for minority groups. The future of housing and housing research needs are stressed

### **POPL 353 Transportation and Transit-Oriented Development**

#### **Credit Hours: 3**

This course focuses on integrating land use, transportation, and environmental planning. Readings provide students with a comprehensive overview of the economic, social, and regulatory forces that influence land use and transportation investments in urban regions. As both regional and global environmental issues are beginning to influence the long-range planning of metropolitan areas worldwide, the course will consider the role of emerging transportation and telecommunications technologies in the development of a sustainable model for urban growth. Particular attention will be focused on the implications of urban air pollution, water quality and availability, and climate change for regional land use and transportation planning

Prerequisite:

POPL 245

### **POPL 375 Urban Sustainability**

#### **Credit Hours: 3**

This course involves a reappraisal of urban development, as well as environmental, socio-economic policies against an examination of the role of cities in global environmental change. The role of cities are examined regarding how they play in to the larger question of sustainability and also in the preservation of heritage. Moreover, the course provides subtends with an understanding of the different theories regarding sustainability in an urban environment and how they have evolved.

### **POPL 385 Special Topics I**

#### **Credit Hours: 3**

Selected topics that meet student interests and reflect trends in the field of policy planning and development.

### **POPL 386 Special Topic II**

#### **Credit Hours: 3**

Selected topics that meet student interests and reflect trends in the field of policy planning and development.

### **POPL 387 Energy Conservation**

#### **Credit Hours: 3**

This course provides an examination of how governments provide clean, safe, environmentally sustainable energy supplies. In addition, the courses examines them through the perspective of sustainability and how they might be used much more efficiently. Students will examine and investigate various renewable-energy sources

**POPL 392 Post-Disaster Recovery and Planning****Credit Hours: 3**

This course examines reconstruction policy planning in areas, countries or regions that have experienced crises or disasters. The course also examines reconstruction area characterized by weak governance and infrastructure. This course is applied through a case study approach.

**POPL 400 Public Leadership and Policy Development****Credit Hours: 3**

This course will consider the ethical, legal, and operational frameworks for effective, responsible public leadership. Students will review relevant literature from history, politics, organizational theory, and human resource management; discuss the central policy issues in each case; and evaluate the decision-making processes exemplified by the leaders in each case. Students also will consider fundamental leadership questions, such as: What do leaders actually do? What kinds of traits are important for successful leadership? How do followers influence the behavior of leaders? And what impact does exercising power have on your personality? The course draws from classical political theory, current leadership literature, and case studies of decision-making

**POPL 420 Energy & Global Security****Credit Hours: 3**

This course prepares students for rigorous, policy-relevant research of the major threats to international and national security in the 21st century and the relevant forces that will confront those threats. Topics of study will include terrorism; proliferation of weapons of mass destruction; rapid shifts in regional and global distributions of capabilities; insurgency, civil war, and regional political instability; military force composition and capability; civil-military relations; and new innovations in military technologies

Prerequisite:

POPL 221

**POPL 431 Economic Policy Approaches to Sustainability****Credit Hours: 3**

This course analyses current policy options for addressing sustainable development from an economic perspective. The focus of the course is on understanding the two main alternatives for a comprehensive market based environmental policy: cap-and-trade and carbon taxation. These policies will be compared to each other and to regulatory approaches, and the various design details necessary to implement such a system will be discussed. The course will also analyze existing policies in the transportation, agricultural, and energy sectors

**POPL 432 Sustainability Planning and Protection of Cultural Resources****Credit Hours: 3**

The course links together theoretical debates about sustainability and the protection of cultural resources with the practical dimensions of environmental policy formulation and its implementation. The planning system is taken as a reference point because it provides one of the most sophisticated mechanisms for regulating environmental change. Students gain an insight into problem definition and the application of leading-edge

solutions to those problems by business, government, and regulatory bodies

Prerequisite:

POPL 200

### **POPL 439 Environmental Impact Assessment**

#### **Credit Hours: 3**

This course seeks to introduce students to environmental impact assessment. Particular attention will be given to the concepts used in understanding how to interpret relevant laws and regulations in this regard. The course will adopt a case study approach through and will offer students a project-based assessment where an environmental impact assessment is developed

### **POPL 450 Urban & Regional Economics**

#### **Credit Hours: 3**

Urban economics is the study of cities, of the economic activities therein, and of the determinants of those activities. This course studies the main economic forces that lead to the emergence of cities and regional agglomeration, and the effects on worker productivity, urban amenities, and congestion. Students will discuss the problems in measuring these urban characteristics, the methodologies to do it, as well as the design of optimal urban policy. Students also will study the economic theory and evidence on the internal structure of cities, as well as the policies that can enhance urban living. Finally, the course analyzes the role cities play in aggregate economic development

### **POPL 452 Urban Planning & Development**

#### **Credit Hours: 3**

Planning professionals define, analyse, and solve urban problems on many different scales. The planning process engages businesses, communities, citizen groups and elected officials to define, organize and better understand our physical, natural and social environments. Urban planning aids public administrators in making better decisions about problems related to: land use, transportation, housing, economic development, and appearance and design of communities

Prerequisite:

POPL 353

### **POPL 470 Communication Fundamentals for Leaders in Public Policy**

#### **Credit Hours: 3**

This course provides an overview of major theories, key concepts, application strategies and research methods of communication theories and the interplay among leaders in public policy, the mass media, society, and individual citizens. It covers: 1) both classic communication theories and new approaches as related to multimedia and online communication; 2) the operation, process, and effects of the media and related communication industries; 3) various research methods in mass, interpersonal, organizational and intercultural communication; and 4) the interrelationship among communication, media and society

Prerequisite:

POPL 200

### **POPL 485 Public Policy and Knowledge based Economy**

**Credit Hours: 3**

This course provides a wide treatment in the introduction to the economic analysis of public policy issues. The course deals with microeconomic theory, and the use of analytical tools in their application to key policy case studies of spending, taxing and financing activities of government. Focus is given to new developments in public economics such as behavioral public economics and policy innovations

### **POPL 486 Alternative Energy**

**Credit Hours: 3**

This course will introduce students to the major theoretical frameworks to understand how societies design and implement alternative energy policies. The course will also examine how the energy industry is responding to alternative energies and how they figure in an energy supply matrix. These issues will be illustrated through case studies

### **POPL 488 Public Policy Planning and Analysis**

**Credit Hours: 3**

This course analyzes policy and planning issues through microeconomic theory and statistical methods. Analytic modeling and data manipulation will be applied. This course will encompass needs assessment and market failure analysis, extrapolation and simple forecasting, visual presentation, interpretation of data in addition to indexing and simple risk analysis. These concepts are applied on case studies involving urban and regional policy and planning issues.

### **POPL 490 Internship**

**Credit Hours: 3**

Students will have ongoing opportunities for practical application of policy development theory and professional skills and networks through a required internship, which will provide direct contact with the operating realities of government, multinational institutions, or nongovernmental organizations

### **POPL 499 Capstone**

**Credit Hours: 3**

This Capstone course allows students to explore their workplace interest, produce an original report that meaningfully contributes ideas to their respective workplace area of interest—such as in government and the non-profit sector. This experience opportunity for students to explore their career interests with greater intensity than is possible in a single course. Through development of a report, students demonstrate their experience with design, execution, analysis, and presentation of ideas within their respective chosen profession

Prerequisite:

EDUC 201

**PSYC 201 Fundamentals of Psychology****Credit Hours: 3**

This course is intended for the scientific study of the behavior of the organism that aims to familiarize students to the history, theories and applications of psychology and its various fields of study as well as the research methods that explain the behavior. This course offers a large number of topics including research methods in psychology, statistics, biological bases of behavior, learning, memory, sensation and perception, personality, normal and abnormal behaviors. This course is a step for the specialization in the field of psychology.

**PSYC 203 Health Psychology****Credit Hours: 3**

covers This course various theoretical perspective, models and research it surveys the biological, behavioral and social factors that influence health.

Prerequisite:

PSYC 201

**PSYC 206 Introduction to Social Psychology****Credit Hours: 3**

Social Psychology is the scientific study of the way in which people's thoughts, feelings, and behaviors are influenced by the real or imagined presence of other people. This course will focus on three major categories: (a) thinking about the self and the others, (b) evaluating persons and relationship, and (c) interacting with other people. Thinking about the self. Evaluating persons and relationships involves attitudes, attitude change, prejudice, interpersonal attraction, and close interpersonal power, and groups

Prerequisite:

**PSYC 221 Research Design & Statistics****Credit Hours: 3**

This course is designed to help students understand what research is, how it is conducted, and its place in academic disciplines. It covers descriptive and differential statistics and provides students with valuable statistical procedures and their application to research in psychology. Students will utilize SPSS in their statistical analysis

Prerequisite:

PSYC 201

**PSYC 300 Psychology of Personality****Credit Hours: 3**

This course surveys major contemporary and classical theories of personality. Students will learn various concepts and their interrelations within each theory. Emphasis is placed on understanding how personality influences behavior

Prerequisite:

PSYC 201

### **PSYC 301 Developmental Psychology**

**Credit Hours: 3**

An overview of the psychology of human life span development including intellectual, social, and emotional aspects of the normal individual, with a major emphasis on childhood and adolescent development.

Prerequisite:

PSYC 201

### **PSYC 303 Abnormal Psychology**

**Credit Hours: 3**

In-depth study of classifications, symptoms, and etiology of psychological disorders and behavior pathology

Prerequisite:

PSYC 300

### **PSYC 304 Cognitive Psychology**

**Credit Hours: 3**

An examination of theory and research on attention, memory, language, comprehension, reasoning, problem-solving, and decision-making. Course includes recitation and laboratory

Prerequisite:

PSYC 206

### **PSYC 306 Emotion & Motivation**

**Credit Hours: 3**

This course surveys research findings and theories in the field of motivation and emotion.

Animal and human studies are examined and the interaction between motivation and emotion with a heavy emphasis on their psychological foundations.

Prerequisite:

PSYC 206

### **PSYC 400 Prin.of Cognitive Beha Therapy**

**Credit Hours: 3**

This course provides students with the basic principles of cognitive behavior therapy as an important model of therapeutic intervention.

The course allows students to review and apply the fundamental aspects of cognitive therapy.

Prerequisite:

PSYC 304

**PSYC 401 Psychological Helping Skills**

**Credit Hours: 3**

This course introduces students to basic helping skills used by mental health professionals and explores empirically supported models of the helping and change process. Students are given opportunities to apply the skills learned

Prerequisite:

PSYC 303 AND PSYC 304

**PSYC 402 Counselling Over the Lifespan**

**Credit Hours: 3**

This course covers counseling strategies to enhance human development, strategies based on major findings of developmental theories and research from infancy to late adulthood

Prerequisite:

PSYC 401

**PSYC 403 Psychophysiology**

**Credit Hours: 3**

Examination of the anatomy and physiology of several physiologic systems, the relationships between behavior and physiology, and the importance of individual differences in physiological responses

Prerequisite:

PSYC 301

**PSYC 404 Psychology of family relations**

**Credit Hours: 3**

The course invites students to think about the family unit in terms of its systemic and relational processes. It discusses the reciprocal relationships between family functioning and child development. The course introduces students to types of families and helps them to identify and to distinguish between functional vs. dysfunctional families and family processes. It also introduces family measurement issues in clinical practice and research while remaining sensitive to family variability (ethnic, socioeconomic, structural, and special needs).

Prerequisite:

PSYC 206

**PSYC 405 Practicum**

**Credit Hours: 6**

This 250-clock hour's field practicum placement builds on the competencies and skills student gained during their academic training in Psychology. Students in their field placements will engage in professional activities



and events that will help develop essential Psychology practice skills. The field practicum is educationally directed, coordinated, and monitored for all students. Structured learning opportunities are tailored to allow students to compare their practice experiences, integrate knowledge acquired in the classroom, and expand knowledge beyond the scope of the practicum setting. The practicum is taken concurrently with other psychology course.

Prerequisite:

PSYC 221 and PSYC 400 AND PSYC 401 AND PSYC 403

### **PSYC 406 Capstone**

#### **Credit Hours: 3**

Building on their coursework and mentoring, students take a Capstone Experience in which they apply their knowledge and techniques to everyday psychological challenges facing clients in real-world settings. They may take their field experience with such professionals as counselors, therapists, clinical psychologists, and school psychologists

Prerequisite:

PSYC 221 AND PSYC 405 Concur. AND PSYC 403 AND PSYC 401 AND PSYC 400

### **PSYC 410 Social Psychology**

#### **Credit Hours: 3**

Social Psychology is the scientific study of the way in which people's thoughts, feelings, and behaviors are influenced by the real or imagined presence of other people. This course covers various topics, such as research methods in social psychology, group dynamics, social interaction, attitudes, values, prejudice, socialization process, anti-social/ pro-social behavior, and social power.

### **PUBH 100: Your Health**

#### **Credit Hours: 3**

This course introduces students to key concepts of health using an interdisciplinary approach. It defines health from a holistic perspective that includes physical, mental and social aspects. It also focuses on the role of individual behaviors in maintaining health at different ages, such as dietary behaviors, physical activity, and healthy coping with stress. The course aims to equip students with the necessary skills to make sound health decisions and to assess health claims in various sources, such as the media and social media, allowing them to play a leading role in offering solutions that encourage the adoption of a healthy lifestyle at the individual and community levels.

### **PUBH 101 P H S: Principles and Practice**

#### **Credit Hours: 3**

This course introduces students to the inter-disciplinary field of public health, including its historical development and major concepts and themes, such as the difference between individual and population-based strategies for improving health. The course will also introduce students to the tools of public health, including epidemiologic principles and health policies. The format will include lectures, discussions, and problem-based

learning

### **PUBH 151 Biostatistics for Health Sciences**

#### **Credit Hours: 3**

This introductory course provides students with the foundational knowledge and skills of biostatistics as tools for understanding statistical information presented in published research or needed to conduct research. It demonstrates the link between principles of sound research methods, biostatistics, and epidemiology in the critical appraisal of research. It starts by introducing basic principles of research methods and epidemiology followed by the application of biostatistics as related to health and medical sciences and includes a practical component which introduces students to the basic skills related to the use of statistical software (SPSS) and its application in describing, summarizing, and drawing inferences.

