جامعة قطر
QATAR UNIVERSITY

UNDERGRADUATE CATALOG

2014 - 2015

2014-2015 UNDERGRADUATE CATALOG

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A MESSAGE FROM THE PRESIDENT

Welcome to Qatar University! It gives me great pleasure to introduce this document which showcases the exciting program offerings available to students. Using this catalog, you will find a wealth of useful information for guidance as you chart your course of study.

The contents of this document highlight the central pillars of Qatar University's mission, 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-bases needed for a graduate to be competitive in today's labor market or in higher education pursuits. The broad range of programs, many of which have attained independent external accreditation from recognized professional associations, has been crafted with a view to cater to the needs of the labor market and the country's ambitious development course. Over sixty specializations from seven 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, and common purpose.

University life offers much more than a path towards a degree. Rather, there is a rich variety of activities, student life programs, and services, of which I hope you will take advantage. Together, the academic and student life teams work 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 take full advantage of this catalog to learn all about the University and its programs and services, which are designed to serve both academic and extracurricular interests and plans.

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

Sheikha Abdulla Al Misnad
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.

Chair

Mr Hamad Rashed Al Muhannadi, General Manager, RasGas, provides leadership and guidance to both the Board membership and the organization as a whole.

Vice Chair

H.E. Sheikh Dr Abdullah Bin Ali Al-Thani, President, Hamad Bin Khalifa University.
He is also the Vice President for Education,Qatar Foundation for Education, Science, and Community Development; and Chair, Executive Management Committee, QU Board of Regents.

Board Members

Mr. Hamad Rashed Al Muhannadi
Chair

H.E. Sheikh Dr. Abdullah Bin Ali Al-Thani
Vice Chair

H.E. Sheikh Ahmad Bin Jasem Bin Mohammad Al-Thani
Minister of Economy and Commerce
Member

H.E. Dr. Hessa Sultan Jaber
Minister of Communication and Information Technology
Member

H.E. Dr. Saleh Mohammad Al-Nabet
Minister of Development Planning and Statistics
Member

H.E. Dr. Mohammad Abdul Wahid Al-Hamadi
Minister of Education and Higher Education and Secretary General, Supreme Education Council
Member

H.E. Sheikh Faisal Bin Qasim Al-Thani
Chairman, Qatari Businessmen Association
Member

H.E. Sheikh Dr. Khalid Bin Thani Bin Abdullah Al-Thani
Chairman and Managing Director, Qatar International Islamic Bank
Member

H.E. Prof. Sheikha Abdulla Al-Misnad
President, Qatar University
Ex-officio

General Secretary

Prof. Abdel Aziz El Said El-Bayoumi
Secretary General, QU Board of Regents; professor and academic advisor to QU President

President

Prof. Sheikha Abdulla Al-Misnad
As the Chief Executive Officer of QU, the President has overall authority of its administrative and academic processes, adhering to the principal goals of the organization's Strategic Plan. This includes overseeing QU's commitment to its vision and mission, and serving as its official spokesperson and representative at all public appearances in Qatar and abroad.

The President participates in all deliberations at the Board of Regents' meetings and executes ensuing recommendations made by the Board. The President submits an annual operating budget for Board approval, as well as nominations for the positions of Vice-President at the organization.

Prof Al-Misnad assumed her position as QU's 5th President in 2003, having served as its Vice President for Research and Community Development from 2000 to 2003. A QU alumna, she rejoined the university as a teaching assistant in 1977, and in 1986 became a member of the University Council and later, Head of the then-Department of Foundations of Education from 1992 to 1995.

Always a strong advocate of education and life-long learning, Prof Al-Misnad received her Doctor of Philosophy in Education in 1984 from the University of Durham UK with a thesis on "The Development of Modern Education in the Gulf States with Special Reference to Women's Education" which was subsequently published by Ithaca Press in 1985. The university later awarded her

an honorary doctorate in civil law in January 2008 in recognition of her “outstanding achievements in the field of education”.

In October 2013, she was awarded an honorary Doctor of Laws from Dalhousie University, Canada

Adding to her many achievements, Prof Al-Misnad was appointed a member of the Board of Trustees of the American University of Cairo in 2010, a member of the Asian University for Women International Council of Advisors in 2009; and has held membership in the United Nations University (UNU) Council since 2004. Among a number of distinguished awards, she received the 2011 Woman in Education Service Excellence Award in the 10th Middle East Women Leaders Awards.

Prof Al-Misnad’s accomplishments also included appointment as Minister by then-HH The Emir in 2010.

Vice Presidents

Dr Humaid Abdullah Al Midfaa
Vice President and Chief Financial Officer
The VP and CFO is responsible for the general supervision of QU’s administrative and financial affairs. Dr Al-Midfaa has held this position since 2003. After completing his PhD in Non-Organic Chemistry from London University in 1988, he began his career at QU as Assistant Professor of Chemistry at the Department of Chemistry in the then-College of Science. Before assuming his current role in 2003, Dr Al-Midfaa held several administrative positions among which were Director Research and Applied Sciences Center, and Dean of Student Affairs.

Dr Mazen O Hasna
Vice President and Chief Academic Officer
The VP and CAO is responsible for the general supervision of all QU academic programs, research, continuing education and libraries. In February 2013, Dr Hasna was appointed to his current position following his successful tenure as Dean College of Engineering (CENG). He earlier held the positions at the College of Assistant Professor, and later, Head Electrical Engineering Department and Associate Dean for Academic Affairs

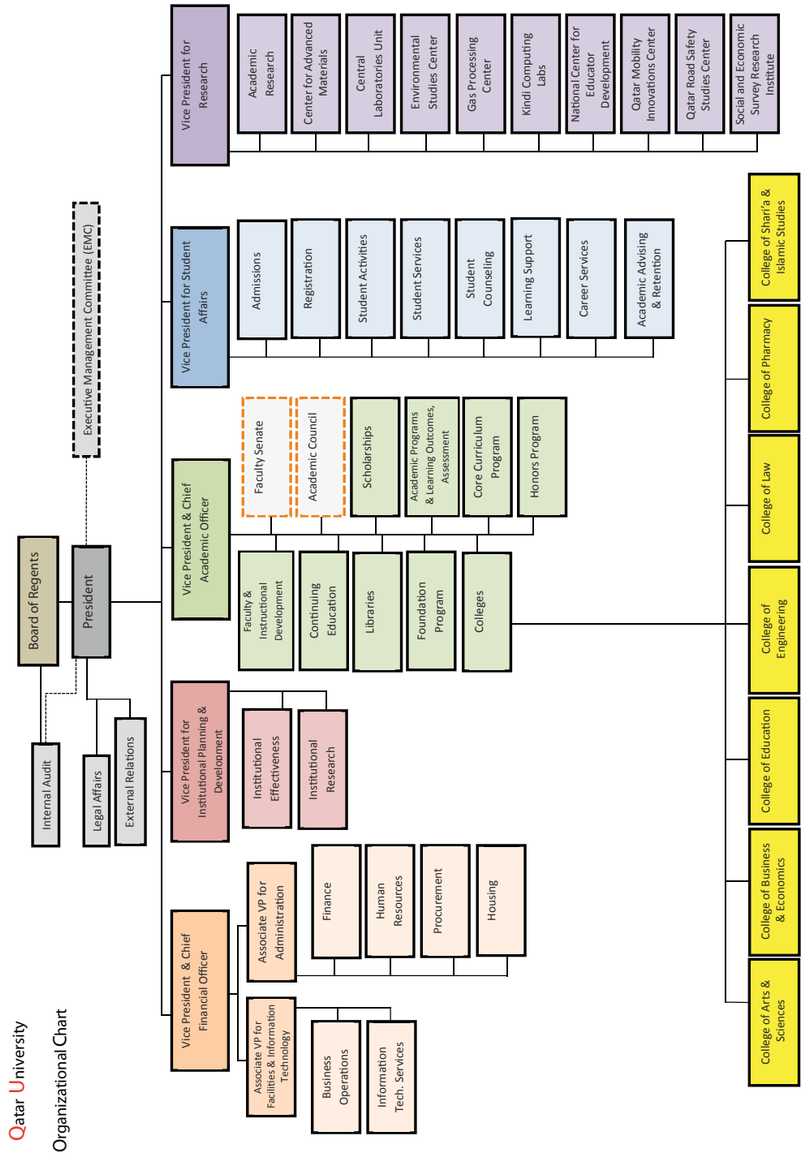
Dr Hasna received his BSc degree in 1994 from Qatar University, an MSc from the University of Southern California in 1998, and a PhD in 2003 from the University of Minnesota, all in Electrical Engineering, majoring in communications engineering. .

Dr Omar Mohamed Al-Ansari
Vice President for Student Affairs
The VP for Student Affairs is responsible for the general supervision of all student initiatives at Qatar University, including admission, registration and academic records, student life, campus activities, student academic support and related student services. Dr Al-Ansari was appointed Associate Vice President for Student Affairs in 2003 and assumed his current position in 2007. He holds a PhD in Civil Engineering from the University of Texas at Austin, USA.

Dr Hassan Rashid Al-Derham
Vice President for Research
The Office of the VP for Research is responsible for encouraging, promoting and facilitating research and collaboration activities among the QU community and with external organizations and institutions. A PhD in Civil Engineering from University of Glamorgan UK, Dr Al-Derham has held this position since 2007, following his earlier responsibilities as Associate Vice President for Research. In addition to overseeing the organization’s research centers and units, Dr Al-Derham holds the Chair on both the Quality Management and Quality Assurance Committees.

Prof Saif Said Al Sowaidi
Vice President for Institutional Planning and Development
The Office of the VP is responsible for facilitating the integration of accountability, assessment, planning, accreditation and institutional research, and providing essential support to QU administration and community. Prof Al Sowaidi has held this position since November 2008, prior to which he served as a consultant to QU President, Vice President for Administration, and Associate Dean at the College of Business and Economics (CBE). A PhD in Economics from University of Durham UK, Prof Al-Sowaidi has served as professor of economics at CBE since 2004.

ORGANIZATIONAL STRUCTURE



DIRECTORY

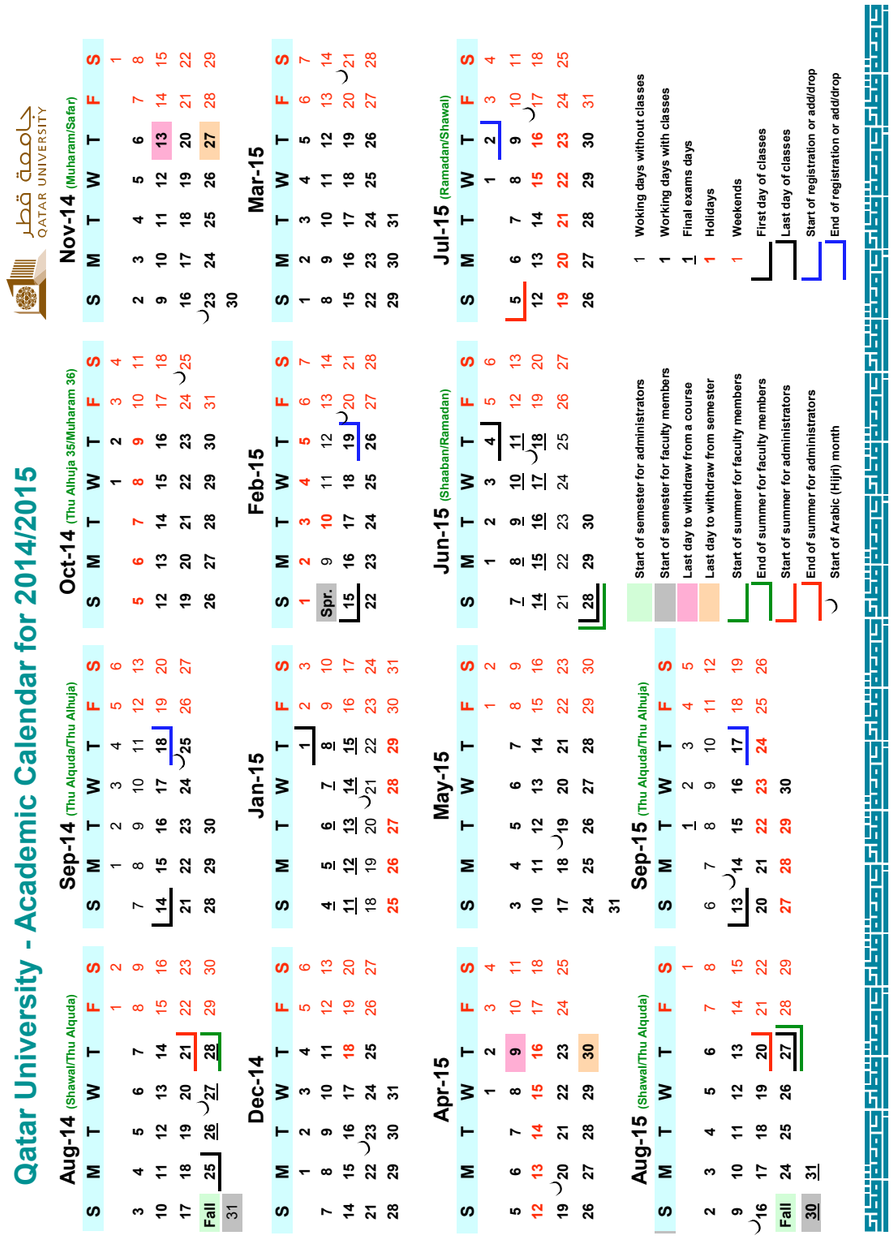
Offices	Number	Email
Qatar University Main Line	44033333	info@qu.edu.qa
SESRI Call Centre	44033030	
Talabati Services	44035555	
Emergency Services	44036666	
BOD Helpdesk	44033636	
Student Call Center	44034444	studenthelp@qu.edu.qa
Academic Programs and Learning Outcome Assessment	44034007	aploa@qu.edu.qa
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
Associate Vice President for Facilities & Information Technology	44033107	avpadmin@qu.edu.qa
Business Operation Department	44033500	bodhelpdesk@qu.edu.qa
Career Services Center	44033883	careerservices@qu.edu.qa
Central Advising and Retention Unit	44033875	caar@qu.edu.qa
Central Laboratory Unit	44033927	clu@qu.edu.qa
College of Arts & Science	44034500	cas@qu.edu.qa
Arabic for Non-Native Speakers Program	44034584	arabicprogram@qu.edu.qa
Department of Arabic Language	44034820	headdeparabic@qu.edu.qa
Department of Biological & Environmental Sciences	44034530	biology@qu.edu.qa
Department of Chemistry & Earth Sciences	44034650	headdepchemistry@qu.edu.qa
Department of English Literature and Linguistics	44034900	malghadeer@qu.edu.qa
Department of Health Sciences	44034800	health@qu.edu.qa

Department of Humanities	44034700	headdephumanities@qu.edu.qa
Department of International Affairs	44034957/4941	iap@qu.edu.qa
Department of Mass Communication & Information Science	44034860	headdepmasscommunication@qu.edu.qa
Department of Mathematics, Statistics & Physics	44034600	math-physics@qu.edu.qa

Offices	Number	Email
Department of Psychological Sciences	44035200	psych@qu.edu.qa
Department of Social Sciences	44034750	headdeptsocsci@qu.edu.qa
Sports Science Program	44034960	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
Department of Finance and Economics	44035080	fin-econ@qu.edu.qa
Department of Management and Marketing	44035033/5034	manmark@qu.edu.qa
College of Education	44035100	Dean-Edu@qu.edu.qa
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	lanak@qu.edu.qa
Department of Islamic Studies	44034470	islamicstudies@qu.edu.qa
Environmental Studies Center	44033939	esc@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	

Gas Processing Center	44034370	gpc@qu.edu.qa
Health Clinic	44033285/3290	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	44034020	continuingeducation@qu.edu.qa
Core Curriculum Program	44034043/4044	quccprogram@qu.edu.qa
Faculty and Instructional Development	44034030	ofid@qu.edu.qa
Foundation Program	44035300	foundation@qu.edu.qa
Honours 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	labibg@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 Office	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	
Social and Economic Survey Research Institute (SESRI) Office	44033020	sesri@qu.edu.qa
Student Activities Department	44033800	studentactivities@qu.edu.qa
Annual Events and Special Projects Section	44033826	annualevents@qu.edu.qa
Exchange Programs Section	44033813	studentexchange@qu.edu.qa

Sports and Recreation Section	44033807	sports@qu.edu.qa
Student Development Section	44033806	studentdevelopment@qu.edu.qa
Student Counseling Center	44033755	studentcounseling@qu.edu.qa
Student Learning Support Center	44033870	learningcenter@qu.edu.qa
Academic Support Unit	44033870	academicsupport@qu.edu.qa
Writing Lab	44035347	writinglab@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
Food & Catreing Services Section	44033865	foodservices@qu.edu.qa
Students Transportation Unit	44503746	transportation@qu.edu.qa
Special Needs Section	44033843/3854	specialneeds@qu.edu.qa
Student Fund Section	44033842/3859	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
Vice President and Chief Academic Officer	44034000	vpacademic@qu.edu.qa
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 Load
Total credits for which a student is registered in a given semester or term.

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 Year
The period of time 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.

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
Sub-specialization within a major that allows a student to focus on a particular aspect of the major field of study.

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 unit of a college or an administrative unit of the university.

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.

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

Elective Course
A course selected at a student's discretion and may require approval of the academic advisor.

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 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, Academic
The academic standing of an undergraduate student who has achieved a cumulative GPA of 2.00 or higher. The academic standing of a diploma student who has achieved a cumulative GPA of 2.50 or higher. The academic standing of a graduate student who achieved a minimum cumulative GPA of 3.00.

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

Grade Points
Numerical value associated with each grade.

Graduate Student
A student who is working toward completion of a master's or doctorate level degree.

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
Honors section of core curriculum course or courses that are used to meet elective requirements. Only Honors students may enroll in an Honors course.

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.

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 secondary curriculum component of an academic program intended to provide a limited depth and/or breadth of -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.

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.

Probation, Academic
Status of any undergraduate student who has completed a minimum of 24 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.

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

Readmission
The act of admitting an undergraduate student back to the university through the Admissions Department after an interruption of studies for more than one semester.

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.

Reinstatement, Request for
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 other than free electives prescribed by the college/school necessary for the completion of a particular degree program.

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
The fees charged for courses each semester.

Undergraduate Student
A student who is working toward completion of a bachelor's degree.

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, Academic
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 an Academic Dismissal.

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
Withdrawing from all registered courses for the semester of withdrawal.

Withdrawal from the University
Suspends enrollment in QU for a period not to exceed four semesters.

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. This catalog identifies the minimum University requirements. 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 of 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. In the event that information in the online catalog differs from that of the printable form, the online catalog shall prevail 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 15000 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 student outcomes.
Seven colleges -- Arts and Sciences (CAS), Business and Economics (CBE), Education (CED), Engineering (CENG), Law (LAWC), Pharmacy (CPH), and Sharia and Islamic Studies (CSIS) – offer over 70 specializations at the undergraduate level – the widest range of academic programs in the State of Qatar.
QU has continued to respond to labor market needs for specialist professionals and national aspirations towards a knowledge-based economy by establishing a number of graduate programs which number 26 to date -- 19 Masters, four Diplomas, one PharmD and two PhDs, fielding current and emerging issues relevant to Qatar and the Gulf.
They are distributed among CAS (5 Masters, 1 PhD); CBE (2 Masters); CED (2 Masters, 4 diplomas); CENG (7 Masters, 1 PhD); CPH (1 Masters, 1 PharmD); and CSIS (2 Masters).
The Foundation Program which was restructured in 2012 focuses on improving students' language and Math skills, and caters to individual learning needs and facilitates movement from one level of the Program to the next based on individual progress. The Program does not require student achievement of minimum scores in IELTS or TOEFL proficiency tests -- a passing score of 70% will allow students to enroll in their respective college/program.
QU has committed considerable resources to upgrading its classroom and campus infrastructure with modern technology-enabled resources such as Lecture Capture, Blackboard, CiscoWebEx, and special needs assistive technology; , advanced research labs, new and environmentally-friendly buildings, and well-equipped library facilities. These have made a positive impact on both teaching approaches and students' enjoyment of learning.
A diverse student body at QUcomprises over fifty-two nationalities, the majority of which are Qatari nationals. Women make up approximately 77% of the student population.
QU has an alumni body of over 33,000 graduates and boasts a vibrant Alumni Association comprising 15 chapters. Its fifth and current President, Prof Sheikha Abdulla Al-Misnad, is a QU graduate of the Class of 1977.

Also among its distinguished alumni is Her Highness Sheikha Mozah Bint Nasser, Class of 1986, as well as leaders in business, industry, government, academia and civil society.

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, which addresses relevant local and regional challenges, advances knowledge, and contributes 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 with the goal to building a workforce of competent and skilled graduates in line with labor market needs and adhering to the principles of Qatar National Vision 2030, 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

Qatar University embarked on a comprehensive reform project in 2003, 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 then-H.H. the Heir Apparent Sheikh Tamim Bin Hamad Al-Thani, QU President ProfSheikha 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 forerunner for the University's comprehensive Strategic Plan 2009-2013, which highlighted a priority focus on promoting quality education, research, community service, and institutional efficiency.

The current Strategic Plan 2013-2016 has enumerated 4 areas of focus -- to nurture student experience, optimize institutional effectiveness, build international recognition, and recognize scholarly excellence.

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 students' first-year campus experience, QU strengthens its investment in student engagement, motivation and success.

These also include a refocused Student Learning Support Center, an award-winning Center for Academic Advising and Retention, Student Complaint System, peer tutoring and 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.

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 is its research funding, which amounted to USD 200 million in 2011-2012.

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 several new specialized research centers of excellence, such as the Qatar Road Safety Studies Center (QRSSC) and Kindi Computing Labs in the College of Engineering, and the Center for Energy, Environmental and Sustainability Law & Policy in the College of Law. These join the Social and Economic Survey Research Institute (SESRI), Qatar Mobility Innovations Center (QMIC), Center for Advanced Materials (CAM), Gas Processing Center (GPC), Environmental Studies Center (ESC), Central Laboratories Unit (CLU), and the National Center for Educator Development (NCED).

A multi-million dollar Research Complex is soon to be launched; it will house the research centers which 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 that present themselves in a country that is rapidly expanding.

QU has had considerable success in gaining a large percentage of National Priorities Research Program (NPRP) and Undergraduate Research Experience Program (UREP) awards under the Qatar National Research Fund (QNRF). In the 6th NPRP cycle, out of $121 million funds awarded, Qatar University received the largest amount of any institution, totaling $53,982,480 for 63 research projects. The University had submitted as many as 309 proposals out of a total of 710 proposals from 38 institutions.

The organization also achieved a success percentage of 31.9% in the 13th cycle of UREP, gaining awards for 29 out of 91 submitted proposals.

Additionally, QU received its first-ever award in the Exceptional Proposal category in the NPRP cycle. This was for a novel schools-based obesity project, the findings of which will be packaged into a lifestyle-change intervention for national implementation.

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 such as Sustainable Development (Qatar Shell) at the College of Arts and Sciences, Aluminium (Hydro/Qatalum) at Center for Advanced Materials, and Environmental Engineering (Maersk Oil Qatar) and Architecture (Msheireb) at the College of Engineering, to name a few.

business, industry and civil society organizations.

ACADEMIC SYSTEM

This 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 comprises 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 the course 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 COMMUNICATION

Starting Spring 2012, several changes on language provision at QU came into effect. As a result, students joining Arabic-taught programs are exempt from Foundation 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. 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, at 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 is its research funding, which amounted to USD 200 million in 2011-2012 and increased by over US$56 million in 2012-2013.

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. These centers, which today number 12, 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 that present themselves in a country that is rapidly expanding.

QU continued to be top winner in the award cycles of the National Priorities Research Program (NPRP) and Undergraduate Research Experience Program (UREP) under the Qatar National Research Fund (QNRF). In the 7th NPRP cycle, QU researchers won the highest number of awards -- 62 (38.3%) -- out of 162 awarded proposals from organizations and institutions in Qatar.

The organization also achieved a success percentage of 31.9% in the 13th cycle of UREP, gaining awards for 29 out of 91 submitted student/faculty proposals.

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.

STUDENT

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 approximately 15,000 in the academic year 2012-2013. 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 students' 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.
Today, 52 national scholars are studying at universities abroad and 20 are in preparation for their scholarship journey to pursue a wide range of studies which will be of considerable value to the "brain" of QU. Thirteen scholars have joined QU to date, bringing a wealth of knowledge and experience gained from their studies abroad.
The Office for Graduate Studies plays a major role in supporting graduate studies and research and scholarship. Its Grad Faculty Forum serves as a platform to build student/faculty relationships to advance quality research and collaboration.
During the academic year 2012-2013, QU awarded internal student grants totaling over QR11 million.
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, so 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 students' 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 by QU at the institution, college, department, and 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 and is currently undergoing an institution-wide exercise to gain accreditation status with the US-based Southern Association of Colleges and Schools (SACS).

CHAPTER 2
CAMPUS SERVICES

THE CAMPUS

Qatar University 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 e-mail, 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, Drop and Add 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

• **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 WiFi sytem.

IT Helpdesk contact information:
Phone: (+974) 4403-3456
Email: helpdesk@qu.edu.qa
Website: http://its.qu.edu.qa/
Operating Hours:
Sundays – Wednesdays; 7:30 am – 7:30 pm,
Saturdays; 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 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.

Bookshop
The Bookshop is located at the Food Court Building in the women's section, and sells a wide selection of stationery and classroom supplies, study and research aides, paint and art materials, and books in Arabic and English, as well as magazines and computer equipment. The bookshop also offers photocopy services.

Textbooks
The Textbook Hall provides faculty 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/students/services/textbooks/index.php .

Food Services
Qatar University offers extensive dining facilities across its campus, with services catering to a large variety of tastes and concepts. The women's section has a Food Court and 14 cafeterias. The men's section has 9 separate cafeterias. There are international cafés on campus, including Starbucks, Coffee Time, Coffee Bean & Tea Leaf and Costa.
Location:
Main office: Food Court, Mezzanine Floor, Office #2
Dining Outlets:
Women: College of Arts & Sciences, Women's Main Building, Activities Building, Parking Lot, Sports Facility Building, College of Business & Economics, College of Education, Food Court, New Library
Men: College of Engineering- Corridor 08, Men's Main Building, Activities Building, Foundation Building, College of Business & Economics, Water Complex, New Library
Phone: 4403-3865 /5970 /5975
Email: foodservices@qu.edu.qa
Twitter: @QUFSS
Facebook: www.facebook.com/QUFSS
Working hours (Food Services Section):
Sunday-Thursday 7:30am- 2:30pm
Working hours (Dining Outlets):

Cafeteria	Opening and Closing Time	
Women		
Women's Main Building 106 &161	7:00 am to 7:00 pm & 7:00 am to 6:30 pm	
College of Arts and Sciences-1 & 2	7:00 am to 7:00 pm & 7:00 am to 4:30 pm	
Women's Activities Building	7:00 am	4:30 pm
Parking Lot	7:00 am	7:00 pm
Sports Facility Building	7:30 am	4:00 pm
College of Business & Economics	7:00 am	8:30 pm
College of Education	7:00 am	7:00 pm
Female Activities	7:00 am	4:30 pm
Food Court	7:30 am	7:00 pm
New Library	7:00 am	9:30 pm
Men		
College of Engineering: Corridor 08	7:00 am	8:00 pm
Men's Main Building- 135 & 138	7:00 am to 7:00 pm & 7:00 am to 4:30 pm	
Men's Activities Building	7:00 am	6:00 pm
Men's Foundation Building	7:00 am	4:00 pm
College of Business & Economics	7:00 am	8:30 pm
Water Complex	9:30 am	9:00 pm
New Library	7:00 am	9:30 pm

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.

Copying and Printing Services Centers
Qatar University provides copying, printing, laminating, and scanning services at the copy centers, which are located in both the Women's and Men's Activities Buildings and Library Building. Students may also request copying and printing service online via the University Portal (myQU).

For more information, please see: **http://www.qu.edu.qa/students/services/primary_services/copy_print.php .**

Internet Lounges
Internet lounges are available to students in both the Women's and Men's Activities Buildings. The internet lounges also offer wireless connectivity and are open weekdays from 8:00 am to 5:00 pm. For more information, see: **http://www.qu.edu.qa/student/services/primary_services/net_hall.php**

Lockers
Qatar University provides lockers in various buildings in the men's and women's sections.
For more information, please see: **http://www.qu.edu.qa/students/services/lockers/index.php .**

Student Campus Card
The Student Campus Card is a part of the One Card program, which is used mainly on campus as an identification card and for other important purposes, such as: accessing the university facilities, checking out library materials, purchasing books at the University Book Store, and accessing many other services at QU, etc. For additional information regarding the student campus card, please visit their website at: **http://www.qu.edu.qa/student/services/uni_id-card/index.php .**

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 on-campus Post Office is the branch of Q-Post, which offers a variety of solutions to meet the student or faculty mailing needs, whether they are sending urgent or valuable mail, parcels or international mail. This office is located in the Women's Activities Building.

RESEARCH UNITS, CENTERS AND INSTITUTES

Qatar University has four research centers: the Gas Processing Center, Environmental Studies Center, Center of Advanced Materials.

Center of Advanced Materials (CAM)
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 knowledge base in design, synthesis, 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 implemented an integrated graduate training program that emphasizes both materials synthesis and characterization techniques covering a broad spectrum of materials and experimental probes. Furthermore, CAM offers community services as well as Professional training courses to the industry, for which details and applications are available at the Center's website. **http://www.qu.edu.qa/offices/research/CAM/index.php**

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.

Environmental Studies Center (ESC)
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 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.

Office of Academic Research (OAR)
Established in 2007, the OAR reports to the Office of the Vice President for Research. Since then, the OAR has served as a vital source to faculty regarding the preparation and submission of proposals, sources and opportunities of funding, review of budgets, compliance with University and sponsor policies and procedures and promoting technology throughout the University.

Office of Quality Management (OQM)
In conjunction with the Vice President for Research, the senior management and staff of centers and units affiliated with the Office of VP for Research, the OQM seeks to enhance the organizational effectiveness, expand its capability, and engender a culture of continual improvement and performance excellence.
The OQM was established to ensure consistent management policies and practices, establish a linkage between the testing and quality control results, encourage best practice sharing experiences, and eliminate duplication of efforts. In other words, it serves to help guide the centers and units on their journey toward performance excellence. To achieve great performance, the Office works with research centers and units to make smart investments in our most valuable resource; our people, and to envision Qatar University mission to provide our customers with best quality services.

Social and Economic Survey Research Institute (SESRI)
Reporting directly to the Office of the President, the 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://www.qu.edu.qa/offices/research/index.php .**

CONTINUING EDUCATION OFFICE (CEO)

The CEO is a link between the University and society. The Office identifies and meets the actual training needs of society through specialized training programs, in addition to preparedness programs for professional and international certifications. It enables the greater community to benefit from the expertise, experience and resources available at the university.
Since its inception in 1995, the CEO has provided tailor-made continuing education courses and training workshops, in cooperation with various academic departments. For years, these training programs, based on actual needs of society, reflect the growing demand by individuals and institutions for further programs established by the office.

The following programs are offered:

- **General**
Courses are offered in English (business or general), and Arabic. These are available to both the QU community and the public at large. Registration and course documentation are available online.

- **Contract (Special)**
Specific courses are tailored for government or private agencies. A minimum number of attendees must be present, and the course is not open to anyone outside that particular organization.

- **Certification Programs**
A number of helpful certification programs (CPA, ICDL, etc.) are available for employment qualifications and enhancing personal proficiency. These are available to the public, and may be studied for individually, at home.
For more information on these programs and how to apply, please visit the Continuing Education Office Website: **http://www.qu.edu.qa/offices/ceo/programs/certificate_programs/index.php .**

LIBRARY

As an institution committed to academic excellence, as well as the preservation and expansion of Arabic culture, Qatar University maintains a robust library system to meet the needs of students, employees, and the Qatari community.
The new Library building was inaugurated in October 2012, and was designed to parallel QU expansion in its majors and number of students. It is located in the newly developed part of campus, and has five floors designed to hold a maximum capacity of 1 million literary volumes. The Ground and first floors are designed for female students, faculty members, staff, and visitors, while the second floor is designed primarily for male students.
The QU Library has locations on both the men and women's campus, with a large new facility also underway. The University faculty, staff and students are able to

check out, reserve, and even request books from other libraries through interlibrary loan services. Photocopy and computing services are also available during standard library working hours 7:30am – 7:30pm.
The QU Library also features a prominent set of E-Resources, including subscriptions to many renowned Journals, E-books, and other electronic publications. These resources may be freely accessed anywhere. Additional information is available at:
http://library.qu.edu.qa

MEDICAL CLINIC

The clinic at QU is an outpatient clinic staffed by physicians, nurses and pharmacists who provide medical care to students, faculty and staff of the University in accordance with policies set by Qatar Supreme Council of Health.
A team of dedicated staff is constantly on hand, working to secure the safety and well-being of the University's attendants, as well as contributing to health education and awareness programs.

Services
In order to best address the needs and health of the University's attendants, the clinic is continuously expanding the scope of its services. Presently, the following are addressed:
1. Emergency medical response at accident sites.
2. Transfer of urgent or critical medical cases to Hamad Hospital emergency ward, accompanied by a clinic nurse.
3. Routine medical procedures for patients, including medical checkups, diagnosis and prescription of treatments.
4. Antenatal healthcare to promote the health of the mother and her fetus during pregnancy.
5. Healthcare program to the children at the Childhood Center.
6. Referral of patients to different specialist clinics approved by the Supreme Council of Health.
7. Medical support during the exam periods, campus events and graduation days as required.
8. Contributing to University-wide Health Education and awareness programs.

Location , Working Hours, and Contact numbers

Emergency number: (974) 4403 5050

Main Clinic: Located in the women's section , at the main square. The clinic currently accepts walk-ins and appointments for female students and employees; anyone may call the clinic to request support at their location.
Working hours: 7:30am – 7:30pm
Phone: (+974) 4403 3294
Fax: (+974) 4403 3286

College of Arts and Sciences Clinic: Located in the women's College of Arts and Sciences building (at the main entrance), where nurses are available to provide basic medical services.
Working hours: 7:30am – 2:30pm
Phone: (+974) 4403 3295

Men's Clinic: Located in the Men's Student Activities building (on the ground floor), where nurses are available to provide basic medical services.
Working hours: 7:30am – 2:30pm
Phone: (+974) 4403 3287

STUDENT HOUSING

Students attending Qatar University are eligible to apply for student housing. The University provides a safe and secure environment for students to enjoy their academic experience away from home. A purpose built, state-of-the-art student housing and learning community is under construction and will soon provide on-campus housing to students.
At present, student accommodation is off-campus, offering a convenient location, positive learning environment and scheduled transportation to-and-from the university. Rooms are fully furnished and offer comfortable and practical living space for active students. Lounges and common areas are located throughout the building, enabling students to get together for studies and recreation. A computer lab is also available.
In order to ensure the best possible experience for everyone, QU has implemented guidelines and safety policies, which can be found online: **http://www.qu.edu.qa/offices/housing/**

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.

CAMPUS SECURITY & SAFETY

The Department of Security and Safety is committed to providing students with a safe learning environment while keeping the university community informed about campus security. Visitor permits are issued to individuals, companies, alumni and conference attendees. Car permits are also issued for all students. For additional information, refer to the website at:
http://www.qu.edu.qa/offices/businessop/services/index.php

LOST AND FOUND

The Lost and Found center makes every effort to oversee the caretaking and delivery of lost and found items inside QU campus. There are two ways to report a claim; either by visiting the primary services section in the activities building, or by filling an online claim form via the QU website. For more information, please see: **http://www.qu.edu.qa/students/services/lost-and-found.php**

TRANSPORTATION

Qatar University provides the following transportation services:
• Bus transportation for female students to and from the university.
• Bus transportation between the student residences and the university for men and women.
• Bus 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.

For additional information, please see the Transportation Services website at:
http://www.qu.edu.qa/students/services/tra/index.php
Department website at:
http://www.qu.edu.qa/offices/businessop/services/index.php

CHAPTER 3
STUDENT SUPPORT AND SERVICES

COMMUNITY INVOLVEMENT AND SERVICE LEARNING

Qatar University provides students with a support system and services that encourage them to make valuable choices towards their social, emotional and learning experiences, as well as their overall development. QU is devoted to the building of a conscientious community, and involves students in various community service initiatives which result in individual growth.
Qatar University's students are encouraged to participate in a wide array of Community and Learning Service Programs aimed at fostering civic engagement and responsibility, both in appreciation of the uniqueness of Qatari culture, as well as their exposure to a diversified experience.

STUDENT ACTIVITIES

QU recognizes that much of the learning that a student experiences on campus takes place outside the classroom. It is the belief of the University that student activities assist in the growth of students to their fullest potential. Student activities aim to support the academic goals of the student by providing activities and programs designed to promote and maximize students' curricular and co-curricular experience in education, recreation, social interaction, and personal growth. For additional information, please visit the Student Activities Department's website at www.qu.edu.qa/students/activities.

STUDENT LIFE

Campus Events
All students are encouraged to develop their unique personal as well as academic potential by participating in a wide variety of University sponsored student activities, programs, and events that combine culture, learning and entertainment. Such events include the National Day Festival, Cultural Village, Talent Show, Annual Play and Club Days in addition to a wide variety of other co-curricular opportunities that are publicized on campus throughout the year.

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.
Moreover, the QU community has accessibility to three well-equipped sports facilities, including an aquatic complex for men, and a stadium 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, an all-year football field and athletic track is also available for student use. A well-equipped gymnasium receives a large number of students and QU staff or faculty.
Table tennis, billiards, 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 .

Culture and Exchange Programs
Qatar University students enjoy a diversity of programs and trips through which they can explore other institutions and cultures. The Student Activities Department facilitates and supports incoming and outgoing exchange students as well as any QU student who should travel to benefit from the educational opportunities offered through Qatar University.

Numerous and diverse off-campus opportunities are also available, including:
- Academic/research conferences where students represent Qatar University by presenting and defending their research in various forums, both regionally and internationally.
- Cultural / Educational excursions where select Qatar University students visit reputable educational institutions. Students from these institutions reciprocate by visiting QU. An example of this type of program is the program with Peace College located in North Carolina, USA.
- Students may be selected to officially represent QU regionally or internationally in sports, recreational or educational activities. Currently, QU students regularly participate in the Cultural and Scientific Week in Saudi Arabia, as well as sport tournaments in Egypt and Oman.
- For-credit study abroad and exchange programs.

Students who are interested in any off-campus opportunity can apply online or contact studentexchange@qu.edu.qa

Academic Support Services
The Student Learning Support Center (SLSC) provides academic support services to all students at QU. The SLSC is a supportive environment where students can seek assistance with course assignments, the transition to college academic life, or other academic issues.
SLSC programs include: Peer Tutoring, the Writing Lab, Supplemental Instruction (SI), the Math Lab, and academic success and writing workshops. All programs are designed to help students become independent and successful learners by improving their study skills and self-confidence, increasing their knowledge of course material, encouraging a positive attitude toward education, and preparing them for lifelong learning.
The SLSC provides peer tutoring in core curriculum courses and Foundation Program courses, and special programs are offered to assist students in improving their English speaking ability. Individual academic coaching is also available to students who are struggling in their courses.
The SLSC Math Lab offers individual tutoring, math review sessions, and a variety of math resources to assist students in their courses. Additional support is available for students enrolled in historically difficult math courses at QU.
The SLSC Writing Lab supports student writers in their efforts to become better writers in English and in Arabic. At the Writing Lab, students receive assistance with every stage of the writing process, from generating ideas to completing a final draft. Students are welcome to use the Writing Lab services for any course at QU.
The SLSC is located in the faculty Building and the Women's Activities Buildings, and all services are free of charge to QU students. For additional information on academic support services at QU, visit the Student Learning Support Center website: **http://www.qu.edu.qa/students/services/slsc/index.php**.

Career Services
The Career Services 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 student employment during their study at QU. Additionally, the Center assists students with sponsorship, internship and full-time job opportunities and provides numerous career-related resources, programs and activities. For additional information, visit the Career Services Center website at: **http://www.qu.edu.qa/students/services/csc/index.php.**

Counseling Services
The Student Counseling Center provides the QU community with a variety of counseling and psychological services, which include individual and group counseling sessions that help students overcome any impediments affecting their success. The Center promotes personal and social growth via sessions and groups on self-development, marriage, community outreach programs, top readers, role models and First Year Success. The 1st Year Success sessions help freshman students adjust to the demands of college in their first year of studies. All students receive training in time and stress management, study skills, achieving academic success, personality assessments, goal setting, relationship issues, building self-confidence and other coping strategies. The Top Readers Program promotes a reading culture, critical thinking and acceptance among students. The Center also offers various other workshops that enhance students' self-development. Literature on self-help topics is available at the Center, as well as contacts in the community if needed.
Confidentiality is very crucial; no student's information will be exchanged with other parties unless the student signs a release of information form. Students' information taken during counseling sessions is not part of the student academic record.
Students can book their appointments online, in person or via phone. For additional information regarding these services, please visit the Student Counseling Center website at: htt://www.qu.edu.qa/students/services/scc, twitter@QUSCC, instagram@QUSCC, facebook@QUSCC.

Student Helpdesk
The Student Helpdesk provides students with a single point of reference for all general inquiries. Communication between the section and students is done through the Reception desk, Student Call Center, and the official accounts of Qatar University on social media (Facebook and Twitter). Furthermore, the Student Helpdesk provides a campus tour service "Explore QU" to introduce QU's buildings and services.

Students can contact the Student Helpdesk through:
- Email: studenthelp@qu.edu.qa
- Telephone: 4403 4444
- Visit the Helpdesk in person

For more information, please see:
http://www.qu.edu.qa/students/services/helpdesk/

Reception Desk
The Reception Desk responds directly to the walk-in students in any general questions. The desk is also helping students to ease any procedures that they may face difficulty with, in addition to trying to find the best solutions to complicated problems that need study and follow-ups.
The Reception Desk is located in the Admission and Registration building, on the ground Floor.

Student Call Center
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 7:30 am to 2:30 pm.
Phone: 4403-4444.
For more information, please see:
http://www.qu.edu.qa/students/services/helpdesk/call_center.php

Explore QU Service
The Explore QU Service is a campus tour service offered by the Student Helpdesk Section. This service allows newly admitted students, current students and students' parents to get familiar with QU campus, and better know its buildings and services through well-organized, informative and entertaining tours.

Parents Program
The Parents Program provides communication between the University and parents of QU students, in order to support student success, generate good will for the University, and promote an appropriate role for parents within the campus community. The Unit accomplishes this by delivering high-quality, relevant and useful programming and communication to help families navigate their evolving relationship and establish a productive university-parent partnership.
Parents can contact the Unit at 4403-3768 / 4403-5967, or via email: **parents@qu.edu.qa**
The Parents Program provides communication between the University and parents of QU students in order to support student success, generate good will for the University, and promote an appropriate role for parents within the campus community. In addition to organizing orientation for new students' parents, educational workshops and training, answering parents inquiries, and developing an annual Parent Handbook, the unit give parents access to borrow books from the QU library, and sport facilities. The QU Library will provide a membership to any parent of a currently enrolled student for a 200 QR deposit fee, to be reimbursed after the graduation of their son/daughter. Parents have access to sports facilities such as the gym, swimming pool, and sports fields after paying an annual deposit of 200 QR.
Parents can contact the Unit at 4403-3768 / 4403-5967, or via email: **parents@qu.edu.qa**

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 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/new_student_orientation.php .

Special Needs
Qatar University is committed to providing all academically qualified students with educational opportunity. Every effort is exerted to ensure fair and appropriate access to programs, services, facilities, and activities for students with special needs. The Special Needs Center provides services and support technologies that are tailored to the needs of individual students throughout their tenure at the University.
Currently, support services are provided to students with visual impairments (blindness or low vision), physical impairments, Dyslexia, and speech and hearing difficulties (who are not deaf but use hearing aids). The Center also caters to students who suffer from temporary disabilities,

or injuries. Some of the services and accommodations provided include academic testing accommodations, use of assistive technology, student note-takers/note taking technology, alternate text formatting for print materials; priority registration; and advocacy with faculty to assure appropriate academic accommodations.

For additional information on services offered by the Special Needs Center, please see:
http://www.qu.edu.qa/students/services/special_needs/index.php

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.

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 obtaining the 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

The more common high school equivalency requirements are listed below. Additional high school equivalency information is available from the Admissions Department.

1. Grade Point Average (GPA) System
A graduate of an American secondary / high school or a holder of an AP (Advanced Placement) certificate must have fulfilled the following conditions:
• Earned with 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.

2. British Secondary School Certificates
A student who has sat for one of the British Secondary School Examinations must have fulfilled the following requirements:
• Completed grade 12 or year 13, depending on the system from which the applicant has graduated.
• Passed at least six IGSCE (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".

3. International Baccalaureate (IB) Certificate
A student holding a full IB Diploma or an IB Course Certificate and who has passed six subjects, at least two of which must be at the HL and the other four at the SL level, is eligible for admission to QU. These subjects should include a second language, one math, and one science. The student should have attained a total score of 24 out of 42, excluding grades for Theory of Knowledge (TOK) and Extended Essay.

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.

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:

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

Competency	Requirement
Mathematics Competency	ACT 24 or SAT 550

Applicants to the Colleges of Engineering, Pharmacy, and Sciences:

Competency	Requirement
English Competency	IELTS 5.5 or TOEFL 500
Mathematics Competency	ACT 24 or SAT 550

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:

Qatar Government and Independent High Schools
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.

Qatari Private High Schools
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 Qatar Ministry of Education for Private Schools.

International Private High Schools
All applicants who have attended a high school outside of Qatar, must ensure that the following transcript requirements are met:
1. Transcript is final.
2. Transcript is 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. All high school transcripts must be certified by either the Ministry of Education or the Ministry of Foreign Affairs in the country in which the school is located. The transcript must also be certified by either:
• Qatar Embassy in that country; or
• Embassy of that country located in Doha.

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. Transcript is final.
2. Transcript is 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.

UNIVERSITIES LOCATED OUTSIDE OF QATAR

All applicants who have attended a university outside of Qatar must ensure that the following transcript requirements are met:
1. Transcript is final.
2. Transcript is 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:
• Qatar 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. First Year Admission
All applicants who have never attended a university, or who have not earned at least 24 credit hours at a university, and are applying to Qatar University as either Foundation Program or Undergraduate applicants are classified as First Year applicants. First Year applicants

may apply for either Fall or Spring admission and are required to submit the following:
• Complete Online Admissions Application with an e-payment of QR 200.
• Final and official high school transcript.
• Health Certificate issued inside Qatar.
• Photocopy of the applicant's Qatar ID card (Non-Qatari applicants must also submit a copy of their passport)
• Two (2) recent identical passport size photographs with white background

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

2. Transfer Admission
All applicants who are currently attending or have previously attended another university and have earned at least 24 credit hours and attended a minimum of two semesters (Fall and Spring), are considered transfer applicants, and may apply for transfer admission to the University. Transfer applicants may apply for either the Fall or Spring semester and are eligible for Undergraduate admission only.
All transfer applicants who meet the following minimum criteria will be considered for admission:
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. 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.
• 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.

Transfer applicants are required to submit the following documents to the Admissions Department:
• Complete Online Admissions Application with an e-payment of QR 200.
• Official, final, and certified university transcript
• Official English and Mathematics competency scores if applicable
• Health Certificate issued inside Qatar.
• Photocopy of the applicant's Qatar ID card (Non-Qatari applicants must also submit a copy of their passport)
• Two (2) recent identical passport size photographs with white background

Undergraduate transfer applicants must 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. 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.

Requirements for Transfer of Credit
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).
• 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.

TRANSFER FROM THE COLLEGE OF NORTH ATLANTIC – QATAR (CNA-Q)

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 admission to a limited number of Qatar University degree programs.

Requirements for Transfer from CNA-Q to Qatar University:
To be considered for admission to Qatar University under this articulation agreement, applicants must satisfy the following requirements:
1. 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. Submitted required documents by the admission deadline.
To be considered for admission to Qatar University under this articulation agreement , applicants must submit the following:
• Complete Online Admissions Application with an e-payment of QR 200
• Final, official and certified CNA-Q transcript
• Health Certificate issued inside Qatar
• Photocopy of the applicant's Qatar ID card (Non-Qatari applicants must also submit a copy of their passport)
• Two (2) recent identical passport size photographs with white background

CNA-Q articulation agreement applicants must 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.
Applicants who were subject to disciplinary action or non-academic dismissal from a prior university/college may not apply or enroll as a transfer student.

Transfer of Credit from CNA-Q
Transfer credit may be considered for evaluation after passing the following criteria:
• Applicant has submitted the Final official and certified transcript from the College of the North Atlantic - Qatar.
• 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 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.

TRANSFER FROM THE COMMUNITY COLLEGE OF QATAR (CCQ)

All applicants who attended the Community College of Qatar (CCQ) and who have earned at least 24 credit hours are eligible to apply for transfer admission to Qatar University. Transfer applicants from CCQ may apply for either Fall or Spring semester and are only eligible for undergraduate admission.

Transfer Admission Requirements (Graduates):
Applicants graduating from the CCQ with either an Associate in Arts (AA) or Associate in Science (AS) degree and who meet the following minimum criteria will be considered for admission to Qatar University:
1. Earned a General Secondary School Certificate or its equivalent.
2. Successfully completed either an Associate in Arts (AA) or Associate in Science (AS) degree from CCQ.
3. Have completed a minimum of 60 credit hours of undergraduate coursework from CCQ with a minimum cumulative GPA of 2.50/4.00.
4. Only CCQ graduates with an AS degree are eligible for Science-based majors at Qatar University.
5. Submit required documents by admission deadline.
AA and AS degree graduates from CCQ are exempted from QU's English and mathematics competency requirements.

Transfer Admission Requirements (Non-Graduates):
Applicants who wish to transfer from CCQ before completing their AA or AS degree must satisfy the following minimum criteria in order to be considered for admission to Qatar University:
1. Earned a General Secondary School Certificate or its equivalent.
2. Have completed a minimum of 24 credit hours of undergraduate coursework, with a minimum cumulative GPA of 2.50/4.00 at CCQ.
3. Met Qatar University's English and mathematics competency requirements, if applicable. Transfer applicants to colleges that require the Foundation Program who fail to satisfy the minimum English and mathematics competency requirements are not eligible for admission to the Foundation Program.

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

Transfer of Credit from CCQ:
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.

3. Visiting Students
Applicants who are currently attending another university and who do not intend to graduate from Qatar University may be considered for admission as a Visiting Student. Visiting admission is available for the Fall, Spring and/or Summer semesters and visiting students may register in a maximum of 48 credit hours or 4 semesters of course work at Qatar University, whichever comes first.
All visiting applicants who meet the following minimum criteria will be considered for admission to Qatar University:
1. Have earned a minimum cumulative GPA of 2.00.
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.
2. Must submit all appropriate application requirements to the Admissions Department by the admission deadline.

In all cases, the home university must be accredited by an international accrediting association or by the Ministry of Higher Education or equivalent in that country. The student must submit all appropriate application requirements to the Admission Department by the admission deadline.

Visiting Admission Requirements
All visiting applicants are required to submit the following documents to the Admissions Department:
• Complete Online Admissions Application With an e-payment of QR 200
• Official and certified university transcript or letter of admission to their home university if not yet enrolled.
• Health Certificate issued inside Qatar.
•Photocopy of the applicant's Qatar ID card (Non-Qatari applicants must also submit a copy of their passport)
• Two (2) recent identical passport size photographs with white background.

Undergraduate visiting applicants must satisfy all QU undergraduate visiting 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 may 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 from a university accredited by an international accrediting association or by the Ministry of Higher Education or equivalent 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.
3. Met Qatar University's English and Mathematics competency requirements as required by the 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.

4. Non-Degree Students
The University offers 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.

All non-degree applicants who meet the following minimum criteria will be considered for admission to Qatar University:
1. Must 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.
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.

All non-degree applicants are required to submit the following documents to the Admissions Department:
• Complete Online Admissions Application with an e-payment of QR 200
• Final, official and certified university transcript
• Health Certificate issued inside Qatar
• Photocopy of the applicant's Qatar ID card (Non-Qatari applicants must also submit a copy of their passport)
• Two (2) recent identical passport size photographs with white background

Non-degree applicants must 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.

At Qatar University, non-degree students may apply coursework taken during a 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 requirements apply.

5. 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 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.

Required Documents:
All second bachelor's degree applicants are required to submit the following documents to the Admissions Department:
• Complete Online Admissions Application with an e-payment of QR 200
• Final, official and certified university transcript.
• Official English and Mathematics competency test scores as required by the College.
• Health Certificate issued inside Qatar.
• Photocopy of the applicant's Qatar ID card (Non-Qatari applicants must also submit a copy of their passport)
• Two (2) recent identical passport size photographs with white background.

The Qatar University cumulative Grade Point Average (GPA) and earned credit hours will be assessed continuously through the period of study of the student at the Undergraduate level. Qatar University will assess appropriate tuition and associated fees for all stu

RE-ADMISSION

Re-admission to Qatar University is competitive and considers the academic qualifications of applicants, as well as the capacity of each college and department for the intended semester of admission. Applicants seeking re-admission must satisfy all undergraduate admission requirements for the semester of intended admission and must submit all appropriate application materials to the Admissions Department by the admission deadline.

Academically Dismissed Students
Students who are academically dismissed from Qatar

University may seek re-admission by 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.

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.

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 Pharmacy

1. English Compentency

Tests		**Minimum Score for Exemption**
Test of English as a Foreign Language (TOEFL)	Paper Based (pBT)	500
	Internet Based (iBT)	61
	Computer Based (cBT)	173
International English Language Testing System (IELTS)	5.5	
ACCUPLACER ESL	Aggregate Score = 400 ESL Reading Skills =100 ESL Language in Use=100	

2. Mathematics Compentency

Standardized Test	**Minimum Score for Exemption**
Scholastic Aptitude Test SAT	
(General Math component)	500
American College Test (ACT)	21
ACCUPLACER Math- APL	
Elementary Algebra	82

• Foundation Program reserves the right to verify any standardized test score and retest students.
• 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. SAT and ACT scores are valid for 5 years. Students with IELTS /TOEFL scores older than 2 years must re-take the required test to validate the scores.
• 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 English and Math ACCUPLACER test scores.

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 .**

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

New Student Orientation is a full-day event designed to assist new Foundation Program and Undergraduate students in becoming familiar with the exciting and challenging opportunities that Qatar University offers, such as its programs, services, academic advisement, career services, campus life, registration process, and social services.

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 college peers and academic advisors. Advisors will be an important resource for students, and will meet with them to review their academic record and placement test results, and make recommendations regarding appropriate courses that the student needs to register for during each semester.

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

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.

Course Major	Tuition Fees per credit hour in QR
Art	400
Education	400
Law	400
Shari'a and Islamic Studies	400
Business	500
Foundation Program	500
Science	500
Engineering	600
Pharmacy	600

*Tuition fees listed above are effective for students admitted since Fall 2009. Students admitted in prior semesters may be assessed differently.

Tuition fees for Qatari students attending part-time are QR.100 less per credit hour than the amounts shown above.

Diploma Level Students
Tuition fees for students enrolled in any Diploma Program are QR 1,000 per credit hour.

Master Level Students
Tuition fees for students enrolled in any Master's Program are QR 1,250 per credit hour.

Doctorate Level Students
Tuition fees for students enrolled in any Doctorate Program are QR 1,250 per credit hour.

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 600 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's 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 re-quired 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 who drop one or more courses, or withdraw from the semester after the add and 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 and Spring Semester	Up to 2 weeks After 2 weeks and up to 4 weeks After 4 weeks and up to 8 weeks After 8 weeks	20% 50% 75% 100%
Summer Semester	Up to 1 week After 1 week and up to 2 weeks After 2 weeks	20% 50% 100%

• 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

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

Campus Card
Student ID cards require a fee of QR 50. This fee will be required again 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 Financial Aid Section by e-mail at studentfund@qu.edu.qa , or visit their website at: http://www.qu.edu.qa/students/services/financial_aid/index.php .

Textbook Section

The Textbook Section assumes responsibility for selling Textbooks and eBooks to QU students and faculty. The University provides a subsidy equaling 50% of the total price for books over QR 50, and the payment non-refundable. The section announces a book selling table before each semester, which is made available to students and faculty. For more information, please see: http://www.qu.edu.qa/students/services/textbooks/index.php

SCHOLARSHIPS

Qatar University offers numerous scholarships to attract and support academically qualified students. Although scholarships are granted on a competitive basis, QU does consider financial need when considering scholarship awards. All scholarships cover tuition fees; however, some scholarships may also include one or more of the following:
• Accommodation in university housing and transportation to and from the campus.
• 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:

Undergraduate Scholarships:

GCC Countries
These scholarships are awarded to GCC nationals who earn their Qatari secondary certificate or equivalent from a country other than the State of Qatar. Certain GCC scholarship recipients may be nominated through their embassies.

GCC Students
These scholarships are awarded to children of Qatari mothers married to GCC nationals, or female GCC students married to Qataris.

Children of QU Employees
These scholarships are granted to children of QU employees.

Qatari National's Children
These scholarships are allocated for non-Qatari students of a Qatari mother or a Qatari father. Recipients of these scholarships are only exempted from tuition fees and there are no other benefits.

H.H. Emir Scholarship for Academic Excellence
These scholarships are awarded on a competitive basis to 10 male and 10 female students of expatriates residing in Qatar.

Islamic and Other Countries
These scholarships are available to students from the Islamic world and countries other than those of the GCC.

Outstanding Performance
These scholarships are awarded to QU students who have shown outstanding academic performance in their course work at QU.

Qatar Inhabitants
These scholarships are granted to bearers of the Qatari inhabitant document (Qatar inhabitants).

Short Arabic Language (for Arabic Non-Native Speakers)
Granted to students enrolled in the Arabic for Non-Native Speakers program.

In order to maintain a scholarship award, students must satisfy the minimum GPA and academic load requirements of the scholarship. Additionally, most scholarship awards are of a fixed award duration which may vary by scholarship type. Scholarship recipients are bound by all QU rules and regulations, and are responsible for all financial penalties incurred.

For additional information regarding academic scholarships, please contact the Scholarship Section by e-mail at scholarships@qu.edu.qa or visit their website at: **http://www.qu.edu.qa/students/admission/scholarships/index.php.**

CHAPTER 6
ACADEMIC INTEGRITY

STUDENT INTEGRITY CODE

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.
The Student Integrity Code aims at providing all students at QU with clear standards of behavior. By registering as a student, all students acknowledge their awareness and knowledge of the student integrity code and its procedures. Moreover, they understand the consequences of their 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 teams or engaging in club activities) are subject to this code.
QU expects its students to adopt and abide by the highest standards of conduct in their interaction with their 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 of membership required by the QU community. As such, a student is expected not to engage in behaviors that compromise the integrity of themselves, as well as that of QU. While the University encourages its students to express themselves freely, this freedom is forfeited when it infringes on the rights and respect of others. Specifically, a student is expected to abide by the principles within the academic and non-academic domains as outlined below.

STUDENTS' RIGHTS AND RESPONSIBILITIES

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, providing such opportunities fall within the standards and/or requirements adopted by the University.
• Freedom of thought and expression, subject to applicable policies, rules and laws adopted by the University.
• Equal opportunities regardless of race, color, gender, religion, ethnicity, age or disability.
• A fair University judicial process whenever applicable.
• The student's university records are kept confidential and are not disclosed to other parties unless the student provides explicit written consent, with the exception of authorized persons as stated in section "Confidentiality of Student Records".

Student's Responsibilities
QU students should:
• Contribute to maintaining a safe and orderly University educational environment.
• Show respect to other individuals at QU; 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 in a responsible manner.
• Pursue knowledge.
• Dress appropriately and according to the University rules and regulations in this regard.
• Accept responsibility for their actions.

JURISDICTION

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

DEFINITIONS OF ACADEMIC AND NON-ACADEMIC VIOLATIONS

Academic violations include, but are not limited to, the following:
Plagiarism
Plagiarism includes the following examples and it applies to all student assignments or submitted work: use of the work, ideas, images or words of someone else without his/her permission; use of someone else's wording, name, phrase, sentence, paragraph or essay without using quotation marks, and misrepresentation of the sources that were used.

Inappropriate Collaboration
Inappropriate Collaboration includes the following examples: working with someone else in developing, organizing or revising a submitted work without acknowledging that person's help. This work may include: projects, papers, oral presentations, research, design projects or take-home examinations, use of tutors for writing, editing or fabricating a submitted work, and use of unauthorized assistance in all cases of submitted work.

Inappropriate Proxy
Inappropriate Proxy is the state in which a student attends an exam or any academic activity or obligation in replacement of another student.

Dishonesty
Dishonesty in examinations and submitted work may include the following forms: Submission of non-original paper, test result, work and materials; any form of communication between or among students during examination; cheating from another student during examination; copying from another's paper, giving unauthorized assistance, obtaining unauthorized advance knowledge of examination questions, and the use of mechanical or marking devices or procedures for the purpose of obtaining false scores on machine-graded examinations; submitting any material prepared by or purchased from another person or company.
Work completed for one course and submitted to another
In general, any work for one course should not be presented to another course. Similarly, the students are reminded that when incorporating their own past research in current projects, they must refer to such previous work.

Deliberate falsification of data
It involves the deliberate act of falsifying any kind of data or (manipulating) distorting any supporting documentation for a course work or other academic activity.

Complicity in academic dishonesty
Complicity in academic dishonesty means helping or attempting to help another student to commit an act of academic dishonesty, such as doing work for another student; designing or producing a project for another student; willfully providing answers during an exam or quiz; contacting a student on a mobile device while taking an exam and providing information; providing a student with an advance copy of a test; leaving inappropriate materials behind at the site of an exam or test and altering outcome results.

Interference with other students' work
It involves the intentional interference with the work of other students; sabotaging other students› laboratory experiments, research or digital files; and giving any misleading information or disrupting other students‘ class work.

Intellectual Property (IP) violations
Respect for original intellectual creativity is vital to academic discourse. This principle applies to works of all authors and publishers in all forms. This encompasses respect for the right to acknowledgement; the right to privacy and the right to determine the form, manner and terms of publication and distribution.
As a general rule, copying, distributing, making derivative work, displaying, or performing copyright-protected work requires the permission of the copyright owner. For purposes such as discussion, analysis, comment, news reporting, teaching, scholarship, or research, copyrighted work may be used without permission and will not be considered an infringement of copyright, provided that the source has been acknowledged. Since electronic information is easily reproduced, respect for the work and personal expression of others is especially critical in electronic media. Violations of authorial integrity, including plagiarism, invasion of privacy, unauthorized access, and trade secret and copyright violations may constitute grounds for disciplinary action against any member of the academic community.

Non-academic violations of QU's standard of conduct may include but are not limited to the following:
• Illegal trespassing or entering on any University property including any building, structure or facility.
• Harassment (verbal or physical) and/or intimidation of peers, faculty, and University visitors and employees.
• Disruptive, destructive, and abusive behavior within the confines of QU campus.
• Behavior that threatens the physical or emotional safety and well - being of others within campus grounds, premises, and facilities.
• Any violation of the Qatari law committed within campus grounds, premises, and facilities.
• Theft, which includes stealing of private or University property or services while on University premises or in connection with any University activity.
• Violation of Qatar University Dress Code: QU recognizes cultural diversity and respects the requirements needed for a productive learning environment. Students are expected to dress in a manner respectful of the local culture and traditions. Inappropriate dress for both males and females is unacceptable. Violators will be subject to appropriate disciplinary measures.
• Damaging, destroying or defacing University property or that of any person while on University premises.
• Smoking in a non-smoking area in or around campus facilities.
• Unauthorized possession or duplication or use of keys of University buildings, facilities, or property.
• Unauthorized entry into or use of University facilities or property, including computer hardware and software.
• Unauthorized posting of signs, notices, flyers, banners, and announcements. Such material may be placed only on authorized bulletin boards, and other specified locations. They may not be posted on cars, trees, walls, doors, or glass surfaces. All students' events publicity to be distributed or displayed in most buildings on campus must be approved and stamped at Student Activities Department.

Adjudication of offenses
Cases resulting from alleged violations of the student integrity code are within the jurisdiction of a faculty member, department head, Dean of the College, and the Vice President for Student Affairs, who will consult with the Student Judiciary Committee (SJC), a university-wide committee to investigate cases of violations. The mandate of the Student Judiciary Committee is to advise the Vice-President for Student Affairs on individual cases with respect to academic or non-academic violation of the integrity code. The Committee, in conducting its business, will observe:
a) The concepts of procedural fairness, and
b) The existing QU Student Integrity Code.
This will be accomplished by considering the facts of each specific case; and examining the preceding deliberations to ensure that the procedures were consistent with QU policy.
In cases of academic offenses, if they are not resolved by the faculty member or within the department, the Dean of the College in which the alleged academic offense took place should consult with the College Student Affairs committee to investigate these cases. However, academic offenses which may lead to a student‘s dismissal from the University should be forwarded to the Vice President for Student Affairs, who shall communicate the decision to the Vice President and Chief Academic Officer and President of the University for taking the decision. The ultimate decision to dismiss a student from the University lies within the jurisdiction of the University President.

DISCIPLINARY ACTIONS

A student is advised that violations of the Student Integrity Code will be treated seriously, with special attention given to repeated offences. A notation of the student integrity code violation will be entered on the student‘s permanent record. Penalties for violations of QU rules and regulations or for acts of student misconduct may include one or more of the following:

Category One
• Resubmission of work assigned by the faculty member.
• Submission of additional work for the course in which the offense occurred.
• A lowered grade or loss of credit for the work found to be in violation of the integrity code.
• A failing grade of (F) or (WF) or denial of credit for the course in which the offense occurred.
• Reprimand from the dean of the college, which is a written statement of disapproval of behavior issued to the student, and filed in the records.
• Educational activities: They may include writing essays or setting a presentation for the community.

Category Two
• University Service: A student may be required to do a number of service hours, engaging in light work tasks, such as the maintenance of College / University property and/or clerical work.
• Loss of student employment eligibility and/or merit scholarship.
• Restitution- reimbursement to the University for any damage or misappropriation of University property.
• Restriction by exclusion from participation in social activities which includes but not limited to being prohibited from: representing QU in any official activity or event be it cultural or athletic; entering any of university facilities; or serving as an officer of any students' organizations.
• Warning: It is an official written notification that the student’s behavior violates the Student Integrity Code; that the action or behavior must cease; and that further misconduct could result in additional disciplinary action.
• Probation: Disciplinary probation is a formal notice, affecting the non-academic status of the student, that the student’s behavior is unacceptable within the University community. Probation requires that the student demonstrate during a specified period of time, that s/he is capable of meeting the conduct standards expected of members of the University community.

Category Three :
• Exclusion from academic privileges including Dean‘s list and VP list of honors.
• Strongly advised to attend treatment or counseling as determined by the director of the counseling center, in consultation with the VPSA.
• Dismissal for a specified term(s) from the university
• Expulsion from the University.

PROCEDURES AND GUIDELINES

The following procedures are to be followed in case of academic offenses by students:

1. The immediate responsibility for dealing with instances of academic dishonesty, plagiarism, disruption in classroom and other academic violations rests with the faculty member. In any case of an academic offense committed by a student, the faculty member should fill out the relevant form of student offense (Offense Record Form) which shall be documented in the student's personal file in the college‘s archives and within the office of the VPSA. This action will allow the University to monitor and record multiple cases of students' offenses at the University level.
2. In the case that a faculty member is convinced that the alleged offense has resulted from a lack of judgment on the student's part rather than an intended dishonesty, the faculty member should instruct the student for an accept-

able academic work and must record it in the student file. In such cases, the faculty member may, for example, require the student to rewrite or correct the original work or assignment or to resubmit a substitute work or assignment.
3. The faculty member who is reporting an allegation of dishonesty must report such action within 3 working days from the date of occurrence or discovery of the alleged offense. The form Offense Record Form should be forwarded to the VPSA and the Department Head in which the alleged offense took place.
4. Based on the level of severity of the alleged offense, and after consultation with the faculty member concerned, the Department Head records his/her opinion (on the form) after meeting with both the faculty member and the student.
5. The form is then forwarded to the Dean of the College for either the final decision, or to be forwarded to the Vice President for Student Affairs. At the college level the Dean's decision must be based on the recommendations given by The College Student Affairs Committee whose members are elected at the beginning of the academic year. Members of this committee serve for two years and they include the Associate Dean of Student Affairs of the college, one or two elected faculty member(s) depending on the enrollment number in the college, and a student.
6. Recommendations for disciplinary actions of the first category (refer to previous section) may be approved and implemented by the dean of the college in which the student is enrolled. Significant cases of violations that require second and third category actions should be referred to the Vice President of Student Affairs for further review by the Student Judiciary Committee.
7. In all cases, offenses must be recorded and sent to the Vice President for Student Affairs for monitoring purposes.
8. In all cases the student must attend any meetings requested by the college in which the offense has taken place, or by the University, for hearing purposes. Failure to do so may result in making decisions based on available facts.
9. In cases where the faculty member is not satisfied with the decision of the College Committee, he/she may appeal the decision to the Vice President for Student Affairs.
As for non-academic offenses, any member of the University community may file a charge of misconduct against any student. The concerned party should fill out a non-academic offense record form within three days of the occurrence of the incident. Charges are to be filed with the Vice President for Student Affairs who will notify the student of the offense with which s/he is being charged, conduct interviews, determine if the Code has been violated and decide an appropriate response.

RECORDS OF DISCIPLINARY ACTIONS

Records of the violation and disciplinary actions› charges and sanctions will be maintained as part of the confidential records in the office of the VPSA and the respective dean of the college for a period of two years after the student graduates or ceases to be a student. Suspension and expulsion charges will become part of the student's official transcript of record.

STUDENT COMPLAINTS

Qatar University is committed to a policy of fair treatment of students in their interactions with all other members of the University community.

ACADEMIC COMPLAINTS

Academic disputes may include, but are not limited to: admission, grades during the academic semester, academic suspension, 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, please refer to section 4.13.

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 the student is aware of the matter. If the student and faculty member were 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. Note that this process is confidential.
2. If the student is not satisfied with the outcome, he/she has the right to appeal the decision within ten (10) business days of its announcement. The result of the appeal will be e-mailed to the student within ten (10) business days of submitting the appeal.
3. In all cases, if the student does not receive a formal response within ten (10) business days of the complaint/appeal submission, he/she should consider the request rejected.
4. 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 of 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.
5. All documents related to the complaint, appeal, and decision shall be kept at the Office of Vice President for Student Affairs.

NON-ACADEMIC COMPLAINTS

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. Similarly, if the matter involves a faculty member, and the student and the faculty member cannot reach agreement, the student shall discuss the grievance with the faculty member's department head. Although students are encouraged to resolve the complaint informally, 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 location of the incident.
2. The Vice President for Student Affairs will review and direct the complaint to the appropriate department. The personal details of the complainant will be removed to ensure confidentially. The student will be informed of the decision via e-mail within ten (10) business days of the complaint's submission.
3. If the student believes that the procedures have not been properly followed, he/she has the right to appeal the decision within ten (10) business days of the decision. The Vice President for Student Affairs shall review all documentation relating to the complaint and make a decision. At this stage, the outcome of the appeal is final and no further appeal is available.
4. The decision of the appeal is final and may not be appealed. In cases where the Vice President for Student Affairs recommends dismissal from the University, the student may submit an appeal to the University President.
5. All documents related to the complaint, appeal, and decision shall be kept at the Office of Vice President for Student Affairs.

NOTIFICATION OF OUTSIDE PARTIES

When deemed appropriate, the University reserves the right to notify a student's parents or guardians at any time during a disciplinary process.

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 through their myQU portal after consulting with their academic advisor. 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 Help Desk by e-mail at 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 drop and add 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)	
				Min	Max
Fall and Spring	Good Standing (2.00 and above)	Undergraduates	Full Time	12	18
		Foundation	Full Time	0	15
		Undergraduates	Part Time	1	11
	Academic probation (less than 2.00)	Undergraduates	Full Time	9	12
		Foundation	Full Time	0	12
		Undergraduates	Part Time	1	9
Summer	Good Standing (2.00 and above)	Undergraduates	Full Time		
		Undergraduates	Part Time	0	9
		Foundation	Full Time		
	Academic probation (less than 2.00)	Undergraduates	Full Time		
		Undergraduates	Part 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 web site. 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 director 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 (from all courses) requires the approval of the student's academic advisor and the Department Head. A student on academic probation will not be allowed to withdraw from the semester without providing a compelling reason. 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.

RE-ENROLLMENT

A student who withdraws from the University without approval, must re-enroll before being allowed to register. Re-enrollment may be pursued by contacting the Registration Department before the deadline specified in the academic calendar. The decision to proceed with a re-enrollment request is determined by the Registration Department, in consultation with the Director of Admission, the Department Head, and the Dean of the College in which the student wants to re-enroll. A student seeking re-enrollment after an absence of two consecutive semesters may be required to re-enroll, according to the policies or the rules of the degree prevailing at the time of re-enrollment.
Passed credit hours taken before withdrawal from QU may, upon request of the student, be considered towards the intended degree, provided that re-enrollment occurs within 5 years from completion of the individual course.

RETURNING HIGH SCHOOL CERTIFICATES

At the request of the student, the Registration Department will return the original high school certificate to the student if the student is no longer enrolled in Qatar University. After a period of five years following deactivation of the student record, the student's paper file will be destroyed. The University does not accept responsibility for any files destroyed. Original high school certificates may not be returned to enrolled students.

FINAL EXAMINATION SCHEDULE

Final examinations are announced at the beginning of each semester and the final exams schedule is posted by the Office of Student Affairs on the University web site. 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.

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 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	Withdrawal Failing		
Au	Audit		

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
Total credit hours for current semester	**9**

Student's GPA calculations:

Subject	Grade Points	Credit hours	Total Points Gained*
1	4.0	3	4.0 x 3 = 12
2	2.5	2	2.5 x 2 = 5
3	1.0	3	1.0 x 3 = 3
4	0.0	1	0.0 x 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:
a) They meet the admission requirements for the major.
b) They meet the high school subjects requirements.
c) They pass the Foundation Program Requirements, if applicable.
d) 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 30 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:
a. They meet the admission requirements for the minor.
b. 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.

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	Major	Total number of credit hours
Arts and Sciences	Arabic language	120
	Biological sciences	120
	Biomedical	135
	Chemistry	120
	English language	120
	Environmental Sciences with Concentration Area in: *- Marine Sciences* *- Biotechnology*	 125 126
	History	120
	Human Nutrition	132
	International Affairs	120
	Mass communication	126
	Social Work	120
	Sociology	120
	Sport sciences	120
	Statistics	120
	Policy, Planning and Development	120
	Psychology	120
	Public Health	120
Business and Economics	Accounting	125
	Finance	125
	Management	125
	Marketing	125
Education	Primary Education	120
	Secondary Education	120
Engineering	Architecture	160
	Civil Engineering	131
	Chemical Engineering	131
	Computer Science	120
	Computer Engineering	128
	Electrical Engineering	131
	Industrial and Systems Engineering	128
	Mechanical Engineering	131
Law	Law	123
Sharia and Islamic Studies	Dawa	120
	Islamic studies	120
Pharmacy	Pharmacy	173

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 Registration Department.

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

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. The student will be notified of the grade change once it has been updated by the Registration Department. 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. Once the request is evaluated by the Committee, the student will be notified of the decision by email.

Academic Probation

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 be aware of their academic standing at all times. Undergraduate students are placed under academic probation based on their cumulative GPA and the total number of GPA hours as detailed below:

- 0 - 24 GPAH - No academic probation is to be applied
- 25 GPAH or above - Placed under academic probation if cumulative GPA is below 2.00

Academic Probation is noted on the student transcript and academic records.

Once placed on academic probation, students have two (2) consecutive or three (3) separate semesters (summer session not included) to remove the academic probation before being dismissed from the University.

Once placed under Probation at the end of a semester, undergraduate students who fail to satisfy the 2.00 cumulative GPA requirement for "Good Standing" at the end of the following semester of enrollment, excluding the summer term, are placed under Final Probation.

Once placed under Final Probation at the end of a semester, undergraduate students who fail to satisfy the 2.00 cumulative GPA requirement for "Good Standing" at the end of the following semester of enrollment, excluding the summer term, are academically dismissed from the University.

Students under Final Probation who fail to register in courses in a given semester will, unless they received prior approval from the Student Affairs Committee, be academically dismissed at the end of that semester. Students under Final Probation may not withdraw from a semester, request a leave of absence, or leave the university for the remainder of the semester unless they receive prior approval from the Student Affairs Committee. Undergraduate students placed under Probation or Final Probation are allowed to register in a minimum of 9 CH and a maximum of 12 CH per regular semester and a maximum of 6 CH in the summer term. Students may be

allowed to register in more than the maximum number of credit hours, subject to prior approval from the Student Affairs Committee.
A hold is applied for all students placed under Probation, Final Probation, or receiving an Academic Warning for failing a course twice. These students must meet with their academic advisor before registering in classes offered in the following semester.
Students placed under Academic Probation or Final Academic Probation may apply for transfer to another program subject to the university rules and regulations.
The summer term is not considered for Academic Probation decisions.

Academic Dismissal
A student will be dismissed from the University for academic reasons under the following conditions:
• Failing a required course three (3) times.
• Failing to achieve a minimum GPA of 2.00 for three (3) consecutive or four (4) Non-Consecutive semesters since admission or three (3) non-consecutive semesters since reinstatement.
• Failing to meet graduation requirements within eight years from enrollments in the University (excluding Foundation Program) or within the maximum allowed additional time as indicated in the appeal or the reinstatement decision.
• Not registering in any course in a given semester, excluding the summer term, while placed under Final Probation and without having secured prior approval from the Student Affairs Committee.
Academic Dismissal is noted on student transcript and academic records.

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.
The following criteria will be applied by the Academic Dismissal, Appeal and Reinstatement Committee (Appendix A) when evaluating the appeal:
1. In the semester of academic dismissal, the student experienced the death of an immediate relative or suffered a medical condition resulting in extended hospitalization and/or medical treatment; or
2. The student has a minimum cumulative GPA of 1.90; or
3. The student requires a maximum of 15 credit hours to satisfy graduation requirements and can achieve a 2.00 cumulative GPA by earning a maximum of 15 credit hours with an A average.
4. 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.

Reinstatement
Any Qatar University student who is dismissed from the institution for academic deficiency may apply for reinstatement up to a maximum of one (1) year of the official notification of academic dismissal.
Applicants may seek reinstatement after completing a minimum suspension period of 1 regular semester, excluding summer. The application for reinstatement should be submitted to the Director of the Registration Department by the application deadline.

The following applies to all applicants seeking reinstatement:
• All reinstatement applicants must satisfy all application deadlines.
• Reinstated students may return to the College in which they were declared at the time of academic dismissal or may be transferred to a different College as part of their reinstatement.
• Reinstated students are required to participate in the Successful Transitions Program.
• Students will only be reinstated once. If a student is academically dismissed for a second time, the student is not eligible for reinstatement.

The following applies to all applicants seeking reinstatement:
A. All QU coursework and cumulative GPA earned prior to academic dismissal will remain on the academic record. The student will be reinstated on Probation and will therefore have a maximum of 2 semesters to achieve Good Standing or face academic dismissal.
B. Reinstated students who were academically dismissed due to repeated failure in a course are allowed to repeat the failed course only one more time. Additional failure in the repeated course will result in academic dismissal.
C. Reinstated students may be considered for possible transfer credit according to QU's transfer credit rules.

Repeating a Course
A student may repeat any course taken at Qatar University in which a final grade of "D+" or below was earned. The following applies to all students repeating a course:
• Undergraduate students are allowed to repeat a course a maximum of two times. Failing a course for the third time will result in academic dismissal. Undergraduate students who fail a course two times must obtain the approval of their academic advisor and the head of department of their program before repeating the course.
• The repeated course may only be counted once towards the total number of credit hours required for graduation.
• Courses transferred from another accredited college or university cannot be repeated for additional credit.
• For all courses taken prior to Spring 2013 and repeated in Spring 2013 or thereafter, the grade obtained in the prior attempt(s) of the course is excluded from the cumulative GPA calculation and only the grade obtained in the most recent attempt is used in the calculation of the cumulative GPA.
• Grades for all attempts of a course appear on the official transcript. A notation of "E" on the transcript indicates the attempt(s) excluded from the cumulative GPA calculation, while a notation of "R" denotes the attempt included in the cumulative GPA calculation.
• The degree GPA is not changed for any courses repeated after the degree is awarded.

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.

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.
Courses accepted for transfer will be given a grade of "TC" but will not bear on the GPA accumulated at QU; however, 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.
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:

Order of Excellence:
Bachelor degree graduates who have demonstrated

distinguished academic performance during their study at QU are acknowledged and honored by the University during their graduation ceremony. A maximum of ten graduates are selected to receive Academic Excellence Medals. In order for a student to qualify for receiving this outstanding award, the following conditions must be met by the student:
1. Having attained a minimum overall GPA of 3.80, and never received a grade of less than “B” during their undergraduate studies.
2. Having never received a written disciplinary warning or sanction while studying at QU.

Graduating With Honors:
Students who are graduating with a Bachelor’s degree and have attained outstanding academic performance are acknowledged and honored by the University during the graduation ceremony, and are issued certificates that attest to their achievements. In order for a student to receive this outstanding award, he/she must meet the following conditions:
1. Graduated in the top 5% of the graduating class for that academic year with a minimum overall GPA of 3.50.
2. Having never been placed on academic probation, nor was subjected to disciplinary action while studying at QU.

The Vice-President and Chief Academic Officer’s List:
The Vice-President and Chief Academic Officer 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 all Dean’s List requirements:
1. Earn a minimum cumulative GPA of 3.50.
2. Complete a minimum of 30 credit hours.
3. Earn a minimum final grade of “C” for all courses taken, with the exception of courses taken on Pass/Fail basis.
4. Never subjected to any disciplinary action by the University.

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 NON-ACADEMIC AWARDS

The University bestows special service awards to students who have demonstrated exceptional contributions in the areas of campus life, student activities, athletics and services. Three categories of awards will be presented to both male and female students: (1) Student Leadership Award, (2) Student Services Award and (3) Student Athletic Award.
Nominations for the Student Non-Academic Awards can be made by individual faculty members, staff, other students, or the student, providing that the eligibility criteria stated for each award is met by the student. Should a student wish to make a nomination for any of these awards, he/she must submit at least one letter of recommendation attesting to their leadership qualities, service rendered, or athletic skills.

Student Leadership Award (one male student and one female student):
This award is reserved for male and female students who have exhibited the most outstanding leadership qualities in student activities and/or student organizations. To be eligible for this award, the student must have:
1. Served in a leadership position.
2. Worked to create meaningful changes in the lives of other students.
3. Demonstrated commitment to increase student participation on campus.
4. Participated in a variety of campus activities and exhibited outstanding leadership in them.
5. Completed a minimum of 60 credit hours.
6. Maintained a GPA of 2.00 for the previous two semesters.

Student Services Award (three male students and three female students):
This award is given to the three male and female students who have exhibited outstanding achievements in student activities, student services, and service to the community. To be eligible for this award, the student must have:
1. Been active in student activities, student services, or in the service of the community, and demonstrated clear achievement in this realm.
2. Contributed to campus life and the community.
3. Set an example for other students through investment of their time and energy in order to impact campus life.
4. Completed a minimum of 60 credit hours.
5. Maintained a GPA of 2.00 for the previous two semesters.

Student Athletic Award (one male student and one female student):
This award is given in recognition of the students who have achieved excellence in the sports they practice. To be eligible for this award, the student must have:
1. Been active in a University sport activity.
2. Shown clear athletic achievement.
3. Maintained a practice or training regimen acceptable to their coach.
4. Completed a minimum of 60 credit hours.
5. Maintained a GPA of 2.00 for the previous two semesters.

CHAPTER 8
ACADEMIC ADVISING

Academic advising is an ongoing partnership between students and their advisors that helps students to attain their academic, personal, and career goals.

The academic advisor serves as the primary link between the student's academic program and other resources available at the university. In order to assist students in making informed choices about their education and career goals, academic advisors help students identify available opportunities and options while also communicating accurate and timely information about academic policies and procedures, programs, resources, and career opportunities.

General academic advising is available to all students. In addition to this, students are assigned to academic advisors in their respective colleges. Advisors assist students with course selection, registration, and educational planning.

Although advisors at QU actively assist students in making effective academic choices, students are personally responsible for planning their academic program to meet all graduation requirements. Therefore, students are encouraged to take the lead in developing an association with their academic advisor by communicating with them on a routine basis. Through regular contact with their advisors, students develop essential communication, decision-making, and problem-solving skills and become actively engaged in their educational expedition, thereby making it a richer experience.

CHAPTER 9
HONORS PROGRAM

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E-mail: **quhonors@qu.edu.qa**
Website: **http://www.qu.edu.qa/honors_program**

The Honors program is a community of exceptional, motivated, and innovative minds. It serves as a vehicle to enhance the intellectual quality and inspire the academic culture of the University. The program encompasses all undergraduate colleges and programs in the university.

HONORS BENEFITS

Members of the Qatar University Honors program have the following academic opportunities available to them:
• Recognition at graduation and on their transcript of successful participation in a challenging, high-quality honors program.
• Innovative courses created especially for the Honors Program by outstanding scholars/teachers.
• Participation and intensive faculty guidance.
• Priority for Undergraduate Research Funding.
• A scholarship, if the student persists in good standing as a member of the college-wide Honors Program and maintains a GPA of 3.5.
• Opportunities for outstanding Honors students for Conference Attendance Support.
• Annual Honors Program Awards for the best academic performance and best services award.
• Possibility of attendance at conferences and events sponsored by industry sponsors.
• Possibilities for Funding for Senior projects and Capstone Honors Thesis.
• Free joining fees for QU clubs or 25% reduction in other selected clubs.
• Honors students will have priority scholarship consideration for Master and PhD studies at QU and GTAs.
• Priority for students in the IAESTE exchange program.
• Priority for internship and summer training.

HONORS ADMISSION REQUIREMENTS

For newly admitted undergraduate students:
• Minimum of 90% or higher in high school certificate or an equivalent certificate
• Successfully pass an interview.
• Recommendation letters
• Written essay exam

Regular undergraduate students can apply to enroll in the Honors Program if they satisfy the following requirements:
• Complete or about to complete min 12 to 18 credit hours in undergraduate level courses with 3.3 GPA
• Have no record of academic probation or disciplinary misconduct or violation.
• Recommendation letters from current or previous instructors, counselors, or academic advisors
• A written essay
• Successfully pass an interview

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
• Not having more than two consecutive semesters with no Honors course
• 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 24 credit hours of Honors Program courses.
• Complete all Honors Program courses with a minimum grade of C.
• Have never been placed on academic probation, nor be subjected to disciplinary action while studying at QU.
2) 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 completion (for students who have successfully completed all required courses in the honors study plan, course listing and grades will be identical to what is officially stated on the students' official academic records.)

Dismissal and withdrawal from the Honors Program
An Honors student will be dismissed from the Honors Program when:
1. GPA drops below 3.3.
2. A student is found by the university to have committed or participated in an incident of academic dishonesty or any other violation.
3. Failure to successfully complete an Honors course 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 Honors Program

Any student dismissed/ withdrew from the Honors Program may apply for reinstatement to the program. A student who has been dismissed/ withdrew 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, the Honors Director with consultation of the Honors council decides whether the student is to be reinstated.

HONORS PROGRAM STUDY PLAN STRUCTURE

In order to graduate with Honors, students must complete a minimum of 24 credits of Honors coursework. Reasonable progress includes the completion of at least 6 Honors credits each year, with an overall cumulative GPA of 3.50. In order to retain the privileges of membership in the Honors Program, students must maintain this minimum progress.

HONORS CURRICULUM

Honors courses are offered each semester specifically for Honors Program members. Outstanding and acclaimed faculty members teach these courses. 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. Honors courses include intensive reading, writing, and research. Only Honors students may enroll in Honors courses.

TYPICAL HONORS SEQUENCE (FALL 2013)*

Credit Hours	Courses
3	Freshman Seminar (Honors Core 1)
6	Two University Curriculum Courses from different packages (Honors Core 2, Honors Core 3)
9	Three Major-based Honors Courses (300-400 level)
6	Honors Senior Seminar 498, Honors Thesis 499 (Senior Project, Senior Seminar, Capstone, etc.)
24	**Total Program Credit Hours***

* Honors students who joined the program before 2013 can either stay on their old Honors sequence or follow the new sequence listed above.

**Please note that the 24 credit hours to complete the Honors Program are included in the overall hours required to earn an undergraduate degree at Qatar University.

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 or email quhonors@qu.edu.qa.

CHAPTER 10
FOUNDATION PROGRAM

Foundation Building (Women's Section)
Phone: +974 4403- 5328
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Acting Director
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INTRODUCTION

The Foundation Program at Qatar University presents unique and challenging opportunities for students to become better-prepared and confident in key academic areas of study at Qatar University. All QU 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.

VISION

The Foundation Program aspires to be internationally recognized for its innovative and quality education.

MISSION

The mission of the Foundation Program is to provide Qatar University students with required knowledge of English and Mathematics through active learning. The students will be equipped with problem solving, critical thinking and study skills through student-centered approaches.

OVERVIEW

The Foundation Program is composed of two departments: the Department of English and the Department of Math. The Foundation Program offers up to 25 classroom teaching contact hours per week (21 hours in English; 4 hours in Math). In addition, the Department of English provides online resources, guidance and evaluation for students to do additional hours of online independent "e-Learning" each week.
All new students who intend to major in Science, Engineering and Pharmacy at Qatar University are must register for Foundation Program courses or submit evidence of required scores on the ACT, SAT, TOEFL or IELTS. Students must complete all courses required by the Foundation Program within the timeframe specified by university regulations. Foundation-level courses are not part of the undergraduate major study plans and therefore credits earned cannot be applied towards an undergraduate or graduate degree.

STUDENT SERVICES

The Foundation Program provides courses in English and Math, and services in standardized external Examinations (IELTS, TOEFL, ACT, ACCUPLACER).