### **PUBH 200 International Health and Global Society**

#### **Credit Hours: 3**

This course examines a range of global health challenges facing countries of different social and economic development levels, as well as the experiences of different countries in dealing with their challenges. Students will learn about the role of major international health organizations and come away with an understanding of the effects of globalization on health

### **PUBH 201 Environmental Health & Disease**

#### **Credit Hours: 3**

This course examines the connections between population health and the physical, biological and chemical environment. Major global environmental health issues will be discussed, including climate change, water availability and quality, and the degradation of natural resources. The course will also address relevant public policies at the national and international levels

### **PUBH 202 Health, Behaviour and Society**

#### **Credit Hours: 3**

This course introduces students to social and behavioral science theories that are relevant to public health. Throughout the course, students will learn to apply those theories to explain how public health problems arise and how they can be successfully addressed. The course will discuss the role of factors such as gender, race/ethnicity and culture on health behaviors and outcomes. The fundamental concepts of inequity and inequality will be addressed

### **PUBH 205 Research Methods for Public Health**

#### **Credit Hours: 3**

This course investigates theories and practices of research in Public Health. Students will learn different research approaches, methods and designs used in addressing public health questions. The course will allow students to apply the different steps necessary for investigating issues relevant to public health with emphasis on instrument design, data collection and analysis

**PUBH 206 Classification of Diseases****Credit Hours: 3**

This course introduces the ICD-9 and ICD-10 classification systems, and demonstrates the importance and the challenges of accurate classifications of diseases as well as how these systems are related to billing and payment

**PUBH 208 Quality of Health Care****Credit Hours: 3**

This course addresses the concept of quality in health care at both the systems level and the level of the clinical setting. At the systems level, the course will discuss population health outcomes vis-à-vis financial investments in health care. At the level of the clinical setting, the course will address implementation, oversight, and management of quality-oriented activities

**PUBH 221 Contemporary Health Issues****Credit Hours: 3**

This course provides students with information about a variety of health issues facing the community today through up-to-date and relevant case studies. Emphasis will be placed on initiatives for health promotion and disease prevention.

**PUBH 222 Found. of Health Education****Credit Hours: 3**

This course introduces students to the principles and evolution of health education. It provides students with skills in the design and implementation of health education programs. Students will discover different technologies that can be used to enhance health education. The course will also emphasize different strategies that could facilitate the success of a health education program

**PUBH 230 Strategic Planning & Marketing****Credit Hours: 3**

This course introduces the basic theories and methods of strategic planning and its function in the context of delivering health services. Through a combination of lectures, group work, and practical projects, students will acquire both knowledge and practical skills in the design and assessment of health-related strategic planning and marketing.

**PUBH 241 Biostatistical Methods for Public Health****Credit Hours: 3**

This course provides a breadth of statistical analysis methods applied to health-related issues. Topics include probability and distributions, quantitative data analysis techniques, statistical inferences, and hypothesis testing. The course will include a lab component using statistical software for data analysis

Prerequisite:

STAT 101

**PUBH 301 Public Health Ethics****Credit Hours: 3**

This course assists students in developing an ethical framework for identifying and analyzing ethical issues that arise in the study and practice of public health. Cooperating faculty may be drawn from philosophy, law, medical ethics, history, political science, public health, economics, education, and communication, as well as medicine and the biological sciences

Prerequisite:

PUBH 101

**PUBH 303 Epidemiology****Credit Hours: 3**

This course will introduce students to foundational concepts, methods and applications of epidemiology. Topics in this course include different types of study design, measures of disease frequency, measures of association, confounding, bias, causation, disease screening, and surveillance. Case studies apply these concepts to a variety of infectious, acute, and chronic health conditions affecting the population

Prerequisite:

PUBH 101 AND PUBH 241 Concur.

**PUBH 305 Air Pollution & Human Health****Credit Hours: 3**

This course covers topics such as toxicologic, controlled, and epidemiologic studies on major air pollutants. Students also will gain an overview of research study methods, lung physiology and pathology, air pollution sources and types, meteorology, sampling methods, controls, and regulations

Prerequisite:

CHEM 101 AND CHEM 103

**PUBH 306 Public Health Systems, Management, and Policy Development****Credit Hours: 3**

Through this course, students will learn about the public systems and their assessment through the lenses of equity, efficiency and effectiveness. Students will also learn about healthcare management and organization, health policy, and healthcare reforms

Prerequisite:

PUBH 101

**PUBH 310 Needs Assessment Methods for Health Education Programs****Credit Hours: 3**

This course will give students knowledge and skills in conducting public health needs assessment in a practical manner, using both primary and secondary data sources

**PUBH 312 Planning for H E P****Credit Hours: 3**

This course is designed to complement PUBH 310 by allowing students to use the findings of needs assessments to plan effective health education programs and interventions

Prerequisite:

PUBH 310

**PUBH 314 Health Education Practicum****Credit Hours: 1**

This course provides students the opportunity to conduct guided practical work and to implement the results of needs assessments and health education planning.

Prerequisite:

PUBH 312

**PUBH 320 Health Communication****Credit Hours: 3**

This course will examine the basic theories of communication and their application to the field of health. Skills in oral and written public health-specific communication will be emphasized. Among other topics, the course will address mass media and how the revolution in information technology has affected health communication

Prerequisite:

PUBH 101

**PUBH 325 Nutritional Epidemiology****Credit Hours: 3**

This course addresses techniques used to evaluate relationships of diet to health and disease in human populations. It also addresses the results of animal and clinical studies that are related to understanding dietary risk or protective factors for disease. Students also will complete advanced diet assessment and engage in basic epidemiologic approaches to health and nutrition

Prerequisite:

PUBH 303 AND NUTR 221

**PUBH 338 Financial Management of Health Care****Credit Hours: 3**

Financial Management teaches critical management and budgeting skills necessary to successfully run programs and organizations. It acquaints students with the purposes, characteristics, processes, and operations of financial management systems. It also develops their capabilities to analyze financial operations, coordinate such operations with relevant health policies and programs, and effectively manage the financial resources of healthcare institutions. Students will engage in an intensive study of the processes involved in conducting financial management and formulating financial policies.

Prerequisite:

MAGT 101

**PUBH 390 Field Experience****Credit Hours: 3**

The field/culminating experience is an internship experience designed to integrate public health theory, knowledge, and skills in a practice setting, which results in a written report that demonstrates problem-solving skills, is overseen by a faculty member, and is designed around a major issue in one of the core disciplines in the degree.

Prerequisite:

PUBH 101 AND PUBH 205

**PUBH 420 Design of Program Evaluation Systems****Credit Hours: 3**

This course provides content in theory, concepts, and methods of program planning and evaluation in the context of health care and community health organizations, and covers fundamental concepts related to designing and implementing health services quality improvement projects. Students also will develop a comprehensive understanding of health outcome measures, including generic health status measures, disease-specific measures, and consumer reports of the quality of care

Prerequisite:

PUBH 101 AND PUBH 205

**PUBH 421 Health Promotion for Women****Credit Hours: 3**

This course focuses upon health concerns for women, recognizing differences among age, socioeconomic, and ethnic groups; synthesis of biological, psychosocial, and cultural influences of such health concerns. Students will engage in analysis and discussion regarding health management interventions to promote overall health and to prevent problems among women across the lifespan.

**PUBH 426 Disease-specific Health Education and Promotion****Credit Hours: 3**

This course provides a theoretical, empirical and practical foundation for prevention science as it relates to the prevention of human social problems. The course also addresses research and evaluation methods, program design strategies, best practices, and policy development, as they relate to the field of prevention

Prerequisite:

PUBH 303

### **PUBH 430 Health Economics**

#### **Credit Hours: 3**

This course covers the fundamentals of health economics issues, including demand, supply and pricing, market structure, medical malpractice, technological change, value of life, role of insurance, and other aspects of uncertainty

Prerequisite:

ECON 111

### **PUBH 439 Public Health Preparedness**

#### **Credit Hours: 3**

This course is designed to prepare students to design and implement emergency response plans. It will discuss domestic and foreign emergencies and disasters and planning for their efficient medical response. Although the course's primary focus will be on human populations, this course will also cover animal issues in the context of zoonotic disease outbreaks, human evacuation planning, and animal epidemics and their impact on public health perception and the safety of the food supply

### **PUBH 499 Capstone**

#### **Credit Hours: 3**

Building on the field experience, the Capstone Project represents the culmination of a major practice or research activity. The Capstone consists of: a formal written manuscript that reflects scholarly research and analysis of a discreet and societally-relevant topic in public health and that will become part of the Public Health Sciences archives; a formal public presentation open to students and faculty; and an oral defense, consisting of questions by the student's committee. The Capstone Project also is consistent with the career goals of the student, and it should be viewed as a culminating display of ability, demonstrating that the graduate is prepared to become a professional in the field of Public Health Science. Accordingly, the Capstone Project is intended to familiarize students with the rigors of preparing articles for publication in professional journals, major policy reports, and in meeting excellence requirements in writing and oral presentation, all of which reflect comp

Prerequisite:

PUBH 303 AND PUBH 390 AND (PUBH 222 OR MAGT 101)



**SOCI 120 Introduction to Sociology****Credit Hours: 3**

This course provides a fundamental introduction to the discipline of sociology. In the broadest terms, sociology is the study of society. More specifically, sociology explores the interactions between social institutions, cultures, groups and individuals. It examines how unequal power relations organize the social world, and how those unequal power relations shape individual lives. It also focuses upon how individuals navigate and negotiate the different social and economic contexts in which they live. To accomplish this task, sociology relies on a variety of established theories and methods. This course will introduce students to those theories and methods. It will also provide students with a critical perspective on the application of those ideas in the examination of real- world problems. This course includes field-based projects.

**SOCI 121 Introduction to Anthropology****Credit Hours: 3**

This course introduces students to the discipline of anthropology. Students will briefly explore the four subfields of anthropology (physical or biological anthropology, linguistic anthropology, archaeology, and sociocultural anthropology). The central focus of this course will be on the last of those subdisciplines. Students will explore the historical development of anthropology, the primary theoretical frameworks it has developed, and the methods anthropologists utilize in the field. Students will also have the opportunity to apply these tools in solving a real-world problem through a field-based project.

**SOCI 200 Sustainable Development****Credit Hours: 3**

This course will examine the historical development of the concept of sustainable development, differing interpretations of the concept, empirical indicators of sustainability in environmental sociology, and policy proposals for achieving sustainable development in Qatar within Arab Gulf region. The emphasis of this course is on assessing the political, economic, social and cultural forces that pose a significant challenge to the development of a more sustainable future. There will be field-based projects.

**SOCI 261 Quantitative Research Methods****Credit Hours: 3**

This course provides students with practical training in the way in which numerical information is gathered and analyzed. It looks at the different sources of information that can occur in the way in which it is collected. It also explores some necessary statistical tests for students to understand the statistical methods and the issues related to the validity and reliability of quantitative data.

Prerequisite:

SOCI 120

**SOCI 300 Qualitative Research Methods****Credit Hours: 3**

Qualitative research is particularly effective in its ability to provide the context for how individuals experience the issues being researched. As opposed to the reduction of experience to numbers, as in the case of quantitative

research, the qualitative approach looks at issues from a more humanistic side – the beliefs, behaviors, emotions and relationships of people. It therefore seeks to understand how people interpret information within a reliable research framework.

Prerequisite:

SOCI 120

### **SOCI 308 Sociology of Education**

#### **Credit Hours: 3**

This course is focused on studying educational systems and their relationship with society and its culture, through the systematic scientific study of the development of educational systems and the reflection of the nature and culture of society on those systems and their development. The course reviews contemporary transformations in educational systems by addressing the various dimensions associated with education, such as curricula, continuing education and alternative education.

### **SOCI 309 Economic Sociology**

#### **Credit Hours: 3**

This course focuses on the social foundations of economic behavior. It studies the preconditions and restrictions imposed on economic processes. It also studies economic models within the framework of social phenomena. This course focuses on social interpretations of the economic activities of production, consumption, and distribution, as well as the main topics of labor economics and related phenomena, such as education, participation, discrimination, and wage differences.

### **SOCI 310 Sociology of Risk**

#### **Credit Hours: 3**

This course deals with the interpretation and analysis of risks from a social perspective, as it explores the various types of natural and human risks in their social context, by examining the impact of social and cultural factors on the perception of risks and the reasons that make people choose a more or less risky life.

### **SOCI 263 Badawi Society**

#### **Credit Hours: 3**

This course examines Bedouin society, with a strong focus on Bedouin society on the Arabian Peninsula. Students will examine the traditional livelihood of Bedouin nomads, the pastoral mode of production, and the traditional interconnections between these nomads and the villages and towns of the Arabian Peninsula. In the second portion of the course, students will evaluate the impact of modernization and urbanization upon the Bedouin peoples, changes in the pastoral livelihood, and the intricate relations between Bedouin peoples and the state. This course includes a significant independent research project

### **SOCI 264 Sociology of the Family**

#### **Credit Hours: 3**

This course aims to provide an overview of the changes and variations in family experiences over the past century. It explores the explanations for these trends and discusses the implications for individuals and society.

This course aims to study the recent family change in Qatar and other Arab countries. It focusses on how social scientists study families and on the theories and evidence, they use to explain the family change.

### **SOCI 122 Demography**

#### **Credit Hours: 3**

This course introduces the concepts and basic techniques of demographic analysis. Students will become familiar with the sources of data available for demographic research. Population composition and change measures and measures of mortality, fertility, marriage and migration levels and patterns will be defined. Life table, standardization and population projection techniques will also be explored.

### **SOCI 267 Urban Sociology**

#### **Credit Hours: 3**

This course is an introduction to the field of urban sociology. The course will explore several topics related to urbanization and urbanism. Topics include the history of urbanization, ethnography, and other methods for studying urban social phenomena. Theories about how cities socially and spatially are organized, and how social and spatial organization will be discussed. How urban living affects social interaction; class stratification; urban disasters; urban labor markets and urban problems such as crime and violence.

### **SOCI 203 Medical Sociology**

#### **Credit Hours: 3**

This course is designed to provide students with an overview of medical sociology; to increase students' awareness of cultural diversity by examining gender, ethnicity, socioeconomic status, and age shape health and illness; to expose students to methodological approaches and tools. Students will be able to assess the relative strengths and weaknesses of various methods of analysis. This course will help student's foster critical thinking and writing in their analysis of societal issues.