The Foundation Program liaises with relevant QU offices, such as Student Services, Continuing Education, Student Activities, Student Affairs, and Special Needs, to offer appropriate support and services including:
• Clubs, competitions, and field trips
• Student Advising Center Access
• Academic assistant through the Student Learning Support Center
• Examination preparation for IELTS, TOEFL and ACT

DEPARTMENT OF ENGLISH

Phone: + 974 4403 5330
Email: **fpde@qu.edu.qa**

Head
Mr. Patrick Murphy

NON-CREDIT COURSES in General English and EAP (ENGLISH FOR ACADEMIC PURPOSES)

Length & Structure of Program
The English Program holds five-year accreditation from the Commission on English Language Program Accreditation (CEA), and offers different levels of instruction in focusing on developing students' language skills in reading, writing, listening, and speaking. Appropriate technology is integrated with program activities to aid language skills development and to support autonomous learning. Students are expected to complete the program in one year.

The English Program is comprised of three courses at beginner or intermediate levels. The courses are English Integrated Core, English Reading Workshop, and English Writing Workshop. Students may be placed in different levels for each course based on the pre-requisites for each course. By completing the top level of each course with a 70% (C) grade, students complete the Foundation English Program.

Placement
New students who do not achieve the exemption scores must take the ACCUPLACER ESL (APL) test. The APL tests students' reading, listening, and understanding of grammar and vocabulary. Students are allowed to sit for the test once during their Foundation English study, unless otherwise required by the department. Students are placed in the appropriate level of English Integrated Core, English Reading Workshop, and English Writing Workshop based on their ACCUPLACER scores. Students advance to higher levels and exit the program by achieving a 70% (C) in each course.

Program Objectives
The Program aims to help students develop skills to achieve the following objectives:
1. Interpret academic texts
2. Express ideas and facts effectively in writing
3. Use verbal skills to communicate effectively
4. Interpret aural information
5. Demonstrate proficiency required to interpret and use language
6. Apply independent learning skills
7. Use appropriate ICT tools for learning and communicating
8. Demonstrate collaboration skills

Completion
Students complete the Foundation English Program
The Foundation Program is designed to be completed within one or two semesters, depending on the level of the student on entry to the program. Students complete the Foundation English requirements when they have completed both levels of the program. However, they can also be exempted from Foundation English requirements at any time when they obtain the required score on the TOEFL paper-based test, the TOEFL iBT, or IELTS.
The Foundation Program cooperates with various agencies to validate certificates of exams taken outside Qatar University, to ensure the proper level of skill and knowledge proficiency. The Foundation Program reserves the right to verify any certificate issued from centers outside Qatar.

UNIVERSITY REQUIRED COURSES: POST-FOUNDATION AND ENGLISH LANGUAGE FOR ARTS, SHARIA AND EDUCATION

There are university required courses administered by the Foundation Program Department of English: Post-Foundation courses and English Language for Arts, Sharia and Education courses.

Length & Structure of Post-Foundation Courses
After completing or being exempted from the Foundation Program English requirement, students who are studying within Science, Engineering and Pharmacy which are taught in English at the university, take the two required credited courses: English Language I and English Language II. Both are three credit-hour, courses aimed at promoting advanced academic skills, with a particular focus on academic writing and critical thinking. English Language I focuses on developing an appreciation of and an ability to produce different fundamental essay writing genres. The course also develops a student's academic vocabulary, critical reading and reflection skills. Finally, students are introduced to various fundamental online learning platforms as well as academic summary and paraphrasing writing skills. English Language II fosters the skills necessary for students to be able to develop a research topic, research question and appropriate outline. In addition, students are taught how to conduct independent library searches both physically and online, paraphrase and incorporate referenced source information into their writing and write a referenced academic term paper. After the completion of both courses, students will have the skills and abilities to successfully complete the academic writing requirements demanded by their major courses at QU.

Length & Structure of English Language for Arts, Sharia and Education Courses
Students in some majors of study are exempted from completing the Foundation Program English requirement. Nevertheless, these students complete a shorter, two-course series (each of which fulfill three university credit hours) to develop their English language skills. English Language I for Arts, Sharia and Education focuses on the integration of the four skills (reading, writing, listening, and speaking) in addition to the development of grammar and vocabulary. The next course, English Language II for Arts, Sharia and Education, cultivates reading skills such as skimming & scanning, prediction, and identification of main ideas. Both courses focus on developing student writing and presentation skills so that they will be able to handle Basic English requirements later in their academic and professional lives.

UNIVERSITY REQUIRED COURSES: ENGLISH FOR NON-FOUNDATION COURSES

There are four university required courses administered by the Foundation Program Department of English for students who study in Arabic in the Colleges of Arts and Sciences, Business & Economics, and Law. They are:
• English 1 (ENGL 110),
• English 2 (ENGL 111),

• English for Communication 1 (ENGL 250), and
• English for Communication 2 (ENGL 251).

Length & Structure of English for Non-Foundation Courses
All courses are three credit courses and meet five hours per week to ensure active use of English with pair, group and project work included. All courses integrate the four skills of speaking, listening, reading and writing, but with different emphases. ENGL 110 stresses general speaking and listening, while ENGL 111 gives equal value to all skills. ENGL 250 and 251 give attention to intensive reading and writing by looking at and producing many practical texts, as well as increasing academic skills to write term papers. After completing all four courses, students should have a comfortable level of competency in English, whereby they can cope flexibly with English media in the workplace and in future studies of their chosen discipline.

DEPARTMENT OF MATHEMATICS

Phone: + 974 4403 5500
Email: **fmcqu@qu.edu.qa**

Head
Mr. Salim Salim

PROGRAM OBJECTIVES

The aim of the Math Department is to help students to develop their mathematical skills through the following objectives:
1. To provide students with the opportunity to gain deeper understanding of algebraic relationships and processes, as well as new and improved algebraic skills.
2. To develop students' basic skills in the mathematics needed for success in calculus by promoting critical thinking and using technology, with emphasis on MyLabsPlus as an instructional and learning tool for mathematics.
3. Encourage students to become independent learners and problems solvers.

Placement
A student is required to pass one of the required benchmark tests, which are ACT, SAT, & ACCUPLACER. The student will be placed/exempted according to the criteria described in the following table:

Elementary Algebra	Pre-Calculus Course	Full Exemption
*ACT score is less than 21	*ACT score greater than 22 and less than 24	*ACT score is greater than or equal to 24
**SAT score is less than 500	SAT score greater than 499 and less than 500	SAT score is greater than or equal to 550
APL Elementary Algebra score is less than 82	APL Elementary Algebra score greater than 81	APL College Level Math score greater than 94

*Math component only

** General SAT Math

NON-CREDIT COURSE IN ELEMENTARY ALGEBRA

The Math Program has one level of instruction; the Elementary Algebra Course, which focuses on developing students' mathematical skills in preparation for their subsequent entry into academic programs at Qatar University. The program offers and maintains an innovative learning and teaching environment which develops students' critical thinking skills, promotes independent and lifelong learning capabilities, and equips students with the mathematical skills required for productive participation in a technologically-driven society. It is a 4 hour per week course (3 hours in class and 1 hour in the lab).

Completion
Students complete the Foundation Math Program when they achieveat least 70% (C) in the Elementary Algebra course of the program.

UNIVERSITY REQUIRED COURSES: PRE-CALCULUS COURSE

Pre-Calculus is a university requirement course administered by the Foundation Program Department of Mathematics.

Length & Structure of Pre- Calculus Course
After completing or being exempted from the Foundation Program math requirement, students must take the Pre-Calculus credited course (if Calculus 1 is required in their future study). It is a four hour per week course (3 hours in the class and 1 hour in the lab).
The Pre-Calculus course fosters the fundamental mathematical skills necessary to prepare students for the Calculus I course at the university level.

Completion
Students advance to the Calculus I course by achieving at least a 60% (D) in the Pre-Calculus course.

CHAPTER 11
CORE CURRICULUM

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 enough for students to take courses only in the 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 mission of the Qatar University Core Curriculum Program is to prepare competent undergraduate students who are well-rounded, multi-skillful and effective global citizens. Through a motivating and research-based learning environment, the program seeks to create highly distinguished learners capable of succeeding in the diversity of disciplines offered by QU and who can contribute positively to society.

Objectives

The Core Curriculum Program aims at helping the students to:
1. Instill the concept of good citizenship within the commitment to the framework of Arabic and Islamic moral values.
2. Build awareness of diverse knowledge to assimilate local and international changes and participate in how they are expressed.
3. Develop communication skills in Arabic and in English.
4. Acquire higher order thinking skills and the basics of scientific research.

Learning Outcomes
At the end of the Core Curriculum Program, students should be able to:
1. Appreciate Islamic values and morals in a way that prepares them to accept others.
2. Recognize the nature of Qatari society historically, geographically and socially, to reinforce allegiance to the country.
3. Demonstrate proficiency in written and oral Arabic.
4. Communicate competently with others using oral and written English skills.
5. Think critically and creatively in a variety of methods in order to make decisions and solve problems.
6. Demonstrate competency in the use of research skills and various information sources.
7. Identify the general concepts of humanities and natural sciences in a manner that reveals their value in life.

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 Core Curriculum Program is a set of college-level courses drawn from different disciplines. The courses are organized and distributed into seven packages: A Common Package (12-15 Credits), Social/ Behavioral Sciences Package (3 Credits), Natural Sciences and Mathematics Package (3 Credits), Humanities/Fine Arts Package (3-6 Credits), General Knowledge Package (0-3 Credits), and General Skills Package (0-3 Credits). The Humanities/ Fine Arts Package includes a sub-package; Qatar and Gulf History (3 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 related to the mission, objectives and learning outcomes of the Core Curriculum 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.

Regulations
• 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 only 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.

Common package (12 - 15 CH)
The number of credit hours required for this package ranges from 12 to 15 credit hours, 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 200 Arabic II
•ARAB 107 Arabic Language Basics
• ARAB 109 Language Skills
• ARAB 110 Introduction to Literature and Language
• ARAB 201 Arabic Language Basics Adv
• 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
• DAWA 111 Islamic Culture

Social/Behavioral Sciences package (3 CH)
A minimum of 3 credit hours from courses listed in CCP defined Social/Behavioral Sciences package including:
• ECON 111 Principles of Microeconomics
• ECON 112 Principles of Macroeconomics
• EDUC 203 Family Relationships
• EDUC 320 Human Development
• HONS 102 Honors Freshman for Social Sciences
• INTA 102 Introduction to Political Science
• INTA 203 Women in Islam
• INTA 206 Globalization
• MCOM 103 Media and Society
• PSYC 205 Social Psychology
• SOCI 120 Introduction to Sociology
• SOCI 121 Introduction to Anthropology
• SOCI 263 Badawi Society
• SOCI 363 Ethnicity
• SOCI 467 Globalization
• SOWO 101 Introduction to Social Work and Welfare
• SOWO 361 Society and Human Rights
• PUBH 202 Health Behavior and Society
• SOWO 311 Social and Cultural Diversity
• PSYC 206 Introduction to Social Psychology

Natural Science/Mathematics package (3 CH)
A minimum of 3 credit hours from courses listed in 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
• MATH 101 Calculus I
• MATH 103 Intermediate Algebra
• MATH 104 Basic Geometry and Measures
• PHYS 183 Introduction to General Physics

Humanities /Fine Arts package (3 - 6 CH)
The number of credit hours required for this package ranges from 3 to 6 credit hours, depending on the program. All programs must complete 3 Credit Hours from courses listed in the Qatar and Gulf History sub-package. When applicable, the remaining 3 credit hours can be taken from courses listed in the CCP defined Humanities/ Fine Arts package including:
• ARAB 221 Classical Arabic Poetry I
• ARAB 326 Literary Analysis
• ARAB 482 Contemporary Gulf Literature
• DAWA 117 Ethics
• DAWA 202 Introduction to General Philosophy
• DAWA 305 Modern Philosophy
• ENGL 155 Introduction to Language
• ENGL 156 Introduction to Literature I
• ENGL 234 Language and Gender
• ENGL 209 Language and Society
• ENGL 213 Language and Culture
• ENGL 233 Language and Computers
• GEOG 110 General Geography
• GEOG 441 Geography of Qatar
• HIST 103 An introduction to History
• HIST 217 Islamic Civilization
• HIST 334 Arabian Gulf in Antiquity
• HIST 416 History of Islamic Arts and Architecture• HONS 101 Honors Freshman Seminar for Humanities
• ISLA 205 Intellectual Foundations of Islamic Civilization
• PHIL 110 Introduction to Philosophy

Qatar and Gulf History Sub package (3 CH)
The Qatar and Gulf History Sub package is part of the Humanities /Fine Arts package. Students must complete a minimum of 3 CH in courses listed below.
• HIST 121 History of Qatar
• HIST 222 The Gulf in Modern Period
• HIST 421 The Gulf and the Arab World
•HIST 323 Gulf-South Asian Relations in Modern and Contemporary History

General Knowledge package (0 - 3 CH)
Number of credit hours required for this package range from 0 to 3, depending on the program. When applicable, the 3 credit hours can be taken from courses listed in the CCP defined General Skills package, including:
• ARAB 224 Classical Arabic Prose
• ARAB 261 Rethorics
• ARAB 262 Prosody and Metrics
• ARAB 271 Persian Language I
• DAWA 113 Philosophy of Sirah
• DAWA 203 Principles and Methodology of Dawa
• DAWA 206 International Organizations & Human Rights
• EDUC 310 Foundation of Education in Qatar and School Reform
• INTA 308 International Political Economy
• INTA 405 Gender in the International Perspective
• INTA 415 History of the Middle East in 20th Century
• ISLA 101 Studies in Islamic Creed
• ISLA 102 Quranic Sciences
• ISLA 201 Principles of Islamic Jurisprudence
• ISLA 209 Islamic Studies in Contemporary Thought
• LAWC 102 Human Rights
• LAWC 339 Public International Law
• PSYC 201 Introduction to Psychology
• SOCI 200 Sustainable Development
• SPSC 101 Traditional and New Games
• SPSC 201 Theory and Practice “Teams Sports”

General Skills package (0 - 3 CH)
The number of credit hours required for this package ranges from 0 to 3, depending on the program. When applicable, the 3 credit hours can be taken from courses listed in the CCP defined General Skills package, including:
• ACCT 110 Financial Accounting
• DAWA 114 Modern Techniques of Dawa
• DAWA 204 Research Methodology
• DAWA 205 Schools of Islamic Thought
• DAWA 302 World Religion: Comparative Studies
• EDUC 200 Education and Societal Problems
• EDUC 201 Research Methods
• ENGL 150 Essay Writing I
• ENGL 151 Advanced Reading Comprehensions
• FREN 101 French 1
• HONS 100 Honors Freshman Seminar
• INTA 100 First Year Seminar
• INTA 101 Political and Social Thoughts
• INTA 103 Introduction to International Relations
• INTA 200 Study and Practice of Diplomacy
• INTA 301 Islamic Political Thought
• ISLA 202 Logic and Research Methodology
• LAWC 101 Introduction to Law
• MAGT 101 Principles of Management
• 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.

CHAPTER 12
COLLEGES, ACADEMIC DEPARTMENTS, AND DEGREES

COLLEGE OF ARTS AND SCIENCES

College of Sciences Building (Women's Section)
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Website: **http://www.qu.edu.qa/cas**

Dean
Eiman Mustafawi

Associate Dean for Research and Graduate Studies
Mohamed Ahmedna

Associate Dean for Academic Affairs
Tahmina Rashid

Associate Dean for Outreach and Engagement
Fatima Mohammed H Al-Sowaidi

Associate Dean for Planning and Quality Assurance
Steven Wright

Assistant Dean for Student Affairs
Wesam Al-Madhoun

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, 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 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 Biomedical Science
• Bachelor of Science in Chemistry
• Bachelor of Science in Environmental Science
• Bachelor of Science in Human Nutrition
• Bachelor of Science in Public Health
• Bachelor of Science in Statistics
• 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 Human Nutrition
• 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

DEPARTMENT OF ARABIC LANGUAGE

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Head
Ali Al-Kubaisi

Faculty

Professors:
Salama Abdullah Al-Sowaidi, Rashid Blhabib, Ahmad Yousef, Aze-Eddine Bouchikhi, Rachid Bouziane, Abderrahmane Bouali, Mubarak Hanoun

Associate Professors:
Fatima Al-Sowaidi, Lotfi Al Yousifi, HabibBouherour, Abdoul Salam Hamed, Mahmoud AlJasem, Maryam Al-Naemi, Hafid Ismaili, Imtenan Smadi, Haitham Sarhan, Loui Khalil, Mohammad Al-Absi, AbdelKader Faydouh

Assistant Professors:
Haya Al-Durham, Mohamed Al-Obaidy, Idris Atih Noora Faraj, Hanan Fyad, Hanady Mansour, Mohammad Mostafah Saleem, Ahmad Teaema, Shahat Ghomid, Ahmad Haji Safar

ABOUT THE DEPARTMENT

The Department of Arabic Language (DAL) aspires to achieve a distinction in the study of Arabic Language and Literature so that it enables Qatar University to occupy a prominent place among departments of Arabic in the region and internationally, by virtue of its high-quality teaching, research, community, and university services. It aims to implement advanced developments in the educational and pedagogical process which lead to achieving academic accreditation in the fields of education, research, and acquisition of linguistic skills. It aims to produce a new generation of educated graduates, capable of becoming the country's elite in the field of leadership and intellectual endeavor to serve their language, country, and nation.
The Department aims to produce graduates with open minds to other cultures and civilizations, armed with strategies of dialogue and communication with man and technology. The mission of the Department of Arabic Language is to prepare specialists in linguistics and literary studies who are equipped with sufficient communicative skills and qualified to implement their knowledge and experience in the field of research as well as in the practical field of work which requires the use of Arabic language, its literature and expressive techniques. Thus, the students will be able to assimilate the heritage of the nation and be at the same time opened to the approaches of others and their schools of thought. In addition, the mission emphasizes the values of citizenship and national identity and develops the students' skills in critical thinking, self-learning, and teamwork.

BACHELOR OF ARTS IN ARABIC LANGUAGE

Objectives
The objectives of the Arabic Language major are to:
• Enhance the effectiveness of Arabic language teaching methods.
• Develop students' linguistic, communication and creative skills.
• Develop critical and literary skills through both collaborative and individual approaches.
• Develop a spirit of pride for the Arabic language, literature, and Islamic heritage.

• Develop cultural dialogue and open-mindedness with other peoples and their cultures.

Major Declaration

The Requirements of the Department of Arabic Language (DAL) for admission in a Major in Arabic Language are:

1. Score a minimum of 75% on the final high school examination.
2. Score 75% in the subject of Arabic Language.
3. Pass the written admission test set by DAL for this purpose.
4. Pass the DAL oral examination.

Learning Outcomes

Graduates of the Arabic Language major are expected to be able to:

• Demonstrate high competence in the use of Arabic language in the fields of reading, writing, and scientific research.
• Employ Arabic language in expressing the needs of Arabic, and Islamic society.
• Effectively use the resources of Arabic language, linguistics and literary tradition in a variety of scholarly activities.
• Distinguish the various periods of Arabic literature, literary schools and trends.
• Know the historical, theoretical and material context of the interaction between Arabic culture and other cultures.
• Distinguish the different linguistic theories, schools, and practices.
• Apply all acquired skills in research, analysis, criticism, and comparison.

Opportunities

The Department's graduates will have the ability to fulfill the needs of the work market and the Qatari community, especially in pursuing the following work opportunities:

• University teaching assistant
• Teaching in the educational field.
• Working as a newspaper journalist.
• Working as a professional in television or radio stations.
• Working to scrutinize the language and grammar in news institutions, public ministries, and other government organizations.
• Working in centers of literary creativity.
• Managing cultural activities in clubs or any field that requires critical thinking.
• Working in public relations and diplomatic service.

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 33 credit hours in major requirements
• A minimum of 24 credit hours in concentration requirements.
• A minimum of 24 credit hours in minor requirements.
• A minimum of 6 credit hours of free electives

Core Curriculum Requirements (33 CH)

Common package (15 CH)

• ARAB 109 Language Skills
• ARAB 110 Introduction to Literature and Language
• ENGL 110 English I
• ENGL 111 English II
• DAWA 111 Islamic Culture

Social/Behavioral Sciences package (3 CH)

Courses in CCP defined Social/Behavioral Sciences package

Natural Science/Mathematics package (3 CH)

Courses in CCP defined Natural Science/Mathematics package

Humanities /Fine Arts package (6 CH)

Courses in CCP defined Humanities/Fine Arts package. Students must complete a minimum of 3 Credit Hours from courses listed in the Qatar and Gulf History Sub-package which is part of the Humanities/Fine Arts package.

General Knowledge package (3 CH)

Courses in CCP defined General Knowledge package

General Skills package (3 CH)

Courses in CCP defined General Skills package

Major Requirements (33 CH)

• ARAB 213 Grammar I
• ARAB 218 Morphology
• ARAB 319 Grammar II
• ARAB 221 Classical Arabic Poetry I
• ARAB 224 Classical Arabic Prose
• ARAB 261 Rhetoric
• ARAB 331 Classical Arabic Criticism
• ARAB 351 Introduction to Linguistics
• ARAB 381 Modern and Contemporary Arabic Poetry
• ARAB 481 Modern Literary Criticism
• ARAB 483 Comparative Literature

Concentration in Linguistics (24 CH)

Students must complete a minimum of 24 credit hours in concentration requirements as detailed below. Students must have successfully completed 18 credit hours from the Major compulsory courses before registering in the concentration area courses.

Linguistics Concentration Core Requirements (15 CH)

Students must complete a minimum of 15 credit hours in Linguistics concentration core requirements from the courses listed below:

• ARAB 392 Arabic Syntax
• ARAB 375 Phonology
• ARAB 273 Hebrew
• ARAB 419 Comparative Linguistics
• ARAB 493 Capstone on Arabic Linguistics

Linguistics Concentration Electives I (6 CH)

• ARAB 355 Applied Linguistics
• ARAB 352 Philology
• ARAB 354 Semantics
• ARAB 262 Prosody and Metrics

Linguistics Concentration Electives II (3 CH)

• ARAB 412 Readings and Linguistics Traditions
• ARAB 464 Socio-Linguistics
• ARAB 491 Topics in contemporary Arab thought
• ARAB 434 Orientalism and its Criticism

Concentration in Literature (24 CH)

Students must complete a minimum of 24 credit hours in concentration requirements as detailed below. Students must have successfully completed 18 credit hours from the Major compulsory courses before registering in the concentration area courses.

Literature Concentration Core Requirements (15 CH)

Students must complete a minimum of 15 credit hours in literature concentration core requirements including 6 CH from the Literature Language Requirements I sub-package or 6 CH from the Literature Language Requirements II sub-package as detailed below:

• ARAB 391 Literary Research Sources and Methods
• ARAB 326 Literary Analysis
• ARAB 492 Capstone on Arabic Literature

Literature Language Requirements I sub-package (6CH)

• ARAB 271 Persian Language I
• ARAB 372 Persian Language II

Literature Language Requirements II sub-package (6CH)

• TURK 101 Turkish I
• TURK 201 Turkish II

Literature Concentration Electives I (6 CH)

• ARAB 382 Modern Narratives
• ARAB 482 Contemporary Gulf Literature
• ARAB 223 Classical Arabic Poetry
• ARAB 262 Prosody and Metrics

Literature Concentration Electives II (3 CH)

• ARAB 327 Readings in Literary Tradition
• ARAB 484 Sociology of Literature
• ARAB 491 Topics in Contemporary Arab Thought
• ARAB 434 Orientalism and its Criticism

Minor Requirements (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 (6 CH)

Students must take 6 credit hours from courses outside the Arabic major.

Minor in Arabic (24 CH)

The minor in Arabic provides students with a fair measure of expertise and knowledge in the Arabic Language and Literature via highly elected courses.

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
• A minimum of 12 credit hours in Minor Electives

Minor Requirements (12 CH)

Students must complete a minimum of 12 credit hours in Minor required courses:

• ARAB 213 Grammar I
• ARAB 218 Morphology
• ARAB 221 Classical Arabic Poetry I
• ARAB 261 Rhetoric

Minor Electives (12 CH)

Students must complete a minimum of 6 CH in the Arabic Minor Electives I Package and a minimum of 6 CH in the Arabic Minor Electives II Package.

Arabic Minor Electives I Package (6 CH)

Students must complete a minimum of 6 CH taken from the following Minor electives courses:

• ARAB 262 Prosody and Metrics
• ARAB 319 Grammar II
• ARAB 351 Introduction to Linguistics
• ARAB 354 Semantics
• ARAB 352 Philology

Arabic Minor Electives II Package (6 CH)

Students must complete a minimum of 6 CH taken from the following 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

Study Plan

Bachelor of [Arabic Language] in [Concentration: Linguistics]

FIRST YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ENGL 110	English I	3
	DAWA 111	Islamic Culture	3
		Core Curriculum	3
	ARAB 109	Language Skills	3
	ARAB 221	Classical Arabic Poetry I	3
Total Credit Hours in Semester			**15**
Spring	ENGL 111	English II	3
		Core Curriculum	3
		Core Curriculum	3
	ARAB 110	Introduction to Literature and Language	3
	ARAB 213	Grammar I	3
Total Credit Hours in Semester			**15**

SECOND YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall		Core Curriculum	3
		Core Curriculum	3
	ARAB 218	Morphology	3
	ARAB 331	Classical Arabic Criticism	3
	ARAB 224	Classical Arabic Prose	3
Total Credit Hours in Semester			**15**
Spring		Core Curriculum	3
	ARAB 261	Rhetoric	3
	ARAB 319	Grammar II	3
	ARAB 351	Introduction to Linguistics	3
	ARAB 481	Modern Literary Criticism	3
Total Credit Hours in Semester			**15**

THIRD YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall		Minor 1	3
	ARAB 392	Arabic Syntax	3
	ARAB	Linguistics Concentration Electives I	3
	ARAB 483	Comparative Literature	3
		Minor 2	3
Total Credit Hours in Semester			**15**
Spring	ARAB	Linguistics Concentration Electives I	3
	ARAB 273	Hebrew	3
	ARAB 375	Phonology	3
		Minor 3	3
		Minor 4	3
Total Credit Hours in Semester			**15**

FOURTH YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ARAB 419	Comparative Linguistics	3
	ARAB 381	Modern and Contemporary Arabic Poetry	3
		Minor 5	3
		Minor 6	3
		Free elective 1	3
Total Credit Hours in Semester			**15**
Spring	ARAB 493	Capstone on Arabic Linguistics	3
	ARAB	Linguistics Concentration Electives II	3
		Minor 7	3
		Minor 8	3
		Free elective 2	3
Total Credit Hours in Semester			**15**

Study Plan

Bachelor of [Arabic Language] in [Concentration: Literature]

FIRST YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ENGL 110	English I	3
	DAWA 111	Islamic Culture	3
		Core Curriculum	3
	ARAB 109	Language Skills	3
	ARAB221	Classical Arabic Poetry I	3
Total Credit Hours in Semester			**15**
Spring	ENGL 111	English II	3
		Core Curriculum	3
		Core Curriculum	3
	ARAB 110	Introduction to Literature and Language	3
	ARAB 213	Grammar I	3
Total Credit Hours in Semester			**15**

SECOND YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall		Core Curriculum	3
		Core Curriculum	3
	ARAB 218	Morphology	3
	ARAB 331	Classical Arabic Criticism	3
	ARAB 224	Classical Arabic Prose	3
Total Credit Hours in Semester			**15**
Spring		Core Curriculum	3
	ARAB 391	Literary Research Sources and Methods	3
	ARAB 319	Grammar II	3
	ARAB 351	Introduction to Linguistics	3
	ARAB 481	Modern Literary Criticism	3
Total Credit Hours in Semester			**15**

THIRD YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall		Minor 1	3
	ARAB 261	Rhetorics	3
	ARAB	Literature Concentration Electives I	3
	ARAB 483	Comparative Literature	3
		Minor 2	3
Total Credit Hours in Semester			**15**
Spring	ARAB	Literature Concentration Electives I	3
	ARAB 271 OR TURK 101	Persian Language I Turkish I	3
	ARAB 326	Literary Analysis	3
		Minor 3	3
		Minor 4	3
Total Credit Hours in Semester			**15**

FOURTH YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ARAB 372 or TURK 201	Turkish II Persian Language II	3
	ARAB 381	Modern and Contemporary Arabic Poetry	3
		Minor 5	3
		Minor 6	3
		Free elective 1	3
Total Credit Hours in Semester			**15**
Spring	ARAB 492	Capstone on Arabic Literature	3
		Literature Concentration Electives II	3
		Minor 7	3
		Minor 8	3
		Free elective 2	3
Total Credit Hours in Semester			**15**

DEPARTMENT OF ENGLISH LITERATURE AND LINGUISTICS

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Lecturers:
Iglal Ahmed, John Herlihy

Teaching Assistants:
Afra Hassan Al-Kholifi, Fatima Al-Abdulla, Noora Al-Kaabi, Afra Mubarak Al-Qahtani

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.

BACHELOR OF ARTS IN ENGLISH LITERATURE AND LINGUISTICS

Educational objectives
• 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.

Admission Requirements
Applicants must satisfy the minimum high school percentage requirement for the College in the semester of admission. A minimum score of 500 on the TOEFL 5.5 on the IELTS or 61 on the IBT is required. In addition, applicants must score above the cut-off percentage in the entrance test and interview held by the Department.

Learning Outcomes
• Demonstrate the ability to read, communicate and write clearly in English.
• Apply the skills of analyzing English language and culture to students' own language and culture and those of others.
• Relate the phenomena of language and literature to their social, cultural and psychological contexts.
• Analyze critically literary genres within their historical, social, and intellectual contexts.
• 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 field of communication. 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.

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
• A minimum of 24 credit hours in Concentration Requirements and Electives
• A minimum of 24 credit hours in Minor requirements
• A minimum of 12 credit hours in Free Electives

Core Curriculum Requirements (33 CH)
Common package (15 CH)
• ARAB 100 Arabic Language I
• ARAB 200 Arabic Language II
• ENGL 150 Essay Writing I
• ENGL 151 Advanced Reading Comprehension
• DAWA 111 Islamic Culture

Social/Behavioral Sciences package (3 CH)
Courses in CCP defined Social/Behavioral Sciences package

Humanities /Fine Arts package (6 CH)
Courses in CCP defined Humanities/Fine Arts package. Students must complete a minimum of 3 Credit Hours from courses listed in the Qatar and Gulf History Sub-package which is part of the Humanities/Fine Arts package.

Natural Science/Mathematics package (3 CH)
Courses in CCP defined Natural Science/Mathematics package

General Knowledge package (3 CH)
Courses in CCP defined General Knowledge package

General Skills package (3 CH)
Courses in CCP defined General Skills package

Major Requirements (27 credit hours)
Students must complete a minimum of 27 credit hours in Major required 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 230 Professional Writing
• ENGL 208 Literary Criticism
• ENGL 226 History of the English Language
• ENGL 499 Capstone Course (Integrated Skills)

Concentration in Linguistics (24 CH)
Students must complete a minimum of 9 CH in concentration core requirements and a minimum of 15 CH in concentration electives

Linguistics Concentration Core Requirements (9 CH)
Students must complete a minimum of 9 credit hours in concentration core 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 234 Language and Gender
• ENGL 209 Language and Society
• ENGL 213 Language and Culture
• ENGL 233 Language and Computer

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 core requirements and a minimum of 15 CH in concentration electives

Literature Concentration Core Requirements (9 CH)
Students must complete a minimum of 9 credit hours in concentration core 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 334 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 (24 credit hours)
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 (if applicable) (12 CH)
Students must complete a minimum of 12 credit hours in free electives from courses outside the English major and minor

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.

Minor in English (24 CH)
Students seeking a minor in English must complete 24 credit hours, including the following:
• 15 credit hours in Minor requirements
• 9 credit hours in Minor electives

Minor Requirements (15 CH)
Students must complete a minimum of 15 credit hours in Minor-required 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 (9 CH)
Students must complete a minimum of 9 credit hours in Minor electives courses:
• ENGL 230 Professional Writing
• ENGL 220 American Literature
• ENGL 234 Language and Gender
• ENGL 209 Language and Society
• ENGL 213 Language and Culture
• 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 develop translation skills for students interested in acquiring an advanced level of proficiency in Arabic/English translation. The minor offers hands-on experience in the translation of a variety of texts from English to Arabic and vice versa. The minor aims at developing students' awareness of the cultural and linguistic challenges involved in translation as well as preparing them to pursue advanced degrees in the field.

Admission Requirements for the Minor:
• Students must obtain a TOEFL score of 500 or equivalent, and
• Pass the department admission test.

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
• A minimum of 9 credit hours in Minor Electives

Minor Core Requirements (15 CH)
Students must complete a minimum of 15 credit hours in Minor Required courses:
• TRAN 201 Principles and Strategies of Translation
• TRAN 202 Theoretical and Practical Models of Translation
• TRAN 301 Media Translation I
• 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 310 Functional Arabic Grammar for Translators
• TRAN 311 Functional English Grammar for Translators
• TRAN 312 Linguistic Comparison of Arabic & English
• TRAN 313 Discourse Analysis for Translators
• TRAN 314 Media Translation II
• TRAN 315 Specialized Translation II

• TRAN 401 Rhetoric for Translators

Study Plan for Linguistics Track

Bachelor of Arts in English Literature and Linguistics

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
Total Credit Hours in Semester			15
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
Total Credit Hours in Semester			**15**

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**

SECOND YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ENGL 230	Professional Writing	3
	ENGL 208	Literary Criticism	3
	ENGL 216	Phonetics and Phonology	3
		Core Curriculum	3
		Free Elective	3
Total Credit Hours in Semester			**15**
Spring	ENGL 226	History of the English Language	3
		Language across Disciplines package course	3
		Core Curriculum	3
		Core Curriculum	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
		Free Choice Package Course	3
		Minor Course 7	3
		Minor Course 8	3
		Core Curriculum	3
Total Credit Hours in Semester			**15**

Study Plan for Literature Track

Bachelor of Arts in English Literature and Linguistics

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
Total Credit Hours in Semester			**15**
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
Total Credit Hours in Semester			**15**

THIRD YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ENGL 302	Comparative Literature	3
	ENGL 304	Shakespeare	3
		Minor Course 2	3
		Minor Course 3	3
		Core Curriculum	3
Total Credit Hours in Semester			**15**
Spring		Period Package Course	3
		Genre Package course	3
		Minor Course 4	3
		Core Curriculum	3
		Free Elective	3
Total Credit Hours in Semester			**15**

SECOND YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ENGL 230	Professional Writing	3
	ENGL 208	Literary Criticism	3
		Core Curriculum	3
		Core Curriculum	3
		Free Elective	3
Total Credit Hours in Semester			**15**
Spring	ENGL 226	History of the English Language	3
	ENGL 220	American Literature	3
		Minor Course 1	3
		Core Curriculum	3
		Free Elective	3
Total Credit Hours in Semester			**15**

FOURTH YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall		Special Topics package course	3
		Free Choice package course	3
		Minor Course 5	3
		Minor Course 6	3
		Free Elective	3
Total Credit Hours in Semester			**15**
Spring	ENGL 499	Capstone Course (Integrated Skills)	3
		Free Choice Package Course	3
		Minor Course 7	3
		Minor Course 8	3
		Core Curriculum	3
Total Credit Hours in Semester			**15**

DEPARTMENT OF HUMANITIES

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Head
Mahjoob Zweiri

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Teaching Assistant:
Abdulaziz Al Mannai
Ghanem Al Hmeidi
Abdulrahman Yousuf Al-Abdulla
Abdullah Haidar
Dawlat Al Nuaimi

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 at large. The Department currently offers a major in History, as well as a minor in Geography and Urban Planning for History and Sociology students. 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 industrial sectors.
The faculty members of the department are highly qualified with international academic experience, and are committed to advance the learning 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 social and scientific knowledge that will benefit the State of Qatar and humanity at large. 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.

Major Declaration
Applicants must satisfy the minimum high School percentage requirement for the major and must have completed a minimum of 12 CH in the core curriculum program requirements with a minimum cumulative GPA of 2.0. A personal interview is also required.

Learning Outcomes
Graduates of the History major will succeed in achievement and mastery of the program level learning outcomes below:
• Analyze the evolution and distinctive characteristics of

global societies and cultures across different periods in history.
• Recognize the impact of interactions among major civilizations.
• Analyze the persistent pattern of continuity and change across world and regional history periods.
• Compare instances of equality and disparity, and human successes and failures in history.
• Interpret historical facts to draw conclusions.
• 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 councils, 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.

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
• A minimum of 6 credit hours in Major Electives
• A minimum of 15 credit hours in a Focus Area package
• A minimum of 6 credit hours in the language requirement package
• A minimum of 24 credit hours in Minor Requirements
• A minimum of 9 credit hours in Free Electives

Core Curriculum Program (33 credit hours)
Common package (15 CH)
• ARAB 100 Arabic Language I
• ARAB 200 Arabic Language II
• ENGL 110 English I
• ENGL 111 English II
• DAWA 111 Islamic Culture

Social/Behavioral Sciences package (3CH)
Courses in CCP defined Social/Behavioral Sciences package

Humanities /Fine Arts package (6 CH)
Courses in CCP defined Humanities/Fine Arts package.
Students must complete a minimum of 3 Credit Hours from courses listed in the Qatar and Gulf History Sub-package which is part of the Humanities/Fine Arts package.
Natural Science/Mathematics package (3 CH)
Courses in CCP defined Natural Science/Mathematics package

Supplemental College / Program core requirements package (6 CH)
• ENGL 250 English for Communication I
• ENGL 251 English for Communication II

Major Requirements (27 CH)
Students must complete a minimum of 27 credit hours in Major-required courses:
• HIST 103 An Introduction to History
• HIST 111 History of the Muslim World I (600 –1187)
• HIST 121 History of Qatar
• HIST 131 World History Since 1300
• HIST 204 Historiography
• HIST 212 History of the Muslim World II (1187 - 1516)
• HIST 213 Modern Arab History (1516 -1919)
• HIST 370 Modern Arab History since 1919
• HIST 407 Capstone

Major Electives (6 CH)
Students must complete a minimum of 6 credit hours in Major electives courses:
• 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
• INTA 302 Politics of Oil
• HIST 427 Muslim Minorities in the World
• HIST 436 Intellectual History of Europe in the 20th Century
• HIST 470 Modern Latin American History
• 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 Package, the European History Focus Area Package, or the Modern Gulf History Focus Area Package.

The Islamic History Focus Area Package (15 CH)
Students must complete a minimum of 3 CH in The Islamic History Focus Area Requirements Package, a minimum of 6 CH in The Islamic History Focus Area Electives Package, a minimum of 3 CH from The Islamic History Focus Area Additional Electives I Package, and a minimum of 3 CH from The Islamic History Focus Area Additional Electives II Package.

The Islamic History Focus Area Requirements Package (3 CH)
• HIST 217 Islamic Civilization

The Islamic History Focus Area Electives Package (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-Andulus
• 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
• HIST 417 Topics in Islamic History

The Islamic History Focus Area Additional Electives I Package (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 Package (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 Package (15 CH)
Students must complete a minimum of 3 CH in The Modern Gulf History Focus Area Requirements Package, a minimum of 6 CH in The Modern Gulf Focus Area Electives Package, a minimum of 3 CH from The Modern Gulf Focus Area Additional Electives I Package, and a minimum of 3 CH from The Modern Gulf Focus Area Additional Electives II Package.

The Modern Gulf History Focus Area Requirements Package (3 CH)
• HIST 222 The Gulf in Modern Period

The Modern Gulf History Focus Area Electives Package (6 CH)
Students must complete a minimum of 6 credit hours in the focus area elective courses:
• HIST 322 Iran and its Neighbours
• HIST 323 Gulf-South Asian Relations in modern and contemporary history
• HIST 324 Economic History of the Gulf
• HIST 421 The Gulf and the Arab World
• SOCI 462 Change in Contemporary Arab Society
• HIST 425 Topics in Gulf History

The Modern Gulf History Focus Area Additional Electives I Package (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 Package (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 Package, a minimum of 6 CH in The European History Focus Area Electives Package, a minimum of 3 CH from The European History Focus Area Additional Electives I Package, and a minimum of 3 CH from The European History Focus Area Additional Electives II Package.

The European History Focus Area Requirements Package (3 CH)
• HIST 231 Europe and the World since 1500 CE

The European History Focus Area Electives Package (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
• INTA 433 Europe, the Cold War and the World since 1945
• HIST 434 Topics in European History

The European History Focus Area Additional Electives I Package (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 Package (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 Package (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 package, The Modern Gulf History Focus Area Language Requirement package, and the European History Focus Area Language Requirement package.

The Islamic History Focus Area Language Requirement package (6 CH)
Students must complete a minimum of 6 credit hours taken from the Persian Language Package or the Turkish Language Package

The Modern Gulf History Focus Area Language Requirement package (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 package (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 1
• ARAB 272 Persian 2

The Turkish Language package (6 CH)
• TURK 101 Turkish 1
• TURK 201 Turkish 2

The French Language package (6 CH)
• FREN 101 French 1
• FREN 201 French 2

The Spanish Language package (6 CH)
• SPAN 101 Spanish 1
• SPAN 201 Spanish 2

Minor Requirements (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 (9 credit hours)
Students must complete a minimum of 9 Credit Hours in free electives from courses outside the History major.

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.

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
• A minimum of 12 credit hours in Minor electives

Minor Requirements (12 CH)
Students must complete a minimum of 12 credit hours in Minor-required 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 (12 CH)
Students must complete a minimum of 12 credit hours in Minor elective, 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 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
• INTA 302 Politics of Oil
• HIST 427 Muslim minorities in the world
• HIST 436 Intellectual History of Europe in the 20th Century
• HIST 470 Modern Latin American History
• INTA 345 The Arab Israeli Conflict
• HIST 217 Islamic Civilization
• HIST 314 Economic & Social History of the Muslim World
• HIST 318 History of Al-Andulus
• 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
• HIST 417 Topics in Islamic History
• HIST 222 The Gulf in Modern Period
• HIST 322 Iran and its Neighbours
• HIST 323 Gulf-South Asian Relations in Modern and Contemporary History
• HIST 324 Economic History of the Gulf
• HIST 421 The Gulf and the Arab World
• SOCI 462 Change in Contemporary Arab Society
• HIST 425 Topics in Gulf History
• HIST 231 Europe and the World since 1500 CE
• 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
• INTA 433 Europe, the Cold War and the World since 1945
• HIST 434 Topics in European History

Minor Electives (6 CH)
Students must complete a minimum of 6 credit hours in courses selected from the following:
• PHIL 320 Asian Values
• PHIL 330 Philosophy of History
• PHIL 400 Philosophy of Science
• PHIL 410 Special Topics

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.

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
• A minimum of 6 credit hours in the Minor Electives

Minor Requirements (18 CH)
Students must complete the following 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

Study Plan for HIstory

Bachelor of Arts in History

FIRST YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall		Core Curriculum 1	3
		Core Curriculum 2	3
		Core Curriculum 3	3
		Core Curriculum 4	3
		Core Curriculum 5	3
Total Credit Hours in Semester			**15**
Spring		Core Curriculum 6	3
		Core Curriculum 7	3
		Core Curriculum 8	3
		Core Curriculum 9	3
		Core Curriculum 10	3
Total Credit Hours in Semester			**15**

SECOND YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
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
Total Credit Hours in Semester			**15**
Spring	HIST 204	Historiography	3
	HIST 213	Modern Arab History (1516-1919)	3
		Core Curriculum 11	3
		Mandatory focus	3
		Free elective 1	3
Total Credit Hours in Semester			**15**

THIRD YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	HIST212	History of the Muslim World II (1187- 1516)	3
		Major elective 1	3
		Minor 1	3
		Minor 2	3
		Language 2	3
Total Credit Hours in Semester			**15**
Spring	HIST 370	Modern Arab History since 1919	3
		Focus elective 1	3
		Focus elective 2	3
		Minor 3	3
		Minor 4	3
Total Credit Hours in Semester			**15**

FOURTH YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall		Focus elective 3	3
		Focus elective 4	3
		Major elective 2	3
		Minor 5	3
		Minor 6	3
Total Credit Hours in Semester			**15**
Spring	HIST 407	Capstone	3
		Free elective 2	3
		Free elective 3	3
		Minor 7	3
		Minor 8	3
Total Credit Hours in Semester			**15**

DEPARTMENT OF INTERNATIONAL AFFAIRS

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Head
Youcef Bouandel

Faculty

Professors:
Husam Mohammad, Adnan Mohammad Hayajneh, Muhammad Ajmal Khan

Associate Professors:
Jacqueline Armijo, Youcef Bouandel, Larbi Sadiki, Steven Wright

Assistant Professors:
Mazhar Al-Zo'by, Farhan Chak, Afyare Elmi, Lina Kassem, Hatoon Al-Fassi, Imad Mansour, Layla Saleh, Brahim Saidy, Remi Benoit Piet, Hassan Brari

Lecturers:
Thayyiba Ibrahim; Tamadher Al Malik

Teaching Assistants:
Hend Al-Sulati; Fatema Ali, AlReem Saif AL-Naimi, Aisha Hadi Al-Rashdi, Eman Sultan Al Maadeed, Maryam Al Kuwari

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.
• Training 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.
• Fostering an understanding of the dynamics of globalization and its impact on global and local contexts.
• Providing Qatar with highly competent graduates who understand the contemporary national, regional and global challenges facing society today.