### **SOCI 360 Sociological Theory**

#### **Credit Hours: 3**

This course is an in-depth survey of the enduring conceptual frameworks utilized in the discipline of sociology. Students will consider the primary and fundamental questions posed by nineteenth and twentieth-century social analysts, and the theories they constructed to answer those questions. The first portion of the semester focuses upon the "classical" theorists, including Marx, Weber and Durkheim. The second half of the semester introduces students to the contemporary perspectives developed over the last five decades.

Prerequisite:

SOCI 121 OR SOCI 203 OR SOCI 247 OR SOCI 241 OR SOCI 120

### **SOCI 361 Human Rights**

#### **Credit Hours: 3**

This course explores human rights as a particular and historically contingent set of ideas that is tied to the project of modernity launched by Rousseau, Locke, Hobbes, and other classic philosophers in the European tradition. These ideas were crystallized in the 1948 Declaration of Human Rights, and purveyed to the rest of

the world in a colonial, post-colonial, and globalized world. This course critically examines the history and development of this set of ideas, investigates alternative conceptions of human rights (with a particular focus on the Islamic and Arabic tradition), and looks at the application of human rights in Qatar and the other Gulf States. It also explores the vast distance between the idealized conception of human rights and their deployment in practice.

Prerequisite:

SOCI 121 OR SOCI 203 OR SOCI 247 OR SOCI 241 OR SOCI 120

### **SOCI 303 Social Anthropology**

#### **Credit Hours: 3**

This course provides students with central conceptual and methodological issues in social/cultural anthropology. The purpose of the course is to offer an understanding of what an anthropological perspective on the world is, and how it would aid us in understanding the world we live in. The course will seek to do this through readings of classical and contemporary ethnographies. The focus will be on significant themes in anthropology such as culture, family, language, gender, economy, religion, urban life, and the body

### **SOCI 363 Ethnicity**

#### **Credit Hours: 3**

Ethnicity is typically defined as common identity based upon a presumed or real common heritage, recognized by both the group in question and others in the world. At the same time, however, the concept of ethnicity has a long and mercurial history, and the use of this concept has shifted dramatically over time. In this course, students will explore the history of the concept of ethnicity, examine the long association of ethnicity with minority status, and evaluate the connections between the concept of ethnicity and the concept of race. While the focus of the course will be global, many case studies will be drawn from Qatar and the other Gulf States.

### **SOCI 304 Sociology of Crime**

#### **Credit Hours: 3**

This course is designed to provide students with a broad understanding of the nature and causation of crime. The focus of this course will be on the major theoretical approaches to understanding different types of crime and criminal behavior. This course also examines the sociological, economic, and biological perspectives on the causes of crime. The role of the criminal justice system will be discussed

### **SOCI 305 Sociology of Gender**

#### **Credit Hours: 3**

This course explores the social constructedness of sex and gender. We will look at the ways in which sex and gender are social phenomena that change over time and vary across cultures. The course analyzes interactions of intimacy, language, and identity issues, and macro structures like the economy, religion, and education, to understand how they affect notions of gender. The goal of the course is to help students to gain an understanding of gender and its effects, how it pervades all parts of their culture and lives.

**SOCI 366 Lang, Communication & Society****Credit Hours: 3**

We live in a media saturated world. From text messaging to reality TV, the influence of media cannot be overstated. This course will explore the role of the media in the contemporary social, cultural, and political landscape. Our focus, while broad, will devote special attention to Arab media in general, and Qatari Media in particular. The course also investigates the overarching issue of globalization and the impact of western media on non-western cultures. This investigation will include analysis of the proliferation of the Internet, the impact of media upon body image, and the cult of celebrity.

Prerequisite:

SOCI 120 OR SOCI 203 OR SOCI 247 OR SOCI 241 OR SOCI 121

**SOCI 367 Comparative Religion****Credit Hours: 3**

This course approaches religion as a cultural system which provides a model of reality, a framework for organizing that reality, and the architecture of the individual's relationship to that reality. This course will introduce students to a wide variety of religious perspectives, and uses a comparative approach to assess and evaluate the patterns and differences in these ideological and experiential packages. Students will also critically evaluate the concept of religion itself by grappling with the vastly different sorts of ideas and experiences that are encompassed by this concept in different cultural settings.

Prerequisite:

SOCI 120 OR SOCI 203 OR SOCI 247 OR SOCI 241 OR SOCI 121

**SOCI 368 Law & Society****Credit Hours: 3**

This course examines the interaction of law with the various aspects of society in the contemporary world. Students will explore the organization of legal institutions, doctrines, and practices on other social phenomena, and similarly explore the impact of those social phenomena upon the institutions, doctrines and practices. This plan of study also includes a focus on criminology, the social construction of legal issues, and the analysis of the connections between law and social change.

Prerequisite:

SOCI 120 OR SOCI 203 OR SOCI 247 OR SOCI 241 OR SOCI 121

**SOCI 301 Social Statistics****Credit Hours: 3**

This course is designed to introduce students to the field of statistics. The field of statistics concerns the collection, analysis, interpretation, and presentation of data. Students will acquire the toolkit for calculating basic statistical functions and examine the role of quantitative data in analyzing social phenomena. This course will include a significant applied focus on contemporary social issues in Qatar and other countries. The course

is taught in the statistics lab using SPSS and other statistical packages.

Prerequisite:

SOCI 120 AND SOCI 261

### **SOCI 302 Social change**

#### **Credit Hours: 3**

We live in a time of rapid social change. This course examines the reasons for social change, including changes in technology, globalization, the rise of cities, the connection between social movements and social change, shifts in labor conditions, increasing violence in some regions and countries, national and international migration, and changes in family structure. The course further looks at the extent to which social change permeates society, using the comparative approach.

Prerequisite:

SOCI 120

### **SOCI 306 Digital society**

#### **Credit Hours: 3**

This course explores the rise of digital and mobile technologies and their effects on macro-level social institutions and on everyday social life. This course introduces debates in the field of digital sociology. The course will examine “network society”, “information society”, “digital age”, and will explore the ways in which our spaces, relationships and social activities mediate through digital technologies. Attention will be paid to the social, economic and political conditions that lead to the emergence of digital technologies and data infrastructure.

### **SOCI 307 Sociology of Sport**

#### **Credit Hours: 3**

The purpose of this course is to investigate the institution of organized sport from a sociological perspective. The course follows the Sociology of Sports by not only viewing sport as a microcosm of society but also as a site where society is created, reproduced and changed. The focus will be on "the structure, processes and problems of sport as an institutionalized social system." The historical development of sports in Qatar will be reviewed

### **SOCI 201 Sociology of Development**

#### **Credit Hours: 3**

This course introduces students to the problems of inequality in wealth and income from a global, comparative, and historical perspective. The causes and consequences of disparities among and between countries will be examined. The first half of the Course will introduce major perspectives and issues in development, the second half will be devoted to some specific issues centered on the themes of violence, conflict, and reconstruction.

**SOCI 202 Contemporary Arab Society****Credit Hours: 3**

This course studies Arab society from the mid-20th century to the present. It concentrates on the similarities and differences and on the crisis that faces society. It is designed to introduce contemporary Arab society and an exposition of the structural patterns of this society, using sociological theories and data. Its analysis of social and cultural characteristics and problems of contemporary Arab society. The course will also cover “The Arab Spring” and the social structures in contemporary Arab society.

**SOCI 204 Sociology of Culture****Credit Hours: 3**

This course aims at fostering awareness about the extent to which culture underpins and inspires all aspects of social life in contemporary societies. It treats the concept of culture broadly, as the symbolic dimension of social life. It introduces how sociologists answer central questions about the relationships between culture and society: What is the relationship between social changes, particularly changes in the economy, but also new patterns of settlement and lifestyle.

**SOCI 205 Sociology of Gulf Society****Credit Hours: 3**

This course aims to study the political, social, and economic structure of the Arabian Gulf societies. It enables students to understand the social factors that govern the lives and characteristics of the population of the Gulf community within the framework of the general features of Arab society. It aims at encouraging students to discuss the reality of social relations in these societies.

**SOCI 400 Internship****Credit Hours: 3**

This course provides students with an opportunity to apply sociological knowledge and skills in a work setting, allow students to develop work-related knowledge and skills, facilitate exploration of career opportunities for participants, and encourage personal development and self-assessment of involved students. Internship will provide practical experience and an opportunity to integrate and apply classroom skills and knowledge in a professional setting. The internship will give students the experience of working in a sociologically relevant profession.

Prerequisite:

SOCI 301 AND SOCI 261 AND SOCI 300

**SOCI 401 Sociology of Organizations****Credit Hours: 3**

Organizations are the engines that enable human activity and they are the tools that carry out “society’s work. To enhance student understanding of how our lives are shaped by organizations, this course will give a perspective on how people operate in groups and organizations. It introduces students to the sociological study of organizations and institutions. The emphasis will be on the impact of structure and systems of organizations



on human behavior.

### **SOCI 402 Political Sociology**

#### **Credit Hours: 3**

This course aims to provide an overview of political science by examining its major approaches, concepts, theories and subject matter in practice. The course intends to allow students to understand political analysis. The ultimate goal of the course is to offer students a firm conceptual foundation in the discipline so that these questions can be studied in more detail throughout the rest of their academic career.

### **SOCI 403 Industrial Sociology**

#### **Credit Hours: 3**

Industrial sociology examines the production of goods and services in society, and specifically the nature of the social relations involved in the production process. The first topic is on industrialization and its effects on whole societies. The second element is the analysis of the tasks that individuals perform in the workplace to see if these tasks provide for the satisfaction of human needs. The aim of the course is to gain understanding of industrial sociology and its impact on society, individuals, and groups in work situations.

### **SOCI 404 Social Problems**

#### **Credit Hours: 3**

This course looks at contemporary social problems faced by states and individuals. Using a comparative perspective, it combines sociological theory with an examination of the most pressing problems of our time. It sets out the role of government and social actors in solving these issues.

### **SOCI 405 Environmental Sociology**

#### **Credit Hours: 3**

Environmental sociology enables students to explore the relationship between human societies and the larger natural environment of which they are a part. The focus will be on modern society, especially present-day Qatari society. Students will also review the history of resource use, various environmental movements and other developments with significant ecological implications. To broaden further students' perspective, we will also look at ecological regimes in other societies. Students will be introduced to a cross-section of sociological modes of analysis.

### **SOCI 461 Honors' Thesis**

#### **Credit Hours: 3**

This course is intended for advanced students in the social sciences, and is a substitute for SOCI 469. This course will guide students through the preparation of their senior thesis. Working closely with the faculty advisor assigned by the department, students will develop a research plan, conduct that research, analyze the data they collect, and prepare a substantial analytic paper. Students may also be required to present their findings in a formal presentation.

### **SOCI 464 Social Policy & Planning**

#### **Credit Hours: 3**

The social sciences were originally conceived as a tool in the project of modernity, a tool that might help minimize or eradicate social problems or, from another angle, help the state better govern its subjects. In the contemporary era, the social sciences continue to interface with the government, and either assist or criticize the act of governance. This course explores academic perspectives on social policy and planning, with a strong focus on applied social studies of Qatar and nearby nations. Students will explore how social scientists have used the analytical, methodological, and conceptual toolkit they've developed over time to address the problems in human society and, more specifically, in Gulf Society.

Prerequisite:

SOCI 360 OR SOCI 340 OR SOCI 341 OR SOCI 304 OR SOCI 342 OR SOCI 204 OR SOCI 243

### **SOCI 467 Globalization**

**Credit Hours: 3**

This course examines ways in which globalization constitutes complex economic, social, cultural and political trends around the world. In addition, it provides an overview of the major social scientific theoretical perspectives applicable to understanding the process of globalization and its connection to economic underdevelopment. The theoretical distinctions and the debate between modernization theorists on the one hand, and dependency and world- system theorists on the other are emphasized. Intrinsic to the above is an elucidation of the development of the world capitalist system and its future in a rapidly changing global context.

### **SOCI 469 Research Project**

**Credit Hours: 3**

This course is intended to guide students through the preparation of their senior thesis. Working closely with the faculty advisor assigned by the department, students will develop a research plan, conduct that research, analyze the data they collect, and prepare a substantial analytic paper. Students may also be required to present their findings in a formal presentation.

Prerequisite:

(SOCI 261 OR SOCI 401 ) AND (SOCI 301 OR SOCI 342 ) OR SOCI 341 OR SOCI 340 OR SOCI 204 OR SOCI 243 OR SOCI 304 AND (SOCI 360 OR SOCI 302 ) OR SOCI 344 AND (SOCI 300 OR SOCI 443 ) OR SOCI 343 OR SOCI 242

### **SOCI 470 Independent Study**

**Credit Hours: 3**

An independent study course provides for study under the supervision of a faculty member of a specific topic not covered by existing courses in order to develop a particular interest on the part of the student. The topic must be agreed upon with a faculty member and described in a proposal at the time of registration.

### **SOCI 471 Special Topics**

**Credit Hours: 3**

This seminar involves an in-depth examination of selected topics in sociology or anthropology. A different topic is selected by faculty each time that it is offered. Relevant theory and current research is examined. Students are

typically responsible for research papers and presentations under close faculty supervision. This course may be repeated for credit.

**SOWO 101 Introduction to Social Work****Credit Hours: 3**

This course examines the history and philosophy of social welfare, with an emphasis on the social work profession: its mission, philosophy, ethics, values, and diverse fields of intervention with various client populations served in a range of social welfare settings.

**SOWO 200 Social Work and the Law****Credit Hours: 3**

This introductory course is designed to provide students with a basic understanding of the law, legal processes, and legal systems as they relate to social work practice as well as introduce students to the field of forensic social work: the application of social work questions and issues relating to law and legal systems, both criminal and civil.

Prerequisite:

SOWO 101

**SOWO 301 Medical Social Work****Credit Hours: 3**

This course examines the practice of medical social work in assisting individuals and families in need of medical care, including emotional support that enable them to overcome the psychosocial problems pertaining to illness and hospitalization. And, to master strategies that enable patients to access other resources and assistance that mitigates illnesses and enhances health.