Major Declaration
Applicants must satisfy the minimum high school percentage requirement for the major in the semester of admission. In addition, students must have successfully completed a minimum of 12 Credit Hours from the Core Curriculum and achieved a GPA of 2.3. Students will also have to pass an interview. Transfer applicants must have earned a minimum cumulative GPA of 2.3.

Additional Requirements
To receive a BA in International Affairs, 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
• Analyze global issues, systems and trends from a variety of disciplinary perspectives (political, cultural, economic, geographic, and diplomatic).
• Utilize discipline-specific information from appropriate sources.
• Explain the importance of the histories, politics, cultures and perspectives of different regions of the world.
• Analyze the political, economic, diplomatic and strategic role of Qatar in the Gulf and the region.
• Evaluate the political and economic impact of energy and natural resources on modern societies and international affairs.
• Apply qualitative and quantitative research methods skills to international affairs related issues.
• 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.

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
• A minimum of 18 credit hours in Major Electives
• A minimum of 24 credit hours in either a Minor or in Concentration requirements
• A minimum of 6 credit hours in Free Electives

Core Curriculum Requirements (33 CH)
Common package (15 CH)
• ARAB 100 Arabic Language I
• ARAB 200 Arabic Language II
• ENGL 110 English I
• ENGL 111 English II
• DAWA 111 Islamic Culture

Social/Behavioral Sciences package (3CH)
Courses in CCP defined Social/Behavioral Sciences package

Humanities /Fine Arts package (6 CH)
Courses in CCP defined Humanities/Fine Arts package. Students must complete a minimum of 3 Credit Hours from courses listed in the Qatar and Gulf History Sub-package which is part of the Humanities/Fine Arts package.

Natural Science/Mathematics package (3 CH)
Satisfying this package requirements depends on the concentration area selected by students.
- Students selecting the Concentration area in International Political Economy must complete the MATH 103 course.
- Students selecting a concentration area other than the International Political Economy Concentration area may complete any of the courses listed in the CCP defined Natural Science/Mathematics package

Supplemental College / Program core requirements package (6 CH)
• ENGL 250 English for Communication I
• ENGL 251 English for Communication II

Major Core Requirements (39 CH)
Students must complete a minimum of 39 credit hours in Major required courses:
• INTA 100 First Year Seminar
• INTA 101 Political and Social Thought
• INTA 102 Introduction to Political Science
• INTA 103 Introduction to International Relations
• EDUC 201 Research Methodology
• INTA 296 International Organizations
• INTA 302 Politics of Oil
• INTA 306 Gulf studies
• INTA 308 International Political Economy
• INTA 313 Culture and Politics
• LAWC 339 Public International Law
• INTA 411 Capstone
• INTA 415 History of the Middle East in the 20th Century

Major Electives (18 CH)
Students must complete a minimum of 18 credit hours in Major electives 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 315 Dialogue Across Societies and Civilizations
• INTA 345 The Arab-Israeli Conflict
• INTA 350 Foreign Policy of the United States
• 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
• FREN 101 French 1
• FREN 201 French 2
• JAPN 101 Japanese I
• JAPN 102 Japanese II
• SOCI 361 Human Rights

Concentration in International Political Economy (24 CH)
Students must complete a minimum of 12 CH in concentration core requirements and a minimum of 12 CH in concentration electives.

International Security and Diplomacy Concentration Core Requirements (12 CH)
• 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 (12CH)
A minimum of 12 credit hours in Concentration Elective courses:
• INTA 345 The Arab-Israeli Conflict
• INTA 404 Gender and Law
• INTA 450 Ethics of International Relations
• INTA 470 Area Studies
• HIST 322 Iran and its Neighbors
• HIST 323 Gulf-South Asian Relations in the modern and contemporary history
• INTA 433 Europe, the Cold War and the World since 1945
• FREN 301 French Language 3
• 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 core requirements and a minimum of 12 CH in concentration electives

International Political Economy Concentration Core Requirements (12 CH)
• INTA 440 Politics of Development
• MATH 119 Business Math I
• ECON 111 Principles of Microeconomics
• ECON 112 Principles of Macroeconomics

International Political Economy Concentration Electives (12 CH)
A minimum of 12 credit hours in Concentration Elective courses:
• INTA 201 Comparative Political Systems
• INTA 206 Globalization
• INTA 405 Gender in International Perspective
• INTA 470 Area Studies
• SOCI 200 Sustainable Development
• FINA 201 Principles of Finance
• HIST 324 Economic History of the Gulf
• SOCI 463 Labor and Class in Petroleum Society
• ECON 451 Economic Development
• ECON 453 International Economics
• ECON 454 Economics of Energy

Concentration in Culture, Society and Heritage
Students must complete a minimum of 12 CH in concentration core requirements and a minimum of 12 CH in concentration electives.

Culture, Society and Heritage Concentration Core Requirements (12 CH)
• INTA 203 Women in Islam
• HIST 131 World History
• SOCI 121 Introduction to Anthropology
• SOCI 462 Change in Contemporary Arab Society

Culture, Society and Heritage Concentration Electives (12 CH)
A minimum of 12 credit hours in Concentration Elective courses:
• 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
• SOCI 120 Introduction to Sociology
• SOCI 253 Badawi Society
• SOCI 264 Family and Kinship
• SOCI 265 Population and Migration
• SOCI 267 Urban Studies
• SOCI 361 Human Rights
• HIST 231 Europe and the World since 1500 CE
• HIST 334 Arabian Gulf in Antiquity
• HIST 416 History of Islamic Arts and Architecture
• HIST 427 Muslim Minorities in the World
• PHIL 110 Introduction to Philosophy
• ENGL 209 Language and Society
• ENGL 213 Language and Culture
• HIST 425 Topics in Gulf History
• ARAB 483 Comparative Literature
• ARAB 482 Contemporary Gulf Literature
• ARAB 481 Modern Literary Criticism

Free Electives (6 CH)
Students must complete a minimum of 6 Credit Hours in free electives from courses outside the International Affairs major

Minor in International Affairs (24 CH)
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.
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
• A minimum of 6 credit hours in Minor electives

Minor Requirements (18 CH)
Students must complete a minimum of 18 credit hours in Minor required courses:
• INTA 101 Political and Social Thought
• INTA 102 Introduction to Political Science
• INTA 103 Introduction to International Relations
• LAWC 339 Public International Law
• INTA 415 History of the Middle East in the 20th Century
• INTA 308 International Political Economy

Minor Electives (6 CH)
Students must complete a minimum of 6 credit hours in Minor electives courses:
• INTA 203 Women in Islam
• INTA 206 Globalization
• INTA 306 Gulf studies
• INTA 209 Islam and the West
• 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 300 Chinese Society and Politics in the 21st Century

Study Plan for International Affairs

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
Total Credit Hours in Semester			**15**

THIRD YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
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
Total Credit Hours in Semester			**15**
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
Total Credit Hours in Semester			**15**

SECOND YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
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
Total Credit Hours in Semester			**15**
Spring	INTA 308	International Political Economy	3
	INTA 306	Gulf Studies	3
	INTA 103	Introduction to International Relations	3
	EDUC 201	Research Methodology	3
	Elective	INTA Major Elective	3
Total Credit Hours in Semester			**15**

FOURTH YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
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
Total Credit Hours in Semester			**15**
Spring	INTA 499	Capstone	3
	Free Elective	Free Elective	3
	Elective	INTA Major Elective	3
	-	Concentration OR Minor 7	3
	-	Concentration OR Minor 8	3
Total Credit Hours in Semester			**15**

POLICY, PLANNING AND DEVELOPMENT PROGRAM

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College of Arts and Sciences
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Phone: (974) 4403-4930
E-mail: **dia@qu.edu.qa**
Website: **http://www.qu.edu.qa/artssciences/international_affairs/policypd/index.php**

Head
Youcef Bouandel

Assistant Professors:
Abdellaziz ElJaouhari

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.

Major Declaration
Applicants must satisfy the minimum high school percentage requirement for the major in the semester of admission. In addition, students must have successfully completed a minimum of 12 Credit Hours from the Core Curriculum and achieved a GPA of 2.0. Students will also have to pass an interview. Transfer applicants must have earned a minimum cumulative GPA of 2.0.

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:
1. Students will apply basic research methods in the social and natural sciences
2. Students will utilize critical and creative thinking, skeptical inquiry and, when possible, a scientific approach to solving problems.
3. Students will be able to communicate effectively in a variety of formats.
4. Students will analyze the complexity of sociocultural and global diversity.
5. Students will apply skills in an occupational settings.

Students completing the Concentration in Energy and Security will acquire the additional competency in the following domain by developing the ability to:
1. Students will interpret the role of oil and gas in the central events in world history.
2. Students will analyze the role of different sources of energy in an international context.

Students completing the Concentration in Environment and Sustainability will acquire the additional competency in the following domain by developing the ability to:
1. Students will be able to explain how sustainability relates to their lives and how their actions impact sustainability.
2. Students will learn how to apply concepts of sustainability locally and globally by engaging in the challenges and solutions of sustainability in a broader context

Students completing the Concentration in Public Policy will acquire the additional competency in the following domain by developing the ability to:
1. The student demonstrates the ability to identify and analyze a policy issue and present well-informed policy recommendation
2. Ability to critically evaluate factors shaping the policy-making process

Students completing the Concentration in Urban Planning and Development will acquire the additional competency in the following domain by developing the ability to:
1. Students are expected to demonstrate knowledge of current
principles and practices of urban planning relevant at multiple levels of government from local to global.
2. Demonstrate specialized knowledge on the tools and methods that can be applied to analyze the conditions and prerequisites 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.

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 Core Requirements
• A minimum of 9 credit hours in Major Electives
• A minimum of 24 credit hours in Concentration Requirements
• A minimum of 6 credit hours in Capstone and Internship Requirements

Core Curriculum Program (33 CH)
Common package (15 CH)
• ARAB 100 Arabic Language I
• ARAB 200 Arabic Language II
• ENGL 110 English I
• ENGL 111 English II
• DAWA 111 Islamic Culture

Social/Behavioral Sciences package (3 CH)
Any Course in CCP defined Social/Behavioral Sciences package

Humanities /Fine Arts package (6 CH)
Students must complete 6 CH from courses in the CCP defined Humanities/Fine Arts package including a minimum of 3 Credit Hours from courses listed in the Qatar and Gulf History Sub-package part of the Humanities/Fine Arts package.

Natural Science/Mathematics package (3 CH)
Student must complete the following course from the CCP defined Natural Science / Mathematics package:
• MATH 103 Intermediate Algebra

Supplemental College/Program Core Requirements package (6 CH)
• ENGL 250 English for Communication I
• ENGL 251 English for Communication II

Major Requirements (48 CH)
Students must complete the following courses:
• POPL 100 Introduction to Public Policy and Analysis
• MAGT 101 Principles of Management
• INTA 102 Introduction to Political Science
• INTA 103 Introduction to International Relations
• MATH 119 Business Mathematics I
• ECON 112 Macroeconomics
• SOCI 120 Introduction to Sociology
• STAT 220 Business Statistics
• EDUC 201 Research Methodology
• 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
• INTA 440 Politics of Development
• INTA 465 Leadership and Civic Responsibility

Major Electives (9 CH)
Students must complete a minimum of 9 credit hours in courses selected from the following:
• 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
• SOCI 265 Population and Migration
• MAGT 302 Human Resource Management
• HIST 324 Economic History of the Gulf
• LAWC 339 Public International Law

Concentration in Public Policy (24 CH)
Students must complete a minimum of 15 credit hours in the Public Policy concentration core requirements package and 9 credit hours in the Public Policy concentration electives.

Public Policy Concentration Core Requirements package (15 CH)
Students must complete the following 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 package (9 CH)
Students must complete 9 credit hours from the following courses:
• POPL 241 Community-Based Policy Development and Analysis
• POPL 335 Science, Technology and Policy
• POPL 392 Post-Disaster Recovery and Planning
• POPL 485 Public Policy and Knowledge Based Economy
• ECON 214 Monetary Policy
• 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 core requirements package and 9 credit hours in the Environment and Sustainability concentration electives.

Environment and Sustainability Concentration Core Requirements package (15 CH)
Students must complete the following courses:
• POPL 431 Economic Policy Approaches to Sustainability
• POPL 432 Sustainability Planning and Protection of Cultural Resources
• POPL 439 Environmental Impact Assessment
• SOCI 200 Sustainable Development
• GEOG 442 Environment and Pollution

Environment and Sustainability Concentration Electives package (9 CH)
Students must complete 9 credit hours from the following courses:
• POPL 230 Climate Change Policy Analysis
• POPL 232 Energy and Environmental Economics
• BIOL 345 Health Safety and Environment
• GEOL 411 Geology of Qatar and Arabian Peninsula
• LAWC 449 Environmental Law and Regulations

Concentration in Energy and Security (24 CH)
Students must complete a minimum of 15 credit hours in the Energy and Security concentration core requirements package and 9 credit hours in the Energy and Security concentration electives.

Energy and Security Concentration Core Requirements package (15 CH)
Students must complete the following courses:
• POPL 221 International Energy Issues
• POPL 228 Introduction to Energy Law and Policy
• POPL 320 Energy Risk Management
• POPL 420 Energy and Global Security
• INTA 403 Security Studies

Energy and Security Concentration Electives package (9 CH)
Students must complete 9 credit hours from the following courses:
• POPL 321 Energy: Science, Technology, and Human Usage
• POPL 325 International Law and Security
• POPL 387 Energy Conservation
• POPL 486 Alternative Energy
• INTA 302 Politics of Oil

Concentration in Urban Planning and Development (24 CH)
Students must complete a minimum of 15 credit hours in the Urban Planning and Development concentration core requirements package and 9 credit hours in the Urban Planning and Development concentration electives.

Urban Planning and Development Concentration Core Requirements package (15 CH)
Students must complete the following courses:
• 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
• GEOG 346 Introduction to GIS

Urban Planning and Development Concentration Electives package (9 CH)
Students must complete 9 credit hours from the following courses:
• POPL 285 Impact Assessment Studies
• POPL 350 Housing and Community Development
• POPL 375 Urban Sustainability
• SOCI 265 Population and Migration
• SOCI 267 Urban Studies

Capstone and Internship Requirements (6 CH)
Students must complete the following courses:
• POPL 490 Internship
• POPL 499 Capstone

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.

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
• A minimum of 9 credit hours in the Minor Electives

Minor Requirements (15 CH)
Students must complete the following 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 (9 CH)
Students must complete a minimum of 9 credit hours in courses selected from the following:
• 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 450 Urban and Regional Economics
• POPL 221 International Energy Issues
• POPL 230 Climate Change Policy Analysis
• POPL 340 Organizational Behavior and Management in Public Service Agencies

Study Plan for Policy, Planning and Development

Bachelor of Arts in Policy, Planning and Development

FIRST YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
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
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
Total Credit Hours in Semester			**15**

SECOND YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
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
Total Credit Hours in Semester			**15**
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
Total Credit Hours in Semester			**15**

THIRD YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	POPL 300	Principles and Tools for Evidence-Based	3
	POPL 400	Public Leadership and Policy Development.	3
	MATH119	Business Math	3
	-	Concentration 1	3
	-	Concentration 2	3
Total Credit Hours in Semester			15
Spring	POPL 229	Public Finance	3
	INTA 440	Politics of Development	3
	Elective	Major Elective 1	3
	-	Concentration 3	3
	-	Concentration 4	3
Total Credit Hours in Semester			15

FOURTH YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	POPL 490	Internship	3
	Elective	Major Elective 2	3
	-	Concentration 5	3
	-	Concentration 6	3
	INTA 465	Leadership and Civic Responsibility	3
Total Credit Hours in Semester			15
Spring	POPL 499	Capstone	3
	Elective	Free Elective 3	3
	Elective	Major Elective 4	3
	-	Concentration 7	3
	-	Concentration 8	3
Total Credit Hours in Semester			15

DEPARTMENT OF MASS COMMUNICATION

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Assistant Professors:
Saadia Malik, Kamal Hamidou, Abdullah Zain Hidri

Lecturers:
Chaker Ayyadi, Rana Hassan, Hind Al-Ibrahim, Nejud Al-Ibrahim, Al-Sayed Alkilani

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.

Major Declaration
In order to declare a major in Mass Communication, applicants must satisfy the minimum high school percentage requirement of 75% for the major in the semester of admission. In addition, applicants must complete 12 CH of the Core curriculum Program with a minimum GPA of 2.5, and pass a department-based interview.

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 objectives of the Department of Mass Communication are to educate graduates who will:
• Understand and apply media law and principles of freedom of speech and of the press appropriate to professional practice.
• Demonstrate an understanding of the history and role of professionals and institutions in shaping communications.
• Critically evaluate their work and that of others for accuracy and fairness, clarity, appropriate style and

grammatical correctness.
• Comprehend concepts and apply theories in the use and presentation of images and information.
• Demonstrate technical skills in writing and reporting correctly and clearly for different audiences.
• 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.
• Think critically, creatively and independently.
• Acquire and apply an ethical framework for the practices of mass communication and journalism.
• Demonstrate an understanding of the diversity of groups in a global society in relationship to communication.
• Analyze and interpret media messages.
• Apply tools and technologies appropriate for the communications professions in which they work.
• 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. Besides 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.

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 Core Requirements
• A minimum of 6 credit hours in Major Supporting Electives
• A minimum of 15 credit hours in Major Requirements
• A minimum of 6 credit hours in Major Electives
• A minimum of 18 credit hours in Concentration Requirements
• A minimum of 6 credit hours in Concentration Electives
• A minimum of 24 credit hours in Minor Requirements or Concentration Supporting requirements
• A minimum of 12 credit hours in Free Electives

Core Curriculum Program (33 credit hours)
Common package (15 CH)
• ARAB 100 Arabic Language I
• ARAB 200 Arabic Language II
• ENGL 110 English I
• ENGL 111 English II
• DAWA 111 Islamic Culture

Social/Behavioral Sciences package (3CH)
Courses in CCP defined Social/Behavioral Sciences package

Humanities /Fine Arts package (6 CH)
Courses in CCP defined Humanities/Fine Arts package. Students must complete a minimum of 3 Credit Hours from courses listed in the Qatar and Gulf History Sub-package which is part of the Humanities/Fine Arts package.

Natural Science/Mathematics package (3 CH)
Courses in CCP defined Natural Science/Mathematics package

Supplemental College / Program core requirements package (6 CH)
• ENGL 250 English for Communication I
• ENGL 251 English for Communication II

Major Supporting Core Requirements (6 CH)
Students must complete a minimum of 6 credit hours of major supporting core requirements including:
• 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:
• SOCI 368 Law & Society
• SOCI 465 Industrial Organization and Work
• PSYC 300 Psychology of Personality
• GEOG 344 Political Geography
• INTA 205 Middle East History II

Major Core Requirements (15 CH)
Students must complete a minimum of 15 credit hours in Major required 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 (6 CH)
Students must complete a minimum of 3 credit hours in each of the Major Theoretical Electives and the Major Practical Electives packages.

Major Theoretical Electives Package
Students must complete a minimum of 3 credit hours in Major Theoretical Elective courses:
• MCOM 223 Media Writing
• MCOM 318 Global Communication
• MCOM 303 Women and Media
• MCOM 349 Photo Journalism

Major Practical Electives Package
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 465 Web-Content for Radio
• MCOM 382 Organizational Communication
• MCOM 360 Sports Journalism

Concentration in Print/Online Journalism (24 CH)
Students must complete a minimum of 18 CH in concentration core requirements and a minimum of 6 CH in concentration electives.

Print/Online Journalism Concentration Core Requirements (18 CH)
• 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 452 Magazine Writing
• MCOM 364 Broadcast Production

Concentration in Broadcast/Online Journalism (24 CH)
Students must complete a minimum of 18 CH in concentration core requirements and a minimum of 6 CH in concentration electives

Broadcast /Online Journalism Concentration Core Requirements (18 CH)
• 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 core requirements and a minimum of 6 CH in concentration electives

Strategic Communication Concentration Core Requirements (18 CH)
• 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 382 Organizational Communication
• MCOM 386 Public Relations and New Media
• MCOM 491 Strategic Communication
• MCOM 492 Social Marketing
• MCOM 493 Public Opinion Research
• MCOM 364 Broadcast Production

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 the students enrolled in is less than 24 CH, students 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 students must complete depends on the concentration selected by the student.

Concentration Supporting Requirements for the Broadcast/Online Journalism and the Print/Online Journalism Concentrations
- SOWO 361 Society and 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
- INTA 201 Comparative Political Systems
- SOCI 263 Badawi Society
- SOCI 267 Urban Studies

Concentration Supporting Requirements for the Strategic Communication Concentration
- SOCI 261 Quantitative Methods
- SOCI 262 Qualitative Methods
- SOCI 263 Bedouin Society
- SOCI 267 Urban Studies
- PSYC 201 Introduction to Psychology
- PSYC 205 Social Psychology
- MAGT 101 Principles of Management
- MAKT 101 Principles of Marketing (E)
- MAKT 301 Consumer Behavior
- MAKT 303 International Marketing

Free Electives (12 CH)
Students must complete a minimum of 12 Credit Hours in free electives from courses outside the Mass Communication major.

Minor in Mass Communication (24 CH)
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.
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
- A minimum of 15 credit hours in Minor electives

Minor Requirements (9 CH)
Students must complete a minimum of 9 credit hours in Minor required courses:
- MCOM 103 Media and Society
- MCOM 222 Communication Theories
- MCOM 223 Media Writing

Minor Electives (15 CH)
Students must complete a minimum of 15 credit hours in Minor electives courses:
- MCOM 318 Global Communication
- MCOM 303 Women and Media
- MCOM 315 Communication Research Methods
- 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

Study Plan for Broadcast/Online Journalism

Bachelor of Arts in Mass Communication

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
Total Credit Hours in Semester			**15**
Spring	MCOM 222	Communication Theories	3
	STAT 101	Statistics I	3
		Core Curriculum 4	3
		Core Curriculum 5	3
		University Free Elective 2	3
Total Credit Hours in Semester			**15**

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
Total Credit Hours in Semester			**15**
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
Total Credit Hours in Semester			**15**

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
Total Credit Hours in Semester			**15**

Study Plan for Print/Online Journalism

Bachelor of Arts in Mass Communication

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
Total Credit Hours in Semester			**15**
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
Total Credit Hours in Semester			**15**

THIRD YEAR (36 credit hours)			
Term	Course #	Course Title	Credit Hours
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
Total Credit Hours in Semester			**18**
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
Total Credit Hours in Semester			**18**

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
Total Credit Hours in Semester			**15**
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
Total Credit Hours in Semester			**15**

FOURTH YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
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
Total Credit Hours in Semester			**15**
Spring	MCOM 450	Multimedia Journalism (Capstone)	3
	MCOM 447	Journalism internship	3
		Core Curriculum 11	3
		Minor Course 7	3
		Minor Course 8	3
Total Credit Hours in Semester			**15**

Study Plan for Strategic Communication

Bachelor of Arts in Mass Communication

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
Total Credit Hours in Semester			**15**
Spring	MCOM 222	Communication Theories	3
	STAT 101	Statistics I	3
		Core Curriculum 4	3
		Core Curriculum 5	3
		University Free Elective 2	3
Total Credit Hours in Semester			**15**

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
Total Credit Hours in Semester			**18**
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
Total Credit Hours in Semester			**18**

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
Total Credit Hours in Semester			**15**
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
Total Credit Hours in Semester			**15**

FOURTH YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	MCOM 317	Media Law and Ethics	3
	MCOM 388	Public Relations Writing and Presentations	3
		Concentration Elective Basket	3
		Minor Course 5	3
		Minor Course 6	3
Total Credit Hours in Semester			**15**
Spring	MCOM 490	Strategic Communication (Capstone)	3
	MCOM 487	AD Internship	3
		Core Curriculum 11	3
		Minor Course 7	3
		Minor Course 8	3
Total Credit Hours in Semester			**15**

DEPARTMENT OF SOCIAL SCIENCES

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Acting Head
Maher Khelifa

Faculty

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Assistant Professors:
Kaltham Al-Kuwari, Fatima Al-Kubaisi, , Ali Al-Shawi, Nada Adeeb Omar ElTaiba, Munira Al-Rumaihi, Youssef Hasan

Teaching assistant:
Shaikha Al-Kuwari, Sadique Pathan

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 departments 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:
• Equip students with methods for gathering and analyzing systematically derived field-based data.
• Develop students' understanding of basic social science concepts.
• Provide students with the ethical foundation for conducting research on social and cultural issues to explain societal patterns or problems.
• Furnish students with an understanding of both the uniformity and diversity observable in socio-cultural orders.

Major Declaration
In order to declare a major in Sociology, applicants must satisfy the minimum high school percentage requirement 75% for the major in the semester of admission. In addition, students must have successfully completed a minimum of 12 Credit Hours from the Core Curriculum, achieved a GPA of 2.00 and passed the program admission test and interview.

Learning Outcomes
Upon completion of the major, students will be able to:
• Define Social and Cultural Concepts
• Explain and Give example of social and cultural issues
• Analyze Quantitative and qualitative data related to social issues.
• Design appropriate data Collection strategies to conduct sociological research
• Apply international sociological code of ethics
• 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 allows graduates to be employed by marketing, research and consulting agencies.

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 24 credit hours in Major Requirements
• A minimum of 27 credit hours in Major Electives
• A minimum of 24 credit hours in Minor Requirements
• A minimum of 12 credit hours in Free Electives

Core Curriculum Program (33 CH)
Common package (15 CH)
• ARAB 100 Arabic Language I
• ARAB 200 Arabic Language II
• ENGL 110 English I
• ENGL 111 English II
• DAWA 111 Islamic Culture

Social/Behavioral Sciences package (3 CH)
Courses in CCP defined Social/Behavioral Sciences package

Humanities /Fine Arts package (6 CH)
Courses in CCP defined Humanities/Fine Arts package. Students must complete a minimum of 3 Credit Hours from courses listed in the Qatar and Gulf History Sub-package, which is part of the Humanities/Fine Arts package.

Natural Science/Mathematics package (3 CH)
Courses in CCP defined Natural Science/Mathematics package

Supplemental College / Program core requirements package (6 CH)
• ENGL 250 English for Communication I
• ENGL 251 English for Communication II

Major Requirements (24 CH)
Students must complete a minimum of 24 CH in major requirements including a minimum of 3 credit hours in Major Requirements I package and 21 credit hours in Major Requirements II package.

Major Requirements I package (3 CH)
Students must complete a minimum of 3 CH taken from the following courses:
• SOCI 120 Introduction to Sociology
• SOCI 121 Introduction to Anthropology

Major Requirements II package (21 CH)
Students must complete a minimum of 21 credit hours in the major requirements II package courses:
• SOCI 261 Quantitative Methods
• SOCI 262 Qualitative Methods
• SOCI 360 Sociological Theory
• SOCI 361 Human Rights
• SOCI 460 Statistics in the Social Sciences
• SOCI 462 Change in Contemporary Arab Society
• SOCI 469 Research Project

Major Electives (27 CH)
Students must complete a minimum of 27 credit hours in Major electives courses, including a minimum of 3 credit hours and maximum of 6 credit hours in Regional Electives package and a minimum of 21 credit hours and maximum of 24 credit hours in Topical Electives package.

Regional Electives package (3 - 6 CH)
Students must complete between 3 to 6 credit hours in Regional electives package courses:
• SOCI 263 Badawi Society
• SOCI 362 Comparative Ethnography
• SOCI 363 Ethnicity
• SOCI 463 Labor and Class in Petrol Societies
• SOCI 464 Social Policy and Planning

Topical Electives package (21 - 24 CH)
Students must complete between 21 to 24 credit hours in Topical Electives package courses:
• SOCI 200 Sustainable Development
• SOCI 264 Family and Kinship
• SOCI 265 Population and Migration
• SOCI 267 Urban Studies
• SOCI 268 Culture, Health and Disease
• SOCI 364 Violence
• SOCI 365 Study of Gender
• SOCI 366 Language, Communication and Society
• SOCI 367 Comparative Religion
• SOCI 368 Law and Society
• SOCI 465 Industrial Organization and Work
• SOCI 466 Social, Religious, and Political Movements
• SOCI 467 Globalization
• SOCI 470 Independent Study
• SOCI 471 Special Topics

Minor Requirements (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 (12 CH)
Students must complete a minimum of 12 credit hours in University Free Electives from courses outside the Sociology major.

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.

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
• A minimum of 12 credit hours in Minor electives

Minor Requirements (12 CH)
Students must complete a minimum of 12 credit hours in Minor required courses:
• SOCI 120 Introduction to Sociology
• SOCI 261 Quantitative Methods
• SOCI 262 Qualitative Methods
• SOCI 360 Sociological Theory

Minor Electives (12 CH)
Students must complete a minimum of 12 credit hours in Minor electives courses:
• SOCI 121 Introduction to Anthropology
• SOCI 200 Sustainable Development
• SOCI 263 Badawi Society
• SOCI 264 Family and Kinship
• SOCI 265 Population and Migration
• SOCI 267 Urban Studies
• SOCI 268 Culture, Health and Disease
• SOCI 361 Human Rights
• SOCI 362 Comparative Ethnography
• SOCI 363 Ethnicity
• SOCI 364 Violence
• SOCI 365 Study of Gender
• SOCI 366 Language, Communication and Society
• SOCI 367 Comparative Religion
• SOCI 368 Law and Society
• SOCI 460 Statistics in the Social Sciences
• SOCI 462 Change in Contemporary Arab Society
• SOCI 463 Labor and Class in Petrol Society
• SOCI 464 Social Policy and Planning
• SOCI 465 Industrial Organization and Work
• SOCI 466 Social, Religious, and Political Movements

Study Plan for Sociology
Bachelor of Arts in Sociology

FIRST YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
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
Total Credit Hours in Semester			**15**
Spring		Core Curriculum Course	3
		Core Curriculum Course	3
		Core Curriculum Course	3
		Core Curriculum Course	3
		Free Elective (2)	3
Total Credit Hours in Semester			**15**

SECOND YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall		Minor Course/Minor Elective (1)	3
	SOCI 261	Quantitative Methods	3
		Core Curriculum Course	3
		Core Curriculum Course	3
		Minor Course/Minor Elective (2)	3
Total Credit Hours in Semester			**15**
Spring	SOCI 262	Qualitative Methods	3
		Major Elective (1)	3
		Minor Course/Minor Elective (3)	3
		Free Elective (3)	3
		Minor Course/Minor Elective (4)	3
Total Credit Hours in Semester			**15**

THIRD YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
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
Total Credit Hours in Semester			**15**
Spring	SOCI 361	Human Rights	3
		Core Curriculum Course	3
		Major Elective (3)	3
		Major Elective (4)	3
		Minor Course/Minor Elective (7)	3
Total Credit Hours in Semester			**15**

FOURTH YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	SOCI 460	Statistics in the Social Sciences	3
	SOCI 462	Change in Arab Society	3
		Major Elective (5)	3
		Major Elective (6)	3
		Minor Course/Minor Elective (8)	3
Total Credit Hours in Semester			**15**
Spring	SOCI 461/ 469	Honor's Thesis Research Project	3
		Major Elective (7)	3
		Major Elective (8)	3
		Major Elective (9)	3
		Free Elective (4)	3
Total Credit Hours in Semester			**15**

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

Major Declaration
In order to declare a major in Social Work, applicants must satisfy the minimum high school percentage requirement 75% for the major in the semester of admission. In addition, students must have successfully completed a minimum of 12 Credit Hours from the Core Curriculum and achieved a GPA of 2.30 for Social Work and passed the program admission interview.

Transfer Students Requirements
• Non-CAS students can transfer to the Social Work major, applicants must achieve a 75% (arts stream) or 70% (science stream) on their high school certificate. Completed a minimum of 12 credit hours from the Core Curriculum with a minimum cumulative GPA of 2.30.
• Pass the admission interview.

Learning Outcomes
Upon completion of the major, students will be able to:
• Recognize the role of culture in the context of social work
• Recognize the roles of Ethics in social work practice
• Apply basic social work skills in practice.
• Apply strategies to respond to local and global community socio economic needs
• Apply basic research skills to social work issues
• Develop effective communication skills important for social work practice

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.

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
• A minimum of 18 credit hours in Major Supporting Requirements
• A minimum of 9 credit hours in Major Electives
• A minimum of 6 credit hours in Free Electives

Core Curriculum Program (33 CH)
Common package (15 CH)
• ARAB 100 Arabic Language I
• ARAB 200 Arabic Language II
• ENGL 110 English I
• ENGL 111 English II
• DAWA 111 Islamic Culture

Social/Behavioral Sciences package (3 CH)
Courses in CCP defined Social/Behavioral Sciences package

Humanities /Fine Arts package (6 CH)
Courses in CCP defined Humanities/Fine Arts package. Students must complete a minimum of 3 Credit Hours from courses listed in the Qatar and Gulf History Sub-package which is part of the Humanities/Fine Arts package.

Natural Science/Mathematics package (3 CH)
Courses in CCP defined Natural Science/Mathematics package

Supplemental College / Program core requirements package (6 CH)
• ENGL 250 English for Communication I
• ENGL 251 English for Communication II

Major Requirements (54 CH)
Students must complete a minimum of 54 credit hours in Major required 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 410 Social Work Research Methods II
• SOWO 420 Social Work Generalist Practice II
• SOWO 430 Social Work Generalist Practice III
• SOWO 440 Integrative Seminar
• SOWO 441 Social Work Practicum

Major Electives (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 361 Society and Human Rights

Major Supporting Requirements (18 CH)
Students must complete a minimum of 18 credit hours in Major supporting required courses:
• BIOL 110 Human Biology
• STAT 101 Statistics I
• PSYC 201 Introduction to Psychology
• PSYC 205 Social Psychology
• SOCI 120 Introduction to Sociology
• SOCI 200 Sustainable Development

Free Electives (6 CH)
Students must complete a minimum of 6 credit hours in University Free Electives from courses outside the Social Work major.

Study Plan for Social Work

Bachelor of Arts in Social Work

FIRST YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
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
Total Credit Hours in Semester			**15**
Spring		Core Curriculum Course	3
		Core Curriculum Course	3
		Core Curriculum Course	3
		Core Curriculum Course	3
		Core Curriculum Course	3
Total Credit Hours in Semester			**15**

SECOND YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall		Core Curriculum Course	3
		Core Curriculum Course	3
		Free Elective (1)	3
	SOCI 120	Intro to Sociology	3
	PSYC 201	Intro to Psychology	3
Total Credit Hours in Semester			**15**
Spring		Major Elective (1)	3
	BIOL 110	Human Biology	3
	PSYC 205	Social Psychology	3
	STAT 101	Intro to Statistics	3
	SOCI 200	Sustainable Development	3
Total Credit Hours in Semester			**15**

THIRD YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall		Major Elective (2)	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
Total Credit Hours in Semester			**15**
Spring	SOWO 200	Social Work & the Law	3
	SOWO 370	Children & Family Prac-tice & 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
Total Credit Hours in Semester			**15**

FOURTH YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall		Major Elective (3)	3
		Free Elective (2)	3
	SOWO 430	Social Work Generalist Practice III	3
	SOWO 360	Social Work Research Methods I	3
Total Credit Hours in Semester			**12**
Spring	SOWO 440	Integrative Seminar	3
	SOWO 410	Social Work Research Methods II	3
	SOWO 441	Social Work Practicum	12
Total Credit Hours in Semester			**18**

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:

- Demonstrate familiarity with the major concepts, theoretical perspectives,empirical findings, and historical trends in psychology
- Understand and apply basic research methods in psychology, including research design, data analysis, and interpretation
- Respect and use critical and creative thinking, skeptical inquiry, and when possible, the scientific approach to solve problems related to behavior and mental processes.
- Understand and apply psychological principles to personal, social,and organizational issues
- Educate students about weighing evidence, tolerate ambiguity, act ethically, and reflect other values that are the underpinnings of psychology as a field of study.
- Provide students with the needed training to be able to demonstrate information competence and the ability to use computers and twenty-first century information technology
- Train students to communicate effectively in a variety of formats.
- Provide students with the needed skills to recognize, understand,and respect the complexity of sociocultural and international diversity.
- Help student to develop insight into their own and others' behavior and mental processes and apply effective strategies for self-management and self-improvement.
- Enhance student's capacities with respect to how to implement their psychological knowledge, skills, and values in occupational pursuits in a variety of settings.

Major Declaration

In order to declare a major in Psychology, applicants must satisfy the minimum high school percentage requirement 75% for the major in the semester of admission. In addition, students must have successfully completed a minimum of 12 Credit Hours from the Core Curriculum, and achieve a GPA of 2.0 or above.

Learning Outcomes

Upon completion of the major, students will be able to:

- Explain why psychology is a science
- Identify and explain the primary objectives of psychology: describing,understanding, predicting, and controlling behavior and mental processes
- Compare and contrast the assumptions and methods of psychology with those of other disciplines
- Describe how various research designs address different types of questions and hypotheses
- Articulate strengths and limitations of various research designs, including distinguishing between qualitative and quantitative methods
- Recognize that theoretical and sociocultural contexts as well as personal biases may shape research questions, design, data collection, analysis, and interpretation
- Locate and use relevant databases, research, and theory to plan, conduct, and interpret results of research studies
- Demonstrate the ability to understand the stages of human development and the practical skills needed to apply this understanding to their professional work.
- Demonstrate the ability to understand individual differences, including the challenges facing individuals with disabilities.
- Demonstrate an attitude of critical thinking that includes persistence, open-mindedness, tolerance for ambiguity, and intellectual engagement
- Use scientific principles and evidence to resolve conflicting claims
- Develop sound arguments based on reasoning and evidence
- Identify appropriate applications of psychology in solving problems related to psychological tests and measurements, psychology-based interventions in clinical, counseling, educational, industrial/organizational, community, and other settings and their empirical evaluation and the resolution of interpersonal and intercultural conflicts.
- Demonstrate proficiency in counseling and therapeutic techniques, including intervention techniques.
- Demonstrate the capacity to identify and remediate psychological challenges facing their clients.

Opportunities

The psychology program prepares students for a wide range of careers as drug and alcohol abuse counselors, family counselors, psychiatric technicians, psychological testing technicians and human service workers. Psychologists might provide psychological help for children, families, couple, groups in different settings. Opportunities also exist for psychologists to work in nonprofit organizations and in health establishments including hospitals and mental health agencies.

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
• A minimum of 6 credit hours in Internship
• A minimum of 12 credit hours in Major Electives
• A minimum of 24 credit hours in Minor Requirements
• A minimum of 9 credit hours in Free Electives

Core Curriculum Program (33 CH)
Common package (15 CH)
• ARAB 100 Arabic Language I
• ARAB 200 Arabic Language II
• ENGL 110 English I
• ENGL 111 English II
• DAWA 111 Islamic Culture

Social/Behavioral Sciences package (3 CH)
Any Course in CCP defined Social/Behavioral Sciences package

Humanities /Fine Arts package (6 CH)
Students must complete 6 CH from courses in the CCP defined Humanities/Fine Arts package including a minimum of 3 Credit Hours from courses listed in the Qatar and Gulf History Subpackage part of the Humanities/Fine Arts package.

Natural Science/Mathematics package (3 CH)
Any Course in CCP defined Natural Science / Mathematics package

Supplemental College / Program Core Requirements package (6 CH)
• ENGL 250 English for Communication I
• ENGL 251 English for Communication II

Major Requirements (36 CH)
Students must complete the following courses:
• PSYC 201 Introduction to Psychology
• PSYC 203 Health Psychology
• PSYC 221 Research Design and Statistics
• PSYC 206 Introduction to Social Psychology
• 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

Internship (6 CH)
Students must complete the following Internship course:
• PSYC 405 Internship

Major Electives (12 CH)
Students must complete a minimum of 12 credit hours in courses selected from the following:
• PSYC 306 Emotion and Motivation
• PUBH 202 Health Behavior and Society
• SPSC 308 Sport Psychology
• PSYC 402 Counseling Over the Lifespan
• PSYC 404 Psychology of Family Relations
• SOCI 262 Qualitative Methods
• SOCI 365 Study of Gender

Minor Requirements (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 (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.

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.

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
• A minimum of 6 credit hours in the Minor Electives

Minor Requirements (18 CH)
Students must complete the following courses:
• PSYC 201 Introduction to 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 (6 CH)
Students must complete a minimum of 6 credit hours in courses selected from the following:
• PSYC 300 Psychology of Personality
• PSYC 306 Emotion and Motivation
• PSYC 401 Psychological Helping Skills
• PSYC 404 Psychology of Family Relations

Study Plan for Psychology
Bachelor of Arts in Psychology

FIRST YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall		Core Curriculum course	3
		Core Curriculum course	3
		Core Curriculum course	3
		Free elective 1	3
		Core Curriculum course	3
Total Credit Hours in Semester			**15**
Spring		Core Curriculum course	3
		Core Curriculum course	3
		Free elective 2	3
		Core Curriculum course	3
	PSYC 201	Introduction to Psychology	3
Total Credit Hours in Semester			**15**

SECOND YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	PSYC 203	Health Psychology	3
		Major Elective 1	3
		Free elective 3	3
		Core Curriculum course	3
		Core Curriculum course	3
Total Credit Hours in Semester			**15**
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
Total Credit Hours in Semester			**15**

THIRD YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	PSYC 300	Personality of Psychology	3
	PSYC 301	Developmental Psychology	3
		Core Curriculum course	3
		Minor 2	3
		Major Elective 3	3
Total Credit Hours in Semester			**15**
Spring	PSYC 303	Abnormal Psychology	3
	PSYC 304	Cognitive Psychology	3
		Major Elective 4	3
		Minor 3	3
		Minor 4	3
Total Credit Hours in Semester			**15**

FOURTH YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
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
Total Credit Hours in Semester			**15**
Spring	PSYC 405	Internship	6
	PSYC 406	Capstone	3
		Minor 7	3
		Minor 8	3
Total Credit Hours in Semester			**15**

DEPARTMENT OF BIOLOGICAL AND ENVIRONMENTAL SCIENCES

College of Arts and Sciences Building
Room C218, C219 (Women's Campus) and B107 (Men's Campus)
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Acting Head
Fatima Al-Naemi

Faculty

Professors:
Abdel Aziz S. El-Bayoumi, Samir Mohamed Jaoua, Malcolm Potts, , Nabil Zouri, Ipek Goktepe;

Associate Professors:
Talaat Abdel-Fattah Ahmad, Jassim A. Al-Khayat, Roda Fahad Al-Thani, Ali Hussein Eid, Mohammed Abu Dieyeh, Sumith Pathirana

Assistant Professors:
Khalid Abdulla Al-Ali, Ibrahim M. Al Ansari, Mohsin Al-Ansi, Fahad H. Al-Jamali, Ibrahim A. Al Maslamani, Abdul Rahman M. A. Al-Muftah, Hamda A. Al-Naemi, Nobuyuki Yamaguchi; Fatima AlNaemi; Yousra Sulaiman Al-Faham; Mariam Al-Muftah; , Mohammed AlGhouti, Radhouan Ben Hamadou

Lecturer:
Mahmoud M. Kardousha, Perumal Balakrishnan, Imane Saleh, Radoslaw Stefan Rusniyak, Munawar Ahmed

Teaching Assistants:
Abdul Rahman Mahjoub Osman; Fatima A. Al-Khayat; Huda Essa Al-Muraikhi; Hareb Al-Jabri; Ghada Al Mahmoud.

ABOUT THE DEPARTMENT

The Department offers four programs of study, two Graduate Programs of respectively PhD in Biological & Environmental Sc. and M. Sc. in Environmental Sc. and two Undergraduate Programs of respectively B.Sc. in Biological Sc. and B.Sc. in Environmental Sc. 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. 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 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 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.

BACHELOR OF SCIENCE IN BIOLOGICAL SCIENCES

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.

Major Declaration
In order to declare a major in Biological Sciences, applicants must satisfy the minimum high school percentage requirement of Math, Chemistry and Biology for the major in the semester of admission. In addition, applicants must either successfully complete all requirements of the Foundation Program or satisfy the University›s competency requirement.

Learning Outcomes
Graduates of the Biological Sciences major will be able to:
• Define structure and function of organisms.
• Describe ecological systems.
• Understand the nature and use of molecular tools.
• Engage in critical thinking on problem solving activities on a biological topic.
• Demonstrate proficiency in written by giving concise, clear and organized written communication about a biological concept.
• 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.

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
• A minimum of 21 credit hours in Major Supporting Requirements
• A minimum of 24 credit hours in Major Electives
• A minimum of 18 credit hours in minor requirements

Core Curriculum Program (33 CH)
Common package (15 CH)
• ARAB 100 Arabic Language I
• ARAB 200 Arabic Language II
• ENGL 202 English Language I Post Foundation
• ENGL 203 English Language II Post Foundation
• DAWA 111 Islamic Culture

Social/Behavioral Sciences package (3 CH)
Courses in CCP defined Social/Behavioral Sciences package

Natural Science/Mathematics package (3 CH)
Courses in CCP defined Natural Science/Mathematics package

Humanities /Fine Arts package (6 CH)
Courses in CCP defined Humanities/Fine Arts package. Students must complete a minimum of 3 Credit Hours from courses listed in the Qatar and Gulf History Sub-package, which is part of the Humanities/Fine Arts package.