**SOWO 302 Mental Health and Social Work****Credit Hours: 3**

This course examines the nature and presenting characteristics of the major forms of mental and emotional maladjustments that may contribute to problems in social functioning, adaptation, and life satisfaction. It identifies specific categories of dysfunctional behavior, use of standard criteria, and treatments for dysfunctional behavior from a bio psychosocial perspective.

**SOWO 303 School Social Work****Credit Hours: 3**

This course addresses a specialized area of practice that examines the unique knowledge and skills needed to practice within a school system that engages students, families, teachers, the school, and the community. Course explores the policies, practices, historical educational developments and legislative trends affecting students' well-being. School-community relationships are examined as well as the impact of societal attitudes upon schools.

**SOWO 304 Social Work Program Evaluation****Credit Hours: 3**

Providing students with the nature and concept of the evaluation process. Concentration on major models of evaluation, which enables students to evaluate the success and effectiveness of social programs and projects. Students will apply their knowledge and skills gained in this course to evaluate a project of interest within their local communities in Qatari Society.

### **SOWO 305 Social Protection**

#### **Credit Hours: 3**

This course introduces the fundamental knowledge of social protections as an overarching concept and its manifestations in various social settings. Topics discussed include concept of social and family protection, social safety nets, issues of abuse and violence, vulnerable groups, and poverty. In addition, students will be introduced to various social protection policies, agencies and appropriate intervention modes, accompanied with hands on field experience.

### **SOWO 306 Social work in Disability and Rehabilitation**

#### **Credit Hours: 3**

This course will provide students with an opportunity to develop expertise in an important area of practice – Disability and Rehabilitation. Special attention is given to theoretical and the practical and applied dimensions of this course contents. Students will gain an insight into the experiences of disability and the ways it influences people's lives. The realities of disability Qatar is looked at, and students will explore the challenges faced by individuals with the disability, their families and carers and will be trained on the appropriate intervention strategies.

### **SOWO 307 Social Work and the Environment**

#### **Credit Hours: 3**

This course aims to provide students with a theoretical framework to understand environmental and demographic concepts and to develop their knowledge of the impact of global and technological changes on population and environment issues. In addition, the course will offer an examination of the evolution of environmental concerns in a comparative sociological perspective, and to trace the social, historical and cultural bases of environmental concern and the development of the institutional and legal framework for environmental protection in Qatar.

### **SOWO 308 Crises and Disaster Management**

#### **Credit Hours: 3**

Students in this course will gain an understanding of the personal and systemic impact of crises, disasters, and other trauma-causing events on individuals, couples, families, and communities. They will develop understanding of the theories and practice models related to crises and disasters, in various intervention levels. At the end of the course, students will understand models for training and intervention in the areas of crises response applicable to community, national, and international crises. Furthermore, students develop a crises management plan for their own community.

**SOWO 309 Voluntary Social Work****Credit Hours: 3**

The purpose of this course is to equip students with scientific knowledge and practical volunteering skills. This includes the concept of volunteering, its impact on individuals, institutions and community, recruiting volunteers, interviews, training and mission termination. In addition, the course will examine obstacles that hinder people from participating in volunteer work especially the young people.

**SOWO 311 Social and Cultural Diversity****Credit Hours: 3**

This course emphasizes social-economic and environmental conditions, such as socio-cultural and political assumptions of race, gender, and ethnicity. Also emphasized is the oppressed and vulnerable populations' adaptive capabilities and strengths to function under difficult circumstances. Issues of values, ethics, diversity, social and economic justice and populations at risk are infused throughout the course.

Prerequisite:

SOWO 101

**SOWO 320 Human Behavior and Social Environment I****Credit Hours: 3**

As the first of the two human behavior and the social environment courses, this course introduces the ecological systems theory as an umbrella for the generalist practice model. Focus is on the individual life-span approach to human development and reciprocal interactions among individuals, families, and small groups. Issues of values, ethics, diversity, social and economic justice and populations at risk are infused throughout the course.

Prerequisite:

SOWO 101

**SOWO 321 Human Behavior and Social Environment II****Credit Hours: 3**

As the second of two human behavior and the social environment courses, this course focuses on the reciprocal relationship between individuals and large groups, organizations, and community systems. The course examines also the ways in which social systems promote or deter people in maintaining or achieving health and well-being. Issues of values, ethics, diversity, social and economic justice and populations at risk are infused throughout the course.

Prerequisite:

SOWO 320

**SOWO 330 Social Welfare Policy and Services I****Credit Hours: 3**

The first of two social welfare policy and services courses, this course examines the historical roots, mission, and philosophy of social welfare as an institution that responds to human needs and social problems, as well as

the social, economic, and political forces that shape social welfare. The political processes for influencing policy formulation processes and improving social welfare services are reviewed. Policy analysis frameworks are introduced.

Prerequisite:

SOWO 101

### **SOWO 350 Social Work Generalist Practice I**

#### **Credit Hours: 3**

As the first of three generalist practice courses, this course introduces the generalist practice problem solving model that focuses on the strengths, capacities, and resources of large groups, organizations, and communities in relation to the broader environments. Students broaden their skills in implementing the generalist practice model. Content and skills include the following: assessing large systems using empirically based theory; applying empirical knowledge and technological advances; developing, analyzing, advocating, and providing leadership for policies and services. Content on values, ethics, diversity, social and economic justice and populations at risk are infused throughout the course.

Prerequisite:

SOWO 101

### **SOWO 360 Social Work Research Methods**

#### **Credit Hours: 3**

This course introduces various social work research methods and techniques. The basic problem formulation and solving process is presented and related to other research methods. Students will develop skills in research and evaluation methods through the use of practical applications to learn how to plan, design and implement research studies and to critically evaluate research studies and to find answers to research questions.

Prerequisite:

SOWO 101 OR STAT 101 AND STAT 153

### **SOWO 361 Society & Human Rights**

#### **Credit Hours: 3**

The course discusses social work between the concept universality of human rights and the concept of cultural relativism. The course tries to answer to what extent the universality of human rights conflicts with the concept of cultural relativism regarding the social issues dealt with in the Universal Declaration of Human Right. In general, the course tries to answer the following question: how Social Work can utilize human rights documents as they are in the United Nations in dealing with the social issues?

### **SOWO 370 Children and Family Practice & Services**

#### **Credit Hours: 3**

Overview of practice and policy issues, problems, and opportunities in providing children and family welfare services. Emphasis is on inter-agency collaborative services, culturally sensitive interventive approaches,

managing cases to optimally meet children and family needs.

Prerequisite:  
SOWO 101

### **SOWO 400 Social Welfare Policy & Services II**

#### **Credit Hours: 3**

As the second of the two social welfare policy and services courses, this course reviews the theory, knowledge, research values, and skills of social welfare policy and services analyses. Emphasis is upon the processes and methods for understanding and analyzing social welfare policies/services. Various welfare policy/services assumptions, socioeconomic political values, and analysis frameworks are examined.

Prerequisite:  
SOWO 330

### **SOWO 420 Social Work Generalist Practice II**

#### **Credit Hours: 3**

As the second of three generalist practice courses, this course expands the generalist practice model by introducing theory, knowledge, research, values and skills for social work practice with individuals and families. This course emphasizes the basics of communication, interviewing, relationship building and professional use of self. This course examines problem solving, interviewing, professional relationships, intervention planning and skills, and ethics. Content on values, ethics, diversity, social and economic justice and populations at risk are infused throughout the course.

Prerequisite:  
SOWO 350

### **SOWO 430 Social Work Generalist Practice III**

#### **Credit Hours: 3**

As the third generalist practice course, this course expands further the generalist practice model by introducing theory, knowledge, research, values and skills for social work practice with individuals and groups. Content and skills include developing, managing, and terminating groups; understanding group dynamics and processes; facilitating group communication; and, utilizing group leadership. Content on values, ethics, diversity, social and economic justice and populations at risk are infused throughout the course.

Prerequisite:  
SOWO 350

### **SOWO 442 Advanced Intervention models**

#### **Credit Hours: 3**

Introducing advanced practice models, and provide students with theoretical knowledge and skills in understanding the broader social structure and its influence on people. It discuss major perspective in social



work including strength perspective empowerment, and advocacy. Finally, it presents specific practice models, such as crisis intervention, cognitive-behavioral perspective, and Problem Solving.

Prerequisite:

SOWO 430.

### **SOWO 444 Field Practicum I**

#### **Credit Hours: 6**

This course is designed to train students through (250) hours of field placement work and training that is built upon knowledge, theories and experiences acquired by students through their coursework. In this first level course, students will obtain cognitive knowledge that is relevant to professional social work practice. Students in their field placements will engage in professional social work activities and events that will help develop essential social work skills. Students will further enhance their social work practice when taking the field placement level II course.

Prerequisite:

SOWO 321 and SOWO 400

### **SOWO 445 Field Practicum II**

#### **Credit Hours: 6**

This course intends to train students through 250 hours of field practice based on skills students have obtained through both their course work in the Social Work program and the previous field placement experience. Through the educational process involving guidance, coordination, supervision and providing feedback, students will develop theoretical and applied skills. The integration of theoretical knowledge obtained from classroom learning and the opportunity that the field placement provides in applying that knowledge will equip students with the foundational skills of social work practice that is required for employment in diverse social work agencies and institutions.

Prerequisite:

SOWO 444

### **SOWO 450 Graduation project**

#### **Credit Hours: 3**

The graduation project (Capstone course) aims to provide students with the opportunity to conduct applied scientific social work research to examine a real social problem facing people in their communities. Students will be able to utilize their social and research knowledge and skills in implementing the research project.

Prerequisite:

SOWO 360

### **SPAN 101 Spanish 1**

#### **Credit Hours: 3**

This course is designed to introduce the Spanish language to beginning students, to develop oral and written skills for both comprehension and expression. Language skills to be emphasized include: understanding, reading, writing, and speaking. The course will provide a foundation for the learning the basics of Spanish through grounding in the structure of sentences, with the emphasis on oral communication. The course focuses equally on listening, speaking, reading, and writing.

### **SPAN 105 Spanish 1**

#### **Credit Hours: 3**

This course provides an introduction to Spanish communication, with a focus on speaking and listening comprehension. Students will learn key vocabulary and basic Spanish grammatical structures. Students will learn to comprehend Spanish as they hear and read authentic language relating to familiar topics. To boost their listening comprehension skills, students will be exposed to multiple authentic audio-visual materials in the language lab.

### **SPAN 115 Spanish 2**

#### **Credit Hours: 3**

This course provides students with a thorough grounding in the four language skills: reading, writing, speaking and comprehension. It will also introduce the culture of Spain and the Spanish-speaking world. Aided by state-of-the-art language learning software, students will learn and practice Spanish for practical purposes, such as communicating in basic social situations, meeting routine travel needs, obtaining food and lodgings, carrying out simple transactions, and giving biographical details. The course provides an introduction to Spanish-speaking cultures and literatures. Students will also learn to write short messages and well-articulated sentences in Spanish on familiar topics, and by the end of the course can be expected to display appropriate awareness of everyday culture in the Spanish-speaking world.

Prerequisite:

SPAN 105

### **SPAN 201 Spanish 2**

#### **Credit Hours: 3**

This course is a continuation of 101. It is designed to improve different aspects of language and writing skills. It aims to improve students' conversational skills; to provide a variety of readings for written comprehension; to develop a good grammar background; and to improve listening skills. The course also introduces the students to aspects of Spanish culture.

### **SPAN 215 Spanish for Oral Communication I**

#### **Credit Hours: 3**

This course develops students' speaking ability in Spanish by providing opportunities for conversation practice. The main emphasis will be oral practice, but attention will also be paid to grammar, written production and presentation as well as discussion of various topics of general interest in Spanish. Students will learn and practice Spanish for practical purposes, such as communicating in basic social situations, meeting routine travel needs, obtaining food and lodgings, carrying out simple transactions, and giving biographical details. The

language lab will be used to enhance students' learning experience through specific self-study exercises aimed at boosting communication skills.

Prerequisite:

SPAN 110 OR SPAN 105

### **SPAN 220 Spanish 3**

#### **Credit Hours: 3**

This course reviews and reinforces the language skills learned in Intermediate Spanish I to help students develop proficiency in the four skills: reading, writing, speaking and comprehension. This course is intended to increase students' proficiency in the language and broaden their understanding of Spanish-speaking cultures and literatures. It will help student to develop vocabulary, improve pronunciation, learn new idiomatic expressions and increase understanding of basic language structures. Students will be expected to broaden vocabulary for both reception (listening and reading comprehension) and production (speaking and writing). The course focuses on use of the language in context, and will therefore include use of authentic readings, discussion in Spanish, and film clips.

Prerequisite:

SPAN 115

### **SPAN 223 Spanish Composition I**

#### **Credit Hours: 3**

This course develops students' writing and speaking ability in Spanish through models of style, related grammar, composition exercises, and the World Wide Web. It also reinforces the language skills presented in Intermediate Spanish I and II through an intensive review of grammar, written exercises, an introduction to composition, lexical enrichment, and spoken skills. Comprehension and speaking are developed through the use of cinema, music, conversation, and other developing technologies. By the end of the course students will be able to create elaborated utterances in Spanish and group them into paragraphs and narratives.

Prerequisite:

SPAN 115 OR SPAN 100

### **SPAN 300 Language, Culture and Society**

#### **Credit Hours: 3**

This course offers a study of the history of Spanish-speaking countries with emphasis on political, social, intellectual, and artistic aspects of Spanish civilization. It includes various analyses of the role of Spain on the international scene and includes study of articles drawn from the Spanish press, recent films, and current Spanish television news. Students will learn to demonstrate knowledge of the chronology of Spanish civilization and identify the major intellectual and artistic movements, their defining characteristics and contexts. Students will also be given an overview of the most important movements and authors in the Spanish literary canon and taught to place literature in a meaningful cultural and historical context. Students will be

taught how to analyze and make connections between events, movements, and ideas for the time periods covered in this course.

Prerequisite:

SPAN 220

### **SPAN 310 Spanish Phonetics**

**Credit Hours: 3**

This course provides an introduction to the sounds of Spanish, paying close attention to their place and manner of articulation (phonetics) as well as how they pattern with respect to each other and as influenced by morphological and syntactic factors (phonology). It teaches students basic phonetic rules in Spanish, including the phonetic alphabet and phonetic transcription. Specific language lab exercises will provide students with the opportunity to correct defects in pronunciation and intonation and give them a better understanding of the differences between the Spanish and English sound systems.

Prerequisite:

SPAN 100

### **SPAN 320 Spanish for Oral Communication II**

**Credit Hours: 3**

The course focuses on developing practical vocabulary, idiomatic expressions, professional terminology and cultural interactions on a variety of topics such as language for use in a variety of professions. It will improve students' ability to use Spanish in real-life situations and for real-life purposes, as well as focusing on special topics, cultural events, and cultural issues currently in the news. It will give an overview of contemporary Spanish culture and business practice, and guide students through practical processes such as organizing travel and tourism in Spanish-speaking countries, navigating Spanish social systems and bureaucracy, and interacting with the Spanish.

Prerequisite:

(SPAN 215 AND SPAN 220) OR SPAN 210

### **SPAN 321 Business Spanish**

**Credit Hours: 3**

This course focuses on introducing functional language skills in the world of Spanish business and business cultural competence. Students will be given further practice of specialized oral and written communication, as well as developing a commercial vocabulary dealing with the varied activities of a commercial firm (for example, advertising, transportation, banking). The course provides students with simulated business situations and exposure to authentic spoken materials, as well as teaching them the rules and formulas of formal business correspondence. Students will study the economic and business environment, and learn key technical terms and useful idiomatic expressions

Prerequisite:

## SPAN 115

**SPAN 341 Spanish Composition II****Credit Hours: 3**

This course develops and refines written expression through a review of complex grammatical structures and idiomatic expressions. Students practice guided compositions and creative writing using factual reporting techniques and literary models. Students will improve their written Spanish and gain advanced training in comparative grammar and organizational structures. Students will be assessed on their ability to write fluently in Spanish a variety of writing situations (for example, diaries, transcriptions, narrations, letters and emails), as well as their fluency of usage in the written language. The course also focuses on the distinction between spoken and written styles.

Prerequisite:

(SPAN 223 AND SPAN 220) OR SPAN 221

**SPAN 410 Introduction to Spanish Literature****Credit Hours: 3**

This course offers a study of the history of Spain with emphasis on political, social, intellectual, and artistic aspects of Spanish civilization. It includes various analyses of the role of Spain on the international scene and includes study of articles drawn from the Spanish press, recent films, and current Spanish television news. Students will learn to demonstrate knowledge of the chronology of Spanish civilization and identify the major intellectual and artistic movements, their defining characteristics and contexts. Students will also be given an overview of the most important movements and authors in the Spanish literary canon and taught to place literature in a meaningful cultural and historical context. Students will be taught how to analyze and make connections between events, movements, and ideas for the time periods covered in this course.

Prerequisite:

SPAN 220 OR SPAN 110

**SPAN 440 Spanish Media****Credit Hours: 3**

This course offers a study of the Spanish-language media with a focus on political, social and intellectual aspects. Conducted exclusively in Spanish, the course emphasizes all aspects of language: listening, speaking, reading, writing and culture. Students will discuss topics of current interest in the Spanish-speaking world as presented in the press, radio, television, social media and the Internet, and engage in the analysis of articles, videos, podcasts, and TV programs.

Prerequisite:

SPAN 220 OR SPAN 111

**SPED 301 Foundations of Special Education****Credit Hours: 3**

This Course provides broad knowledge and skills in special education covering: models, theories, philosophies, history, legal provisions, ethical and professional commitment, assessment, identification procedures, instructional strategies, and using the individualized education program (IEP) for students with disabilities.

Prerequisite:

EDUC 310 AND EDUC 312

**SPED 302 Survey of Exceptionalities****Credit Hours: 3**

An introductory course covering the conditions and psychological characteristics of exceptional children. The course provides a foundation of basic knowledge about the range of disabilities that can adversely affect students' learning and schooling covering intellectual, language, speech, auditory, visual, behavioral, neurological, and physical impairments

Prerequisite:

EDUC 310 AND EDUC 312

**SPED 303 Behavior Management in Special Education****Credit Hours: 3**

This course focuses on identifying, recording, evaluating, and changing social and academic behaviors of special and diverse populations. This course presents best practices in classroom and behavior management – from organizing time, materials, and classroom space to strategies for managing individual and large group student behaviors, transitions, lab activities, and other arrangements for classrooms in general and special education.

**SPED 304 Collaboration with Families and Professionals****Credit Hours: 3**

This course provides candidates with knowledge and skills of collaboration and consultation in special education. Among topics covered are historical and current roles of parents, family characteristics, communication and consultations skills, and resources in special education. The course emphasizes school visitation, family interview, and developing skills necessary to pinpoint problems facing special persons with disabilities and their families when interacting with schools and community resources.

**SPED 305 Inclusive Practices through Special Education****Credit Hours: 3**

This course examines the social/emotional and academic services for students with disabilities in inclusive settings across age spans. The primary goal of this course is to introduce key strategies, and approaches that will assist in making the general education classroom more inclusive for all students. Topics covered include characteristics of disabilities, inclusive classroom practices, collaboration models, response to intervention, and the use of the individualized education program (IEP) to support students' meaningful participation in general

education.

Prerequisite:  
SPED 301

### **SPED 306 Educational Psychology**

#### **Credit Hours: 3**

This course introduces students to research-based concepts and principles about human learning, development, and motivation and how that knowledge is applied to classroom teaching. Topics covered include child and adolescent development, learning, motivation, information processing with special emphasis on study of the exceptional learner.

### **SPED 307 Assistive Technology**

#### **Credit Hours: 3**

An introductory course which is designed for special education students. The primary goal of the course is to help prospective teachers learn about the basics of assistive technology and instructional technology in general applied to exceptional learners. It includes hardware such as augmentative communication devices and adaptive tools and software designed to support the participation of individuals with disabilities in the school or larger community setting.

Prerequisite:  
SPED 301 AND SPED 302

### **SPED 308 Promotion of Mental Health in Children and Youth**

#### **Credit Hours: 3**

This course focuses on the assessment and educational and community support of children and youth with mental health disorders across different age spans, including theories and models of mental health adjustment and approaches to services. The course helps students recognize and understand different disorders that they may encounter in their work as special educators, providing coverage of assessment and instructional approaches appropriate to their roles as educators and for general and special education settings.

### **SPED 410 Infants, Toddlers, and Young Children with Disabilities**

#### **Credit Hours: 3**

This survey course examines typical and atypical child development from conception through the early years; all developmental domains, cognitive, social/emotional, physical and communicative will be addressed. The course will draw on theory and relevant clinical and empirical literature in the examination of the development of infants and children with sensory, motor, cognitive and/or affective disabilities.

Prerequisite:  
SPED 301 AND SPED 302



**SPED 411 Assessment in Early Childhood Special Education****Credit Hours: 3**

This course is designed to investigate assessment in early intervention and to apply knowledge of assessment instruments, curriculum and instructional strategies and program evaluation methods to intervention settings for infants, toddlers, and young children with disabilities. The course includes strategies of observation and assessment, identifying strengths, individualizing instructional plans, and adapting natural and classroom environments, curriculum and instructional methodologies to support the highest level of achievement for young children with disabilities.

Prerequisite:

SPED 306

**SPED 412 Curriculum and Methods in Early Childhood Special Education****Credit Hours: 3**

This course covers methods of teaching young children with physical, social, emotional and/or cognitive disabilities and supporting their families within home, educational, and community settings. The course will provide an overview of current educational models and strategies specifically addressing curriculum development, instructional planning, and assessment as they relate to knowledge about learning processes, motivation, communication and classroom management.

Prerequisite:

SPED 410

**SPED 413 Planning and Programming in Early Childhood Special Education****Credit Hours: 3**

The purpose of this course is to provide knowledge and skills necessary to implement family guided, relationship-based intervention for families with young children with disabilities and children at risk for disability. Family guided intervention suggests that families are able to determine child and family strengths, needs, important outcomes, and necessary services. The role of the interventionist or educator is to assist the family to achieve their outcomes by providing information, support and resources so that optimal services and programs can be provided.

Prerequisite:

SPED 412

**SPED 414 Early Childhood Language and Communication****Credit Hours: 3**

This course covers basic communication principles and anatomy as well as more complex learning and language deficits. Students will learn how language is acquired, used and the effects on communication with various types of speech and language disorders. The connection between early childhood curriculum and language learning and how that applies to supporting the educational and developmental need of children with

communication disorders will also be addressed

Prerequisite:  
SPED 410

### **SPED 415 Early Childhood Social and Emotional Development**

#### **Credit Hours: 3**

This course will address issues of social learning and behavior in childhood education with specific attention given to addressing the needs of and services for young children with social and emotional disorders. Various models of learning and motivation will be explored.

The course is structured to engage students in developing and implementing strategies that support and assist students in developing social and pro-social skills. This course will highlight current research regarding assessment and intervention considerations in communication, social interaction, and social skill building.

Prerequisite:  
SPED 410

### **SPED 416 Early Childhood Motor Learning**

#### **Credit Hours: 3**

This course will address physical disabilities in young children with specific attention given to classroom dynamics and ways of accommodating and supporting children with motor disabilities. The course is structured to engage students in developing and implementing strategies that support and accommodate the child's physical needs. This course will highlight current research regarding assessment, intervention and accommodation.

Prerequisite:  
SPED 410

### **SPED 420 Children and Youth with Disabilities**

#### **Credit Hours: 3**

This course is an introduction to special education with information regarding characteristics of individuals with exceptionalities, evidence-based instructional strategies, as well as legal policies in meeting students' needs and providing services.

Prerequisite:  
SPED 301 AND SPED 302

### **SPED 421 Assessment for School-Based Special Education**

#### **Credit Hours: 3**

This course provides students with knowledge of current concepts and issues in the area of assessment in special education, with knowledge and skills in standardized assessments as well as curriculum-based measurement. Current issues in assessment such as assessing students from diverse backgrounds and response

to intervention (RTI) will be covered. The focus is on assessment for school-based special education.

Prerequisite:

SPED 305 AND SPED 306

### **SPED 422 Curriculum and Methods for School-Based Special Education**

**Credit Hours: 3**

The purpose of this course is to prepare pre-service special educators to deliver academic instruction to students with disabilities in school-based settings. Specifically, participants in this course will develop a knowledge base of curricular approaches, and instructional strategies and techniques to meet the diverse learning needs of students with disabilities in primary, preparatory, and secondary schools. In addition, course participants will develop a repertoire of teaching skills to provide instruction to children and youth with disabilities.

Prerequisite:

SPED 420

### **SPED 423 Planning and Programming for School-Based Special Education**

**Credit Hours: 3**

This introductory course addresses strategies for the development, implementation, and monitoring of Individualized Education Programs (IEPs) and related instructional planning for P-12 students with disabilities within the general curriculum (high incidence disabilities) or adapted curriculum (low incidence disabilities). Through this course, students are expected to demonstrate proficiency in using the general education curriculum to develop appropriate IEPs and lesson plans for instruction.

Prerequisite:

SPED 420

### **SPED 424 Prevention and Early Intervening in Schools**

**Credit Hours: 3**

This course will provide students with a working knowledge of the history and legal precedence for providing early intervention (EI) and early childhood special education (ECSE) services, characteristics of young children with special needs and their families, and effective instructional techniques for working with this population. Students participate in field experiences throughout the semester

Prerequisite:

SPED 420

### **SPED 425 Special Education Support for General Education**

**Credit Hours: 3**

The course provides the knowledge and skills required in working as part of a multidisciplinary team to provide comprehensive wrap-around services for individuals with disabilities in general education settings. Assessment and instructional strategies to provide services that support standards-based education which meets students'

needs.

Prerequisite:  
SPED 421

### **SPED 426 Interventions for Behavior Problems in School Settings**

#### **Credit Hours: 3**

The purpose of this course is to develop a knowledge and skill base of effective interventions, supports and materials to provide instruction to children and youth with disabilities who demonstrate behavioral problems. This course builds upon the information students have mastered in the characteristics, assessment and general procedures courses.

Prerequisite:  
SPED 303

### **SPED 430 Students with Autism and Intellectual Disabilities**

#### **Credit Hours: 2**

Introduction and an overview of characteristics of individuals with autism or intellectual disabilities, particularly at the severe or profound level, and educational and behavioral adaptations for these individuals in diverse educational and community-based settings. Content includes definitions, etiology, and educational implications of these conditions. A major emphasis of this course is placed on the practicum experience. These experiences will allow the student to observe and participate in the use of a variety of teaching models with diverse populations.

Prerequisite:  
SPED 301 AND SPED 302

### **SPED 431 Students with Physical, Health, and Sensory Disabilities**

#### **Credit Hours: 3**

An introduction to the major physical, health, medical, visual, and auditory conditions that may adversely affect students' performance in schools and so require the need for special education services. Coverage of definitions, causes, characteristics, potential impact on learning and school attendance, educational considerations, and instructional approaches for each set of disabilities across the age span.

Prerequisite:  
SPED 430

### **SPED 432 Assessment Practices for Severe and Profound Disabilities**

#### **Credit Hours: 3**

Models and practices of assessment focusing on the range of unique needs of students with severe and profound and other low incidence disabilities in academic, social/emotional, functional, adaptive behavior, and other domains. Use of standardized assessments and criterion-based and curriculum-based measures.

Prerequisite:

SPED 430

### **SPED 433 Curriculum and Methods for Severe and Profound Disabilities**

#### **Credit Hours: 3**

Models of curriculum and instructional approaches that balance standards-based education and individualized education supporting the functional needs of students with severe and profound disabilities and other low incidence disability conditions across a range of educational settings. Emphasis on data-based decision-making in the provision and revision of instruction and evaluation of student learning.

Prerequisite:

SPED 430

### **SPED 434 Planning and Programming for Severe and Profound Disabilities**

#### **Credit Hours: 3**

Application of assessment data, curricular models, and instructional methods to develop individualized educational plans and programs to realize those plans for students with severe and profound disabilities and other low incidence disabilities. Consideration of the balance between education appropriate to needs and education provided in inclusive settings. Identification of community-based resources that can support and advance the education and services provided to such students and their families.