General Knowledge package (3 CH)
Courses in CCP defined General Knowledge package

General Skills package (3 CH)
Courses in CCP defined General Skills package

Major Requirements (24 CH)
Students must complete a minimum of 24 credit hours in Major required 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 Research Project

Major Supporting Requirements (21 CH)
Students must complete a minimum of 21 credit hours in major supporting requirements:
• MATH 101 Calculus I
• 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
• STAT 151 Introduction to Applied Statistics
• PHYS 110 General Physics for Biology
• PHYS 111 Practical Physics for Biology

Major Electives (24 CH)
Students must complete a minimum of 24 credit hours in Major elective courses:
• BIOL 211 Cell Biology
• BIOL 322 Desert Biology
• BIOL 344 General Parasitology
• BIOL 212 Genetics
• BIOL 312 Histology
• BIOL 321 Principles of Environmental Biology
• BIOL 412 Genetic Engineering & DNA Technology
• BIOL 421 Ecophysiology
• BIOL 422 Environmental Management & Conservation
• BIOL 442 Biotechnology
• BIOL 444 Immunology
• BIOL 451 Cell & Tissue Culture

Minor Requirements (18 CH)
Students enrolled in the Biological Sciences program must complete the minor in Chemistry to satisfy the program degree requirements.

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.

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
• A minimum of 6 credit hours in Minor Electives

Minor Requirements (12 CH)
Students must complete a minimum of 12 credit hours in Minor required courses:
• BIOL 101 Biology I
• BIOL 102 Biology II
• BIOL 221 Basic Ecology
• BIOL 241 Microbiology

Minor Electives (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

Study Plan for Biological Sciences

Bachelor of Science in Biological Sciences

FIRST YEAR (32 credit hours)			
Term	Course #	Course Title	Credit Hours
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
Total Credit Hours in Semester			**16**
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
Total Credit Hours in Semester			**16**

THIRD YEAR (32 credit hours)			
Term	Course #	Course Title	Credit Hours
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	2
Total Credit Hours in Semester			**17**
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
Total Credit Hours in Semester			**15**

SECOND YEAR (32 credit hours)			
Term	Course #	Course Title	Credit Hours
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
Total Credit Hours in Semester			**17**
Spring	BIOL 311	Molecular Biology	3
	BIOL 212	Genetics	3
	CHEM 212	Organic Chemistry II	3
	CHEM 351	Basic Biochemistry	3
	CHEM 352	Experimental Biochemistry	1
	STAT 151	Introduction to Applied Statistics	3
Total Credit Hours in Semester			**16**

FOURTH YEAR (24 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	BIOL	Major Elective	3
	BIOL	Major Elective	3
	CC Elective	Core Curriculum Elective	3
	CC Elective	Core Curriculum Elective	3
	BIOL 497	Research Project	-
Total Credit Hours in Semester			**12**
Spring	BIOL	Major Elective	3
	CHEM	Minor Elective	3
	CC Elective	Core Curriculum Elective	3
	BIOL 497	Research Project (continued)	3
Total Credit Hours in Semester			**12**

BACHELOR OF SCIENCE IN ENVIRONMENTAL SCIENCE

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
• To be prepared for professional practice and to work in ethical manner with professional teams and to show professional development in their career.

Major Declaration
The admission, transfer and retention policies of the program are consistent with those specified by Qatar University. An applicant must hold a General Secondary Education Certificate or its equivalent with an average of no less than 70% for students of the scientific discipline. Prior to application, students must pass minimum 9 Credit Hours with a GPA: 2.00 and above. Admission is consistent with the highest averages and admission capacity of the Department of Biological and Environmental Sciences. Students' enrollment starts in fall semester.

Learning Outcomes
Graduates of the Environmental Science major will be able to:
• Define and explain basic principles and concepts in different environments and ecosystems.
• Explain the underlying causes for environmental degradation and conversations
• Conduct experiments using modern lab techniques and analyze, evaluate and interpret data.
• 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
• Explain the human dimensions in their profession, including diverse social, cultural, economic, and international aspects
• Apply skilled delivery using verbal, written and electronic communication to convey environmental issues.
• Explain contemporary and emerging environmental issues and to recognize the need for the lifelong learning
• 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 Places
• Ministry of Environment
• Environmental Studies Center
• Industry (Qatar Petroleum, Ras Gas, Shell, and others)
• Ministry of Municipal and Urban planning
• Kahrama
• Research Labs
• Qatar University
• Qatar Foundation
• Supreme Council of Health
• Teaching at both school and college/university levels

DEGREE REQUIREMENTS

Major in Environmental Science
A minimum of 125 or 126 credit hours are required to complete the major in Environmental Science, depending on the selected concentration.
A minimum of 126 credit hours 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
• A minimum of 9 credit hours in Major electives
• A minimum of 15 credit hours in major supporting requirements
• A minimum of 14 or 15 CH in concentration requirements: A minimum of 15 CH for the concentration in Biotechnology and a minimum of 14 CH for the concentration in Marine Sciences.

Core Curriculum Requirements (33 CH)
Students must complete a minimum of 33 credit hours in Core Curriculum requirements

Common package (15 CH)
• ARAB 100 Arabic Language I
• ARAB 200 Arabic Language II
• ENGL 202 English Language I Post Foundation
• ENGL 203 English Language II Post Foundation
• DAWA 111 Islamic Culture

Social/Behavioral Sciences package (3 CH)
• Courses in CCP defined Social/Behavioral Sciences Package

Natural Science/Mathematics package (3 CH)
• MATH 101 Calculus I

Humanities /Fine Arts package (6 CH)
Courses in CCP defined Humanities/Fine Arts package. Students must complete a minimum of 3 Credit Hours from courses listed in the Qatar and Gulf History Sub-package, which is part of the Humanities/Fine Arts package.

General Knowledge package (3 CH)
SOCI 200 Sustainable Development

General Skills package (3 CH)
Courses in CCP-defined General Skills package

Major Requirements (54 CH)
Students must complete a minimum of 54 credit hours in Major required courses:
• BIOL 101 Biology I
• BIOL 102 Biology II
• BIOL 221 Basic Ecology
• BIOL 241 Microbiology
• BIOL 399 Internship
• BIOL 496 Research Project
• MARS 101 Introduction to Marine Science
• MARS 251 Marine Biology
• CHEM 275 Principles of Environmental Chemistry
• BIOL 322 Desert Biology
• BIOL 422 Environmental Management and Conservation
• BIOL 345 Health Safety and Environment
• 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 459 Environmental Impact Assessment

Major Electives (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 351 Plant Anatomy and Physiology
• BIOL 362 Animal Anatomy and Physiology
• BIOL 421 Ecophysiology
• BIOL 444 Immunology
• BIOL 346 Environmental Health
• 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 441 Geography of Qatar
• GEOG 448 Hydro-geography

Major Supporting Requirements (15 CH)
Students must complete a minimum of 15 CH in major supporting requirements:
• CHEM 101 General Chemistry I
• CHEM 103 Experimental General Chemistry I
• CHEM 102 General Chemistry II
• CHEM 104 Experimental General Chemistry II
• BIOL 103 Freshman Seminar
• STAT 151 Introduction to Applied Statistics
• PHYS 110 General Physics for Biology
• PHYS 111 Practical Physics for Biology

Concentration in Biotechnology (15 CH)
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)
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

Study Plan for Environmental Science - Biotechnology

FIRST YEAR (32 credit hours)			
Term	Course #	Course Title	Credit Hours
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
Total Credit Hours in Semester			**16**
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	
Total Credit Hours in Semester			**16**

THIRD YEAR (33 credit hours)			
Term	Course #	Course Title	Credit Hours
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
Total Credit Hours in Semester			**15**
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
Total Credit Hours in Semester			**18**

SECOND YEAR (34 credit hours)			
Term	Course #	Course Title	Credit Hours
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
Total Credit Hours in Semester			**16**
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
Total Credit Hours in Semester			**18**

FOURTH YEAR (27 credit hours)			
Term	Course #	Course Title	Credit Hours
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
	BIOL496	Research Project	-
Total Credit Hours in Semester			**12**
Spring	BIOL 433	Monitoring and Toxicology	3
	BIOL 451	Cell & Tissue Culture	3
	BIOL 452	Molecular Analytical Techniques	3
		Major Elective	3
	BIOL496	Research Project (continued)	3
Total Credit Hours in Semester			**15**
SUMMER (after the third year) (0 credit hours)			
	BIOL 399	Internship	0
Total Credit Hours in Semester			**0**

Study Plan for Environmental Science - Marine Sciences

FIRST YEAR (32 credit hours)			
Term	Course #	Course Title	Credit Hours
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
Total Credit Hours in Semester			**16**
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	
Total Credit Hours in Semester			**16**

THIRD YEAR (35 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	BIOL 322	Desert Biology	3
	MARS 327	Plankton and Productivity	3
		Major Elective	3
	CHEM 275	Principles of Environmental Chemistry	3
	HIST 121	History of Qatar	3
	CC Elective	Core Curriculum Elective	3
Total Credit Hours in Semester			**18**
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
Total Credit Hours in Semester			**17**

SECOND YEAR (34 credit hours)			
Term	Course #	Course Title	Credit Hours
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
Total Credit Hours in Semester			**16**
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
Total Credit Hours in Semester			**18**

FOURTH YEAR (24 credit hours)			
Term	Course #	Course Title	Credit Hours
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
	BIOL496	Research Project	-
Total Credit Hours in Semester			12
Spring	MARS 458	Fisheries and Aquaculture	3
		Major Elective	3
		Major Elective	3
	BIOL496	Research Project (continued)	3
Total Credit Hours in Semester			12
SUMMER (after the third year) (0 credit hours)			
	BIOL 399	Internship	0
Total Credit Hours in Semester			**0**

DEPARTMENT OF CHEMISTRY AND EARTH SCIENCES

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Head
Hala Sultan Saif Al-Easa

Faculty

Professor:
Hala Sultan Saif Al-Easa

Professors:
Ibrahim Saleh Al-Naimi (on leave), Jan Cornelis Kwak, Mohammad Mahroof-Tahir, Siham Y. Al-Qaradawi, Lakshmaiah Sreerama, Yousef Hijji

Associate Professors:
Ibrahim Ahmad Zainal Al-Ansari, Hamad Abdul-Rahman Al-Saad Al-Kuwari, Amina Sultan Jaber Al- Jaber, Khalid A. Majid Al-Saad, Nessreen Abdulla Al Hashimi, Abdulali M. Sadek, Lamees Abdu-Hadi Shahada, Hassan Ibrahim Nimir, Abdulilah Abdulqader Dawoud, Amjad Shraim, Ameena Al-Khal Fakhro

Assistant Professors:
Hezam Yahya Abdulla, Saeed Hashim Al-Meer, Latifa Al-Naimi, Yasser H. Abdulrazek Hussein

Lecturer:
Mariam Al-Yousef

ABOUT THE DEPARTMENT

The Department was established in 1973. It offers a BSc with a Chemistry major (male and female students) and a Chemistry minor (male and female students) and a Geology minor (male students). The Chemistry program also offers courses to various programs at Qatar University including Chemical Engineering, Biological and Environmental Sciences, Human Nutrition, Biomedical Science, and Pharmacy. The Geology program offers introductory courses to a wide variety of students, as well as more advanced courses for students with Geology minor. The Chemistry program serves the Qatari community in several aspects, e.g. by offering consultations, suggesting solutions for numerous scientific problems, and by holding symposiums and public lectures. Chemistry faculty members also provide special workshops and training for employees in many sectors. In addition, many graduates from the Chemistry program have come to serve as teachers in a number of schools and academic institutions.
The BSc Chemistry Major program is accredited by the Canadian Society for Chemistry (2009-2014)

BACHELOR OF SCIENCE IN CHEMISTRY

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.

Major Declaration
In order to declare a major in chemistry, applicants must satisfy college and departmental requirements **(http://www.qu.edu.qa/students/admission/undergraduate/program_requirements.php).** The department encourages students with interest in sciences to join chemistry program.
Important Accreditation Related Note:
The Chemistry program is accredited by the Canadian Society for Chemistry (CSC). Students completing the chemistry program will be eligible to receive a certificate from CSC saying that they have graduated from a CSC accredited program only if they select a minor in Geology, in Biological Sciences, or in Nutrition. No certificate will be issued to students completing any other minor to satisfy their program degree requirements. However, all students successfully completing the program will receive a BSc degree in Chemistry.

Learning Outcomes
By graduation students will be able to:
• Identify and characterize chemical compounds.
• Apply knowledge of theory to solve problems related to all fields of chemistry.
• Use modern lab techniques effectively.
• Conduct research in the field of chemistry and its applications.

• Demonstrate the ability to work effectively in teams with professionals from other disciplines.
• Use mathematical and computational methods and information
technology in modern chemistry.
• Apply safety rules in chemical laboratories.
• Communicate effectively using verbal, written and electronic communication skills.
• Value further study and lifelong learning in their chemistry careers.
• Demonstrate commitment to ethical issues in their field of work such as falsification of data, plagiarism, and copyright infringement.

Opportunities
• 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 Environment
• Forensic Department, Interior Security Force
• National Health Authority
• Ministry of Education
• Ministry of Municipal Affairs & Agriculture
• Anti-Doping Lab

DEGREE REQUIREMENTS

Major in Chemistry
A minimum of 120 credit hours are required to complete the major in Chemistry, including the following:
• A minimum of 33 credit hours in Core Curriculum requirements
• A minimum of 41 credit hours in major Requirements
• A minimum of 15 credit hours in major Electives
• A minimum of 13 credit hours in major supporting requirements
• A minimum of 18 credit hours in minor requirements

Core Curriculum Program (33 credit hours)

Common package (15 CH)
• ARAB 100 Arabic Language I
• ARAB 200 Arabic Language II
• ENGL 202 English Language I Post Foundation
• ENGL 203 English Language II Post Foundation
• DAWA 111 Islamic Culture

Social/Behavioral Sciences package (3 CH)
Courses in CCP defined Social/Behavioral Sciences package

Humanities /Fine Arts package (6 CH)
Courses in CCP defined Humanities/Fine Arts package. Students must complete a minimum of 3 Credit Hours from courses listed in the Qatar and Gulf History Sub-package which is part of the Humanities/Fine Arts package.

Natural Science/Mathematics package (3 CH)
Students must complete a minimum of 3 credit hours from the following courses:
• MATH 101 Calculus I
• BIOL 101 Biology I

General Knowledge package (3 CH)
Courses in CCP defined General Knowledge package

Supplemental College / Program core requirements package (3 CH)
Students must complete a minimum of 3 credit hours from the following courses:
• MATH 101 Calculus I
• BIOL 101 Biology I

Major Requirements (41 CH)
Students must complete a minimum of 41 credit hours in Major required courses:
• CHEM 101 General Chemistry I
• CHEM 102 General Chemistry II
• CHEM 103 Experimental General Chemistry I
• CHEM 104 Experimental General Chemistry II
• CHEM 211 Organic Chemistry I
• CHEM 212 Organic Chemistry II
• CHEM 213 Experimental Organic Chemistry
• CHEM 221 Inorganic Chemistry I
• CHEM 222 Experimental Inorganic Chemistry
• CHEM 231 Analytical Chemistry I
• CHEM 234 Experimental Analytical Chemistry
• CHEM 241 Physical Chemistry I
• CHEM 242 Experimental Physical Chemistry I
• CHEM 331 Analytical Chemistry II
• CHEM 341 Physical Chemistry II
• CHEM 351 Basic Biochemistry
• CHEM 352 Experimental Biochemistry
• CHEM 442 Experimental Physical Chemistry II
• CHEM 462 Research Project

Major Electives (15 CH)
Students must complete a minimum of 15 credit hours in Major electives courses:
• CHEM 311 Organic Chemistry III

- CHEM 312 Organic Chemistry IV
- CHEM 315 Environmental Chemistry
- CHEM 321 Inorganic Chemistry II
- CHEM 322 Inorganic Chemistry III
- CHEM 342 Physical Chemistry III
- CHEM 375 Industrial Chemistry
- CHEM 391 Applied Biochemistry
- CHEM 461 Special Topics
- CHME 431 Petroleum Refining Process
- CHME 433 Petrochemical Technology

Major Supporting Requirements (13 CH)
- MATH 102 Calculus II
- CMPS 101 Introduction to Computer Science
- PHYS 101 General Physics I
- PHYS 103 General Physics Lab
- PHYS 102 General Physics II

Minor Requirements (18 credit hours)
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 minor the students enrolled in is less than 18 CH, students must take additional courses as free electives to complete the 18 CH requirements.
It is important to note that only students completing a minor in Geology, in Biological Sciences, or in Nutrition will be eligible to receive a certificate from CSC saying that they have graduated from a CSC accredited program. No certificate will be issued to students completing any other minor to satisfy their program degree requirements. Thus, students are encouraged to take one of the following minors in order to satisfy the requirements of the program accredited by the Canadian Society for Chemistry:
- Minor in Biological Sciences
- Minor in Nutrition
- Minor in Geology

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.

Minor in Chemistry (18 CH)
Students seeking a minor in Chemistry must complete a minimum of 18 credit hours, including the following:
- A minimum of 12 credit hours in Minor required courses
- A minimum of 8 credit hours in Minor elective courses

Minor Required courses (12 CH)
Students must complete a minimum of 12 credit hours in Minor required courses:
- CHEM 101 General Chemistry I
- CHEM 103 Experimental General Chemistry I
- CHEM 102 General Chemistry II
- CHEM 104 Experimental General Chemistry II
- CHEM 211 Organic Chemistry I

Minor Elective courses (6 CH)
Students must complete a minimum of 6 credit hours in Minor elective courses, selected from:
- CHEM 221 Inorganic Chemistry I
- CHEM 222 Experimental Inorganic Chemistry
- CHEM 231 Analytical Chemistry I
- CHEM 234 Experimental Analytical Chemistry
- CHEM 241 Physical Chemistry I
- CHEM 242 Experimental Physical Chemistry I
- CHEM 212 Organic Chemistry II
- CHEM 213 Experimental Organic Chemistry
- CHEM 341 Physical Chemistry II
- CHEM 351 Basic Biochemistry
- CHEM 352 Experimental Biochemistry
- CHEM 391 Applied 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.

Minor in Geology (18 CH)
Students seeking a minor in Geology must complete a minimum of 18 credit hours, including the following:
- A minimum of 6 credit hours in Minor requirements
- A minimum of 12 credit hours in Minor electives

Minor Requirements (6 CH)
Students must complete a minimum of 6 credit hours in Minor required courses:
- GEOL 101 Principles of General Geology
- GEOL 321 Structural Geology and Geotectonics

Minor Electives (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 Geo-chemistry
- GEOL 403 Economic Geology
- GEOL 411 Geology of Arabian Peninsula and Qatar
- GEOL 421 Photogeology & Remote Sensing
- GEOL 432 Geology of Petroleum
- GEOL 434 Hydrogeology

Study Plan
Bachelor of Science in Chemistry

FIRST YEAR (32 credit hours)			
Term	Course #	Course Title	Credit Hours
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
	DAWA 111	Islamic Culture	3
Total Credit Hours in Semester			**16**
Spring	ARAB 200	Arabic Language II	3
	ENGL 203	English Language II	3
	CHEM 102	General Chemistry II	3
	CHEM 104	Experimental General Chemistry II	1
	MATH 102	Calculus II	3
	BIOL 101	Biology I	3
Total Credit Hours in Semester			**16**

THIRD YEAR (32-33 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall		Core Curriculum	3
	CHEM 221	Inorganic Chemistry I	3
	CHEM 222	Experimental Inorganic Chemistry	1
	CHEM 241	Physical Chemistry I	3
	CHEM 242	Experimental Physical Chemistry I	1
	CHEM 331	Analytical Chemistry II	3
		Minor course 3	3/2*
Total Credit Hours in Semester			**17/16**
Spring	CHEM 341	Physical Chemistry II	3
	CHEM 442	Experimental Physical Chemistry II	1
		Chemistry Elective	3
		Chemistry Elective	3
		Core curriculum course	3
		Minor course 4	3
Total Credit Hours in Semester			**16**

SECOND YEAR (30-31 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	CMPS 101	Introduction to Computer Science	3
	CHEM 211	Organic Chemistry I	4
	CHEM 231	Analytical Chemistry I	2
	CHEM 234	Experimental Analytical Chemistry	1
	PHYS 101	General Physics I	3
		Minor Course 1	3/2*
Total Credit Hours in Semester			**16/15**
Spring	CHEM 212	Organic Chemistry II	3
	CHEM 213	Experimental Organic Chemistry	1
	CHEM 351	Basic Biochemistry	3
	CHEM 352	Experimental Biochem-istry	1
	PHYS 102	General Physics II	3
	PHYS 103	General Physics Lab	1
		Minor course 2	3
Total Credit Hours in Semester			**15**

FOURTH YEAR (26 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall		Core curriculum course	3
		Minor Elective course	3/4*
	CHEM 462	Research Project	3
		Chemistry Elective	3
		Chemistry Elective	2
Total Credit Hours in Semester			**14/15**
Spring		Core curriculum course	3
		Minor Elective course	3/4*
		Chemistry Elective	3
		Chemistry Elective	2
Total Credit Hours in Semester			**11/12**

*Students with Nutrition minor will take 2 credit courses.

DEPARTMENT OF HEALTH SCIENCES

College of Sciences Building, Room 125 (Women's Section)Phone: (974) 4403-4800
E-mail: **health@qu.edu.qa**
Website: **http://www.qu.edu.qa/artssciences/health**

Head
Asma Althani

Faculty

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Assistant Professors:
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Lecturers:
Tamara Al-Abdi, Maha Al-Asmakh, Amal Al-Haidose

Teaching Assistants:
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ABOUT THE DEPARTMENT

The Department of Health Sciences has three major programs – Biomedical Science, Human Nutrition, and Public Health. These programs provide a unique entity of closely collaborating disciplines that are not found elsewhere in the country. The mission of the department is to promote people's health and well-being and consequently, to advance knowledge and methods for assessing health, functional capacity and associated factors throughout their lifespan and among various population groups, to develop new measures for promoting health and well-being by means of providing well-trained competent calibers to the health field. This is accomplished through intensive teaching, practical and hand on experience in addition to scientific research.

BACHELOR OF SCIENCE IN BIOMEDICAL SCIENCE

Objectives
The mission of the Biomedical Science major at Qatar University is to provide quality education that prepares future competent Biomedical Scientists with knowledge of theory, practical and critical thinking skills, and research and communication skills; with emphasis on ethics for the healthcare industry. Our graduates are keen on continuous education, professional development and adapt to the changing technology and needs of 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.

Major Declaration
Students will be accepted twice a year for each fall and spring semester based upon the above criteria. The faculty will evaluate each applicant according to the above criteria to review the applicants and determine who should be accepted. Once accepted, students will be given a study plan that must adhere to.

Admission to the Biomedical Science Major
1. Completion of the Qatar University Foundation Program Requirements
2. Minimum Secondary School Grade for the Final Year 75%
3. Completion of 12 credit hours in General Science that includes BIOL 101 with a minimum grade of C

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 courses in the student's last semester of study.

Learning Outcomes
• Demonstrate conceptual knowledge in biomedical field.
• Perform basic laboratory techniques in biomedical labs.
• Comply with safety regulations and universal precautions.
• Communicate effectively with colleagues and clients.
• Solve problems related to discrepancies in test results.
• Integrate patient data for evaluation of validity of laboratory test results.
• Apply computer technology in clinical laboratory data processing, data reporting and information retrieval.
• Maintain strong professional ethics.

• Adjust effectively in team working.
• Participate in biomedical research.
• Maintain positive attitudes toward life-long learning in the biomedical field.

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 information needed to diagnose disease or monitor treatment of patients. It has been estimated that as much as 60 to 70% of the information used to treat patients comes 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 physician offices, public health laboratories, reference laboratories, research laboratories, and forensic laboratories. Opportunities for employment exist in industry. 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 works 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 2013 to March 2020. 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

DEGREE REQUIREMENTS

Major in Biomedical Science
A minimum of 135 credit hours 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
• A minimum of 37 credit hours in Major Supporting Requirements
• A minimum of 4 credit hours in Major Electives

Core Curriculum Program (33 CH)
Common package (15 CH)
• ARAB 100 Arabic Language I
• ARAB 200 Arabic Language II
• ENGL 202 English Language I Post Foundation
• ENGL 203 English Language II Post Foundation
• DAWA 111 Islamic Culture

Social/Behavioral Sciences package (3 CH)
Courses in CCP defined Social/Behavioral Sciences package

Humanities /Fine Arts package (6 CH)
Courses in CCP defined Humanities/Fine Arts package. Students must complete a minimum of 3 Credit Hours from courses listed in the Qatar and Gulf History Sub-package which is part of the Humanities/Fine Arts package.

Natural Science/Mathematics package (3 CH)
• MATH 101 Calculus I

General Knowledge package (3 CH)
Courses in CCP defined General Knowledge package

General Skills package (3 CH)
Courses in CCP defined General Skills package

Major Requirements (61 CH)
Students must complete a minimum of 61 credit hours in Major required courses:
•BIOL 311 Molecular Biology
•BIOM 301 Lab Management and QC
•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

BACHELOR OF SCIENCE IN HUMAN NUTRITION

• BIOM 496 Professional Development
• BIOM 497 Research Project

Major Supporting Requirements (37 CH)
Students must complete a minimum of 37 credit hours in Major Supporting courses:
• BIOL 101 Biology I
• BIOL 241 Microbiology
• BIOM 211 Human Anatomy
• BIOM 212 Human Histology
• BIOM 215 Human Physiology
• BIOM 217 Human Genetics
• BIOM 243 Introduction to Pathology
• 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
• CMPS 101 Introduction to Computer Science
• STAT 151 Introduction to Applied Statistics

Major Electives (4 CH)
Students must complete a minimum of 4 credit hours in Major Elective courses:
• BIOM 213 Embryology
• BIOM 400 Seminar
• BIOM 401 Special Topics
• BIOM 402 Special Topics
• BIOM 411 Forensic Science
• CHEM 231 Analytical Chemistry I
• CHEM 234 Experimental Analytical Chemistry
• PHYS 110 General Physics For Biology
• PHYS 111 Practical Physics For Biology

Study Plan for the Biomedical Science program: students joining the program in Fall

Fall 1st Semester		
Code	**Course**	**Cr**
	Core	6
BIOL 101	Biology	3
CHEM 101	General Chemistry	3
CHEM 103	Exp. General Chemistry	1
MATH 101	Calculus	3
	Total	**16**
Spring 2nd Semester		
	Core	9
BIOM 211	Human Anatomy	3
BIOM 212	Human Histology	3
CHEM 209	Fundamentals in Organic Chemistry	3
	Total	**18**
Fall 3rd Semester		
BIOM 215	Human Physiology	3
BIOM 217	Human Genetics	3
CMPS 101	Introduction to Computer	3
BIOL 241	Microbiology	3
	Core	6
	Total	**18**
Spring 4th Semester		
BIOL 311	Molecular Biology	3
BIOM 243	Introduction to Pathology	2
CHEM 351	Basic Biochemistry	3
CHEM 352	Experimental Biochemistry	1
	Core	9
	Total	**18**

Fall 5th Semester		
Code	Course	Cr
BIOM 324	Medical Virology	2
BIOM 346	Clinical Chemistry	4
BIOM 426	Clinical Immunology	3
BIOM 402	Special Topics	2
STAT 151	Intro. to Applied Statistics	3
	Total	**14**
Spring 6th Semester		
BIOM 418	Pharmacology & Toxicology	2
BIOM 463	Endocrinology	3
BIOM 322	Medical Microbiology	4
BIOM 446	Urine Analysis & Body Fluids	2
BIOM 451	Hematology & Hemostasis	4
BIOM 323	Medical Parasitology	3
	Total	**18**
Fall 7th Semester		
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
	Forensic Science (or Electives)	2
	Total	**15**
Spring 8th Semester		
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
	Total	**18**

Study Plan for Bomedical Sciences program: students joining the program in Spring

Spring 1st Semester		
Code	Course	Cr
	Core	6
BIOL 101	Biology	3
CHEM 101	General Chemistry	3
CHEM 103	Exp. General Chemistry	1
MATH 101	Calculus	3
	Total	**16**
Fall 2nd Semester		
	Core	6
BIOM 211	Human Anatomy	3
BIOM 212	Human Histology	3
CHEM 209	Fundamentals in Organic Chemistry	3
CMPS 101	Introduction to Computer Science	3
	Total	**18**

Spring 3rd Semester		
BIOM 215	Human Physiology	3
BIOM 217	Human Genetics	3
BIOM 243	Introduction to Pathology	2
	Core	9
	Total	**17**
Fall 4th Semester		
STAT 151	Introduction to Applied Statistics	3
BIOL 241	Microbiology	3
CHEM 351	Basic Biochemistry	3
CHEM 352	Experimental Biochemistry	1
	Core	9
	Total	**19**

Spring 5th Semester		
Code	Course	Cr
BIOL 311	Molecular Biology	3
BIOM 322	Medical Microbiology	4
BIOM 402	Special Topics	2
BIOM 446	Urine Analysis & Body Fluids	2
BIOM 451	Hematology & Hemostasis	4
BIOM 323	Medical Parasitology	3
	Total	**18**
Fall 6th Semester		
BIOM 324	Medical Virology	2
BIOM 346	Clinical Chemistry	4
BIOM 426	Clinical Immunology	3
BIOM 422	Diagnostic Microbiology	2
BIOM 452	mmunohematology. & Blood	3
	Total	**14**

Spring 7th Semester		
BIOM 301	Laboratory management	3
BIOM 444	Histopathology	2
BIOM 497	Research Project I	3
BIOM 418	Pharmacology & Toxicology	2
BIOM 463	Endocrinology	3
	Forensic (or Electives)	2
	Total	**15**
Fall 8th Semester		
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
	Total	**18**

Objectives
Prepare graduates for careers as dietitians and nutrition professionals who will enhance the role of healthy nutrition on the health and wellbeing of individuals and population groups in the Middle East and North Africa Region. Develop graduates with expertise in pediatric clinical nutrition to address the nutrition care needs of children/ adolescents with overweight, obesity, diabetes, and inherited errors of metabolism (predominately homocystinuria).

Major Declaration
In order to declare a major in Human Nutrition, applicants must satisfy the minimum high school percentage requirement for the major in the semester of admission. Students must pass BIOL 101 with a grade of C or better and complete a minimum of 12 credit hours with an overall grade point average of 2.0 (out of 4.0). In addition, applicants must either successfully complete all requirements of the Foundation Program or satisfy the University's competency requirement.

Requirements for Continuance in the Human Nutrition Program
Students must complete a capstone research project prior to their last semester in the program. The Human Nutrition program also requires students to complete and pass a supervised professional practice of 20 credit hours before graduation.

Learning Outcomes
• CRD 1.1 Select appropriate indicators and measure achievement of clinical, programmatic, quality, productivity, economic or other outcomes
• CRD1.2 Apply evidence-based guidelines, systematic reviews and scientific literature (such as the ADA Evidence Analysis Library, Cochrane Database of Systematic Reviews and the U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality, National Guideline Clearinghouse Web sites) in the nutrition care process and model and other areas of dietetics practice
• CRD 1.3 Justify programs, products, services and care using appropriate evidence or data
• CRD1.4 Evaluate emerging research for application in dietetics practice
• CRD. 1.5 Conduct research projects using appropriate research methods, ethical procedures and statistical analysis
• CRD. 2.1 Practice in compliance with current federal regulations and state statutes and rules, as applicable and in accordance with accreditation standards and the ADA Scope of Dietetics Practice Framework, Standards of Professional Performance and Code of Ethics for the Profession of Dietetics
• CRD 2.2 Demonstrate professional writing skills in preparing professional communications (e.g. research manuscripts, project proposals, education materials, policies and procedures)
• CRD 2.3 Design, implement and evaluate presentations considering life experiences, cultural diversity and educational background of the target audience
• CRD. 2.4 Use effective education and counseling skills to facilitate behavior change
• CRD. 2.5 Demonstrate active participation, teamwork and contributions in group settings
• CRD 2.6 Assign appropriate patient care activities to DTRs and/or support personnel considering the needs of the patient/client or situation, the ability of support personnel, jurisdictional law, practice guidelines and policies within the facility
• CRD 2.7 Refer clients and patients to other professionals and services when needs are beyond individual scope of practice
• CRD 2.8 Apply leadership principles effectively to achieve desired outcomes
• CRD 2.9 Serve in professional and community organizations
• CRD 2.10 Establish collaborative relationships with internal and external stakeholders, including patients, clients, care givers, physicians, nurses and other health professionals, administrative and support personnel to facilitate individual and organizational goals
• CRD 2.11 Demonstrate professional attributes in various organizational cultures
• CRD 2.12 Perform self-assessment, develop goals and objectives and prepare a draft portfolio for professional development as defined by the Commission on Dietetics Registration
• CP 2.13. Demonstrate assertiveness and negotiation skills while respecting life experiences, cultural diversity and educational background
• CRD. 3.1 Perform the Nutrition Care Process (a through d below) and use standardized nutrition language for individuals, groups and populations of differing ages and health status, in a variety of settings
• CP 3.1.a. Assess the nutritional status of individuals, groups and populations in a variety of settings where nutrition care is or can be delivered
• CP 3.1.b.Diagnose nutrition problems and create problem, etiology, signs and symptoms (PES) statements
• CP 3.1.c. Plan and implement nutrition interventions to include prioritizing the nutrition diagnosis, formulating a nutrition prescription, establishing goals and selecting and managing intervention
• CP 3.1.d. Monitor and evaluate problems, etiologies, signs, symptoms and the impact of interventions on the nutrition diagnosis

• CRD. 3.2 Develop and demonstrate effective communications skills using oral, print, visual, electronic and mass media methods for maximizing client education, employee training and marketing
• CRD 3.3 Develop and deliver products, programs or services that promote consumer health, wellness and lifestyle management merging consumer desire for taste, convenience and economy with nutrition, food safety and health messages and interventions
• CRD 3.4 Deliver respectful, science-based answers to consumer questions concerning emerging trends
• CRD 3.5 Coordinate procurement, production, distribution and service of goods and services
• CRD 3.6 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
• CRD 4.1 Use organizational processes and tools to manage human resources
• CRD 4.2 Perform management functions related to safety, security and sanitation that affect employees, customers, patients, facilities and food
• CRD. 4.3 Participate in public policy activities, including both legislative and regulatory initiatives
• CRD 4.4 Conduct clinical and customer service quality management activities
• CRD 4.5 Use current informatics technology to develop, store, retrieve and disseminate information and data
• CP 4.6. Analyze quality, financial or productivity data and develops a plan for intervention
• CRD 4.7 Propose and use procedures as appropriate to the practice setting to reduce waste and protect the environment
• CRD 4.8 Conduct feasibility studies for products, programs or services with consideration of costs and benefits
• CRD 4.9 Obtain and analyze financial data to assess budget controls and maximize fiscal outcomes
• CRD 4.10 Develop a business plan for a product, program or service including development of a budget, staffing needs, facility requirements, equipment and supplies

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 HNP graduates:
• Hamad Medical Corporation
• Aspire
• Qatar Foundation
• Sidra
• Qatar Diabetes Association
• Qatar Health Authority
• Primary Health Care
• Private clinics

DEGREE REQUIREMENTS

Major in Human Nutrition
A minimum of 132 credit hours 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 12 credit hours in Major Requirements
•A minimum of 48 credit hours in Nutrition & Dietetics requirements
•A minimum of 10 credit hours in Food Sciences and Technology requirements
• A minimum of 29 credit hours in Major supporting requirements

Core Curriculum Program (33 CH)
Common package (15 CH)
• ARAB 100 Arabic Language I
• ARAB 200 Arabic Language II
• ENGL 202 English Language I Post Foundation
• ENGL 203 English Language II Post Foundation
• DAWA 111 Islamic Culture

Social/Behavioral Sciences package (3 CH)
Courses in CCP defined Social/Behavioral Sciences package

Humanities /Fine Arts package (6 CH)
Courses in CCP defined Humanities/Fine Arts package. Students must complete a minimum of 3 Credit Hours from courses listed in the Qatar and Gulf History Sub-package which is part of the Humanities/Fine Arts package.

Natural Science/Mathematics package (3 CH)
Courses in CCP defined Natural Science/Mathematics package

General Knowledge package (3 CH)
Courses in CCP defined General Knowledge package

General Skills package (3 CH)
Courses in CCP defined General Skills package

Major Requirements (70 CH)
Students must complete a minimum of 70 CH in Major required courses including 12 CH in Major core requirements, 48 CH in Nutrition & Dietetics package

requirements, and 10 CH in Food Sciences and Technology Package Requirements.

Nutrition & Dietetics package (48 CH)
Students must complete a minimum of 48 CH in Nutrition & Dietetics package requirements.
- NUTR 320 Introduction to Dietetic and Nutrition Practice
- NUTR 329 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 454 Medical Nutrition Laboratory I
- NUTR 453 Medical Nutrition Laboratory II
- NUTR 456 Professional Issues in Dietetics and Nutrition
- NUTR 457 Public Health Nutrition
- NUTR 490 Capstone Course
- NUTR 491 Nutrition Seminar
- NUTR 492 Research Methodologies in Human Nutrition
- NUTR 494 Supervised Dietetic Practice I (15 weeks)
- NUTR 495 Supervised Dietetic Practice II (15 Weeks)

Food Sciences and Technology package (10 CH)
Students must complete a minimum of 10 CH in Food Sciences and Technology package requirements:
- NUTR 319 Quantity of Food Production & Equipment
- NUTR 441 Food Safety and Quality Control
- NUTR 442 Management of Food Services Operations I
- NUTR 443 Management of Food Services Operations II

Major Supporting Requirements (29 CH)
Students must complete a minimum of 29 credit hours in Major supporting 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
- BIOL 101 Biology I
- BIOL 241 Microbiology
- BIOM 211 Human Anatomy
- BIOM 215 Human Physiology
- BIOM 217 Human Genetics
- MATH 101 Calculus

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 8 CH in Minor requirements
- A minimum of 10 CH in Minor electives

Minor Requirements package(8 CH)
Students must complete a minimum of 8 CH in Minor required courses:
- NUTR 221 Principles of Food Science and Nutrition
- NUTR 231 Human Nutrition
- NUTR 321 Food Chemistry

Minor Electives package (10 CH)
Students must complete a minimum of 10 CH in Minor elective courses including:
- NUTR 319 Quantity of Food Production & Equipment
- NUTR 329 Nutritional Education and Communication
- NUTR 335 Nutritional Metabolism I
- NUTR 336 Nutritional Metabolism II
- NUTR 338 Nutrition through the Lifespan
- NUTR 441 Food Safety and Quality Control
- NUTR 442 Management of Food Services Operations 1
- NUTR 443 Management of Food Services Operations 2

Study Plan for Human Nutrition

Bachelor of Sciences in Human Nutrition

FIRST YEAR (31 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	CHEM101	General Chemistry	3
	CHEM103	Exp. General Chemistry	1
	BIOL101	Biology 1	3
		Core Curriculum Course	3
		Core Curriculum Course	3
		Core Curriculum Course	3
Total Credit Hours in Semester			**16**
Spring	CHEM209	Fundamentals in Organic Chemistry	3
	BIOL241	Microbiology	3
	BIOM211	Human Anatomy	3
		Core Curriculum Course	3
		Core Curriculum Course	3
Total Credit Hours in Semester			**15**

SECOND YEAR (33 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	MATH101	Calculus 1	3
	BIOM215	Human Physiology	3
	CHEM351	Basic Biochemistry	3
	CHEM352	Experimental Basic Biochemistry	1
	NUTR221	Prin. Food Sc. & Nutrition	2
		Core Curriculum Course	3
		Core Curriculum Course	3
Total Credit Hours in Semester			**18**
Spring	NUTR231	Human Nutrition	3
	NUTR321	Food Chemistry	3
	NUTR335	Nutritional Metabolism 1	2
	NUTR 320	Introduction to Dietetic Practice	1
		Core Curriculum Course	3
		Core Curriculum Course	3
Total Credit Hours in Semester			**15**

THIRD YEAR (32 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	NUTR439	Meal Planning & Evaluation	2
	NUTR340	Assessment of Nutritional Status	3
	NUTR338	Nutrition through the Lifespan	3
	NUTR319	Quantity Food Production & Equipment	3
	BIOM217	Human Genetics	3
	NUTR336	Nutritional Metabolism 2	2
Total Credit Hours in Semester			**16**
Spring	NUTR329	Nutrition Education and communication	2
	NUTR 450	Medical Nutrition Therapy 1	3
	NUTR454	Medical Nutrition Laboratory 1	1
	NUTR 492	Research Methodologies in Human Nutrition	1
	NUTR 442	Management of Food Services Operations 1	2
	NUTR456	Professional Issues in Dietetics and Nutrition	1
		Core Curriculum Course	3
		Core Curriculum Course	3
Total Credit Hours in Semester			**16**

FOURTH YEAR (26 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	NUTR453	Medical Nutrition Laboratory2	1
	NUTR441	Food Safety and Quality Control	3
	NUTR451	Medical Nutrition Therapy 2	3
	NUTR491	Nutrition Seminar	1
	NUTR457	Public Health Nutrition	3
	NUTR490	Capstone Course	3
	NUTR443	Management of Food Services Operations 2	2
Total Credit Hours in Semester			**16**
Spring	NUTR 494	Supervised Dietetic Practice I	10
Total Credit Hours in Semester			**10**

FIFTH YEAR (10 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	NUTR 495	Supervised Dietetic Practice II	10

PUBLIC HEALTH PROGRAM

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

BACHELOR OF SCIENCE IN PUBLIC HEALTH

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.

Major Declaration
In order to declare a major in Public Health, applicants must satisfy the minimum high school percentage requirement for the major in the semester of admission. Students must have completed 12 ICH, including STAT 101 with a grade of C or better and a minimum GPA of 2.0. In addition, applicants must either successfully complete all requirements of the Foundation Program or satisfy the University's competency requirement.

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

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 33 credit hours in Major Requirements
- A minimum of 12 credit hours in Major Supporting Requirements
- A minimum of 9 credit hours in Major Electives
- A minimum of 24 credit hours in Concentration Requirements
- A minimum of 9 credit hours in Free Electives

Core Curriculum Program (33 CH)
Common package (15 CH)
- ARAB 100 Arabic Language I
- ARAB 200 Arabic Language II
- ENGL 202 English Language I Post Foundation
- ENGL 203 English Language II Post Foundation
- DAWA 111 Islamic Culture

Social/Behavioral Sciences package (3 CH)
Any Course in CCP defined Social/Behavioral Sciences package

Humanities /Fine Arts package (6 CH)
Students must complete 6 CH from courses in the CCP defined Humanities/Fine Arts package including a minimum of 3 Credit Hours from courses listed in the Qatar and Gulf History Subpackage part of the Humanities/Fine Arts package.

Natural Science/Mathematics package (3 CH)
Any Course in CCP defined Natural Science / Mathematics package

General Knowledge package (3 CH)
Courses in CCP defined General Knowledge package

General Skills package (3 CH)
Courses in CCP defined General Skills package

Major Requirements (33 CH)
Students must complete the following 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 241 Biostatistical Methods for Public Health
- PUBH 301 Public Health Ethics
- PUBH 303 Epidemiology
- PUBH 306 Public Health Systems, Management, and Policy Development
- PUBH 320 Health Communication
- PUBH 390 Field Experience
- PUBH 499 Capstone

Major Supporting Requirements (12 CH)
Students must complete a minimum of 12 credit hours in major supporting requirements:
- STAT 101 Statistics 1
- CHEM 101 General Chemistry 1
- CHEM 103 Experimental General Chemistry 1
- BIOL 110 Human Biology
- BIOM 243 Introduction to Pathology

Major Electives (9 CH)
Students must complete a minimum of 9 credit hours in courses selected from the following:
- 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 Prevention Science
- PUBH 439 Public Health Preparedness
- POPL 300 Principles and Tools for Evidence-Based Policy Decision Making
- POPL 340 Organizational Behavior and Management in Public Service Agencies

Concentration in Health Education (24 CH)
Students must complete a minimum of 24 credit hours in the Health Education concentration requirements package.

Health Education Concentration Requirements package (24 CH)
Students must complete the following courses:
- PUBH 221 Contemporary Health Issues
- PUBH 222 Foundations of Health Education
- PUBH 310 Needs Assessment Methods for Health Education Programs
- PUBH 312 Planning for Health Education Programs
- PUBH 314 Health Education Practicum
- PUBH 325 Nutritional Epidemiology
- PUBH 421 Health Promotion and Disease Prevention for Women Across the Lifespan
- PUBH 426 Prevention Science
- NUTR 221 Principles of Food Science and Nutrition

Concentration in Health Management (24 CH)
Students must complete a minimum of 24 credit hours in the Health Management concentration requirements package.

Health Management Concentration Requirements package (24 CH)
Students must complete the following courses:
- ECON 111 Principles of Microeconomics
- MAGT 101 Principles of Management
- MAGT 302 Human Resource Management
- PUBH 230 Strategic Planning and Marketing
- PUBH 338 Financial Management of Health Care
- PUBH 420 Design of Program Evaluation Systems
- PUBH 430 Health Economics
- PUBH 439 Public Health Preparedness

Free Electives (9 CH)
Students must complete a minimum of 9 credit hours in University Free Electives from courses outside the Public Health major.