Prerequisite:

SPED 430

### **SPED 435 Applied Behavior Analysis for Instruction**

#### **Credit Hours: 3**

This course focuses on the basic principles and procedures of applied behavior analysis. on identification of factors that contribute to behavioral problems and improved performance; and on procedures that can be used to minimize behavioral problems, improve performance, teach new behaviors, and increase probability of behaviors occurring under appropriate circumstances.

Prerequisite:

SPED 303

### **SPED 436 Communication for Severe and Profound Disabilities**

#### **Credit Hours: 3**

Introduces professionals to augmentative and alternative communication (AAC) for individuals with severe speech and language impairments. Addresses the knowledge and skills needed to assess the potential AAC user, make team decisions, develop and implement instruction, and evaluate the effects of instruction, aimed at motivating, building, and expanding communication, choice making, and social interaction.

Prerequisite:

**SPED 430****SPED 440 Transition Planning****Credit Hours: 3**

This course covers modifications of and additions to school programs to ensure that they are appropriate to the needs of adolescents with disabilities. Content includes coverage of remedial and compensatory program models, transition programming, career and vocational education, post-secondary educational options, recreation and leisure, independent living, and self-determination and advocacy.

Prerequisite:

SPED 420 OR SPED 430

**SPED 481 Student Teaching: Early Childhood Special Education****Credit Hours: 9**

This course will provide ongoing mentoring and reflection during a semester-long Student Teaching experience with young children with disabilities. Topics for study will emerge from interns' authentic concerns and interests, from the university supervisor's classroom observations, and from mentor teacher suggestions. Participants enrolled in this course will assume the responsibilities of a special education teacher in an educational setting or program. This course requires a significant number of field hours.

**SPED 482 Student Teaching: School-Based Special Education****Credit Hours: 9**

This course will provide ongoing mentoring and reflection during a semester-long Student Teaching experience with students with disabilities in school-based settings. Topics for study will emerge from interns' authentic concerns and interests, from the university supervisor's classroom observations, and from mentor teacher suggestions. Participants enrolled in this course will assume the responsibilities of a special education teacher in a school-based setting or program. This course requires a significant number of field hours.

**SPED 483 Student Teaching: Severe and Profound Disabilities****Credit Hours: 9**

This course will provide ongoing mentoring and reflection during a semester-long Student Teaching experience with students with severe and profound and other low incidence disabilities. Topics for study will emerge from interns' authentic concerns and interests, from the university supervisor's classroom observations, and from mentor teacher suggestions. Participants enrolled in this course will assume the responsibilities of a special education teacher in an educational setting or program. This course requires a significant number of field hours.

**SPSC 101 Traditional and New Games****Credit Hours: 3**

The course focuses on the knowledge and understanding of those games which can look back to a long tradition in Qatar and the Arab countries. In addition, the course provides a selection of new and innovative games which are internationally well received.

**SPSC 200 Theory and Practice Individual Sports I**

**Credit Hours: 3**

The course introduces students to a typical example for individual sports, selected amongst, e.g., athletics, swimming, judo, skateboarding, inline-skating etc. Through practical experience and theoretical reflection, the students should develop their knowledge, skills and understanding of such an individual sport (one in course I and a further one in course II). The students will examine a range of issues that currently influence teaching, learning, and promotion of individual sports by this selected example of an individual sport. In addition, they are acquainted with the necessities of acquiring coaching and judging competencies in this individual sport.

**SPSC 201 Theory and Practice (Team Sports) I****Credit Hours: 3**

The courses introduce the students to an example of a team sport. Through practical experience and theoretical reflection, the students should develop their knowledge, skills and understanding of the chosen team sport and be able to apply this in the education and promotion context. The students will examine a range of issues that currently influence teaching, learning and promotion of such a team sport. In addition, they are acquainted with the necessities of acquiring coaching and judging competencies.

**SPSC 202 Theory and Practice (Team Sports) II****Credit Hours: 3**

The courses introduce the students to further team sports, which should complement the experience by course I, e.g., co-active like in team-rowing or inter-active like in handball or inter-active like in tennis. Through practical experience and theoretical reflection, the trainees should develop their knowledge, skills and understanding of the chosen team sport and be able to apply this in the education and promotion context. The students will examine a range of issues that currently influence teaching, learning and promotion of such a team sport. In addition, they are acquainted with the necessities of acquiring coaching and judging competencies by learning about similarities and differences amongst various team sports.

Prerequisite:

SPSC 201

**SPSC 203 Exercise Physiology I****Credit Hours: 3**

To understand essential facts and fundamental concepts of physiological functions of the human body during physical activity and exercise, in children, adolescents and adults to include cardiovascular, respiratory, muscle and neurological control of movement, hormonal and basic biochemistry of exercise in hypobaric and hyperbaric environments, ergogenic aids and performance, sports nutrition, control and maintenance of body weight, sex differences, cardiovascular disease, metabolic diseases and physical activity.

Prerequisite:

BIOL 101



**SPSC 204 Theory and Practice Individual Sports II****Credit Hours: 3**

The course introduces students to a further individual sport, to be selected amongst, e.g., athletics, swimming, judo, skateboarding, inline-skating etc. The individual sport selected should provide complimentary experiences, e.g., process orientation like gymnastics or result orientation like athletics. Through practical experience and theoretical reflection, the trainees should develop their knowledge, skills and understanding of the 2nd chosen individual sport. The students will examine a range of issues that currently influence teaching, learning, and promotion of this individual sport. In addition, they are acquainted with the necessities of acquiring advanced coaching and judging competencies in this selected example of an individual sport.

Prerequisite:

SPSC 200

**SPSC 206 Research Methods in Exercise Science and Health****Credit Hours: 3**

Quantitative and qualitative research approaches to disciplinary areas in Sport Science. Topics include methods and design, measurement issues, analysis and interpretation of literature and analytical procedures used in research.

Prerequisite:

MATH 103 OR MATH 101 OR MATH 119

**SPSC 209 Biomechanics and Movement Analysis****Credit Hours: 3**

This course will develop trainees' theoretical foundation of biomechanics and other ways of analyzing movements, physical activities and motor control. The course covers essential and practical knowledge of physiological changes associated with performance and mechanical principles and physical laws that govern human movement and sport. Intensive study will be devoted to analysis of fundamental and complex motor skills and to the use of these skills in performance and sports.

Prerequisite:

BIOM 211 OR SPSC 215

**SPSC 210 Principles of Training and Coaching I****Credit Hours: 3**

The course introduces to general and specific theoretical matters of training and coaching. To understand facts and concepts of sports physiological/biomechanical functions of human body during exercise and training to include neuromuscular, endocrine, metabolic, cardiovascular and immunological responses to training. Principles of low and high intensity training and training prescription in different environments, in the heat, cold, altitude, markers of overtraining and over reaching, and sports nutrition will be critically addressed and discussed at length. The course provides trainees with knowledge on aspects of planning, implementation and

control of training units and focuses also on diagnostic methods of how to measure performance.

Prerequisite:

SPSC 203

### **SPSC 215 General and Functional Anatomy**

#### **Credit Hours: 3**

Functional anatomy focusses on developing an understanding of the functional significance, characteristics and mechanical properties of different structures of the musculoskeletal system in relation to sport. This course will examine the application of movement in a range of sport and exercise contexts and explore the anatomy of injury and diseases related to physical inactivity. Description and analysis of movement in anatomical terms will be conducted.

Prerequisite:

None.

### **SPSC 302 Fitness Testing & Training**

#### **Credit Hours: 3**

This course will deal with the theoretical connections between physical activity seen as a health resource and the various risk factors like high blood pressure, obesity or immune suppression. It will focus on the effect of different physical activities on the response of physiological core parameters in various age groups.

Prerequisite:

SPSC 209

### **SPSC 303 Exercise & Metabolism**

#### **Credit Hours: 3**

This course will refer to the interrelation between exercise and metabolism with regard to various kinds of exercise and different levels of intensity, duration, and frequency. Different target groups are considered.

Prerequisite:

BIOM 215 OR BIOL 110

### **SPSC 305 Sport Marketing and Management I**

#### **Credit Hours: 3**

Emotions and identification in sport demand and consequences for strategic marketing and the marketing mix  
The role of time in sports consumption and consequences for strategic marketing and the marketing mix  
Socio-cultural context of Sport Sponsoring  
Conclusions of the sport marketing specialties for sport management (planning, organizing, staffing, directing, controlling).

**SPSC 306 Motor Learning****Credit Hours: 3**

This course provides basic knowledge of the development and learning processes. It covers current theories and principles explaining motor behavior in general, and motor skill acquisition and performance related to sport in particular. This course deals with learning theories, information processing, motor control and motor skill learning and emphasizes why and how children and adults learn and perform motor skills

Prerequisite:

SPSC 203

**SPSC 307 Exercise Physiology II****Credit Hours: 3**

To understand facts and concepts of physiological functions of human body during physical activity and exercise, in children, adolescents and adults to include cardiovascular, respiratory, muscle and neurological control of movement, hormonal and basic biochemistry of exercise in hypobaric and hyperbaric environments, ergogenic aids and performance, sports nutrition, control and maintenance of body weight, sex differences and cardiovascular disease, and physical activity

Prerequisite:

SPSC 203

**SPSC 308 Sport Psychology****Credit Hours: 3**

Examines the psychological, behavioral, social, cognitive, and humanistic perspectives in psychology of sport. The course focuses on all sports settings and includes topics such as optimal performance, correlation, motivation, co-action effect, self-actualization, psycho-behavioral techniques, self-efficacy, self-concept, self-esteem, and the general psychological health benefits of sport participation.

Prerequisite:

PSYC 205 OR PSYC 206

**SPSC 309 Exercise and Aging****Credit Hours: 3**

Personal and social aspects of aging. Typical diseases and their consequences for physical activity and sport. Basic information on the psychology of old age. Aims and tasks of sports for seniors, basic principles of the theory of training of sports for seniors. Main emphasis of practical experience: planning, conduction and evaluation of fitness programs for aged people (people advanced in years)

Prerequisite:

BIOM 215 OR BIOL 110

**SPSC 310 Principles of Training and Coaching II****Credit Hours: 3**

This course will further develop students' understanding of the current coaching theories and strategies. To understand both facts and concepts of sports training and coaching, coaching methodology, best practices for optimal performance in recreation to elite athletes. Knowledge of physiological, motor and biomechanical principles as they apply to simple and complex movements in sports that directly involve preparation in both in- and out-of-season training, and are based on current knowledge of training science, including knowledge and execution of training principles of micro, macro and meso-cycles and generally accepted coaching of athletes during training and application of periodization. The course will also cover programs to avoid overtraining and the problems associated with growth, maturation, and issues on aging.

Prerequisite:

SPSC 210

**SPSC 311 First Aid & CPR****Credit Hours: 0**

Introduction and practice in immediate and temporary care of injuries and sudden illness, including administration of CPR. Students seeking CPR certification may apply in writing to program director and they may be asked to pay a small additional fee.

**SPSC 318 Exercise Psychology****Credit Hours: 3**

This course is about the psychological health core topics like mental and emotional health, motivation to do health sport, change of long term lifestyle factors with special consideration of social- psychological aspects like group communication, attitude and behavior.

Prerequisite:

SPSC 308

**SPSC 349 Developmental Psychology****Credit Hours: 3**

This course provides the students with fundamentals in human development in all its dimensions (physical, cognitive, social, and emotional). Teacher candidates are introduced to information about the physical development as well as to psychological development across the life span. Teacher candidates will recognize and understand the need to support a healthy development across the life span by exercise and sports.

**SPSC 399 Physical Education in Schools****Credit Hours: 4**

The course deals with the organizational framework, relevant pedagogical concepts and methodological strategies for physical education.

**SPSC 400 Psycho-Social Aspect of Games****Credit Hours: 3**

This course provides the students with the opportunities and limitations of play, games and sport concerning correlates and effects on personal and social behavior. In addition, emphasis is put on valuing play, games and sport for enjoyment, challenge, performance, self-expression and/or social interaction.

Prerequisite:

PSYC 205 OR PSYC 206

**SPSC 401 Performance Analysis & Assess****Credit Hours: 3**

This course will focus on the scientific basis of performance analysis and assessment. Central to this course will be on cardiovascular and resistance conditioning in the off-season, pre-season, and in-season. Human Performance Laboratory equipment will be used to measure, determine and interpret the results of various performance tests. An introduction and utilization of appropriate equipment for cardiovascular conditioning and resistance training will be examined.

Prerequisite:

SPSC 206

**SPSC 403 Exercise, Obesity & Diabetes****Credit Hours: 3**

Etiology of obesity, genetic, and environmental variations. Etiology of diabetes, genetic, and environmental factors. Body energy stores in children and adults. Understanding and theory of obesity and diabetes, knowledge of physiology and pathophysiology. Application of physical activity with regard to obesity, and the role of exercise in management of obesity. Application of physical activity with regard to diabetes, and the role of exercise in the treatment of diabetes. Theoretical, practical, laboratory experiences, to calculate energy intake and energy expenditure.

Prerequisite:

SPSC 203

**SPSC 404 Exercise & Heart Disease****Credit Hours: 3**

Underlying and potential causes of developing heart disease and/or hypertension Thorough knowledge of physiology and pathophysiology. Appropriate exercise prescription for individuals with heart diseases or hypertension Parameters of exercise prescription. Heart disease as most common degenerative disease and the leading cause of death amongst adults. Knowledge of basic variations of heart disease. Emphasis on the identification of the heart disease, requirements of medical or no medical supervision, medications, exercise prescription, severity of heart or cardiovascular disease, monitoring of progress and changes, universal precautions, and competent monitoring and testing of heart patients. Practical experience in cardiac

rehabilitation center or hospital setting (internship).

Prerequisite:

SPSC 307

### **SPSC 405 Testing & Exercise Prescription**

#### **Credit Hours: 3**

Strain and load-bearing capacity (maximum resilience) of human hard and soft tissues in sport activities  
Epidemiological aspects of sport injuries with special focus on typical injury mechanisms Preventive and rehabilitary interventions. Causes of motor dysfunction (disorder) and their neuro-physiological characterization. Epidemiological aspects of bad posture and damaged posture with special interest on lack of Physical activity and wrong loading, preventive effect of physical activity and sport and the aspect of the functionality of the human movement apparatus. Test batteries to analyze neuromuscular deficits (maximum strength tests, muscle function tests), preventive training methods (training of strength, coordination and flexibility) and movement strategies to prevent / improve deficits or overstrain; special programs for low back training.

Prerequisite:

SPSC 206

### **SPSC 406 Concepts of Fitness & Nutrition**

#### **Credit Hours: 3**

Introduction to basic health and fitness concepts and related topics, including CPR. Attention will be given to the development of individual fitness programs emphasizing such topics as aerobic and anaerobic exercises, nutrition, diet, stress management, and assessment methods and procedures. The course is a combination of lecture and laboratory activity. Examines the biological, social, and behavioral aspects of exercise and physical activity in older adults in order to develop programs for older adults to improve and/or maintain functional status. Methods of measuring physical activity and assessing functional status for older adults are also considered and practiced. The course provides a foundation for working with older adults in programs and sites for exercise and/or physical activity.

Prerequisite:

SPSC 303

### **SPSC 407 Sport Governance & Econ I**

#### **Credit Hours: 3**

Resources economics in sport (role and substitution effects of fundraising, volunteers and subsidies) and their consequences for sport management Economic aspects of sport media and media rights and their consequences for sport management Economic impact of sport.

Prerequisite:

SPSC 305

### **SPSC 409 Sport Marketing and Management II**

#### **Credit Hours: 3**

Integrity of sport Strategic and evaluation concepts in sport sponsoring Communication and brand development in sport business. Event marketing in sport Quality in sport Conclusions of the sport marketing specialties for sport management (planning, organizing, staffing, directing, controlling)

Prerequisite:

SPSC 305

### **SPSC 410 Sport Governance and Economics II**

#### **Credit Hours: 3**

Examines sport organizations with a focus on both professional and amateur governance structures and processes. The aim of the course is to develop students' knowledge of the sporting sector and the policy, operational and leadership frameworks in which it operates. The course will emphasize structure and governance of sport within a variety of areas including professional team-sport leagues, the Olympic movement, and international sport associations.

Prerequisite:

SPSC 407

### **SPSC 449 Teaching PE in Primary Schools**

#### **Credit Hours: 3**

This course aims to develop teacher candidates' capabilities as a teacher of all activities in primary school. The course also focuses on teacher candidates' ability to understand and apply their pedagogical practices in a range of creative, competitive and challenging activities in preparation for teaching and learning at primary school level. Teacher candidates will recognize and understand how individuals at that age participate and respond in different situations and subsequently be able to begin to differentiate their teaching material and approach accordingly.

Prerequisite:

SPSC 399

### **SPSC 475 Teaching PE in Secondary Schls**

#### **Credit Hours: 3**

This course aims to develop teacher candidates' capabilities as a teacher of all activities in secondary school. The course also focuses on teacher candidates' ability to understand and apply their pedagogical practices in a range of creative, competitive and challenging activities in preparation for teaching and learning at secondary school. Teacher candidates will recognize and understand how individuals at that age participate and respond in different situations and subsequently be able to begin to differentiate their teaching material and approach



accordingly.

Prerequisite:

SPSC 399

### **SPSC 490 Sport Science Project**

#### **Credit Hours: 3**

Students will experience how to organize and run a sport science project. Such project gives the students the chance to experience the whole life cycle of development, design as well as experiencing effectively the realization of a sport science project.

Prerequisite:

SPSC 206

### **SPSC 499 Internship**

#### **Credit Hours: 6**

This internship is a supervised student teaching action at primary and secondary or high school school settings. Students will spend 6 weeks in a primary, another 6 weeks in a secondary or high school. This internship provides field-based experience in selected areas of physical education in Qatari or international school settings. Students teaching includes to perform content knowledge, pedagogical knowledge and disposition as their final opportunity.

Prerequisite:

SPSC 449 AND EDEC 411 AND SPSC 475

### **STAT 101 Statistics I**

#### **Credit Hours: 3**

This course covers Basic concepts, Population. Types of data, Sampling methods, Tables and graphs. Descriptive Statistics, Basic probability concepts, Random experiment. Sample space, Rules of probability. Counting techniques. Conditional probability. Independence, Discrete and continuous random variables. Sampling distributions, The Student-t distribution, Point estimation. Confidence intervals for a single population, Testing hypotheses for a single population. For the lab one Statistical software like SPSS, Minitab or Excel are used.

Prerequisite:

(( ENGL 040 OR ENGL C002 OR Total for Integrated Core 400) AND (ENGL 041 OR ENGL R002 OR ESL Reading Skills 100) AND (ENGL 042 OR ENGL W002 OR APL for Writing Workshop 225) ) OR ( Total for Integrated Core 400 AND ESL Reading Skills 100 AND ESL Language Use 100) OR TOEFL\_Int Testing Prog 500 OR TOEFL Internet-based Test 061 OR TOEFL Computer-based Test 173 OR Int Eng Lang Test Syst-IELTS 5.5 OR ENGL 004 OR ENGL 111 OR ENGL 250 OR ENGL 201 OR ENGL 202

**STAT 102 Statistics II****Credit Hours: 3**

This course covers two sample estimation and hypotheses testing. Inference about population variance, on and two sample cases. Chi-Square Procedures, The Chi-square distribution. Chi-square goodness of fit test. Contingency tables. Association. Chi-square test for independence. The F-distribution. The completely randomized design. Multiple comparisons. The randomized block design. The two-factor factorial design, Simple regression equation. Inference about the regression quantities. Nonparametric Statistics, the sign test and Wilcoxon signed rank test, the Wilcoxon rank sum test. The Kruskal-Wallis test. The Friedman test. The Spearman correlation coefficient. Statistical software like Minitab and Excel are used.

Prerequisite:

STAT 101 OR STAT 153

**STAT 151 Introduction to Applied Statistics****Credit Hours: 3**

Collection of Data; Concepts of Sampling; Organization and Graphical Presentation; Rates and Ratios; Measures of Central Tendency and Dispersion; Elementary Probability; Discrete and Continuous Distributions; Sampling Distribution, Point and Interval Estimation, Hypothesis Testing for Means, Proportions and Variances, Simple Linear Regression and Correlation, Analysis of Variance; Analysis of Categorical Data.

**STAT 153 Introduction to Statistics****Credit Hours: 3**

Basic Concepts and Definitions of Statistics Terminology, Organization and Graphical Presentation of Statistical Data; Measures of Central Tendency and Dispersion; Percentiles and Quartiles; Basic Probability Concepts; Discrete and Continuous Random Variables and Distributions; Sampling Distribution of the Mean, t, Chi Square and F Distributions; Interval Estimation; Hypothesis Testing for Means, Proportions and Variances.

Prerequisite:

STAT 102

**STAT 156 Statistics-Pharmacy****Credit Hours: 3**

Statistical Concepts; Organizing and Drawing Conclusion from Data; Basic Probability; Binomial, Normal and t distributions; Estimation and Hypothesis Testing; Simple and Multiple Regression; One and Two-Way Analysis of Variance; Survey Design

**STAT 211 Introduction to Probability****Credit Hours: 3**

Random experiment. Sample spaces, Events. Axioms and rules of probability. Equally likely sample spaces. Counting techniques, Conditional probability. Random variables. Expected values. Moment generating function. Probability generating function, Probability distributions, uniform, Bernoulli, binomial, geometric, negative binomial, Poisson and hypergeometric. exponential, gamma, beta and normal. Discrete and continuous

bivariate random variables. Joint, Marginal and conditional distributions.

Prerequisite:

(MATH 102 OR MATH 221) AND (STAT 153 OR STAT 101 OR STAT 151 OR STAT 220 OR GENG 200)

### **STAT 220 Business Statistics I**

#### **Credit Hours: 3**

This course introduces descriptive graphical techniques and numerical measures; probability distributions and their application to stock markets, production reliability and queuing systems; sampling distributions; estimation; inference with application to market segmentation; simple linear regression and correlation with application to accounting, economics, banking and insurance.

Prerequisite:

( MATH 103 or MATH 119 or MATH 101 ) and ( ENGL 111 or ENGL 202 or ENGL 004 or ENGL 040 or ENGL F073 or ENGL F022 or TOEFL IBT 061 or TOEFL 500 or IELTS 5.5 or TOEFL CBT 173 or (Total for Integrated Core 400 and ESL Reading Skills 100 and ESL Language Use 100) )

### **STAT 221 Mathematical Statistics I**

#### **Credit Hours: 3**

The Multinomial and multivariate normal distributions. Functions of random variables. Transformation techniques. Sampling Distributions, the t, the  $\chi^2$ , and the F distributions. The distribution of a single order statistic. The joint distribution of two order statistics. Distributions of functions of order statistics. Limit Theorems, Convergence in distribution, Convergence in Probability, Laws of large numbers. Limiting distributions. The Central limit theorem.

Prerequisite:

STAT 211 AND MATH 251 OR STAT 251

### **STAT 222 Business Statistics II**

#### **Credit Hours: 3**

This course examines multiple regression analysis with emphasis on model building in business and economics applied to the consumer, the firm and the markets, non-parametric statistics, time series analysis and business forecasting applied to sales, demand, revenue, consumption, share prices, exchange rates, basics of discriminate analysis and factor analysis applied to marketing research.

Prerequisite:

STAT 220 OR STAT 155

### **STAT 231 Applied Regression Analysis**

#### **Credit Hours: 3**

Simple Linear Regression; Residual Analysis; Autocorrelation; Multiple Regression; Parameter Estimation and Testing; Model Selection Procedures; Polynomial Regression; Indicator Variables; Multicollinearity; Outliers

and Influential Observation. Statistical software like Minitab, SPSS and R are used.

Prerequisite:

STAT 102 OR STAT 251 AND STAT 211

### **STAT 241 Biostatistics**

#### **Credit Hours: 3**

Methods of Sampling in Medical Studies; Summarizing and Presenting Medical Data; Demographic Statistics; Survival Analysis; Analysis of Cross Tabulation; Inference for Means; Parametric and Non-Parametric with applications to medical data; Multiple Linear, Logistic, Poisson and Cox regression applied to medical data; Sample Size Determination. Statistical software like Minitab and Excel are used.

Prerequisite:

STAT 102 OR STAT 151

### **STAT 242 Demography**

#### **Credit Hours: 3**

Basic Concepts, Meaning of population, Demographic rates. Period rates. Person years. Growth rate. The concept of cohort. The crude death rate. Age- specific death rates. The Lexis diagram. Mortality rates. Single-failure indices. The standardized death rate. The standardized mortality ratio. Life Tables, Multiple Decrement Life Tables, Fertility and Reproduction, Modeling Age Patterns.

Prerequisite:

STAT 102

### **STAT 312 Stochastic Processes**

#### **Credit Hours: 3**

Elements of Stochastic Processes; Discrete Time Markov Chains; Random Walks; Branching Processes; Poisson Processes; Birth and Death Processes; Queuing Systems; Renewal Processes. Basic theory of martingales and Brownian motion. Applications to stochastic financial modeling.

Prerequisite:

(STAT 211 OR STAT 251) AND MATH 251)

### **STAT 322 Mathematical Statistics II**

#### **Credit Hours: 3**

Consistency, Sufficiency, the exponential family of distributions. Completeness of a family of distributions. Theory of Point Estimation, Criteria for judging point estimators. The mean squared error and the variance. Unbiasedness, Rao-Blackwell Theorem. Uniformly minimum variance unbiased estimation. Lower bounds of the variance of unbiased estimators. Information. Efficiency of an estimator. Maximum likelihood method. Moments method. Least squares method. Comparisons between the different methods. Interval estimation, Pivotal quantities. A General method for confidence intervals. Large sample confidence interval. Test of

hypotheses, most powerful test. Neyman-Pearson lemma. Uniformly most powerful test. Uniformly most powerful unbiased test. Likelihood ratio test. Sequential tests. Large sample tests.

Prerequisite:

STAT 221

### **STAT 332 Design of Experiments**

**Credit Hours: 3**

Principles of Experimental Design; Completely Randomized designs; Randomized Complete Block designs; Latin Square designs; Incomplete Block Designs; Factorial Experiments; Split Plot; Analysis of Covariance. Statistical software like Minitab, SPSS and R are used.

Prerequisite:

STAT 102 OR STAT 251 AND STAT 211

### **STAT 333 Time Series**

**Credit Hours: 3**

This course discusses the analysis of time series data and their use in prediction and forecasting. The course presents various methods including time series regression, smoothing techniques and the Box-Jenkins methodology. The emphasize is on the applied side of the subject utilizing statistical packages like R, SPSS and Minitab.

Prerequisite:

STAT 231 OR STAT 258

### **STAT 341 Actuarial Statistics I**

**Credit Hours: 3**

Actuarial models, classifying and creating distributions. Frequency and severity with coverage models, deductibles, policy limits and coinsurance. Aggregate loss models, compound models, computing aggregate claims distributions, comparison between the various computing methods. Discrete and Continuous time ruin models.

Prerequisite:

STAT 102 OR STAT 251 AND STAT 211

### **STAT 343 Applied Survival Analysis**

**Credit Hours: 3**

Censored data, types of censoring, examples of survival data analysis, the survival function, the hazard function, Nonparametric Methods, Life tables, the Product-Limit Estimator of the survival function, comparing two survival distributions (Mantel-Haenszel test), Parametric Survival Distributions and Inference, Goodness of Fit for Survival, Parametric Regression Models, Cox's Proportional Hazards Model. Statistical software like

Minitab, SPSS and R are used.

Prerequisite:

STAT 102 OR STAT 258

### **STAT 344 Quality Control**

**Credit Hours: 3**

Analysis of Control Charts for Variables and Attributes; Histogram Analysis; Process Capability; Standard Acceptance Sampling Plans; Process Reliability. Statistical software like Minitab and SPSS are used.

Prerequisite:

STAT 102 OR STAT 251 AND STAT 211

### **STAT 361 Sampling Methods**

**Credit Hours: 3**

Principles of sampling; questionnaire Design; Simple random sampling; Stratified and Cluster Sampling; Ratio and Regression estimation; Systematic Sampling; Multistage and Multiphase Sampling; Determination of the sample Size; Non-response and Non-sampling Errors Adjustment.