Study Plan for Health Education
Bachelor of Sciences in Public Health

FIRST YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall		Core Curriculum Elective 1	3
		Core Curriculum Elective 2	3
		Core Curriculum Elective 3	3
	BIOL 110	Human Biology	3
	STAT 101	Statistics 1	3
Total Credit Hours in Semester			**15**
Spring		Core Curriculum Elective 4	3
		Core Curriculum Elective 5	3
		Core Curriculum Elective 6	3
	CHEM 101	General Chemistry 1	3
	CHEM 103	Eexperimental General Chemistry 1	1
	BIOM 243	Introduction to Pathology	2
Total Credit Hours in Semester			**15**

SECOND YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall		Core Curriculum Elective 7	3
		Core Curriculum Elective 8	3
		Core Curriculum Elective 9	3
	PUBH 101	Public Health Sciences: Principles and Practice	3
	PUBH 202	Health, Behavior and Society	3
Total Credit Hours in Semester			**15**
Spring		Core Curriculum Elective 10	3
		Core Curriculum Elective 11	3
	PUBH 201	Environmental Health And Disease	3
	PUBH 205	Research Methods For Public Health	3
	PUBH 241	Biostatistical Methods For Public Health	3
Total Credit Hours in Semester			**15**

THIRD YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	PUBH 301	Public Health Ethics	3
	PUBH 303	Epidemiology	3
	PUBH 306	Public Health Systems, Management, And Policy Development	3
	PUBH 221	Contemporary Health Issues	3
	PUBH 222	Foundations Of Health Education	3
Total Credit Hours in Semester			**15**
Spring	PUBH 320	Health Communication	3
	PUBH 390	Field Experience	3
	PUBH 310	Needs Assessment Methods For Health Education Programs	3
		Major Elective 1	3
		Major Elective 1	3
Total Credit Hours in Semester			**15**

FOURTH YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	NUTR 221	Principles Of Food Sciences And Nutrition	2
	PUBH 421	Health Promotion And Disease Prevention For Women Across The Lifespan	3
	PUBH 312	Planning for Health Education Programs	3
		Major Elective 3	3
		Free Elective 1	3
		Free Elective 2	3
Total Credit Hours in Semester			**17**
Spring	PUBH 325	Nutritional Epidemiology	3
	PUBH 426	Prevention Sciences	3
	PUBH 314	Health Education Implementation (Practicum)	1
		Free Elective 3	3
	PUBH 499	Capstone	3
Total Credit Hours in Semester			**13**

Study Plan for Health Management Concentration

Bachelor of Sciences in Public Health

FIRST YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall		Core Curriculum Elective 1	3
		Core Curriculum Elective 2	3
		Core Curriculum Elective 3	3
	BIOL 110	Human Biology	3
	STAT 101	Statistics 1	3
Total Credit Hours in Semester			**15**
Spring		Core Curriculum Elective 4	3
		Core Curriculum Elective 5	3
		Core Curriculum Elective 6	3
	CHEM 101	General Chemistry 1	3
	CHEM 103	Experimental General Chemistry 1	1
	BIOM 243	Introduction To Pathology	2
Total Credit Hours in Semester			**15**

THIRD YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	PUBH 301	Public Health Ethics	3
	PUBH 303	Epidemiology	3
	PUBH 306	Public Health Systems, Management, And Policy Development	3
	ECON 111	Principles Of Microeconomics	3
	MAGT 101	Principles Of Management	3
Total Credit Hours in Semester			**15**
Spring	PUBH 320	Health Communication	3
	PUBH 390	Field Experience	3
	PUBH 230	Strategic Planning and Marketing	3
	MAGT 302	Health Resource Management	3
		Major Elective 1	3
Total Credit Hours in Semester			**15**

SECOND YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall		Core Curriculum Elective 7	3
		Core Curriculum Elective 8	3
		Core Curriculum Elective 9	3
	PUBH 101	Public Health Sciences: Principles and Practice	3
	PUBH 202	Health, Behavior and Society	3
Total Credit Hours in Semester			**15**
Spring		Core Curriculum Elective 10	3
		Core Curriculum Elective 11	3
	PUBH 201	Environmental Health And Disease	3
	PUBH 205	Research Methods For Public Health	3
	PUBH 241	Biostatistical Methods For Public Health	3
Total Credit Hours in Semester			**15**

FOURTH YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	PUBH 338	Financial Management Of Health Care	3
	PUBH 420	Design Of Program Evaluation Systems	3
	PUBH 430	Health Economics	3
		Major Elective 2	3
		Free Elective 1	3
Total Credit Hours in Semester			**15**
Spring	PUBH 439	Public Health Preparedness	3
		Major Elective 3	3
		Free Elective 2	3
		Free Elective 3	3
	PUBH 499	Capstone	3
Total Credit Hours in Semester			**15**

DEPARTMENT OF MATHEMATICS, STATISTICS AND PHYSICS

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Head
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Lab Technician:
Rifaat Massbah, Omer Madani, Ahmed Edriss, Mona Al-Rayashi

Administrative:
Maha Omar Al-Dafaa, Basmah Ali Kassem

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 44 staff members, 17 of which are Qatari nationals. The new Department of Mathematics, Statistic & Physics consists of three different programs: Mathematics, Statistics and Physics, and the department aim to provide an excellent undergraduate teaching. Currently there is one major that leads to the Bachelor degree of Science in Statistics with minor in computer science, business or social science. The Department offers also service courses for various Colleges and Programs within the University.

BACHELOR OF SCIENCE IN STATISTICS

Program Objectives
• Collect data that conform with the statistical principles.
• Use relevant experimental design for scientific investigations.
• Describe various types of data numerically and graphically.
• Analyze various types of data using statistical packages.
• Use effectively the statistical packages to conduct the various types of statistical tasks.
• Demonstrate the theoretical basis of statistical methods.
• Provide alternative techniques for data analysis based on various approaches.

Major Declaration
In order to declare a major in Statistics, applicants must satisfy the minimum high school percentage requirement for the major in the semester of admission. In addition, applicants must either successfully complete all requirements of the Foundation Program or satisfy the University's competency requirements.

Learning Outcomes
1. Collect and give advice on how to collect data that conform with the statistical principles of data collection.
2. Design or give advice on how to design surveys and experiments to obtain high-quality data.
3. Describe various types of data numerically and graphically.
4. Analyze the various types of data that arise in a range of types of scientific investigation.
5. Effectively use statistical packages to conduct a number of types of statistical tasks.
6. Write and present professional statistical reports, and communicate effectively with the various users of statistics.
7. Demonstrate the theoretical basis of the statistical methods used in a given situation.

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.

DEGREE REQUIREMENTS

Major in Statistics
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
• A minimum of 12 credit hours in Major Electives
• A minimum of 12 credit hours in Major Supporting Requirements
• A minimum of 24 credit hours in Minor requirements

Core Curriculum Program (33 credit hours)
Common package (15 CH)
• ARAB 100 Arabic Language I
• ARAB 200 Arabic Language II
• ENGL 202 English Language I Post Foundation
• ENGL 203 English Language II Post Foundation
• DAWA 111 Islamic Culture

Social/Behavioral Sciences package (3CH)
Courses in CCP defined Social/Behavioral Sciences package

Humanities /Fine Arts package (6 CH)
Courses in CCP defined Humanities/Fine Arts package. Students must complete a minimum of 3 Credit Hours from courses listed in the Qatar and Gulf History Sub-package which is part of the Humanities/Fine Arts package.

Natural Science/Mathematics package (3 CH)
Courses in CCP defined Natural Science/Mathematics package

General Knowledge package (3 CH)
Courses in CCP defined General Knowledge package

General Skills package (3 CH)
Courses in CCP defined General Skills package

Major Core Requirements (39 CH)
Students must complete a minimum of 39 credit hours in Major required 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 (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 (12 CH)
• MATH 101 Calculus I
• MATH 102 Calculus II
• MATH 251 Mathematics for Statistics
• MATH 231 Linear Algebra

Minor Requirements (24 CH)
Students enrolled in the Statistics program may take any of the minors offered within the university.

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.

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
• A minimum of 6 credit hours in Minor electives

Minor Requirements (18 CH)
Students must complete a minimum of 18 credit hours in Minor required 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 (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

Study Plan for Statistics

Bachelor of Science in Statistics

FIRST YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
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
Total Credit Hours in Semester			**15**
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
Total Credit Hours in Semester			**15**

SECOND YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
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
Total Credit Hours in Semester			**15**
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
Total Credit Hours in Semester			**15**

THIRD YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	STAT 312	Stochastic Processes	3
	STAT 322	Mathematical Statistics II	3
	STAT 371	Statistical Packages	3
		Minor 1	
		Minor 2	
Total Credit Hours in Semester			**15**
Spring	STAT 332	Design of Experiments	3
	STAT 333	Time Series	3
	STAT 361	Sampling Methods	3
		Minor 3	
		Minor 4	
Total Credit Hours in Semester			**15**

FOURTH YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	STAT 481	Multivariate Analysis	3
		Major Elective 1	
		Major Elective 2	
		Minor 5	
		Minor 6	
Total Credit Hours in Semester			**15**
Spring	STAT 499	Graduation Project	3
		Major Elective 3	
		Major Elective 4	
		Minor 7	
		Minor 8	
Total Credit Hours in Semester			**15**

SPORTS SCIENCE PROGRAM

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ABOUT THE DEPARTMENT

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
2. Exercise and Fitness
3. Sport Management

The Bachelor's degree in Sport Science - Physical Education seeks to prepare future physical education teachers who will be able to work efficiently with students of different educational stages and diverse areas of society, while following high professional and academic standards. These graduates will employ scientific inquiry and assessment, using appropriate instructional strategies and technology.
The Bachelor's degree in Sport Science - Exercise and Fitness focuses on enhancing the human condition by preparing graduates for careers in fitness-related health, and providing the Qatari workplace and society with fitness professionals possessing applied and academic skills and competencies. Furthermore, becoming a professional coach for various sports (individual and team sports) is part of the study plan.
The Bachelor's degree in Sport Science - Sport Management seeks to prepare competent leadership in sports, as well as create and disseminate managerial knowledge in sport business and industry. The goal of the program is to create a collaborative and nurturing learning environment for analyzing and resolving the challenges in the business, management, and culture of sports. With this as a foundation, students can enter the business and management world with knowledge, preparation, and the confidence to assume leadership positions.

BACHELOR OF SCIENCE IN SPORT SCIENCE

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 generate the context of recognizing cultural diversity; representations of the human body; learning the impact of social, economic, and political forces; experiencing exercise, sport and allied health settings.
• The program will help the students to formulate an enhancing communication in requiring essay and analytical writing; presenting ideas in career-related setting; counseling listening to, and advising others.
• The program will facilitate the students problem solving skills. Thinking creatively and synthesizing information for integrative solutions.
• The program will introduce the students to criticize information: with internet and web-based technology; with laboratory equipment and instrumentation; and collecting, analyzing and preparing data for presentation.

Major Declaration
In order to declare a major in Sport Science, applicants must satisfy the minimum high school percentage requirement for the major in the semester of admission. In addition, applicants must either successfully complete all requirements of the Foundation Program, or satisfy the University's competency requirements. A minimum score of 450 on the TOEFL (or equivalent) is required.

Additional Requirements
• Medical clearance for participating in physical activity. • All applicants to the Sport Science Program will be required to appear for a personal interview. The interview will take place after the Physical Fitness Test, at the same day.

Learning Outcomes
• Discuss public Physical Activity as a broad and complex domain of practice and inquiry.
• Describe the principles of physiology, psychology and its connection to training, testing, and programming.
• Apply research skills to generate well-formed questions that integrate core knowledge to scientific fields of sport.
• Analyze data and develop solutions for sports related problems.
• Argue on public health and sport related issues effectively
• Manage sport related projects in the public and private sector.
• Additional Learning Outcomes for the Sport Management Concentration Area
• Solve Sport management related problems
• Make decisions in complex environments of Sport management and Sport marketing.
• Discuss the economical responsibilities in Sport marketing.
• Additional Learning Outcomes for the Exercise and Fitness Concentration Area
• Explain the pathophysiology of non-communicable diseases.
• Manage public health programs and physical activity related interventions.
• Develop strategies to prevent non-communicable diseases for individuals and communities.
• Additional Learning Outcomes for the Physical Education Concentration Area
• Plan and implement effective instruction to maximize student learning in physical education.
• Integrate the knowledge into the physical education teaching practice
• Promote positive changes in Physical Education.

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 community advocates for fitness and healthy lifestyles.

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
• A minimum of 36 credit hours in concentration requirements

Core Curriculum Program (33 CH)
Common package (15 CH)
• ARAB 100 Arabic Language I
• ARAB 200 Arabic Language II
• ENGL 202 English Language I Post Foundation
• ENGL 203 English Language II Post Foundation
• DAWA 111 Islamic Culture

Social/Behavioral Sciences package (3 CH)
Courses in CCP defined Social/Behavioral Sciences package

Humanities /Fine Arts package (6 CH)
Courses in CCP defined Humanities/Fine Arts package. Students must complete a minimum of 3 Credit Hours from courses listed in the Qatar and Gulf History Sub-package which is part of the Humanities/Fine Arts package.

Natural Science/Mathematics package (3 CH)
Courses in CCP defined Natural Science/Mathematics Package. Students selecting the Sport Management Concentration Area are encouraged to complete the MATH 103 course listed in this package.

General Knowledge package (3 CH)
Courses in CCP defined General Knowledge package

General Skills package (3 CH)
Courses in CCP defined General Skills package

Major Requirements (51 CH)
Students must complete a minimum of 51 credit hours in Major required courses:
- BIOL 101 Biology I
- BIOM 211 Human Anatomy
- BIOM 215 Human Physiology
- SPSC 203 Exercise Physiology I
- SPSC 206 Research Methods in Exercise Science and Health
- SPSC 101 Traditional and New Games
- SPSC 400 Psycho-Social Aspects of Games
- SPSC 200 Theory and Practice Individual Sports I
- SPSC 204 Theory and Practice Individual Sports II
- SPSC 201 Theory and Practice (Team Sports) I
- SPSC 202 Theory and Practice (Team Sports) II
- SPSC 308 Sport Psychology
- SPSC 306 Motor Learning
- SPSC 210 Principles of Training and Coaching I
- SPSC 310 Principles of Training and Coaching II
- SPSC 401 Performance Analysis and Assessment
- SPSC 490 Sport Science Project

Concentration in Physical Education (36 CH)
Students must complete a minimum of 36 credit hours in concentration requirements.
- SPSC 209 Biomechanics and Movement Analysis
- EDUC 310 Foundation of Education in Qatar and School Reform
- SPSC 399 Physical Education in Schools
- SPSC 349 Developmental Psychology
- EDEC 411 Health and Safety of Young Children
- EDUC 317 Inclusive Classrooms
- EDUC 312 Curriculum and Assessment
- EDUC 316 Classroom Management
- 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 requirements and 9 CH in concentration supporting requirements.

Exercise and Fitness Concentration Core Requirements (27 CH)
- SPSC 209 Biomechanics and Movement Analysis
- SPSC 302 Fitness Testing and Training
- SPSC 303 Exercise and Metabolism
- SPSC 403 Exercise, Obesity and Diabetes
- SPSC 404 Exercise and Heart Disease
- SPSC 309 Exercise and Aging
- SPSC 318 Exercise Psychology
- SPSC 307 Exercise Physiology II
- SPSC 405 Testing and Exercise Prescription

Exercise and Fitness Concentration Supporting Requirements (9 CH)
Students must complete all courses listed below:
- SPSC 406 Concepts of Fitness and Nutrition
- SPSC 305 Sport Marketing and Management I
- SPSC 407 Sport Governance and Economics I
- SPSC 311 First Aid and CPR

Concentration in Sport Management (36 CH)
Students must complete a minimum of 24 credit hours in concentration requirements and 12 CH in concentration supporting requirements.

Sport Management Concentration Core Requirements (24 CH)
- MATH 119 Business Math I
- ECON 111 Principles of Microeconomics
- MAGT 101 Principles of Management
- ACCT 110 Financial Accounting
- MAKT 101 Principles of Marketing
- FINA 201 Principles of Finance
- ECON 112 Principles of Macroeconomics
- MAGT 306 International Business

Sport Management Concentration Supporting Requirements (12 CH)
- SPSC 305 Sport Marketing and Management I
- SPSC 409 Sport Marketing and Management II
- SPSC 407 Sport Governance and Economics I
- SPSC 410 Sport Governance and Economics II

Study Plan for Sport Management
Sports Science Program

FIRST YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	BIOL 101	Biology 1	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	BIOM 211	Human Anatomy	3
	BIOM 215	Human Physiology	3
	SPSC 200	Theory and Practice Individual Sport I	3
	Core Curriculum	Common Package	3
Total Credit Hours in Semester			**15**

THIRD YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	MAGT 101	Princ of Management	3
	ACCT 110	Finan Accounting	3
	ECON 111	Principles of Microeconomics	3
	SPSC 308	Sport Psychology	3
	CC	Humanities/Fine Arts	3
Total Credit Hours in Semester			**15**
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
Total Credit Hours in Semester			**18**

SECOND YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
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
Total Credit Hours in Semester			**15**
Spring	SPSC 204	Theory and Practice Individual Sport II	3
	SPSC 210	Principals of Training and Coaching I	3
	SPSC 306	Motor Learning	3
	Core Curriculum	Natural Sciences/ Mathematics Package	3
	Core Curriculum	Common Package	3
Total Credit Hours in Semester			**15**

FOURTH YEAR (27 credit hours)			
Term	Course #	Course Title	Credit Hours
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	
Total Credit Hours in Semester			**15**
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
Total Credit Hours in Semester			**12**

Study Plan for Exercise and Fitness Concentration

Sports Science Program

FIRST YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
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
Total Credit Hours in Semester			**15**
Spring	Core Curriculum	Social/Behavioral Sciences Package	3
	BIOM 211	Human Anatomy	3
	BIOM 215	Human Physiology	3
	SPSC 200	Theory and Practice Individual Sport I	3
	Core Curriculum	Common Package	3
Total Credit Hours in Semester			**15**

THIRD YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
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
Total Credit Hours in Semester			**15**
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
Total Credit Hours in Semester			**15**

SECOND YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
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
Total Credit Hours in Semester			**15**
Spring	SPSC 204	Theory and Practice 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
Total Credit Hours in Semester			**15**

FOURTH YEAR (33 credit hours)			
Term	Course #	Course Title	Credit Hours
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	
Total Credit Hours in Semester			**15**
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	
Total Credit Hours in Semester			**12**

Study Plan for Physical Education Concentration

Sports Science Program

FIRST YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
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
Total Credit Hours in Semester			**15**
Spring	Core Curriculum	Social/Behavioral Sciences Package	3
	BIOM 211	Human Anatomy	3
	BIOM 215	Human Physiology	3
	SPSC 200	Theory and Practice Individual Sport I	3
	Core Curriculum	Common Package	3
Total Credit Hours in Semester			**15**

THIRD YEAR (33 credit hours)			
Term	Course #	Course Title	Credit Hours
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
Total Credit Hours in Semester			**18**
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
Total Credit Hours in Semester			**15**

SECOND YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
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
Total Credit Hours in Semester			**15**
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
Total Credit Hours in Semester			**15**

FOURTH YEAR (27 credit hours)			
Term	Course #	Course Title	Credit Hours
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
Total Credit Hours in Semester			**15**
Spring	SPSC 499	Internship (7 weeks each)	6
	SPSC 490	Sport Science Project	3
	Core Curriculum	General Skills Package	3
Total Credit Hours in Semester			**12**

COLLEGE OF EDUCATION

College of Education Building
Phone: (974) 4403-5100 / 5118
E-mail: **dean-edu@qu.edu.qa**
Website: **http://www.qu.edu.qa/education**

Dean
Hissa Mohamed Sadiq

Associate Dean for Academic Affairs
Professor Yahya Al-Nakeeb

Assistant Dean for Student Affairs
Ms. Reem Khalid

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

DEPARTMENT OF EDUCATIONAL SCIENCES AND PSYCHOLOGICAL SCIENCES

DEPARTMENT OF EDUCATIONAL SCIENCES

Education Sciences Department, Room 109
Phone: (974) 4403-5134-5169
Email: **primb.ced@qu.edu.qa**
Website: **http://www.qu.edu.qa/education/primary_program/index.php**

Head
Ali Al-Rabai (Educational Sciences)

Program Coordinators
Aisha Fakhroo - Bachelor of Education in Primary Education coordinator
Ali Al-Rabai - Bachelor of Education in Secondary Education coordinator
Fatma Al-Mutawha - Diploma Programs Coordinator
Michael Romanowski - Educational Leadership Master Program Coordinator

Faculty

Professors:
Hissa Sadiq, Nassra Al Banai, Abdalla Al-Mannai, Ghadnana Ali Bin-Ali, Aisha Fakhroo, Michael Romanowski,

Associate Professors:
Ali Al-Rabai,, Mubaraka Al-Akraf, Badria Al-Ammari, Fatma Al-Moutawha, Ahmad Al-Saai, Badria Al-Mulla, , Abdullah Abu-Tineh.

Assistant Professors:
Hissa Ali Bin Ali, Latifa Al-Magseeb Maha Cherif, Mohammad Ragab and Adel Abu El Roos

Lecturers:
Noran Emara, Add Ms. Reem Khalid, Ms. Noran Emara, Huda Al-Kubaisi, Hadeel Al-Khatib, Aisha Al-Kaabi, Saba Mansour, Suha Abdelsatar

Teaching Assistants :
Sara Abdulrahman Al-Muftah, , Lamya Ibrahim Al-Eisa, , Israa Al Muftah

DEPARTMENT OF PSYCHOLOGICAL SCIENCES

Department of Psychological Sciences, Room 219
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Head
Asma Al-Attiyah (Department of Psychological Sciences)

Program Coordinators
Clayton Keller - Special Education Master Program Coordinator

Faculty

Professors:
Atman Ikhlef, Maryam Al-Flassi, Hissa Fakhroo, Yahya Al-Nakeeb

Associate Professors:
Asma Al-Attiyah, Fatima Al-Maadadi , Ahmed Al-Emadi, Batoul Khaliefa, Clayton Keller, Chris Coughlin, Ahmed Magrya, Hatem Al-Khamra, Fathi Ihmeideh

Assistant Professors:
Alanood Al-Thani, Tamader Al-Thani, Maha Al-Hendawi, Aisha Al-Thani

Teaching Assistants
Aisha Ahmadi

Teachers (Early Childhood Center)
Amna Al Mogaisseb, Jawza Al Shammari, Iman Shaar

ABOUT THE DEPARTMENTS

The Department of Educational Sciences and The Department of Psychological Sciences 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 - PROGRAMS:

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 a world class education.
• Develop teacher-leaders, who will contribute to ongoing progress in teaching, scholarship, and leadership in Qatar.

Major Declaration
In order to declare a major in Primary Education, applicants must satisfy the minimum high school percentage requirement for the major in the semester of admission.

Learning Outcomes
Graduates from this major will:
• Demonstrate knowledge of how primary-aged children grow and develop, and how that impacts their learning.
• Use their knowledge of the processes of educational reform in Qatari society to design cutting-edge educational programs for their students.
• Incorporate modern methods of teaching, including educational technology, into their own educational practices.
• Understand and apply current educational research methods to better their teaching practices.
• Engage in teaching practices that demonstrate a belief that all children can learn.

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.

DEGREE REQUIREMENTSS

B.Ed 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 requirements
• A minimum of 6 credit hours of major free electives
• A minimum of 45 credit hours of concentration requirements

Core Curriculum Requirements (33 CH)
Common package (15 CH)
Satisfying this package requirements depends on the concentration area selected by students. In addition to the three courses listed below, students selecting the Concentration area in Early Childhood, Arabic Studies, or Math and Science must complete the English I Sub-package. Students selecting the English/ESL concentration area must complete the English II Sub-package.
• ARAB 100 Arabic Language I
• ARAB 200 Arabic Language II
• DAWA 111 Islamic Culture

English I Sub-package (6 CH)
• ENGL 110 English I
• ENGL 111 English II

English II Sub-package (6 CH)
• ENGL 150 Essay Writing I
• ENGL 151 Advanced Reading Comprehension

Social/Behavioral Sciences package (3 CH)
Courses in CCP defined Social/Behavioral Sciences package

Humanities /Fine Arts package (6 CH)
Courses in CCP defined Humanities/Fine Arts package. Students must complete a minimum of 3 Credit Hours from courses listed in the Qatar and Gulf History Sub-package which is part of the Humanities/Fine Arts package.

Natural Science/Mathematics package (3 CH)
Courses in CCP defined Natural Science/Mathematics package

General Knowledge package (3 CH)
Only students selecting the English/ESL concentration area must complete this package requirements by completing 3 CH in courses listed in the CCP defined General Knowledge package. Students selecting other concentration areas must complete the Supplemental College/Program Core Requirements package.

General Skills package (3 CH)
Only students selecting a concentration area in English/ESL must complete this package requirements by completing 3 CH in courses listed in the CCP defined General Skills package. Students selecting other concentration areas must complete the Supplemental College / Program Core Requirements package.

Supplemental College / Program Core Requirements package (6 CH)
Only students selecting a concentration area in Early Childhood, Arabic Studies, or Math and Science must complete this package requirements by completing 6 CH from the courses listed below. Students selecting the English/ESL concentration area must satisfy the requirements of the General Knowledge and the General Skills packages.
• ENGL 250 English for Communication I
• ENGL 251 English for Communication II

Major Requirements (36 CH)
Students must complete 27 CH from the Major Core Requirements sub package and 9 CH from the Training Course Requirements sub-package.

Major Core Requirements (27 CH)
• EDUC 310 Foundations of Education in Qatar and School Reform
• EDUC 311 Applications in Second Language Acquisition
• 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

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 Free Electives (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
• PSYC 201 Introduction to Psychology
• PSYC 205 Social Psychology

• EDUC 203 Family Relationships
• EDUC 100 Photography

Concentration in Early Childhood (45 CH)
Students must complete a minimum of 45 credit hours by completing the following courses in concentration requirements:

Early Childhood Concentration Requirements (45 CH)
• 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 101 Biology I
• BIOL 102 Biology II
• MATH 103 Intermediate Algebra
• GEOG 110 General Geography
• ENGL 150 Essay Writing I
• ENGL 156 Introduction to Literature I
• ARAB 213 Grammar I
• DAWA 113 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:

Math and Science Concentration Requirements: (45 CH)
• 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:

Arabic Studies Concentration Requirements: (45CH)
• EDPR 446 Teaching Primary Level Arabic
• EDPR 447 Teaching Primary Level Islamic Studies
• EDPR 448 Teaching Primary Level Social Studies
• HIST 111 History of the Muslim World I (600 –1187)
• 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
• ISLA 103 Quranic Exegesis
• ISLA 105 Analytical Hadith
• DAWA 113 Philosophy of Sirah
• ISLA 106 Jurisprudence of Worship

Concentration in English/ESL (45 CH)
Students must complete a minimum of 45 credit hours by completing the following courses in concentration requirements:

English/ESL Concentration Requirements: (45 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 101 Biology I
• MATH 103 Intermediate Algebra
• MATH 104 Basic Geometry and Measures
• 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 305 First Language Acquisition
• ENGL 309 Second Language Acquisition
• ENGL 426 Children's Literature

1. Study Plan for the Math and Sciences Concentration

Bachelor of Education in primary Education

FIRST YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	core		3
	core		3
	core		3
	EDUC 310	Foundations of Educa-tion in Qatar and School Reform	3
	Elective		3
Total Credit Hours in Semester			**15**
Spring	core		3
	EDUC 312	Curriculum & Assessment	3
	Core		3
	EDUC 201	Research Methodology	3
	EDUC 315	Child Development & Learning	3
Total Credit Hours in Semester			**15**

THIRD YEAR (29 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	MATH 203	Basic Analysis	3
	ENGL 150	Essay Writing I	3
	EDUC 318	Integrating Visual Arts	3
	PHYS 183	Introduction to General Physics	3
	EDPR 452	Methods in Inquiry and Research	2
	SPSC 399	Physical Education in Schools	3
Total Credit Hours in Semester			**14**
Spring	Core		3
	EDPR 450	Teaching Primary Level Science	3
	EDUC 316	Classroom Management	3
	Core		3
	Core		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	Essay Writing I General Biology I	3
Total Credit Hours in Semester			**16**
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 311	Applications in Second Language Acquisition	3
Total Credit Hours in Semester			**18**

FOURTH YEAR (27 credit hours)			
Term	Course #	Course Title	Credit Hours
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	3
	Mathemat-ics	3	3
Total Credit Hours in Semester			**18**
Spring	EDUC 483	Student Teaching – Math and Science	9
Total Credit Hours in Semester			**9**

2. Study Plan for Early Childhood

Bachelor of Education in primary Education

FIRST YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	Core		3
	Core		3
	Core		3
	EDUC 310	Foundations of Educa-tion in Qatar and School Reform	3
	Elective		3
Total Credit Hours in Semester			**15**
Spring	Core		3
	EDUC 312	Curriculum & Assessment	3
	EDUC 201	Research Methodology	3
	core		3
	EDUC 315	Child Development & Learning	3
Total Credit Hours in Semester			**15**

THIRD YEAR (29 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	EDEC 412	Community Outreach and Resources	2
	Core		3
	EDUC 318	Integrating Visual Arts	3
	ENGL 156	Introduction to Litera-ture I	3
	DAWA 113	Philosophy of Sirah	3
Total Credit Hours in Semester			**14**
Spring	EDEC 453	Teaching Arabic Lan-guage for Young Children	3
	ARAB 213	Grammar I Arabic	3
	EDEC 452	Teaching Reading and Writing for Young Children	3
	BIOL 102	--- General Biology II	3
	EDUC 316	--- Classroom Manage-ment	3
Total Credit Hours in Semester			**15**

SECOND YEAR (34 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	GEOG 110	I General Geography	3
	BIOL 101	Experimental General Chemistry I	3
	Core		3
	EDUC 317	Inclusive Classrooms	3
	EDUC 313	--- Developing Literacy in Children	3
	ENGL 150	Essay Writing I	3
Total Credit Hours in Semester			**18**
Spring	EDUC 311	Applications in Second Language Acquisition	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
	core		3
Total Credit Hours in Semester			**16**

FOURTH YEAR (27 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	EDEC 456	ESL and Young Children	3
	Core	Integrated Social Studies for Young Children	3
	EDEC 454	Basic Ecology	3
	EDEC 413	Integrated Math and Science	3
	Core		3
	Core		3
Total Credit Hours in Semester			**18**
Spring	EDUC 481	Student Teaching\ Early Childhood	9
Total Credit Hours in Semester			**9**

3. Study Plan for Arabic Studies

Bachelor of Education in primary Education

FIRST YEAR (33 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	Core		3
	Core		3
	Core		3
	EDUC 310	Foundations of Educa-tion in Qatar and School Reform	3
	Elective		3
Total Credit Hours in Semester			**15**
Spring	core		3
	EDUC 312	Curriculum & Assessment	3
	Core		3
	EDUC 201	Research Methodology	3
	EDUC 315	Child Development & Learning	3
Total Credit Hours in Semester			**15**

THIRD YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	GEOG110	General Geography	3
	ISLA 105	Analytical Hadith	3
	EDUC 318	Integrating Visual Arts	3
	ARAB 319	Arabic Grammar II	3
	EDPR 446	Teaching Primary Level Arabic	3
Total Credit Hours in Semester			**15**
Spring	EDPR 448	Teaching Primary Level Social Studies	3
	HIST 213	--- Modern Arab History (1516 – 1919	3
	EDUC 316	Classroom Management	3
	Core		3
	Core		3
Total Credit Hours in Semester			**15**

SECOND YEAR (33 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ISLA 103	--- Quranic Exegesis	3
	HIST 111	History of the Muslim World 1 (600-1187)	3
	ARAB 218	Morphology	3
	EDUC 313	Developing Literacy in Children	3
	EDUC 317	Inclusive Classrooms	3
Total Credit Hours in Semester			**15**
Spring	EDUC 311	Applications in Second Language Acquisition	3
	Core		3
	EDUC 314	-- Technology for Children	3
	ARAB 110	Introduction to Language and Literature	3
	DAWA 113	Philosophy of Sirah	3
	ARAB 213	Arabic Grammar 1	3
Total Credit Hours in Semester			**18**

FOURTH YEAR (27 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	Core		3
	HIST 222	The Gulf in Modern Period	3
	EDPR 447	Teaching Primary Level Islamic Studies	3
	ISLA 106	Jurisprudence of Worship	3
	EDUC 314	Technology for Children	3
	Core		3
	Core		3
Total Credit Hours in Semester			**18**
Spring	EDAR 482	Student Teaching \Arabic Studies	9
Total Credit Hours in Semester			**9**

4. Study Plan for English

Bachelor of Education in primary Education

FIRST YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	core		3
	core		3
	core		3
	EDUC 310	Foundations of Educa-tion in Qatar and School Reform	3
	Elective		3
Total Credit Hours in Semester			**15**
Spring	Core		3
	EDUC 312	Curriculum & Assessment	3
	EDUC 201	Research Methodology	3
	Core		3
	EDUC 315	Child Development & Learning	3
Total Credit Hours in Semester			**15**

THIRD YEAR (33 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	core		3
	core		3
	EDUC 318	Integrating Visual Arts	3
	ENGL 305	First Language Acquisi-tion	3
	EDPR 453	Teaching Primary Level English I	3
	Core		3
Total Credit Hours in Semester			**18**
Spring	EDPR 455	Teaching Primary Level Reading	3
	EDPR 454	Teaching Primary Level English II	3
	core		3
	Math 104	--- Basic Geometry and Measures	3
	EDUC 316	-- Classroom Manage-ment	3
	Elective		3
Total Credit Hours in Semester			**15**

SECOND YEAR (33 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	BIOL 101	--- General Biology I	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
Total Credit Hours in Semester			**15**
Spring	EDUC 314	Technology for Children	3
	ENGL 153	Essay Writing I I	3
	MATH 103	Intermediate Algebra	3
	ENGL 157	Introduction to Linguistics	2
	ENGL 158	Introduction to Literature II	3
	EDUC 311	Applications in Second Language Acquisition	3
Total Credit Hours in Semester			**18**

FOURTH YEAR (24 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	EDPR 410	Reading and Writing in all Disciplines	3
	Core		3
	ENGL 309	Second Language Acqui-sition	3
	ENGL 426	Children's Literature	3
	Core		3
Total Credit Hours in Semester			**15**
Spring	EDER 481 EDUC 484	Student Teaching \ English	9
Total Credit Hours in Semester			**9**

DEGREE REQUIREMENTS FOR B.ED 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 core requirements
• A minimum of 6 credit hours of major electives
• A minimum of 45 credit hours of concentration requirements

Core Curriculum Requirements (33 CH)
Common package (15 CH)
Satisfying this package requirements depend on the concentration area selected by students. In addition to the course on Islamic Culture listed below students must complete one of the language sub-packages. Students selecting the Concentration area in Arabic Language must complete the Language I Sub-package. Students selecting a concentration area in Islamic Studies or Social Studies must complete the Language II Sub-package. Students selecting the Mathematics, Biology, Physics, or Chemistry concentration area must complete the Language III Sub-package. Students selecting the English concentration area must complete the Language IV Sub-package.
• DAWA 111 Islamic Culture

Language I sub-package (12 CH)
• ARAB 109 Language Skills
• ARAB 110 Intro to Literature and Language
• ENGL 110 English I
• ENGL 111 English II

Language II sub-package (12 CH)
• ARAB 100 Arabic Language I
• ARAB 200 Arabic Language II
• ENGL 110 English I
• ENGL 111 English II

Language III sub-package (12 CH)
• ARAB 100 Arabic Language I
• ARAB 200 Arabic Language II
• ENGL 202 English Language I Post Foundation
• ENGL 203 English Language II Post Foundation

Language IV sub-package (12 CH)
• ARAB 100 Arabic Language I
• ARAB 200 Arabic Language II
• ENGL 150 Essay Writing I
• ENGL 151 Advanced Reading Comprehension

Social/Behavioral Sciences package (3CH)
Courses in CCP defined Social/Behavioral Sciences package

Humanities /Fine Arts package (6 CH)
Courses in CCP defined Humanities/Fine Arts package. Students must complete a minimum of 3 Credit Hours from courses listed in the Qatar and Gulf History Sub-package which is part of the Humanities/Fine Arts package.

Natural Science/Mathematics package (3 CH)
Satisfying this package requirements depends on the concentration area selected by students. Students selecting the Concentration area in Arabic Language, Islamic Studies, Social Studies, English, Mathematics, biology or Chemistry concentration areas must complete one course from the list of courses defined in the CCP Natural Science/Mathematics package. Students selecting the Physics concentration area must complete the following course:
• GEOL 101 Principles of Geology

General Knowledge package (3 CH)
Only students selecting a concentration area in English, Mathematics, Biology, Physics, or Chemistry must complete this package requirements by completing 3 CH in courses listed in the CCP defined General Knowledge package. Students selecting other concentration areas must complete the Supplemental College / Program Core Requirements package.

General Skills package (3 CH)
Only students selecting a concentration area in English, Mathematics, Biology, Physics, or Chemistry must complete this package requirements by completing 3 CH in courses listed in the CCP defined General Skills package. Students selecting other concentration areas must complete the Supplemental College / Program Core Requirements package.

Supplemental College /Program Core Requirements package (6 CH)
Only students selecting a concentration area in Arabic Language, Islamic Studies, or Social Studies must complete this package requirements by completing 6 CH from the courses listed below. Students selecting the English, Mathematics, Biology, Physics, or Chemistry concentration areas must satisfy the requirements of the General Knowledge and the General Skills packages.
• ENGL 250 English for Communication I
• ENGL 251 English for Communication II

Major Core Requirements (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 320 Human Development
• EDSE 332 Second Language Acquisition in the Secondary Classroom
• 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 (6 CH)
Students must take a minimum of 6 credit hours from the list of courses listed below:
• EDUC 100 Photography
• EDUC 200 Education and Societal Problems
• EDUC 201 Research Methodology
• EDUC 203 Family Relationships
• PSYC 201 Introduction to Psychology
• PSYC 205 Social Psychology

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 Literary Research; Sources and Methods
• 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 42 credit hours from the English/ESL Concentration Requirements package and a minimum of 3 credit hours from the English/ESL Concentration Supplementary Requirements package.

English/ESL Concentration Requirements (42 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 226 History of the English Language
- ENGL 230 Professional Writing
- ENGL 303 Sociolinguistics
- ENGL 305 First Language Acquisition
- ENGL 330 The Short Story•
- ENGL 353 Sounds of English
- ENGL 354 Structure of the English Language
- TRAN 312 Linguistic Comparison of Arabic and English
- ENGL 408 Post-Colonial Literature

English/ESL Concentration Supplementary Requirements (3CH)
- ENGL 209 Language and Society
- ENGL 213 Language and Culture
- ENGL 234 Language and Gender

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 357 Geography of the World
- GEOG 441 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
- INTA 206 Globalization
- 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
- MARS 101 Introduction to Marine Science
- PHYS 183 Introduction to General Physics
- CHEM 101 General Chemistry I
- CHEM 103 Experimental General Chemistry I
- BIOL 102 Biology II
- BIOL 110 Human Biology
- BIOL 212 Genetics
- BIOL 221 Basic Ecology
- BIOL 241 Microbiology
- BIOL 311 Molecular Biology
- BIOL 312 Animal Histology
- BIOL 321 Principles of Environmental Biology
- BIOL 467 Regional Ecosystem
- BIOL 422 Environmental Mgmt and Conservation

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 209 Fundamentals in Organic Chemistry
- CHEM 212 Organic Chemistry II
- CHEM 213 Experimental Organic Chem
- CHEM 221 Inorganic Chemistry I
- CHEM 222 Experimental Inorganic Chem
- CHEM 231 Analytical Chemistry I
- CHEM 234 Experimental Analytical Chem
- CHEM 241 Physical Chemistry I
- CHEM 242 Experimental Physical Chemistry I
- CHEM 321 Inorganic Chemistry II
- CHEM 331 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
- GENG 106 Computer Programming
- 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 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)
- ISLA 101 Studies in Islamic Creed
- ISLA 102 Quranic Sciences
- ISLA 103 Quranic Exegesis
- ISLA 104 Sciences of Hadith
- ISLA 105 Analytical Hadith
- ISLA 106 Fiqh of Worship
- ISLA 205 Intellectual Foundations of Islamic Civilization
- ISLA 302 Family Law
- ISLA 308 Contemporary Intellectual Trends
- DAWA 207 Islamic Institutions
- DAWA 214 Textual Study of the Quran
- FIQH 303 Fiqh of Zakat and Awqaf
- USUL 335 Contemporary Studies in Quran and Sunna
- USUL 407 Thematic Exegesis
- USUL 439 Contemporary Muslim World

Study Plan for Secondary Education

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
Total Credit Hours in Semester			**15**
Spring		General Core	3
		General Core	3
	EDUC 312	Curriculum and Assessment	3
	EDUC 320	Human Development	3
		Concentration Course	3
		Concentration Course	3
Total Credit Hours in Semester			**18**

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
Total Credit Hours in Semester			**15**
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
Total Credit Hours in Semester			**18**

THIRD YEAR (33 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall		General Core	3
	EDSE 332	Second Language Acquisition in Second Language	3
		General Core	3
		Concentration Course	3
		Concentration Course	3
Total Credit Hours in Semester			**15**
Spring	EDSE 34x	Methods I: Instructional Strategies for X	3
		Concentration Course	3
		Concentration Course	3
		Concentration Course	3
		Concentration Course	3
Total Credit Hours in Semester			**15**

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
Total Credit Hours in Semester			**15**
Spring	EDSE 491	EDSE 491 Student Teaching in Secondary Education	9
Total Credit Hours in Semester			**9**

COLLEGE OF BUSINESS AND ECONOMICS

College of Business and Economics Building (Female's Section)
Phone: (974) 4403-5000 / 5005
E-mail: **bus-econ@qu.edu.qa**
Website: http://www.qu.edu.qa/business

Dean
Nitham Mohd. Hindi

Associate Dean for Academic Affairs
Adam Fadlalla

Associate Dean for Research and Graduate Studies
Belaid Aouni

Assistant Dean for Student Affairs
Bakri Soubra

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 disciplines, 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 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

DEPARTMENT OF ACCOUNTING AND INFORMATION SYSTEMS

College of Business and Economics Building
Room C123
Phone: (974) 4403-5055
E-mail: **accounting@qu.edu.qa**
Website: **http://www.qu.edu.qa/business/accounting/index.php**

Head
Helmi Hammami

Faculty

Professors:
Khaled Alshare, Adam Fadlalla, Nitham Hindi

Associate Professors:
Khaled Al-Khater, Emad Awadallah

Assistant Professors:
Rajab Abdallah, Zaki Abu Shawish, Husam Aldamen, Helmi Hammami, Shahriar Saadullah, Fethi Saidi, Habib Ullah Khan, Jennifer Ziegelmayer, Ghassan Al-Mardini, Ousama Anam, Mustafa Abdulkarim, Mohammad Elbashir, Mazen El-Masri, Hany Kamel, Yaseen Al-Janadi, Mohammad Alomari, Mohamed Nagy Osman, Adel Elgharabawy, Hazem Ismael Ramadan.

ABOUT THE DEPARTMENT

The Department of Accounting and information Systems offers a major in Accounting and a minor in 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 to solve business problems.

BACHELOR OF BUSINESS ADMINISTRATION IN ACCOUNTING

Objectives
The Accounting 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 high quality academic, technical and professional knowledge to pursue a career in accounting.
• Prepare students with technical and analytical skills and competencies in accounting.
• Incorporate ethical issues in business decision making.
• Conduct research that contributes to professions of accounting.
• Promote effective interaction with the business community.

Major Declaration
In order to declare a major in Accounting, students should have completed a minimum of 45 credits and be in good academic standing. Students should obtain approval from their academic advisors, head of department, and associate dean for student affairs.

Learning Outcomes
Graduates of the Bachelor of Business Administration in Accounting are expected to:
• Demonstrate effective written communication skills;
• Demonstrate effective oral communication skills;
• Utilize information technology in making business decisions;
• Incorporate the ethical dimensions in business decision-making;
• Work effectively in teams;
• Solve accounting related problems
• Incorporate the social responsibility dimensions in business decision-making.

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.

DEGREE REQUIREMENTS

Major in Accounting
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 university 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
• A minimum of 9 credit hours in major electives
• A minimum of 15 credit hours in minor or no minor requirements and electives
• A minimum of 5 credit hours in University free elective requirement

Core Curriculum Program Requirements (33 credit hours)
Common package (15 CH)
• ARAB 100 Arabic Language I
• ARAB 200 Arabic Language II
• ENGL 110 English I
• ENGL 111 English II
• DAWA 111 Islamic Culture

Social/Behavioral Sciences package (3CH)
Courses in CCP defined Social/Behavioral Sciences package

Humanities /Fine Arts package (6 CH)
Courses in CCP defined Humanities/Fine Arts package. Students must complete a minimum of 3 Credit Hours from courses listed in the Qatar and Gulf History Sub-package which is part of the Humanities/Fine Arts package.

Natural Science/Mathematics package (3 CH)
• Math 103 Intermediate Algebra

Supplemental College/Program core requirements package (6 CH)
• ENGL 250 English for Communication I
• ENGL 251 English for Communication II

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

Major Requirements (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 (9 CH)
Students must complete a minimum of 9 credit hours in courses selected from the following list:
• ACCT 411 Governmental Accounting
• ACCT 413 Auditing II
• ACCT 418 Advanced 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. 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.

University Free Elective Requirements (5 CH)
Students must complete a minimum of 5 credit hours in free university electives

Minor in Accounting (15 CH)
Students must complete a minimum of 12 CH in the minor core requirements and a minimum of 3 CH in the minor electives

Minor in Accounting Core Requirements (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

Accounting Minor Electives (3 CH)
Students seeking a minor in Accounting must complete 3 CH from the following courses:
• ACCT 411 Government Accounting
• ACCT 413 Auditing II
• ACCT 418 Advanced Accounting
• ACCT 421 Accounting Information Systems
• ACCT 424 International Accounting
• ACCT 428 Financial Statements Analysis

Minor in Management Information Systems (15 CH)
Students must complete a minimum of 12 CH in the minor core requirements and a minimum of 3 CH in the minor electives

Management Information Systems Minor Core Requirements (12 CH)
Students seeking a minor in Management Information Systems must complete the following courses:
• MIST 301 Introduction to Programming
• MIST 302 Database Management Systems
• MIST 303 Systems Analysis and Design
• MIST 304 Data Communication and Networking

Management Information Systems Minor Electives (3 CH)
Students seeking a minor in Management Information Systems must complete 3 CH from the following courses:
• MIST 401 Internet Applications Development
• MIST 402 Enterprise Systems and Applications
• MIST 403 Project Management for Information Systems
• MIST 404 Information Technology for Financial Services
• MIST 405 Innovation with Information Technology
• MIST 406 Principles of Information Security

Study Plan for Accounting Major

Bachelor of Business Administration in Accounting

FIRST YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ENGL110	English I	3
	ARAB100	Arabic Language	3
	XXXXNNN	Humanities/Fine Arts Package	3
	XXXXNNN	Social/Behavioral Sciences Package	3
	DAWA 111	Islamic Culture	3
Total Credit Hours in Semester			**15**
Spring	ENGL111	English II	3
	XXXNNN	Qatar & Gulf History Package	3
	ARAB200	Arabic Language II	3
	MATH103	Intermediate Algebra	3
	MAGT101	Principles of Management	3
Total Credit Hours in Semester			**15**

SECOND YEAR (36 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ENGL250	English for Commnication	3
	STAT220	Business Stat I	3
	MATH119	Business Math I	3
	ECON111	Microeconomics	3
	MAKT101	Principles of Marketing	3
	ACCT110	Financial Accounting	3
Total Credit Hours in Semester			**18**
Spring	FINA201	Principles of Finance	3
	STAT222	Business Stat II	3
	ACCT116	Managerial Accounting	3
	ECON112	Macroeconomics	3
	MATH221	Business Math II	3
	ENGL251	English for Communication II	3
Total Credit Hours in Semester			**18**

THIRD YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ACCT221	Intermediate Accounting I	3
	ACCT331	Cost & Management Accounting	3
	MAGT304	Production & Operations Management	3
	XXXXNNN	Course from Minor or Free College Elective	3
	MIST201	Introduction to MIS	3
Total Credit Hours in Semester			**15**
Spring	ACCT222	Intermediate Accounting II	3
	ACCT333	Auditing I	3
	XXXXNNN	Course from Minor or Free College Elective	3
	LAWC215	Business Law	3
	MAGT307	Internship in Business (Summer Only)	3
Total Credit Hours in Semester			**15**

FOURTH YEAR (29 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ACCT-MMM	Accounting Elective	3
	XXXXNNN	University Free Elective	2
	ACCT421	Accounting Information Systems	3
	ACCTNNN	Accounting Elective	3
	XXXXNNN	Course from Minor or Free College Elective	3
Total Credit Hours in Semester			**14**
Spring	XXXXNNN	University Free Elective	3
	ACCTNNN	Accounting Elective	3
	XXXXNNN	Course from Minor or Free College Elective	3
	XXXXNNN	Course from Minor or Free College Elective	3
	MAGT405	Strategic Management	3
Total Credit Hours in Semester			**15**

DEPARTMENT OF FINANCE AND ECONOMICS

College of Business and Economics Building
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Head
Khalid Shams Abdulqader

Faculty

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Assistant Professors:
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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:
• Providing a rigorous, thorough, and meaningful education in Economics for our undergraduate students.
• Providing our students with an awareness of economic institutions, concepts, and problems; and to use that awareness to develop the ability to think like an economist when making decisions.
• Providing service to our constituents by giving talks, responding to inquiries, and responding through the popular press to economic issues.
• Promoting an understanding of the economy by conducting applied economic analysis for industry, non-profit institutions, and government.
• Providing a well-balanced combination of high quality teaching and research.

Major Declaration
In order to declare a major in Economics, students should have completed a minimum of 45 credits and be in good academic standing. Students should obtain approval from their academic advisors, head of department, and associate dean for student affairs.

Learning Outcomes
Upon the successful completion of a Bachelor of Business and Economics majoring in Finance, a student will be able to:
1. Demonstrate effective written and oral communications skills.
2. Utilize information technology in making business decisions.
3. Appreciate social responsibilities and ethical dimensions of business decision- making.
4. Foster global perspective in both appreciation and application.
5. Able to solve economics-related problems.

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.

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 university 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
• A minimum of 9 credit hours in major electives
• A minimum of 15 credit hours in minor or no minor

requirements and electives
• A minimum of 5 credit hours in University free elective requirement

Core Curriculum Program Requirements (33 credit hours)
Common package (15 CH)
• ARAB 100 Arabic Language I
• ARAB 200 Arabic Language II
• ENGL 110 English I
• ENGL 111 English II
• DAWA 111 Islamic Culture

Social/Behavioral Sciences package (3CH)
Courses in CCP defined Social/Behavioral Sciences package

Humanities /Fine Arts package (6 CH)
Courses in CCP defined Humanities/Fine Arts package. Students must complete a minimum of 3 Credit Hours from courses listed in the Qatar and Gulf History Sub-package which is part of the Humanities/Fine Arts package.

Natural Science/Mathematics package (3 CH)
• Math 103 Intermediate Algebra

Supplemental College / Program core requirements package (6 CH)
• ENGL 250 English for Communication I
• ENGL 251 English for Communication II

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

Major Requirements (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 (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 Management Information Systems, in Finance, in Accounting, in Management, in Marketing, 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.

University Free Elective Requirements (5 CH)
Students must complete a minimum of 5 credit hours in free university electives

MINOR IN ECONOMICS

The Minor in Economics is offered for students from the College of Business and Economics (CBE).

Minor in Economics (15 CH)
Students must complete a minimum of 12 CH in the minor core requirements and a minimum of 3 CH in the minor electives

Minor in Economics Core Requirements (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

Economics Minor Electives (3 CH)
Students seeking a minor in Economics must complete 3 CH from the following 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

Study Plan for Economics

Bachelor of Business Administration in Economics

FIRST YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ENGL110	English I	3
	ARAB100	Arabic Language	3
	XXXXNNN	Humanities/Fine Arts Package	3
	XXXXNNN	Social/Behavioral Sciences Package	3
	DAWA111	Islamic Culture	DAWA111
Total Credit Hours in Semester			**15**
Spring	ENGL111	English II	3
	XXXXNNN	Qatar & Gulf History Package	3
	ARAB200	Arabic Language II	3
	MATH103	Intermediate Algebra	3
	MAGT101	Principles of Management	3
Total Credit Hours in Semester			**15**

THIRD YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	MIST201	Introduction to MIS	3
	MAGT304	Production and Operations Mgmt	3
	ENGL251	English	3
	ECON 211	Intermediate Microeconomics	3
	ECON 214	Monetary Policy	3
	XXXXNNN	Course from Minor or Free College Elective	3
Total Credit Hours in Semester			**15**
Spring	ECON 212	Intermediate Microeconomics	3
	ECON 311	Econometrics	3
	XXXXNNN	Course from Minor or Free College Elective	3
	LAWC215	Business Law	3
	MAGT307	Internship in Business (Summer Only)	3
Total Credit Hours in Semester			**15**

SECOND YEAR (36 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ENGL250	English for Communication I	3
	STAT220	Business Stat I	3
	MATH119	Business Math I	3
	ECON111	Microeconomics	3
	MAKT101	Principles of Marketing	3
	ACCT110	Financial Accounting	3
Total Credit Hours in Semester			**18**
Spring	FINA201	Principles of Finance	3
	STAT222	Business Stat II	3
	ACCT116	Managerial Accounting	3
	ECON112	Macroeconomics	3
	ENGL251	English for Communication II	
	MATH221	Business Math II	3
Total Credit Hours in Semester			**18**

FOURTH YEAR (29 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall		University Free Elective	2
	ECON 453	International Economics	3
	ECONNNN	Economics Elective	3
	ECONNNN	Economics Elective	3
	XXXXNNN	Course from Minor or Free College Elective	3
Total Credit Hours in Semester			**14**
Spring	XXXXNNN	University Free Elective	3
	ECONNNN	Economics Elective	3
	XXXXNNN	Course from Minor or Free College Elective	3
	MAGT405	Strategic Management	3
	XXXXNNN	Course from Minor or Free College Elective	3
Total Credit Hours in Semester			**15**

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:
• Finance graduates will be effective communicators
• Finance graduates will be effective in using IT tools
• Finance graduates will be aware of the importance of the social responsibility in the financial environment
• Finance graduates will be effective global citizens
• Finance students will understand how to behave ethically in their professional lives

Major Declaration
In order to declare a major in Finance, students should have completed a minimum of 45 credits and be in good academic standing. Students should obtain approval from their academic advisors, head of department, and associate dean for student affairs.

Learning Outcomes
Upon the successful completion of a Bachelor of Business and Economics majoring in Finance, a student will be able to:
1. Demonstrate effective written communication skills;
2. Demonstrate effective oral communication skills;
3. Identify social responsibilities dimensions of finance decision-making;
4. Evaluate global perspective in finance;
5. Solve finance related problems using technology;
6. Ethical dimension of finance decision making.

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.

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 university 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
• A minimum of 9 credit hours in major electives
• A minimum of 15 credit hours in minor or no minor requirements and electives
• A minimum of 5 credit hours in University free elective requirement

Core Curriculum Program Requirements (33 credit hours)
Common package (15 CH)
• ARAB 100 Arabic Language I
• ARAB 200 Arabic Language II
• ENGL 110 English I
• ENGL 111 English II
• DAWA 111 Islamic Culture

Social/Behavioral Sciences package (3CH)
Courses in CCP defined Social/Behavioral Sciences package

Humanities /Fine Arts package (6 CH)
Courses in CCP defined Humanities/Fine Arts package. Students must complete a minimum of 3 Credit Hours from courses listed in the Qatar and Gulf History Sub-package which is part of the Humanities/Fine Arts package.

Natural Science/Mathematics package (3 CH)
• Math 103 Intermediate Algebra

Supplemental College/Program core requirements package (6 CH)
• ENGL 250 English for Communication I
• ENGL 251 English for Communication II

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
• 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

Major Requirements (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 (9 CH)
Students must complete a minimum of 9 credit hours in courses selected from the following list:
• 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

Minor or No Minor Requirements (15 CH)
Students with a major in Finance may choose a minor in Management Information Systems, in Accounting, in Economics, in Management, in Marketing, 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.

University Free Elective Requirements (5 CH)
Students must complete a minimum of 5 credit hours in free university electives

MINOR IN FINANCE

The Minor in Finance is offered for students from the College of Business and Economics (CBE).

Minor in Finance (15 CH)
Students must complete a minimum of 12 CH in the minor core requirements and a minimum of 3 CH in the minor electives.
Minor in Finance Core Requirements (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

Finance Minor Electives (3 CH)
Students seeking a minor in Finance must complete 3 CH from the following 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

Study Plan for Finance

Bachelor of Business Administration in Finance

FIRST YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ENGL110	English I	3
	ARAB100	Arabic Language I	3
	XXXXNNN	Humanities/Fine Arts Package	3
	XXXXNNN	Social/Behavioral Sciences Package	3
	DAWA111	Islamic Culture	3
Total Credit Hours in Semester			**15**
Spring	ENGL111	English II	3
	XXXXNNN	Qatar & Gulf History Package	3
	ARAB200	Arabic Language II	3
	MATH103	Intermediate Algebra	3
	MAGT101	Principles of Management	3
Total Credit Hours in Semester			**15**

SECOND YEAR (36 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ENGL250	English for Communication I	3
	STAT220	Business Stat I	3
	MATH119	Business Math I	3
	ECON111	Microeconomics	3
	MAKT	Principles of Marketing	3
	ACCT110	Financial Accounting	3
Total Credit Hours in Semester			**18**
Spring	FINA201	Principles of Finance	3
	STAT222	Business Stat II	3
	ACCT116	Managerial Accounting	3
	ECON112	Macroeconomics	3
	MATH221	Business Math II	3
	ACCT110	Financial Accounting	3
Total Credit Hours in Semester			**18**

THIRD YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	MIST201	Introduction to MIS	3
	MAGT304	Production and Operations Mgmt	3
	FINA 301	Corporate Finance	3
	FINA 302	Investments	3
	XXXXNNN	Course from Minor or Free College Elective	3
Total Credit Hours in Semester			**15**
Spring	FINA NNN	Finance Elective	3
	FINA 402	Personal Finance	3
	XXXXNNN	Course from Minor or Free College Elective	3
	LAWC215	Business Law	3
	MAGT307	Internship in Business	3
Total Credit Hours in Semester			**15**

FOURTH YEAR (29 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	XXXXNNN	University Free Elective	2
	XXXXNNN	Course from Minor or Free College Elective	3
	FINA 303	Financial Markets & Institutions	3
	FINANNN	Finance Elective	3
	XXXXNNN	Course from Minor or Free College Elective	3
Total Credit Hours in Semester			**14**
Spring	XXXXNNN	University Free Elective	3
	FINANNN	Finance Elective	3
	FINA 304	International Finance	3
	MAGT405	Strategic Management	3
Total Credit Hours in Semester			**15**

DEPARTMENT OF MANAGEMENT AND MARKETING

College of Business and Economics Building
Room C129
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E-mail: **manmark@qu.edu.qa**
Website: **http://www.qu.edu.qa/business/management/index.php**

Head
Rana Sobh

Faculty

Professors:
Marios Katsioloudes, Omar Ben Ayed, Belaid Aouni, Shobha Das.

Associate Professors:
Abdulkareem Awwad, Amit Das, , Khurram Sharif, Hend Abdul-Rahman Al Muftah, Rana Sobh, Baker Alserhan, Said Elbanna, Amro Maher, Najam US Saqib, Mohammed Nishat Faisal.

Assistant Professors:
Bader Al-Esmael, Khalid Mohamed Al-Horr, Galanou Ekaterini, Anas Al-Bakri, Ahmad Mehrez, , Ahmed Alamro, Abdel Latif Anouze, Abdullah Al Jafari, Dalia Farrag, Imene Becheur, Yasir Yasin, Tamer Elsharnouby,Nabil Ghantous.

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:

•To ensure that our academic programs and courses are relevant to current and emerging practice and reflect industry requirements
•To attract and retain qualified and talented students.
•To develop our students' ability to solve management related problems and make sound decisions in complex environments.

Major Declaration
In order to declare a major in Management, students should have completed a minimum of 45 credits and be in good academic standing. Students should obtain approval from their academic advisors, head of department, and associate dean for student affairs.

Learning Outcomes
Graduates of the Bachelor of Business Administration in Management are expected to:
• Demonstrate effective written communication skills.
• Demonstrate an understanding of human behavior and management of human resources in organizations.
• Demonstrate an understanding of sustainability dimensions in making managerial decisions.
• Demonstrate ability to critically analyze managerial issues and apply functional area knowledge to solve the problems.
• Demonstrate the ability to understand the global issues and their implications for organizations operating in a global economy.

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.

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 university 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
• A minimum of 9 credit hours in major electives
• A minimum of 15 credit hours in minor or no minor requirements and electives
• A minimum of 5 credit hours in University free elective requirement

Core Curriculum Program Requirements (33 CH)
Common package (15 CH)
• ARAB 100 Arabic Language I
• ARAB 200 Arabic Language II
• ENGL 110 English I
• ENGL 111 English II
• DAWA 111 Islamic Culture

Social/Behavioral Sciences package (3CH)
Courses in CCP defined Social/Behavioral Sciences package

Humanities /Fine Arts package (6 CH)
Courses in CCP defined Humanities/Fine Arts package. Students must complete a minimum of 3 Credit Hours from courses listed in the Qatar and Gulf History Sub-package which is part of the Humanities/Fine Arts package.

Natural Science/Mathematics package (3 CH)
• Math 103 Intermediate Algebra

Supplemental College/Program core requirements package (6 CH)
• ENGL 250 English for Communication I
• ENGL 251 English for Communication II

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

Major Requirements (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 (9 CH)
Students must complete a minimum of 9 credit hours in courses selected from the following list:
• 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
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 or the No minor option.

University Free Elective Requirements (5 CH)
Students must complete a minimum of 5 credit hours in free university electives

MINOR IN MANAGEMENT

The Minor in Management is offered for students from the College of Business and Economics (CBE).

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 in Management Core Requirements (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

Management Minor Electives (3 CH)
Students seeking a minor in Management must complete 3 CH from the following 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

Study Plan for Management

Bachelor of Business Administration in Management

FIRST YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ENGL110	English I	3
	ARAB100	Arabic Language	3
	XXXXNNN	Humanities/Fine Arts Package	3
	XXXXNNN	Social/Behavioral Sciences Package	3
	DAWA111	Islamic Culture	3
Total Credit Hours in Semester			**15**
Spring	ENGL111	English II	3
	XXXXNNN	Qatar & Gulf History Package	3
	ARAB200	Arabic Language II	3
	MATH103	Intermediate Algebra	3
	MAGT101	Principles of Management	3
Total Credit Hours in Semester			**15**

THIRD YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	MIST201	Introduction to MIS	3
	MAGT304	Production and Operations Mgmt	3
	MAGT 301	Organization Behavior	3
	MAGT 302	Human Resource Mgmt	3
	XXXXNNN	Course from Minor or Free College Elective	3
Total Credit Hours in Semester			**15**
	MAGT 306	International Business	3
	MAGTNNN	Management Elective	3
	XXXXNNN	Course from Minor or Free College Elective	3
	LAWC215	Business Law	3
	MAGT307	Internship in Business	3
Total Credit Hours in Semester			**18**

SECOND YEAR (36 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ENGL250	English for Communication I	3
	STAT220	Business Stat I	3
	MATH119	Business Math II	3
	ECON111	Microeconomics	3
	ECGL251	English for Communication II	3
Total Credit Hours in Semester			**18**
Spring	FINA201	Principles of Finance	3
	STAT222	Business Stat II	3
	ACCT116	Managerial Accounting	3
	MATH221	Business Math II	3
	ECON112	Macroeconomics	3
	ECGL251	English for Communication II	3
Total Credit Hours in Semester			**15**

FOURTH YEAR (29 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	XXXXNNN	University Free Elective	2
	MAGTNNN	Management Elective	3
	MAGT 303	Entrepreneurship and Small Business Management	3
	MAGTNNN	Management Elective	3
	XXXXNNN	Course from Minor or Free College Elective	3
Total Credit Hours in Semester			**14**
Spring	XXXXNNN	University Free Elective	3
	XXXXNNN	Course from Minor or Free College Elective	3
	MAGT 406	Total Quality Management	3
	MAGT405	Strategic Management	3
	XXXXNNN	Course from Minor or Free College Elective	3
Total Credit Hours in Semester			**15**

BACHELOR OF BUSINESS ADMINISTRATION IN MARKETING

Objectives
This major aims to prepare students for positions of leadership and responsibility in contemporary organizations. More specifically, the Marketing major focuses on the following objectives:
• To ensure that our academic programs and courses are relevant to current and emerging practice and reflect industry requirements.
• To attract and retain qualified and talented students.
• To develop our students' ability to solve marketing related problems and make sound decisions in complex environments.

Major Declaration
In order to declare a major in Marketing, students should have completed a minimum of 45 credits and be in good academic standing. Students should obtain approval from their academic advisors, head of department, and associate dean for student affairs.

Learning Outcomes
Graduates of the Bachelor of Business Administration in Marketing are expected to:
• Demonstrate effective written communication skills
• Demonstrate effective oral communication skills.
• Demonstrate an understanding of sustainability dimensions in making marketing decisions.
• Demonstrate the ability to critically analyze marketing issues and apply functional area knowledge to solve the problems.
• Demonstrate the ability to understand the global issues and their implications for organizations operating in a global economy.

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.

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 university 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
• A minimum of 9 credit hours in major electives
• A minimum of 15 credit hours in minor or no minor requirements and electives
• A minimum of 5 credit hours in University free elective requirement

Core Curriculum Program Requirements (33 CH)
Common package (15 CH)
• ARAB 100 Arabic Language I
• ARAB 200 Arabic Language II
• ENGL 110 English I
• ENGL 111 English II
• DAWA 111 Islamic Culture

Social/Behavioral Sciences package (3CH)
Courses in CCP defined Social/Behavioral Sciences package

Humanities /Fine Arts package (6 CH)
Courses in CCP defined Humanities/Fine Arts package. Students must complete a minimum of 3 Credit Hours from courses listed in the Qatar and Gulf History Sub-package which is part of the Humanities/Fine Arts package.

Natural Science/Mathematics package (3 CH)
• Math 103 Intermediate Algebra

Supplemental College /Program core requirements package (6 CH)
• ENGL 250 English for Communication I
• ENGL 251 English for Communication II

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

Major Requirements (15 CH)
Students must complete the following list of courses:
• MAKT 301 Consumer Behavior
• MAKT 302 Marketing Management
• MAKT 303 International Marketing
• MAKT 304 Strategic Marketing
• MAKT 401 Marketing Research

Major Electives (9 CH)
Students must complete a minimum of 9 credit hours in courses selected from the following list:
• MAKT 402 Sales Management
• MAKT 403 E-Marketing
• MAKT 404 Service Marketing
• MAKT 405 Promotion Management
• MAKT 406 Business-to Business Marketing

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.

University Free Elective Requirements (5 CH)
Students must complete a minimum of 5 credit hours in free university electives

MINOR IN MARKETING

The Minor in Marketing is offered for students from the College of Business and Economics (CBE).

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 core requirements and a minimum of 3 CH in the minor electives

Minor in Marketing Core Requirements (12CH)
Students seeking a minor in Marketing must complete the following courses:
• MAKT 301 Consumer Behavior
• MAKT 302 Marketing Management
• MAKT 303 International Marketing
• MAKT 401 Marketing Research

Marketing Minor Electives (3 CH)
Students seeking a minor in Marketing must complete 3 CH from the following courses:
• MAKT 304 Strategic Marketing
• MAKT 402 Sales Management
• MAKT 403 E-Marketing
• MAKT 404 Services Marketing
• MAKT 405 Promotion Management
• MAKT 406 Business-to Business Marketing

Study Plan for Marketing

Bachelor of Business Administration in Marketing

FIRST YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ENGL110	English I	3
	ARAB100	Arabic Language I	3
	XXXXNNN	Humanities/Fine Arts Package	3
	XXXXNNN	Social/Behavioral Sciences Package	3
	DAWA111	Islamic Culture	3
Total Credit Hours in Semester			**15**
Spring	ENGL111	English II	3
	XXXXNNN	Qatar & Gulf History Package	3
	ARAB200	Arabic Language II	3
	MATH103	Intermediate Algebra	3
	MAGT101	Principles of Management	3
Total Credit Hours in Semester			**15**

SECOND YEAR (36 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ENGL250	English for Communication I	3
	STAT220	Business Stat I	3
	MATH119	Business Math I	3
	ECON111	Microeconomics	3
	MAKT101	Principles of Marketing	3
	ACCT110	Financial Accounting	3
Total Credit Hours in Semester			**18**
Spring	FINA201	Principles of Finance	3
	STAT222	Business Stat II	3
	ACCT116	Managerial Accounting	3
	ECON112	Macroeconomics	3
	ENGL251	English for Communication II	3
	MATH221	Business Math II	3
Total Credit Hours in Semester			**18**

THIRD YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	MIST201	Introduction to MIS	3
	MAGT304	Production and Operations Mgmt	3
	MAKT 302	Marketing Management	3
	MAKT301	Consumer Behavior	3
	XXXXNNN	Course from Minor or Free College Elective	3
Total Credit Hours in Semester			**15**
	MAKT 303	International Marketing	3
	MAKT 304	Marketing Strategy	3
	XXXXNNN	Course from Minor or Free College Elective	3
	LAWC	Business Law	3
	MAGT307	Internship in Business	3
Total Credit Hours in Semester			**15**

FOURTH YEAR (29 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	XXXXNNN	University Free Elective	2
	MAKT401	Marketing Research	3
	MAKTNNN	Marketing Elective	3
	MAKTNNN	Marketing Elective	3
	XXXXNNN	Course from Minor or Free College Elective	3
Total Credit Hours in Semester			**14**
Spring	XXXXNNN	University Free Elective	3
	MAKTNNN	Marketing Elective	3
	XXXXNNN	Course from Minor or Free College Elective	3
	MAGT405	Strategic Management	3
	XXXXNNN	Course from Minor or Free College Elective	3
Total Credit Hours in Semester			**15**

MINOR INTERNATIONAL BUSINESS

The Minor in International Business is offered for students from the College of Business and Economics (CBE).

Minor in International Business (IB) (15 CH)
Students must complete the minor core requirements and a minimum of 3 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 the minor electives to complete the minor 15 CH requirement.

International Business Minor Core Requirements (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

International Business Minor Electives (3 CH)
Students must complete a minimum of 3 credit hours in courses selected from the following list:
- ACCT 424 International Accounting
- ECON 214 Monetary Policy
- FINA 303 Financial Markets & Institutions
- MAGT 305 Comparative Management
- MAGT 406 Total Quality Management
- MAKT 401 Marketing Research

MINOR IN ENTREPRENEURSHIP

The Minor in Entrepreneurship is offered for students from the College of Business and Economics (CBE).

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 core requirements and a minimum of 3 CH in the minor electives

Minor in Entrepreneurship Core Requirements (12 CH)
Students must complete a minimum of 12 credit hours in Minor required 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

Entrepreneurship Minor Electives (3 CH)
Students seeking a minor in Entrepreneurship must complete 3 CH in the following courses:
- AACT 331 Cost & management Accounting
- ACCT 421 Accounting Information Systems
- FINA 402 Personal Finance
- MAGT 302 Human Recourses Management
- MAKT 401 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.

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 core requirements as part of their major must take additional courses to complete the minor 24 CH requirement.

Minor in Business for Non-Business Core Requirements (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

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Abdelmagid Salem Hammuda

Associate Dean for Development and Industrial Relations
Saud Ghani

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.

DEGREE OFFERINGS

The College of Engineering offers the following undergraduate degree programs:

- Bachelor of Architecture
- Bachelor of Science in Architectural Engineering (closed to new students)
- Bachelor of Science in Chemical Engineering
- Bachelor of Science in Civil Engineering
- Bachelor of Science in Computer Engineering
- Bachelor of Science in Computer Science
- Bachelor of Science in Electrical Engineering
- Bachelor of Science in Industrial and Systems Engineering
- Bachelor of Science in Mechanical Engineering

DEPARTMENT OF ARCHITECTURE AND URBAN PLANNING

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Head
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Assistant Professors:
Djamel Boussaa, Fodil Fadli, Rania Khalil, Lizmol Mathew, Djamel Ouahrani, Hussam Salama, Anna Grichting Solder, M. Salim Ferwati, Shaibu Bala Garba

ABOUT THE DEPARTMENT

The unprecedented growth in the building and urban development industry, already considered the second largest industry in Qatar and the region, has created a pressing demand for architects and planners with specialized training to design, plan and direct the activities of the industry. Responding to these demands, the Department of Architecture and Urban Planning (AUP), the newest academic unit at QU's College of Engineering, offers innovative undergraduate and graduate programs committed to graduating professionals capable of creating and managing sustainable environments. These are: the Bachelor of Architecture (B.Arch.) five-year undergraduate professional degree, and Master of Urban Planning and Design (MUPD).
Our programs strike a balance between knowledge content and knowledge delivery, while implementing hands-on experiential, active, and outcome-based learning approaches. Our student intake is governed by a rigorous admission process. 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. Cognitive: Provide high-quality education that prepares students to assume professional roles in architecture, by offering sound knowledge in design theories and applications, building technology, social, cultural, and environmental factors, and the application of information technology.

2. Affective: Prepare students to work effectively in multi-disciplinary teams within the building industry by providing knowledge in built environment related disciplines relevant to ethical responsibilities and professional obligations in architecture.

3. Psychomotor: Prepare students to acquire and develop skills for creative problem-solving and lifelong learning, including critical thinking and assessment of existing environments, active and experiential learning for developing design concepts and solutions, and communication and presentation of those solutions to peers, clients, decision makers, and the public.

Major Declaration

In order to declare a major in Architecture, students must satisfy the College of Engineering admission requirements and go through the specialization phase; students are assigned to programs based on the students' choices and according to their score in the general secondary education certificate or its equivalent, and the capacity of the programs within the college. An aptitude test and a personal interview are primary requirements for declaring a major in architecture. All students must declare their major and join the program before completing 36 credit hours.

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 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 of architectural training in design consulting firms, construction companies, architectural engineering consultancies, or relevant government agencies.

Learning Outcomes

Under the general theme of sustainable built environments, the program learning outcomes are as follows:

• **Design**: Ability to conceptualize and coordinate designs, addressing social, cultural, environmental and technological aspects of architecture.
• **People**: Ability to recognize the dialectic relationship between people and the built environment in the GCC/ Arab region.
• **CAD**: Ability to apply and integrate computer technology in design processes and products.
• **Technology**: Ability to utilize cutting-edge building technology in design.
• **Communication**: Ability to apply visual and verbal communication skills at various stages of architectural design and project delivery processes.
• **Critical Thinking**: Ability to critically analyze building designs and conduct post-occupancy evaluation studies.
• **Research**: Ability to employ architectural research methods, including data collection and analysis to assess and propose improvements in existing built environments.
• **Collaboration:** Ability to work collaboratively with teams of architects and various interdisciplinary design teams involved in the building industry.
• **Equity**: Ability to recognize diversity of needs, values, behavioral norms, social patterns as they relate to the creation of the built environment.

The preceding learning outcomes are directly related to the course contents. However, they complement additional Student Performance Criteria (SPCs) mandated by the intended accreditation agency in architecture; the National Architectural Accrediting Board (NAAB) of Architecture Schools in North America.

Opportunities

Graduates of the 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 consulting houses, 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 planning, and built environment related disciplines, and eventually pursue advanced careers in architecture and built environment-related realm.

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 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 Civil Engineering Related courses.
• A minimum of 15 CH in Major Electives.
• A Compulsory non-credited summer practical training (12 weeks over 2 semesters)

Core Curriculum Requirements (33 CH)

Students must complete 33 CH from the CCP packages as detailed below

Common package (15 CH)

• ARAB 100 Arabic Language I
• ARAB 200 Arabic Language II
• ENGL 202 English Language I Post Foundation
• ENGL 203 English Language II Post Foundation
• DAWA 111 Islamic Culture

Social/Behavioral Sciences package (3 CH)

Any course in the CCP defines Social and Behavioral Sciences package

Humanities /Fine Arts package (6 CH)

Students must complete a minimum of 6 Credit Hours from the CCP defined Humanities and Fine Arts package with a minimum of 3 credit hours from courses listed in the Qatar and Gulf History Sub-package, which is part of the Humanities/Fine Arts package.

Natural Science/Mathematics package (3 CH)

• MATH 101 Calculus I

General Knowledge package (3 CH)

Any course in the CCP defines general knowledge package

General Skills package (3 CH)

Any course in the CCP defines general skills package

College Requirements (7 CH)

• 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 courses selected from the following list:
• GENG 106 Computer Programming
• GENG 107 Engineering Skills and Ethics
• GENG 360 Engineering Economics
• IENG 330 Operations Research
• MECH 485 Engineering Management

Major Requirements (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) Civil Engineering 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

F) Major Electives (15 CH)
Students must complete a minimum of 15 credit hours in elective courses selected from the following list:
- 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	English Language I Post Foundation	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
Total Credit Hours in Semester			**16**

THIRD YEAR (36 credit hours)			
Term	Course #	Course Title	Credit Hours
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
	ARCT XXX	Major Elective I	3
Total Credit Hours in Semester			**18**
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)	3
	ARCT XXX	Major Elective II	
	ARAB 200	Arabic Language II	3
Total Credit Hours in Semester			**18**
Summer	ARCT 400	Practical Training I	6 weeks
Total Credit Hours in Semester			**18**

FOURTH YEAR (34 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ARCT 410	Architectural Design Studio V	5
	ARCT 530	Construction and Project Management	3
	ARCT XXX	Major Elective III	3
	XXXX XXX	Core Curriculum Elective (Humanities / Fine Arts Package)	3
	XXXX XXX	College Elective	3
Total Credit Hours in Semester			**17**
Spring	ARCT 411	Architectural Design Studio VI	5
	ARCT 422	Research Methods in Architecture and Urban Design	3
	ARCT XXX	Major Elective IV	3
	XXXX XXX	Core Curriculum Elective	3
	XXXX XXX	Core Curriculum Elective	3
Total Credit Hours in Semester			**17**
Summer	**ARCT500**	**Practical Training II**	**6 weeks**
Total Credit Hours in Semester			**17**

FIFTH YEAR (27 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ARCT 510	Comprehensive Design Studio	6
	ARCT 511	Senior Project Preparation and Programming	2
	XXXX XXX	Core Curriculum Elective (General Knowledge Package)	3
	ARCT XXX	Major Elective V	3
Total Credit Hours in Semester			**14**
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
Total Credit Hours in Semester			**13**

DEPARTMENT OF CIVIL AND ARCHITECTURAL ENGINEERING

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Head
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Faculty

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Associate Professors:
Mohammed Al-Ansari, Saleh Mubarak, Riyadh Al-Raoush, Usama Ebead

Assistant Professors:
Omar Al-Ansari, Hassan Al-Derham, Nasser Al-Nuaimi, Alaa Hawari, Khalid Naji, Khaled Salah Shaaban, Okan Sirin, Onur Avci, Wael Al-Nahhal.

ABOUT THE DEPARTMENT

The Department of Civil & Architectural Engineering is one of the six departments that constitute the College of Engineering at Qatar University. The role of the department is central to the future growth and development of Qatar, especially in light of hosting of the Football World Cup in 2022. The department currently offers one program - civil engineering, which focuses on developing the knowledge and skills needed for engineering professionals to become aligned with Qatar's needs and future plans for the 21st century.
The department also provides the State of Qatar with highly qualified engineers to meet the need of the civil engineering disciplines in the local labor market.

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.

Major Declaration
In order to declare a major in civil engineering, students must satisfy the College of Engineering admission requirements and go through the specialization phase. Students are assigned to programs based on the students' choices and according to their score in the general secondary education certificate or its equivalent, and the capacity of the programs within the college. All students must declare their major and join the program before completing 36 credit hours.

Learning Outcomes
Graduates of the Department of Civil and Architectural Engineering will have:
• An ability to apply fundamental knowledge of mathematics, science, and engineering.
• An ability to design and conduct experiments, as well as to analyze data.
• An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
• An ability to function on multi-disciplinary teams.
• An ability to identify, formulate, and solve civil engineering problems.
• An understanding of professional and ethical responsibility.
• An ability to communicate effectively.
• The broad education necessary to understand the impact of civil engineering solutions in a global, economic, environmental, and societal context.
• A recognition of the need for, and the ability to engage in life-long learning.
• A knowledge of contemporary issues.
• An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

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 presents a leading contribution in all activities of the unprecedented infrastructures development in Qatar, through providing high-quality graduates and consultation services.

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 54 credit hours in major requirements
• A minimum of 12 credit hours in major technical electives.
• A minimum of 3 credit hours in additional science electives.
• A minimum of 2 credit hours in free electives.

Core Curriculum Requirements (33 CH)
Common package (12 CH)
• ARAB 100 Arabic Language I
• ENGL 202 English Language I Post Foundation
• ENGL 203 English Language II Post Foundation
• DAWA 111 Islamic Culture

Social/Behavioral Sciences package (3CH)
Any Course in CCP defined social package

Humanities /Fine Arts package (3 CH)
Students must complete a minimum of 3 Credit Hours from courses listed in the Qatar and Gulf History Sub-package, which is part of the Humanities/Fine Arts package.

Natural Science/Mathematics package (3 CH)
• MATH 101 Calculus I

Supplemental College / Program core requirements package (12 CH)
• 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

College Requirements (27 CH)
• 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 (54 CH)
• 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
•CVEN321 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 Technical Electives (12 CH)
Students must complete a minimum of 12 credit hours in elective courses selected from the following list:
• 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 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
- MARS 101 Introduction to Marine Science

Free Electives (2 CH)
Students must complete a minimum of 2 credit hours from courses outside the College offering.

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
Total Credit Hours in Semester			**15**
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
	DAWA111	Islamic Culture	3
	GENG 111	Engineering Graphics	3
Total Credit Hours in Semester			**15**

SECOND YEAR (36 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 200	Probability and Statistics for Engineers	3
	CVEN 210	Properties and Testing of Materials	3
	CVEN 213	Statics	3
		Free elective	2
Total Credit Hours in Semester			**18**
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
Total Credit Hours in Semester			**18**

FOURTH YEAR (24 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	CVEN 420	Design of Steel Structures	3
	ARAB 100	Arabic Language I	3
	CVEN 401	Civil Engineering Design Project I	1
		Major Elective II	3
		Major Elective III	3
Total Credit Hours in Semester			**13**
Spring	CVEN 381	Contracts, Specifications, and Local Regulations	3
	CVEN 402	Civil Engineering Design Project II	2
		Major Elective IV	3
		Core Curriculum Elective*	3
Total Credit Hours in Semester			**11**

THIRD YEAR (39 credit hours)			
Term	Course #	Course Title	Credit Hours
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
Total Credit Hours in Semester			**16**
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
		Core Curriculum Elective*	3
Total Credit Hours in Semester			**16**
Summer	CVEN 399	Practical Training	3
Total Credit Hours in Semester			**3**

*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

DEPARTMENT OF CHEMICAL ENGINEERING

College of Engineering - Corridor G,
Room G118 (Men's Section)
Phone: (974) 4403-4130 / 4134
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Website: **http://www.qu.edu.qa/engineering/chemical/**

Head
Ramazan Kahraman

Faculty

Professors:
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Associate Professors:
Majeda Khraisheh, Peter van Den Broeke, Mert Atilhan.

Assistant Professors:
Mohamed Al-Marri, Fadwa ElJack, Mohammad Saleh, Mohammad Aman Ullah, Anand Kumar, Rahul Bhosale.

ABOUT THE DEPARTMENT

The Department of Chemical Engineering at Qatar University has 14 highly qualified faculty members and 7 teaching assistants, 2 of whom pursue graduate studies in North America to qualify as faculty members. 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, soil bioremediation, natural gas, hydrocarbons processing, desalination, membrane systems and materials engineering. The level of funding currently exceeds 20 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.

BACHELOR OF SCIENCE IN CHEMICAL ENGINEERING

Objectives
The graduates of the QU Chemical Engineering Program will:
1. Practice chemical engineering in a wide range of industries, including hydrocarbon processing, desalination, power generation, 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 career.

Major Declaration
In order to declare a major in Chemical Engineering, students must satisfy the College of Engineering admission requirements and go through the specialization phase; students are assigned to programs based on the students' choices and according to their score on the general secondary education certificate or its equivalent and the capacity of the programs within the college. All students must declare their major and join the program before completing 36 credit hours.

Learning Outcomes
• An ability to apply knowledge of mathematics, science, and engineering.
• An ability to design and conduct experiments, as well as to analyze and interpret data.
• An ability to design a system, component, or process to meet desired needs within realistic constraints, such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
• An ability to function on multidisciplinary teams.
• An ability to identify, formulate, and solve engineering problems.
• An understanding of professional and ethical responsibility.
• An ability to communicate effectively.
• The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
• A recognition of the need for -and an ability to- engage in life-long learning.
• A knowledge of contemporary issues.
• An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

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.

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 57 credit hours of major requirements.
• A minimum of 12 credit hours of major electives.
• A minimum of 2 credit hours in free electives.

Core Curriculum Requirements (33 CH)
Common package (12 CH)
• ARAB 100 Arabic Language I
• ENGL 202 English Language I-Post Foundation
• ENGL 203 English Language II-Post Foundation
• DAWA 111 Islamic Culture

Social/Behavioral Sciences package (3 CH)
Any Course in CCP defined social package

Humanities /Fine Arts package (3 CH)
Students must complete a minimum of 3 Credit Hours from courses listed in the Qatar and Gulf History Sub-package, which is part of the Humanities/Fine Arts package.

Natural Science/Mathematics package (3 CH)
• MATH 101 Calculus I

Supplemental College / Program core requirements package (12 CH)
• 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

College Requirements (27 CH)
• 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 (57 CH)
• CHEM 102 General Chemistry II
• CHEM 104 Experimental General Chemistry II
• CHEM 209 Fundamentals of Organic Chemistry
• CHEM 241 Physical Chemistry I
• CHEM 242 Experimental Physical Chemistry I
• CHEM 341 Physical Chemistry II
• 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 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 Chemical Engineering Laboratory I
• CHME 325 Chemical Engineering Laboratory II
• CHME 399 Practical Training
• CHME 415 Computer Methods in Chemical Engineering
• CHME 421 Plant Design I
• CHME 422 Plant Design II
• CHME 423 Process Control
• CHME 426 Chemical Engineering Laboratory III

Major Electives (12 CH)
Students must complete a minimum of 12 credit hours in elective courses selected from the following list:
• CHME 413 Process Modeling & Simulation
• CHME 431 Petroleum Refining Process
• CHME 433 Petrochemical Technology
• CHME 435 Polymer Engineering
• CHME 444 Aluminum Production Technology
• CHME 445 Desalination
• CHME 451 Introduction to Gas Engineering
• CHME 454 Natural Gas Treatment
• CHME 462 Pollution Control
• CHME 463 Water Processes
• CHME 466 Special Topics in Chemical Engineering I
• CHME 467 Special Topics in Chemical Engineering II
• CHME 470 Fund of Petroleum Engineering
• CHME 486 Corrosion Engineering
• CHME 497 Independent Study

Free Electives (2 CH)
Students must complete a minimum of 2 credit hours from courses outside the College offering.

Study Plan:
Bachelor of Science in Chemical Engineering

FIRST YEAR (33 credit hours)			
Term	Course #	Course Title	Credit Hours
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
Total Credit Hours in Semester			**16**
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
Total Credit Hours in Semester			**17**

SECOND YEAR (35 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
	CHEM 209	Fundamentals in Organic Chemistry	3
	CHEM 241	Physical Chemistry I	3
	CHEM 242	Experimental Physical Chemistry I	1
	CHME 201	Introduction to Chemical Engineering I	3
Total Credit Hours in Semester			**17**
Spring	CHEM 341	Physical Chemistry II	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
		Core Curriculum Elective*	3
Total Credit Hours in Semester			**18**

THIRD YEAR (35 credit hours)			
Term	Course #	Course Title	Credit Hours
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	Chemical Engineering Laboratory I	1
Total Credit Hours in Semester			**16**
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	Chemical Engineering Laboratory II	1
	DAWA111	Islamic Culture	3
Total Credit Hours in Semester			**16**
Summer	CHME 399	Practical Training	3
Total Credit Hours in Semester			**3**

FOURTH YEAR (28 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	CHME 421	Plant Design I	3
	CHME 423	Process Control	3
	CHME 415	Computer Methods in Chemical Engineering	1
		Major Elective I	3
		Major Elective II	3
		Free Elective	2
Total Credit Hours in Semester			**15**
Spring	CHME 422	Plant Design II	3
	CHME 426	Chemical Engineering Laboratory III	1
		Major Elective III	3
		Major Elective IV	3
		Core Curriculum Elective*	3
Total Credit Hours in Semester			**11**

*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

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

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Head
Sebti Foufou

Faculty

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Associate Professors:
Mohammad Saleh, Mohammed Samaka, Osama A. Shata, Uvais Qidwai, Nasir Rajpoot

Assistant Professors:
Somaya Ali Al-Ali, Mohamed Al-Meer, Adel Cherif, Tarek Elfouly, Abdelkarim Erradi, Rachid Hadjidj, Osama Halabi, Loay Ismail, Khaled Khan, Amr Mohamed, Ryan Riley, Khaled Shaban, Tamer Elsayed, Aiman Erbad, Mashael Al-Sabah, Noora Fetais

ABOUT THE DEPARTMENT

Computer Science is that branch of science that deals with the theory and methods of processing information in digital computers, the design of computer software, and the applications of computers. Graduates of the program enjoy attractive career opportunities in Qatar and world-wide. The Computer Science Program at Qatar University was first offered in 1989, as the first computer-related undergraduate educational program offered in Qatar. The Computer Science program is home to over 250 undergraduate students, who engage in a broad range of research and learning activities that span the entire spectrum of computer science. These include working with databases, wireless communication, networking, mobile computing, software development, web systems, and many others. Computer Engineering is that branch of Engineering that combines skills from Electrical Engineering, Computer Science, and Mathematics, and applies them in areas like Networking, Data Communication, Instrumentation, and Intelligent System Automation.
The Computer Engineering Program at Qatar University was first offered in 2002. It is a four-year program offered to male and female students.