Prerequisite:

STAT 102 OR STAT 251 AND STAT 211

### **STAT 371 Statistical Packages**

**Credit Hours: 3**

Detailed use and full exploitation of Statistical Packages such as SPSS, MINITAB, R and SAS in working with Data; Topics include Data Entry, checking, manipulation and Analysis. Comparison between the different packages, their advantages and disadvantages. Weaknesses and strengths are discussed. Effective use of statistical packages in solving real life problems. Advanced features of statistical packages.

Prerequisite:

STAT 231 OR STAT 258

### **STAT 372 Statistical Simulation**

**Credit Hours: 3**

Generating of Discrete and Continuous Random Variables; Bootstrapping; Variance Reduction Techniques; Model Design and Simulation with Applications Including Queuing and other Applications; Verification and Validation of the Model. Using Statistical software like Minitab, SPSS and R.

Prerequisite:

STAT 211 OR STAT 251

**STAT 381 Categorical Data Analysis****Credit Hours: 3**

Contingency Tables; Measures of Association; Exact and Asymptotic methods for 2x2 and rxc Contingency Tables; Probit and Logistic Regression Models for Binary Data; Loglinear Models for Multiway Contingency Tables. Statistical software like Minitab, SPSS and R are used.

Prerequisite:

STAT 231

**STAT 382 Non-parametric Methods****Credit Hours: 3**

Basic Concepts of Non-Parametric Methods; Testing and Estimation for one, Two, and Several sample Problems; Independent and Paired; Location and Dispersion Problems; Goodness of Fit Tests; Tests for Trends and Association; Analysis of variance of Ranked Data; Pittman Efficiency of Non-Parametric Methods. Statistical software like Minitab, SPSS and R are used.

Prerequisite:

STAT 221

**STAT 434 Generalized Linear Models****Credit Hours: 3**

The Exponential family of distributions, Properties of distributions in the Exponential family, Generalized linear models, Examples, Inference in Generalized Linear Models, Model Adequacy and Diagnostics, The deviance statistic, The residuals, modifications of the residuals and model checks based on the residuals. Special Cases of Generalized Linear Models, Normal theory linear models, Binary logistic regression, Nominal and ordinal logistic regression, Poisson regression and Loglinear models. Statistical software like Minitab, SPSS and R are used.

Prerequisite:

STAT 322

**STAT 442 Actuarial Statistics II****Credit Hours: 3**

Construction of Empirical Models, estimation for grouped and modified data, kernel density estimators. Parametric Statistical methods, estimation and confidence intervals in actuarial models. Model Selection, graphical methods, goodness of fit techniques. Credibility theory, Simulation of actuarial models, Case study examples.

Prerequisite:

STAT 341



**STAT 445 Reliability and Life Testing****Credit Hours: 3**

Reliability Concepts; Component and System Reliability; Notions of Aging; Lifetime Distributions and Hazard Functions; Types of Censoring; Nonparametric Estimation of Reliability Function; Kaplan-Meier and Nelson Estimators; Parametric Inference Procedures for Exponential, Weibull and Extreme Value Distributions; Proportional Hazards Regression Model; Accelerated Life Testing; Stress-Strength Models. Statistical software like Minitab, SPSS and R are used.

Prerequisite:

STAT 322

**STAT 464 Environmental Statistics****Credit Hours: 3**

Stochastic processes in the Environment. Fitting probability models to Environmental data. Tail Exponential Method. Poisson Processes and their application. Negative binomial model (Contagion and True Models). Capture-Recapture Method, Distance Sampling, Composite sampling, Introduction of Rank Set sampling methods, adaptive cluster sampling and adaptive allocation methods.

Prerequisite:

(STAT 312 OR STAT 452) AND (STAT 361 OR STAT 357 )

**STAT 481 Multivariate Analysis****Credit Hours: 3**

Organization of Multivariate Data; Multivariate Distributions; Mahalanobis Distance; Hotelling's  $T^2$ ; Multivariate Analysis of Variance and Regression; Data Reduction Techniques; Discriminant and Classification Analysis; Canonical Correlation Analysis. Statistical software like Minitab, SPSS and R are used.

Prerequisite:

STAT 322 AND MATH 231

**STAT 482 Bayesian Statistics****Credit Hours: 3**

Nature of Bayesian Statistics, Prior and posterior distributions. Noninformative priors. Jeffereys rule. Conjugate priors. Bayesian Inference, Quadratic loss function and Bayes estimators, Highest posterior density intervals, Bayesian tests of hypothesis. Bayesian methods in the normal and some other distributions. Approximate Bayesian Methods, Asymptotic approximations of the Bayes estimator, The Lindley and Tierney-Kadane methods, Markov chain Monte Carlo methods and the Gibbs sampler.

Prerequisite:

STAT 322

**STAT 497 Independent Study****Credit Hours: 3**

Designed for students who wish to pursue further reading in a particular topic of current interest in Statistics under the guidance of a faculty member. Each student is required to present analytical evaluation of his/her reading to his/her faculty supervisor

**STAT 498 Special Topics****Credit Hours: 3**

Studies topics in statistics that are not part of the regular offerings. Topics will be selected by statistics faculty members as appropriate

**STAT 499 Senior Project****Credit Hours: 3**

A number of skills learned throughout the curriculum are combined by expecting students to work through a variety of cases studies. Students are expected to collect data and analyze the data individually. Oral and written research reports of suitable format and content are required.

**TRAN 201 Principles & Strat. of Trans.****Credit Hours: 3**

The course provides foundational training in the principles and challenges of translation from English to Arabic and vice versa. A set of basic techniques and strategies will be introduced and applied to the translation of a variety of text types. Students will begin to develop an understanding of the key notion of equivalence in meaning, and acquire the tools to solve translation problems at the word, sentence and text levels.

**TRAN 202 Contemporary Translation Theories****Credit Hours: 3**

This course introduces students the field of Translation Studies, integrating theory and practice in order to develop a critical appreciation of the translation process. Through exposure to a selection of key approaches that have informed translation theory over the last century, students will learn to view translation as a complex process involving much more than mechanically replacing words with their equivalents in another language.

**TRAN 210 Arabic Writing Skills for Translators****Credit Hours: 3**

This course is designed to help students practice key translation techniques including paraphrasing, condensing, expanding and restructuring in the Arabic language. Students will work on rephrasing a range of carefully selected texts belonging to a variety of text types and genres, to allow them to improve their written communication skills and enhance their Modern Standard Arabic vocabulary. The course will give translation students the tools to solve problems of non-correspondence across languages and develop a more autonomous translation style, free from the influence of the source language.

**TRAN 211 English Writing Skills for Translators****Credit Hours: 3**

This course is designed to help students practice key translation techniques including paraphrasing, condensing, expanding and restructuring in the English language. Students will work on rephrasing a range of carefully selected texts belonging to a variety of texts types and genres, to allow them to improve their written communication skills and enhance their English language vocabulary. The course will give translation students the tools to solve problems of non-correspondence across languages and develop a more autonomous translation style, free from the influence of the source language.

**TRAN 212 Linguistic Comparison of Arabic & English****Credit Hours: 3**

The course deals with how English and Arabic compare and contrast at various levels of linguistic organization: phonology, morphology, syntax and semantics. A discourse pragmatic perspective, together with a functional approach to the lexicogrammar, is promoted throughout to enable students look at the way texts are organized functionally.

**TRAN 301 Media Translation****Credit Hours: 3**

This course introduces students to different forms of media translation while helping them develop a critical awareness of the wider cultural and ideological implications of media translation in today's globalized world. Through exposure to a variety of authentic texts from English and Arabic media, students will explore different translation strategies and will be encouraged to examine problems regularly encountered in the process of translating news reports, editorials and headlines. The treatment of all texts will be guided by theoretical input covered in TRAN 201 and TRAN 202.

Prerequisite:

TRAN 201 AND TRAN 202

**TRAN 302 Specialized Translation I****Credit Hours: 3**

This course provides focused training in the translation of authentic texts in the areas of law, science and technology, healthcare and marketing from English into Arabic and vice versa. The course will develop students' ability to apply the theoretical ideas learnt in TRAN 201 and TRAN 202 to a practical translation task, and provide them with hands-on practice in the use of translation software.

Prerequisite:

TRAN 201 AND TRAN 202

**TRAN 303 Intercultural Communication****Credit Hours: 3**

With globalization increasingly impacting many aspects of our life, communication across cultural boundaries is a necessary skill for educated individuals to increase respect and minimize antagonism. This course provides an in-depth view of the way in which cultures influence communication, and how diverse cultures encode and decode messages differently. Topics covered include perception differences, worldview, identity, verbal and nonverbal communication styles in both high and low context cultures, and the effect of bias and conflicting value systems on cross-cultural communication.

Prerequisite:

TRAN 202

**TRAN 313 Discourse Analysis for Translators****Credit Hours: 3**

This course is designed to introduce students to the principles and skills of text analysis, allowing them to apply their training in formal linguistics in the analysis of a variety of texts. The notions of text and textuality, as well as form and content, will be introduced. Analysis will include written and spoken texts. Students will also be trained to use computer aided text analysis using a variety of techniques. Students are also trained to decipher the text producer's intentions, and methods of expressing and/or obscuring such intentions. Explicit and implicit attempts on the part of the text producer to flout established communicative maxims are related to the process of translation. Cultural manifestations in the structure and the functions of texts are also analyzed and related to the act of translation.

Prerequisite:

TRAN 201 AND TRAN 202

**TRAN 314 Introduction to Subtitling****Credit Hours: 3**

This course aims to provide students with foundational training in the practice of subtitling. Authentic audio-visual materials will be used to provide a basic grounding in the techniques and conventions of subtitling. Students will learn to use professional subtitling software in an interactive, workshop-style environment, while developing a critical awareness of the wider cultural and ideological implications of screen translation.

Prerequisite:

TRAN 201 AND TRAN 202

**TRAN 316 Translation Technologies****Credit Hours: 3**

This course aims to prepare students for an increasingly technologized profession by introducing them to a variety of computer-assisted-translation (CAT) tools and applications. The course will provide students with hands-on practice in the use of dedicated software for terminology management, information research,

localization, project management and translation in a variety of file formats. Students will translate authentic material and develop a critical appraisal of the usefulness and usability of different CAT tools.

Prerequisite:

TRAN 201 AND TRAN 202

### **TRAN 401 Rhetoric for Translators**

**Credit Hours: 3**

This course aims to introduce the students to important stylistic aspects of Arabic rhetoric and its terminology and to compare it with other rhetorical terms in English, so that the student will be able to translate metaphorical and allegorical texts effectively. The course emphasizes the three most important fields of rhetoric in the Arabic language and their English counterparts, which are: semantics, rhetoric, and figures of speech. The delivery of this course relies on political texts from Arabic and English literature emphasizing rhetorical devices, figurative language, stylistic and other terminology.

### **TRAN 402 Specialized Translation II**

**Credit Hours: 3**

This course builds on the translation skills acquired in TRAN 302 by presenting students with progressively more challenging texts in terms of length, writing style, use of specialized terminology and sentence complexity. The course provides training in the translation of authentic texts belonging to a broad range of text types and genres, with a focus on creative translation.

Prerequisite:

TRAN 302

### **TRAN 403 Introduction to Subtitling**

**Credit Hours: 3**

This course provides students with an introduction to interpreting in the context of intercultural communication. Students will practice various modes of interpreting including consecutive interpreting, simultaneous (whisper) interpreting and sight translation in the areas of international relations, business, law, healthcare and education. This course is interactive in nature, making extensive use of audio-visual material, group activities and role-play to enhance students' problem-solving skills and engage them in critical discussions regarding ethics, professional conduct and the responsibilities of the interpreter as a cultural mediator.

Prerequisite:

TRAN 302

### **TURK 101 Turkish 1**

**Credit Hours: 3**

This course aims to introduce the Turkish language to beginning students, and develop oral and written skills for both comprehension and expression. Language skills to be emphasized include understanding, reading, writing, and speaking. The course provides a foundation for learning the basics of Turkish, through grounding

in the structure of sentences and current usage with the emphasis on oral communication. The course focuses equally on listening, speaking, reading, and writing.

### **TURK 201 Turkish 2**

#### **Credit Hours: 3**

This course is a continuation of 101. It is designed to improve different aspects of language and writing skills. It aims to improve students' conversational skills; to provide a variety of readings for written comprehension; to develop a good grammar background; to improve listening skills; and to introduce students to some examples of Turkish culture.

### **TURK 210 Aspects of Turkish Culture**

#### **Credit Hours: 3**

Students in this course will be introduced to different aspects of Turkish culture. They will be introduced to the different stages of the Turkish language throughout history such as the Old Turkish languages like Göktürk and Uyghur Turkish, Middle-Turkic languages like Karakhanid, Khwarezm, and Chagatai Turkish, Pre-modern Turkish like Ottoman Turkish. Students will also study the important literary influences that characterize each stage of the history of the Turkish language.

Prerequisite:

TURK 101

### **TURK 211 Introduction to Turkish Literature**

#### **Credit Hours: 3**

The course introduces students to Turkish literature in general. Reading of various literary texts will be based on representative texts to familiarize students with literary terminology and the methods of text interpretation and make them realize the importance of general knowledge for literature. Students will learn to work in groups. Through their group discussions and short presentations about the reading materials they will display better cross-cultural communication skills via comparing different cultures. Besides theoretical knowledge about Turkish literature, the student are expected to continue improving their language competence. Discussions about the studied materials and oral and written interpretations are main parts of the intended communicative lecture.

Prerequisite:

TURK 101

### **UNIV 100 First Year Seminar**

#### **Credit Hours: 3**

The First-Year Seminar course is designed to equip first-year students with the knowledge and skills needed for their personal growth and academic success, while transitioning from high school to university. The course is designed on three components: learning about the self, the university environment, the society and world. Students will be engaged in activities that promote critical thinking skills through common reading, civic engagement and research topics related to the Qatari community. This is to emphasize students' role as citizen scholars in society and to develop skills necessary for life-long learning.

**UNIV 200 Innovation, Leadership and Civic Engagement****Credit Hours: 3**

This is an interdisciplinary course designed to explore the concepts of creativity, innovation, entrepreneurship, leadership and civic engagement. It focuses on the contemporary issues locally, regionally and globally through interactive lectures, active discussions, case studies, videos, and guest speakers. Students will participate in community service and work collaboratively on a current local issue to propose actions to have a better sense of the issues and challenges that their community face, and envision creative approaches to these challenges.