Although fairly new at Qatar University, the program is one the most competitive programs at the College of Engineering. Graduates of this program are sought by the industry in Qatar with attractive positions and interesting career opportunities. Computer Engineering students engage in a broad range of research and learning activities with an emphasis on those that are highly relevant to Qatar and the region. This educational experience is culminated by a graduation project where teams are formed to build a complete hardware and software system resembling an industrial unit for a specific real-world application.

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 the 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. Qualified graduates will be prepared to pursue advanced studies if they so desire.

Major Declaration
• Students are admitted competitively and must satisfy the minimum high school percentage requirement for the major in the semester of admission. In addition, applicants must either successfully complete all requirements of the Foundation Program or satisfy the University's competency requirements.
• 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 500 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 before they get admitted in the major.

Learning Outcomes
a. An ability to apply knowledge of mathematics, science, and engineering.
b. An ability to design and conduct experiments, as well as to analyze and interpret data
c. An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
d. An ability to function on multi-disciplinary teams.
e. An ability to identify, formulate, and solve computer engineering problems.
f. An understanding of professional and ethical responsibility.
g. An ability to communicate effectively.
h. The broad education necessary to understand the impact of computer engineering solutions in a global, economic, environmental and societal context.
i. A recognition of the need for, and the ability to engage in life-long learning.
j. A knowledge of contemporary issues.
k. An ability to use the techniques, skills, and modern engineering tools necessary for computer engineering practice.

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.

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 60 credit hours in major requirements.
• A minimum of 9 credit hours in major electives.
• A minimum of 2 credit hours in free electives.

Core Curriculum Requirements (33 CH)
Common package (12 CH)
• ARAB 100 Arabic Language I
• ENGL 202 English Language I Post Foundation
• ENGL 203 English Language II Post Foundation
• DAWA 111 Islamic Culture

Social/Behavioral Sciences package (3 CH)
Any Course in Core Curriculum Program defined social package

Humanities /Fine Arts package (3 CH)
Students must complete a minimum of 3 Credit Hours from courses listed in the Qatar and Gulf History Sub-package, which is part of the Humanities/Fine Arts package.

Natural Science/Mathematics package (3 CH)
• MATH 101 Calculus I

Supplemental College / Program core requirements package (12 CH)
• 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

College Requirements (24 CH)
• 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 (60 CH)
• ELEC 231 Fundamentals of Electronics
• ELEC 351 Signals and Systems
• CMPS 151 Programming Concepts
• CMPS 152 Programming Concepts Laboratory
• CMPS 205 Discrete Structures for computing
• CMPS 251 Object-Oriented Programming
• CMPS 252 Object-Oriented Programming Laboratory
• CMPE 261 Digital Logic Design
• CMPE 262 Digital Logic Design Laboratory
• CMPE 263 Computer Architecture and Organization I
• CMPS 303 Data Structures
• CMPE 363 Computer Architecture and Organization II
• CMPE 364 Microprocessors based Design
• CMPE 365 Microprocessors based Design Laboratory
• CMPE 370 Computer Engineering Practicum
• CMPS 405 Operating Systems
• CMPS 406 Operating Systems Laboratory
• CMPS 411 Software Engineering

• CMPE 455 Data Communication and Computer Networks I
• CMPE 456 Data Communication and Computer Networks I Laboratory
• CMPE 457 Data Communication and Computer Networks II
• CMPE 462 Computer Interfacing
• CMPE 476 Digital Signal Processing
• CMPE 478 Digital Signal Processing Laboratory
• CMPE 498 Design Project I
• CMPE 499 Design Project II

Major Electives (9 CH)
Students must complete a minimum of 9 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 373 Computer Graphics
• CMPS 454 Wireless Networks and Applications
• CMPS 465 Parallel and Distributed Systems
• CMPE 475 Artificial Intelligence
• CMPE 480 Computer Vision
• CMPE 482 Multimedia Networks
• CMPS 485 Computer Security

CE Electives Sub-package (6-9 CH)
Students must complete a minimum of 6 to 9 CH from the following courses:
• CMPS 351 Fundamentals of Database Systems
• CMPE 399 Practical Training
• CMPE 470 Modern Computer Organization
• CMPE 471 Selected Topics in Computer Engineering
• CMPE 472 Performance Evaluation
• CMPE 474 Artificial Neural Networks
• CMPE 481 Modeling and Simulation of Digital Systems
• CMPE 483 Introduction to Robotics
• CMPE 485 Fundamentals of Digital Image Processing

Free Electives (2 CH)
Students must complete a minimum of 2 credit hours from courses offered outside the College.

Study Plan: Bachelor of Science in Computer Engineering

FIRST YEAR (34 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ENGL 202	English Language I Post Foundation	3
	MATH 101	Calculus I	3
	CHEM 101	General Chemistry I	3
	CHEM 103	Experimental General Chemistry I	1
	CMPS 151	Programming Concepts	3
	CMPS 152	Programming Concepts Laboratory	1
	GENG 107	Engineering Skills and Ethics	3
Total Credit Hours in Semester			**17**
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
	CMPS 251	Object-Oriented Programming	3
	CMPS 252	Object-Oriented Programming Laboratory	1
	CMPS 205	Discrete Structures for Computing	3
Total Credit Hours in Semester			**17**

SECOND YEAR (36 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	CMPE 261	Digital Logic Design	3
	CMPE 262	Digital Logic Design Laboratory	1
	PHYS 193	General Physics for Engineering II	3
	PHYS 194	Experimental General Physics for Engineering II	1
	MATH 211	Calculus III	3
	ARAB 100	Arabic Language I	3
	ELEC 201	Electric Circuits	3
Total Credit Hours in Semester			**17**
Spring	ELEC 351	Signals and Systems	3
	ELEC 231	Fundamentals of Electronics	3
	CMPS 303	Data Structures	3
	GENG 200	Probability and Statistics for Engineers	3
	CMPE 263	Computer Architecture and Organization I	3
Total Credit Hours in Semester			**15**

FOURTH YEAR (28 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	CMPE 498	Design Project I	1
	GENG 300	Numerical Methods	3
	DAWA 111	Islamic culture	3
		Major Elective I	3
		Core Curriculum Elective *	3
	CMPE 462	Computer Interfacing	3
Total Credit Hours in Semester			**16**
Spring	CMPE 499	Design Project II	3
		Major Elective II	3
		Core Curriculum Elective *	3
		Major Elective III	3
Total Credit Hours in Semester			**12**

*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

THIRD YEAR (34 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	CMPE 455	Data Communication and Computer Networks I	3
	CMPE 456	Data Communication and Computer Networks I Laboratory	1
	CMPE 363	Computer Architecture and Organization II	3
	CMPS 405	Operating Systems	3
	CMPS 406	Operating Systems Laboratory	1
	MATH 217	Mathematics for Engineers	3
	CMPE 370	Computer Engineering Practicum	1
		Free Elective	2
Total Credit Hours in Semester			**17**
Spring	CMPE 457	Data Communication and Computer Networks II	3
	CMPE 364	Microprocessor Based Design	3
	CMPE 365	Microprocessor Based Design Laboratory	1
	GENG 360	Engineering Economics	3
	CMPE 476	Digital Signal Processing	3
	CMPS 411	Software Engineering	3
	CMPE 478	Digital Signal Processing Laboratory	1
Total Credit Hours in Semester			**17**

BACHELOR OF SCIENCE IN COMPUTER SCIENCE

Objectives
Graduates of the Computer Science major shall achieve most of the following:
• Establish successful computing careers in business, industry, and/or government that will contribute to the economic development of the country, the region, and beyond.
• Apply analytical, design, and implementation skills to formulate and to innovatively solve computing, business, and interdisciplinary problems.
• Contribute effectively to society and the computing profession by fostering effective interaction, ethical practices, and communication skills, while pursuing further education through lifelong learning.
• Qualified graduates will be prepared to pursue advanced studies if they so desire.

Major Declaration
• Students are admitted competitively and must satisfy the minimum high school percentage requirement for the major in the semester of admission. In addition, applicants must either successfully complete all requirements of the Foundation Program, or satisfy the University's competency requirements.
• Students who have not obtained the required admission average in the General Secondary School Certificate or its equivalent may be admitted when the capacity allows more intake provided that they achieve a score of 500 or higher in 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.

Learning Outcomes
By the time of graduation, students will be able to:
a- An ability to apply knowledge of computing and mathematics appropriate to the discipline.
b- An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution.
c- An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs.
d- An ability to function effectively on teams to accomplish a common goal.
e- An understanding of professional, ethical, legal, security and social issues and responsibilities.
f- An ability to communicate effectively with a range of audiences.
g- An ability to analyze the local and global impact of computing on individuals, organizations, and society.
h- Recognition of the need for, and an ability to engage in, continuing professional development.
i- An ability to use current techniques, skills, and tools necessary for computing practice.
j- An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices.
k- An ability to apply design and development principles in the construction of software systems of varying complexity.

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 gas and oil, telecommunications, media, security, medicine, and many others within Qatar, the region, and beyond. Examples of job titles for computer science include Software Engineer, System Administrator, Application Developer, Systems Programmer, System Analyst, IT Security Specialist, Network Administrator, Database Administrator, IT Consultant, Multimedia Specialist and Web System Manager.

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 46 credit hours in major requirements.
• A minimum of 15 credit hours of major electives.
• A minimum of 5 credit hours of additional compulsory courses.

Core Curriculum Requirements (33 CH)
Common package (15 CH)
• ARAB 100 Arabic Language I
• ARAB 200 Arabic Language II
• ENGL 202 English Language I Post Foundation
• ENGL 203 English Language II Post Foundation
• DAWA 111 Islamic Culture

Social/Behavioral Sciences package (3 CH)
Any Course in Core Curriculum Program defined social package

Humanities /Fine Arts package (6 CH)
• A minimum of 3 CH in any course listed in the CCP defined Qatar and Gulf History sub-package
• A minimum of 3 CH in any Course in CCP defined Humanities/Fine arts package, other than courses in the Qatar and Gulf History sub-package

Natural Science/Mathematics package (3 CH)
Any Course in CCP defined Natural Science / Mathematics package

Supplemental College / Program core requirements package (6 CH)
• MATH 101 Calculus I
• MATH 102 Calculus II

College Requirements (21 CH)
• 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 (46 CH)
• CMPS 200 Computer Ethics
• CMPS 205 Discrete Structures for Computing
• CMPS 151 Programming Concepts
• CMPS 152 Programming Concepts Laboratory
• CMPS 251 Object-Oriented Programming
• CMPS 252 Object-Oriented Programming Laboratory
• CMPS 303 Data Structures
• CMPS 311 Object Oriented Modeling
• CMPE 263 Computer Architecture and Organization I
• CMPS 323 Design and Analysis of Algorithms
• CMPS 351 Fundamentals of Database Systems
• CMPS 352 Fundamentals of Database Systems Laboratory
• CMPS 356 Software Development of Enterprise Applications
• CMPS 405 Operating Systems
• CMPS 406 Operating Systems Laboratory
• CMPS 411 Software Engineering
• CMPE 455 Data Communication and Computer Networks I
• CMPE 456 Data Communication and Computer Networks I Laboratory
• CMPS 493 Senior Project I
• CMPS 499 Senior Project II

Major Electives (15 CH)
Students must complete a minimum of 15 credit hours in major elective courses by taking a maximum of 6 credit hours in the Common Electives sub-package, and the remaining required credit hours from the CS Electives sub-package:

Common Electives Sub-package (0-6 CH)
Students can take up to 6 credit hours from the following list of courses:
• CMPS 373 Computer Graphics
• CMPS 453 Data Mining
• CMPS 454 Wireless Networks and Applications
• CMPS 465 Parallel and Distributed Systems
• CMPE 475 Artificial Intelligence
• CMPE 480 Computer Vision
• CMPE 482 Multimedia Networks
• CMPS 485 Computer Security

CS Electives Sub-package (9-15 CH)
Students must complete 9 to 15 CH from the following courses:
• CMPE 261 Digital Logic Design
• CMPS 321 Information Systems
• CMPS 345 Automata and Formal Languages
• CMPS 393 Modeling and Simulation
• CMPS 399 Practical Training
• CMPS 433 Multimedia Systems
• CMPS 445 Compiler Construction
• CMPS 451 Database Management Systems
• CMPS 453 Data Mining
• CMPS 466 Information Retrieval
• CMPS 497 Special Topics in Computing

Common Electives Sub-package (0-6 CH)
To satisfy the major Electives package requirements, students can complete a maximum of 6 credit hours from the following list of courses:
• CMPS 373 Computer Graphics
• CMPS 454 Wireless Networks and Applications
• CMPS 465 Parallel and Distributed Systems
• CMPE 475 Artificial Intelligence
• CMPE 480 Computer Vision
• CMPE 482 Multimedia Networks
• CMPS 485 Computer Security

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 (34 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ENGL 202	English Language I Post Foundation	3
	MATH 101	Calculus I	3
	CHEM 101	General Chemistry I	3
	CHEM 103	Experimental General Chemistry I	1
	CMPS 151	Programming Concepts	3
	CMPS 152	Programming Concepts Laboratory	1
Total Credit Hours in Semester			**14**
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
	CMPS 251	Object-Oriented Programming	3
	CMPS 252	Object-Oriented Programming Laboratory	1
	CMPS 205	Discrete Structures for Computing	3
Total Credit Hours in Semester			**17**

SECOND YEAR (33 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	CMPS 303	Data Structures	3
	CMPS 311	Object Oriented Modeling	3
	PHYS 193	General Physics for Engineering II	3
	PHYS 194	Experimental General Physics for Engineering II	1
	MATH 231	Linear Algebra	3
	ARAB 100	Arabic Language I	3
Total Credit Hours in Semester			**16**
Spring	CMPS 323	Design and Analysis of Algorithms	3
	CMPS 351	Fundamentals of Database Systems	3
	CMPS 352	Fundamentals of Database Systems Laboratory	1
	GENG 200	Probability and Statistics for Engineers	3
	CMPS 200	Computer Ethics	1
	CMPE 263	Computer Architecture and Organization	3
	ARAB 200	Arabic Language II	3
Total Credit Hours in Semester			**17**

THIRD YEAR (32 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	CMPE 455	Data Communication and Computer Networks I	3
	CMPE 456	Data Communication and Computer Networks I Laboratory	1
	GENG 300	Numerical Methods	3
	CMPS 405	Operating Systems	3
	CMPS 406	Operating Systems Laboratory	1
		Core Curriculum Elective *	3
		Core Curriculum Elective *	3
Total Credit Hours in Semester			**17**
Spring	CMPS 356	Software Development and Applications	3
	CMPS 411	Software Engineering	3
	DAWA 111	Islamic Culture	3
		Core Curriculum Elective *	3
		Major Elective I	3
Total Credit Hours in Semester			**15**

FOURTH YEAR (24 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	CMPS 493	Senior Project I	1
	CMPS 307	Introduction to Project Management and Entrepreneurship	2
		Major Elective II	3
		Major Elective III	3
		Core Curriculum Elective *	3
Total Credit Hours in Semester			12
Spring	CMPS 499	Senior Project II	3
	MAGT 101	Principles of Management	3
		Major Elective IV	3
		Major Elective V	3
Total Credit Hours in Semester			**12**

Student must complete:
• A minimum of 3 credit hours from Social/Behavioral Sciences package and,
• A minimum of 3 credit hours in any course listed in the CCP defined Qatar and Gulf History sub-package and,
• A minimum of 3 CH in any Course in CCP defined Humanities/Fine arts package other than courses in the Qatar and Gulf History sub-package and,
• Minimum of 3 credit hours from Natural Science/ Mathematics package

DEPARTMENT OF ELECTRICAL ENGINEERING

College of Engineering - Corridor F,
Room F102 (Men's Section)
Phone: (974) 4403-4200 / 4204
E-mail: **electrical@qu.edu.qa**
Website: **http://www.qu.edu.qa/engineering/electrical/**

Head
Lazhar Ben-Brahim

Faculty

Professors:
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Associate Professors:
Rashid Al-Ammari, Khalid Ellithy, Ridha Hamila, Farid Touati, Ahmed Massoud, Atif Iqbal, Mazen Hasna, Nizar Zorba.

Assistant Professors:
Nasser Al-Emadi, Mohammed Al-Hitmi, Mohammed Al-Naimi, , Tamer Khattab, , Fadi Jaber , Nader Meskin, Faycal Bensaali.

ABOUT THE DEPARTMENT

The Bachelor of Science degree in electrical engineering is a four-year program offered to male and female students. Through its solid structure, the program strikes a balance between theory, practical knowledge, and hardware and software skills. Also, the program fosters a broad awareness of social, cultural, and ethical issues together with a good understanding of the role of engineering in the community. In addition to the core electrical engineering courses, students are allowed to choose from a large number of major elective courses in order to specialize in one of four focus thrusts: Signal processing & Communications, Biomedical Engineering, Power Systems & Machines, and Industrial Electronics & Control. All areas are strengthened by project-based learning experience. The success of the program is ensured by the high quality and commitment of a world-class team of academics, adequate facilities of recent vintage, and strong ties with stakeholders.

BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING

Objectives
Graduates of the Electrical Engineering major will:
• Utilize the technical expertise applicable to electrical engineering systems, and/or succeed in pursuing higher studies in Electrical Engineering. Act professionally and ethically in a modern work environment through effective communication and leadership, and responsible teamwork.
• Maintain the desire for innovation and engagement in lifelong learning in response to emerging technologies, social developments, and contemporary issues.

Major Declaration
In order to declare a major in Electrical Engineering, students must satisfy the College of Engineering's admission requirements and go through the specialization phase; students are assigned to programs based on the students' choices and according to their score on the general secondary education certificate or its equivalent, and the capacity of the programs within the college. All students must declare their major and join the program before completing 36 credit hours.

Learning Outcomes
• An ability to apply knowledge of mathematics, science, and engineering.
• An ability to design and conduct experiments, as well as to analyze and interpret data.
• An ability to design a system, component, or process to meet desired needs within realistic constraints, such as economics, environment, society, politics, ethics, health and safety, manufacturability, and sustainability.
• An ability to function on multi-disciplinary teams.
• An ability to identify, formulate, and solve engineering problems.
• An understanding of professional and ethical responsibility.
• An ability to communicate effectively.
• The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
• A recognition of the need for, and an ability to engage in lifelong learning.
• A knowledge of contemporary issues.
• An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.
• A knowledge of probability and statistics, including applications.
• An ability to analyze and design electrical and electronic devices, software, and systems containing hardware and software components.
• A knowledge of advanced mathematics including differential equations, linear algebra, and complex variables.

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, RasGas, Shell, Kahrama, 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.

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 57 credit hours of major requirements.
• A minimum of 12 credit hours of major electives.
• A minimum of 2 credit hours in free electives.

Core Curriculum Requirements (33 CH)
Common package (12 CH)
• ARAB 100 Arabic Language I
• ENGL 202 English Language I Post Foundation
• ENGL 203 English Language II Post Foundation
• DAWA 111 Islamic Culture

Social/Behavioral Sciences package (3 CH)
Any Course in CCP defined social package

Humanities /Fine Arts package (3 CH)
Students must complete a minimum of 3 Credit Hours from courses listed in the Qatar and Gulf History Sub-package, which is part of the Humanities/Fine Arts package.

Natural Science/Mathematics package (3 CH)
• MATH 101 Calculus I

Supplemental College / Program core requirements package (12 CH)
• 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

College Requirement Courses (27 CH)
• 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
• ELEC 201 Electric Circuits

Major Requirements (57 CH)
• MATH 385 Advanced Mathematics
• 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 299 Electrical Engineering Seminar
• ELEC 311 Electromagnetics
• ELEC 312 Electric Machines
• ELEC 313 Electric Machines Lab
• ELEC 321 Power Systems Analysis
• ELEC 333 Electronics Engineering
• ELEC 334 Electronics Engineering Lab
• ELEC 341 Communications Engineering
• ELEC 342 Communications Engineering Lab
• ELEC 351 Signals and Systems
• ELEC 352 Control Systems
• ELEC 366 Embedded Systems
• ELEC 367 Embedded Systems Lab
• ELEC 371 Sensors and Instrumentation
• ELEC 375 Biomedical Engineering
• ELEC 399 Practical Training
• ELEC 498 Senior Design Project I
• ELEC 499 Senior Design Project II

Major Electives (12 CH)
Students must complete a minimum of 12 credit hours in the major elective courses listed below. Upon Department written approval, one major elective course may be selected from 300 and 400 level Engineering courses offered by other Engineering majors and counted towards satisfying the major electives required number of credit hours.
• ELEC 415 Power Electronics and Drives
• ELEC 416 Selected Topics in Electric Machines and Drives.
• ELEC 422 Advanced Power Systems Analysis
• ELEC 423 Electric Power Distribution Systems
• ELEC 424 Operation of Power Systems
• ELEC 425 Selected Topics in Power Systems
• ELEC 438 Selected Topics in Electronics

• ELEC 444 Digital Communications
• ELEC 446 Selected Topics in Communication Engineering
• ELEC 447 Wireless Communications
• ELEC 453 Advanced Control Systems
• ELEC 456 Digital Signal Processing
• ELEC 457 Selected Topics in Control System/Signal Processing
• ELEC 495 independent Study
• ELEC 469 Computer Networks
• ELEC 471 Selected Topics in Computer Engineering
• ELEC 472 Wireless Networks and Applications
• ELEC 481 Power Electronics and Renewable Energy
• ELEC 482 Selected Topics in Power Electronics
• ELEC 483 Electric Drives
• ELEC 484 Industrial Control
• ELEC 485 Introduction to Robotics
• ELEC 486 Advanced Biomedical Systems Engineering
• ELEC 487 Selected Topics in Biomedical Engineering
• ELEC 488 Medical Imaging Systems

Free Electives (2 CH)
Students must complete a minimum of 2 credit hours from courses outside the College offering.

Study Plan:
Bachelor of Science in Electrical Engineering

FIRST YEAR (31 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ENGL 202	English Language I Post Foundation	3
	MATH 101	Calculus I	3
	GENG 106	Computer Programming	3
	GENG 107	Engineering Skills and Ethics	3
	ARAB 100	Arabic Language I	3
Total Credit Hours in Semester			**15**
Spring	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
	CHEM 101	General Chemistry I	3
	CHEM 103	Experimental General Chemistry I	1
		Free Elective	2
Total Credit Hours in Semester			**16**

SECOND YEAR (34 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
	ELEC 201	Electric Circuits	3
	ELEC 261	Digital Systems Design	3
	ELEC 262	Digital Systems Design Lab	1
	GENG 200	Probability and Statistics for Engineers	3
Total Credit Hours in Semester			**17**
Spring	MATH 217	Mathematics 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 366	Embedded Systems	3
	ELEC 367	Embedded Systems Laboratory	1
Total Credit Hours in Semester			**17**

THIRD YEAR (36 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	ELEC 351	Signals and Systems	3
	ELEC 312	Electric Machines	3
	ELEC 313	Electric Machines Laboratory	1
	ELEC 333	Electronics Engineering	3
	ELEC 334	Electronics Engineering Laboratory	1
	ELEC 371	Sensors and Instrumentation	3
	MATH 385	Advanced Mathematics	3
Total Credit Hours in Semester			**17**
Spring	ELEC 311	Electromagnetics	3
	ELEC 352	Control Systems	3
	ELEC 341	Communications Engineering	3
	ELEC 342	Communications Engineering Laboratory	1
	ELEC 321	Power Systems Analysis	3
	ELEC 375	Biomedical Engineering	3
	ELEC 299	Electrical Engineering Seminar	0
Total Credit Hours in Semester			**16**
Summer	ELEC 399	Practical Training	3
Total Credit Hours in Semester			**3**

FOURTH YEAR (30 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	GENG 360	Engineering Economics	3
	ELEC 498	Senior Design Project I	3
	DAWA 111	Islamic Culture	3
		Major Elective I	3
		Major Elective II	3
		Core Curriculum Elective *	3
Total Credit Hours in Semester			**15**
Spring	ELEC 499	Senior Design Project II	3
		Major Elective III	3
		Major Elective IV	3
		Core curriculum Elective *	3
Total Credit Hours in Semester			**15**

*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

DEPARTMENT OF MECHANICAL AND INDUSTRIAL ENGINEERING

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Head
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Faculty

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Associate Professors:
Mohammed Al-Salem, Mohamed Al-Khawaja, Saud Ghani, , Dinesh Seth, Khalifa Al-Khalifa, Samer Fikry, Sadok Sassi, Faris Tarlochan, Ghaith Rabbadi,

Assistant Professors:
, Mohamed Al-Qaradawi, Farayi Musharavati, Fatih Mutlu, Woon Jong Yoon, Adel El Omri, John-John Cabibihan, Andrei Sleptchenko

ABOUT THE DEPARTMENT

The Department of Mechanical and Industrial Engineering is committed to excellence in teaching, research, and in providing service to the community. The Department offers two undergraduate majors; Industrial and Systems Engineering, and Mechanical Engineering. The Department has excellent specialized laboratories, workshop 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 a pleasant student learning and teaching experience. The staff are focused on student-centered learning. Frequently, faculty members include students in research programs and interactions with industry. Students 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. Student chapters of professional societies are established at the Department (IIE, ASME and ASHRAE). The Students in the department enjoy participation in many out of class activities like the Shell Eco Marathon competition. The department students also enjoy participating in many international conferences and visits to other international universities.

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. Grow professionally, maintain ethical conduct and engage in life-long learning in response to the contemporary needs of the society.

Major Declaration
In order to declare a major in Industrial and Systems Engineering (ISE), students must satisfy the College of Engineering admission requirements and go through the specialization phase; students are assigned to programs based on the students' choices and according to their score in the general secondary education certificate or its equivalent, and the capacity of the programs within the college. All students must declare their major and join the program before completing 36 credit hours.

Learning Outcomes
1. An ability to apply knowledge of mathematics, science, and engineering.
2. An ability to design and conduct experiments, as well as to analyze and interpret data.
3. An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
4. An ability to function on multidisciplinary teams.
5. An ability to identify, formulate, and solve engineering problems.
6. An understanding of professional and ethical responsibility.
7. An ability to communicate effectively.
8. The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
9. A recognition of the need for, and an ability to engage in life-long learning.
10. A knowledge of contemporary issues.
11. An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.
12. Understand systems approach to design, develop, implement and improve integrated systems that include people, materials, information, equipment, and energy.
13. An ability to apply statistical principles for analysis.

Opportunities
Industrial Engineers make systems work better, safer, cost-effective and more efficient. With its diversity, industrial engineering is used virtually in all sectors, including manufacturing, distribution, 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 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 Industrial Engineer incorporates 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 maintain growth.
The Program is working towards maintaining ABET accreditation so that its graduates can pursue their graduate studies at any world-class university. The Department also offers a Ph.D. and Master in Engineering Management. 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.

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 54 credit hours of major requirements.
• A minimum of 9 credit hours of major electives.
• A minimum of 2 credit hours in free electives.

Core Curriculum Requirements (33 CH)
Common Package (12 CH)
• ARAB 100 Arabic Language I
• ENGL 202 English Language I Post Foundation
• ENGL 203 English Language II Post Foundation
• DAWA 111 Islamic Culture

Social/Behavioral Sciences Package (3 CH)
Any Course in CCP defined social package

Humanities /Fine Arts Package (3 CH)
Students must complete a minimum of 3 Credit Hours from courses listed in the Qatar and Gulf History Sub-package, which is part of the Humanities/Fine Arts package.

Natural Science/Mathematics Package (3 CH)
• MATH 101 Calculus I

Supplemental College / Program Core Requirements Package (12 CH)
• 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

College Requirements (30 CH)
• 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
• ELEC 201 Electric Circuits
• GENG 200 Probability and Statistics for Engineers
• GENG 300 Numerical Methods
• GENG 360 Engineering Economics

Major Requirements (54 CH)
• GENG 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 320 Statistical Quality Control
• IENG 330 Operations Research
• IENG 337 Production Planning and Inventory Control
• IENG 350 Computer Simulation Systems
• IENG 410 Ergonomics and Safety Engineering
• IENG 420 Quality Management
• IENG 450 Production Automation
• IENG 452 Information Systems Engineering
• IENG 460 Manufacturing Systems Design
• IENG 481 Project Engineering
• IENG 498 Industrial Systems Design

Major Electives (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 331 Advanced Operations Research
- 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 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

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
Total Credit Hours in Semester			**16**
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
		Core Curriculum Elective *	3
Total Credit Hours in Semester			**16**

SECOND YEAR (33 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	Materials Science	3
	GENG 200	Probability and Statistics for Engineers	3
	GENG 210	Statics and Dynamics	3
Total Credit Hours in Semester			**16**
Spring	MATH 217	Mathematics for Engineers	3
	MECH 223	Solid Mechanics	3
	IENG 210	Work Methods and Measurements	3
	MECH 230	Manufacturing Processes	3
	ELEC 201	Electric Circuits	3
		Free Elective	2
Total Credit Hours in Semester			**17**

- MAGT 405 Strategic Management

Free Electives (2 CH)
Students must complete a minimum of 2 credit hours from courses outside the College offering.

THIRD YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ARAB 100	Arabic Language I	3
	GENG 300	Numerical Methods	3
	GENG 360	Engineering Economics	3
	IENG 260	Thermodynamics	3
	IENG 330	Operations Research	3
Total Credit Hours in Semester			**15**
Spring	IENG 310	Facility Planning and Layout	3
	IENG 320	Statistical Quality Control	3
	IENG 337	Production Planning and Inventory Control	3
	IENG 350	Computer Simulation Systems	3
		Major Elective I	3
Total Credit Hours in Semester			**15**

FOURTH YEAR (33 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	DAWA 111	Islamic Culture	3
	IENG 410	Ergonomics and Safety Engineering	3
	IENG 460	Manufacturing Systems Design	3
	IENG 420	Quality Management	3
	IENG 481	Project Engineering	3
		Major Elective II	3
Total Credit Hours in Semester			**18**
Spring	IENG 498	Industrial Systems Design	3
	IENG 450	Production Automation	3
	IENG 452	Information Systems Engineering	3
		Major Elective III	3
		Core Curriculum Elective *	3
Total Credit Hours in Semester			**15**

*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 MECHANICAL ENGINEERING

Objectives
Graduates of the major are expected to achieve most of the following objectives:
- Establish a successful career as mechanical engineers in Gas and Oil, Petrochemicals, Public or Private sectors, and demonstrate professional engineering competence by progressing through positions of increasing responsibility.
- Develop into well-rounded citizens with responsibility towards society.
- Advance technically and professionally through continued learning, and have the ability to pursue graduate studies.

Major Declaration
In order to declare a major in Mechanical Engineering, applicants must satisfy the minimum high school percentage requirement for the major in the semester of admission. In addition, applicants must either successfully complete all requirements of the Foundation Program or satisfy the University's competency requirements.

Learning Outcomes
1. An ability to apply knowledge of mathematics, science, and engineering.
2. An ability to design and conduct experiments, as well as to analyze and interpret data.
3. An ability to design a system, component, or process to meet desired needs within realistic constraints such as economics, environment, society, politics, ethics, health and safety, manufacturability, and sustainability.
4. An ability to function on multidisciplinary teams.
5. An ability to identify, formulate, and solve engineering problems.
6. An understanding of professional and ethical responsibility.
7. An ability to communicate effectively.
8. The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
9. A recognition of the need for, and an ability to engage in life-long learning.
10. A knowledge of contemporary issues.
11. An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.
12. An ability to work professionally in thermal and mechanical system areas.

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.
As the program has received ABET Substantial Equivalency accreditation, its graduates can pursue their graduate studies at any world-class university.
The Department also offers a Master in Engineering Management, and students are encouraged to set their academic goals high enough to obtain advanced degrees in mechanical engineering.

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 30 credit hours of college requirements.
- A minimum of 54 credit hours of major requirements.
- A minimum of 12 credit hours of major electives.
- A minimum of 2 credit hours in free electives.

Core Curriculum Requirements (33 CH)
Common Package (12 CH)
- ARAB 100 Arabic Language I
- ENGL 202 English Language I Post Foundation
- ENGL 203 English Language II Post Foundation
- DAWA 111 Islamic Culture

Social/Behavioral Sciences Package (3 CH)
Any Course in CCP defined social package

Humanities /Fine Arts Package (3 CH)
Students must complete a minimum of 3 Credit Hours from courses listed in the Qatar and Gulf History Sub-package, which is part of the Humanities/Fine Arts package.

Natural Science/Mathematics Package (3 CH)
- MATH 101 Calculus I

Supplemental College / Program Core Requirements Package (12 CH)
- 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

College Requirements (30 CH)
- 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
- ELEC 201 Electric Circuits

Major Requirements (54 CH)
- GENG 221 Engineering Mechanics I, Statics
- GENG 222 Engineering Mechanics II, Dynamics
- GENG 231 Material Science
- MECH 213 Engineering Measurements
- MECH 223 Solid Mechanics
- MECH 230 Manufacturing Processes
- MECH 241 Thermofluids
- MECH 321 Mechanical Mechanisms
- MECH 322 Mechanical Vibrations
- MECH 323 Mechanical Design I
- MECH 342 Thermodynamics
- MECH 343 Fluid Mechanics
- MECH 344 Heat Transfer
- MECH 361 Control Systems
- MECH 399 Practical Training
- MECH 421 Mechanical Design II
- MECH 441 Energy Systems Laboratory
- MECH 448 Design of Energy Systems
- MECH 480 Senior Project I
- MECH 490 Senior Project II

Major Electives (12 CH)
Students must complete a minimum of 12 credit hours in courses selected from the following list:
- MECH 331 Machining and Forming Processes
- MECH 425 Finite Element Method
- MECH 426 Computer Aided Design
- MECH 427 Mechanics of Composite Materials
- MECH 431 Failure Analysis
- MECH 432 Welding and Casting Technologies
- MECH 433 Modern Machining Techniques
- MECH 435 Corrosion Engineering
- 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

Free Electives (2 CH)
Students must complete a minimum of 2 credit hours from courses outside the College offering.

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
Total Credit Hours in Semester			**16**
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
Total Credit Hours in Semester			**16**

SECOND YEAR (33 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 221	Engineering Mechanics I: Statics	3
	GENG 200	Probability and Statistics for Engineers	3
	MECH 241	Thermofluids	3
Total Credit Hours in Semester			**16**
Spring	MATH 217	Mathematics for Engineers	3
	GENG 222	Engineering Mechanics II: Dynamics	3
	MECH 213	Engineering Measurements	1
	MECH 223	Solid Mechanics	3
	ELEC 201	Electric Circuits	3
	GENG 231	Material Science	3
Total Credit Hours in Semester			**16**

THIRD YEAR (37 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	MECH 321	Mechanical Mechanisms	3
	MECH 322	Mechanical Vibrations	3
	MECH 342	Thermodynamics	3
	MECH 343	Fluid Mechanics	3
	MECH 230	Manufacturing Processes	3
		Core Curriculum Elective *	3
Total Credit Hours in Semester			**18**
Spring	GENG 300	Numerical Methods	3
	GENG 360	Engineering Economics	3
	MECH 323	Mechanical Design I	3
	MECH 344	Heat Transfer	3
	MECH 361	Control Systems	3
	MECH 441	Energy Systems Laboratory	1
Total Credit Hours in Semester			**15**
Summer	MECH 399	Practical Training	3
Total Credit Hours in Semester			**3**

FOURTH YEAR (30 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	MECH 421	Mechanical Design II	3
	MECH 448	Design of Energy Systems	3
	MECH480	Senior Project I	1
		Major Elective I	3
		Major Elective II	3
		Core Curriculum Elective *	3
Total Credit Hours in Semester			**16**
Spring	MECH 490	Senior Project II	3
	ARAB 100	Arabic Language I	3
		Major Elective III	3
		Major Elective IV	3
		Free Elective	2
Total Credit Hours in Semester			**16**

*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

COLLEGE OF LAW

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Website: **http://www.qu.edu.qa/law**

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Yaser Khalaileh

Associate Dean for Research
Francis Botchway

Assistant Dean for Student Affairs
Ola Shadid

Faculty

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Teaching Assistants:
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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 provide its students with the finest legal education that shall equip them to unparallel 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)

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.

BACHELOR OF LAW (LL.B)

Objectives
The major in Law is intended 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.

Major Declaration
In order to declare a major in Law, students must satisfy the minimum high school percentage requirement for the major in the semester of admission which is 75%.

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

LO 1: Knowledge
Graduates of the Bachelor of Law will demonstrate an understanding of a coherent body of knowledge that includes:
1) the fundamental areas of legal knowledge, the Qatari legal system, and underlying principles and concepts, including international and comparative contexts,
2) the broader contexts within which legal issues arise, and
3) understanding of the principles and values of ethical decision-making and the professional principles and values associated with the goals of justice and service to the wider community.

LO 2: Critical Thinking Skills
Graduates of the Bachelor of Laws will be able to:
1) identify and articulate legal issues,
2) apply legal reasoning and research to generate appropriate responses to legal issues,
3) engage in critical analysis and make a reasoned choice amongst alternatives, and
4) approach legal issues creatively and generate appropriate responses.

LO 3: Research Skills
Graduates of the Bachelor of Laws will demonstrate the intellectual and practical skills needed to identify, research, evaluate and synthesize relevant factual, legal and policy issues.

LO 4: Ethics and Professional Responsibility
Graduates of the Bachelor of Laws will demonstrate:
1) an ability to recognize and reflect upon, and a developing ability to
respond to, ethical issues likely to arise in professional contexts.
2) a fundamental ability to exercise professional judgment.

LO 5: Communication
Graduates of the Bachelor of Laws will be able to communicate in ways that are effective, appropriate and persuasive for legal and non-legal audiences.

LO 6: Self-Reliance and Collaboration
Graduates of the Bachelor of Laws will be able to:
1) learn and work independently.
2) reflect on and assess their own capabilities and performance, and make use of feedback as appropriate, to support personal and professional development.
3) collaborate in teams effectively and ethically.

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.

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 63 credit hours of major requirements.
• A minimum of 27 credit hours of major Electives.

Core Curriculum Program (33 CH)

Common package (15 CH)
• ARAB 100 Arabic Language I
• ARAB 200 Arabic Language I
• ENGL 110 English I
• ENGL 111 English II
• DAWA 111 Islamic Culture

Social/Behavioral Sciences package (3 CH)
Any Course in CCP defined social package

Humanities/Fine Arts package (3 CH)
Students must complete a minimum of 3 Credit Hours from courses listed in the Qatar and Gulf History Sub-package, which is part of the Humanities/Fine Arts package.

Natural Science/Mathematics package (3 CH)
Any Course in CCP defined Natural Science/ Mathematics package

Supplemental College/Program core requirements package (9 CH)
• LAWC 250 Family Law
• ENGL 250 English for Communication I
• ENGL 251 English for Communication II

Major Requirements (63 CH)
Students must complete the following courses:
• LAWC 101 Introduction to Law
• LAWC 111 Legal Research and Writing I
• LAWC 213 Sources of Obligations
• LAWC 214 Effects of Obligations
• LAWC 217 Commercial Law
• LAWC 222 Constitutional Law
• LAWC 223 Legal Research and Writing II
• 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 (27 CH)
Students must complete a minimum of 27 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
• ISLA 201 Principles of Islamic Jurisprudence
• 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
• 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 FOR THE BACHELOR OF LAW					
First Year					
No.	Term	Course #	Course Title	Cr Hrs	Prerequisite
1	Fall	LAWC 101	Introduction to Law	3	-
2	Fall	LAWC 222	Constitutional Law	3	-
3	Fall	ENGL 110	English Language I	3	-
4	Fall	ARAB 100	Arabic Language I	3	-
5	Fall		Core Curriculum Course	3	-
Total (15 Credit Hours)					
1	Spring	LAWC 213	Sources of Obligations	3	LAWC 101
2	Spring	LAWC 217	Commercial Law	3	LAWC 101
3	Spring	LAWC 323	Criminal Law I	3	LAWC 101
4	Spring	ENGL 111	English Language II	3	ENGL 110
5	Spring	ARAB 200	Arabic Language II	3	ARAB 100
Total (15 Credit Hours)					
Second Year					
No.	Term	Course #	Course Title	Cr Hrs	Prerequisite
1	Fall	LAWC 214	Effects of Obligations	3	LAWC 213
2	Fall	LAWC 329	Commercial Papers	3	LAWC 217
3	Fall	LAWC 321	Administrative Law	3	LAWC 101
4	Fall	ENGL 250	English for Communication I	3	ENGL 111
5	Fall		Core Curriculum Course	3	-
Total (15 Credit Hours)					
1	Spring	LAWC 348	Corporate Law	3	LAWC 217
2	Spring	LAWC 324	Criminal Law II	3	LAWC 323
3	Spring	LAWC111	Legal Research and Writing I	3	ENGL 254
4	Spring	ENGL 251	English for Communication II	3	ENGL 250
5	Spring		Core Curriculum Course	3	-
Total (15 Credit Hours)					
Third Year					
No.	Term	Course #	Course Title	Cr Hrs	Prerequisite
1	Fall	LAWC 314	Contract Law I	3	LAWC 214
2	Fall	LAWC 316	Law of Civil Procedure I	3	LAWC 214
3	Fall	LAWC 339	Public International Law	3	Passing of (60) Credit Hours
4	Fall	LAWC 223	Legal Research & Writing II	3	LAWC111
5	Fall	LAWC 250	Family Law	3	-
Total (15 Credit Hours)					
1	Spring	LAWC 450	Law of Civil Procedure II	3	LAWC 316
2	Spring	LAWC 411	Real Rights	3	LAWC 214
3	Spring	LAWC 422	Law of Criminal Procedure	3	LAWC 323
4	Spring		Elective Course in Major	3	
5	Spring		Core Curriculum Course	3	-
Total (15 Credit Hours)					
Fourth Year					
No.	Term	Course #	Course Title	Cr Hrs	Prerequisite
1	Fall	LAWC 315	Labor Law	3	LAWC 214
2	Fall		Elective Course in Major	3	
3	Fall		Elective Course in Major	3	
4	Fall		Elective Course in Major	3	
5	Fall		Elective Course in Major	3	
6	Fall		Elective Course in Major	3	
Total (18 Credit Hours)					
1	Spring	LAWC413	Private International Law	3	LAWC 214
2	Spring	LAWC 409	Externship	3	LAWC 111
3	Spring		Elective Course in Major	3	
4	Spring		Elective Course in Major	3	
5	Spring		Elective Course in Major	3	
Total (15 Credit Hours)					
Grand Total (123 Credit Hours)					

COLLEGE OF PHARMACY

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Associate Dean for Research and Graduate Studies
Feras Alali

Assistant Dean for Student Affairs
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Director, Doctor of Pharmacy Program
Kerry Wilbur

Pharmaceutical Sciences Chair
Fatima Mraiche

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Teaching Assistants:
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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 to be the leading pharmacy school in the Middle East region.

The specific goals of the program are:
1. To foster integration of knowledge and skills, and to develop our student's general and professional abilities in a systematic ability-based curricula.
2. To integrate knowledge with practical experience to enhance career path and development.
3. To contribute to the professional education of practitioners.
4. To advance pharmaceutical and health outcomes by the conduct of internally and externally funded independent and collaborative research.
5. To provide an intellectual and academic atmosphere that is conducive to recruitment and development of qualified faculty.

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 BSc and PharmD 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.

Major Declaration
In order to declare a major in Pharmacy, applicants must completely satisfy the minimum high school grade, English proficiency, PCAT, Foundation Program requirements, prerequisite core curriculum and general science course work (minimum of 33 credit hours total) prior to application. Admission is competitive and a limited number of seats are available. Qualified applicants may be invited for an interview with the Admission Committee and only select applicants will be accepted into the major program on the basis of academic and non-academic criteria. Details can be found on the college website at www.qu.edu.qa/pharmacy.

Additional Requirements
Completion of the major in Pharmacy (BSc (Pharm)) requires successful completion of 173 credit-hours of courses as outlined in the study plan. This includes six 4 credit-hour experiential training rotations in select hospital, clinic and community settings.

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:
• **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.
• **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.
• **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.
• **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.
• **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.
• **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.
• **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. June 3, 2010.

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 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.
For further information, visit our website at www.qu.edu.qa/pharmacy.

DEGREE REQUIREMENTS

Major in Pharmacy
A minimum of 173 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 115 credit hours in Major Requirements
• A minimum of 17 credit hours in College Core Requirements
• A minimum of 8 credit hours in Major Electives

Core Curriculum Program (33 CH)
Common package (12 CH)
• ARAB 100 Arabic language I
• ENGL 202 English Language I – Post Foundation
• ENGL 203 English Language II - Post Foundation
• DAWA 111 Islamic Culture

Social/Behavioral Sciences package (3 CH)
Courses in CCP defined social package

Humanities /Fine Arts package (3 CH)
Students must complete a minimum of 3 Credit Hours from courses listed in the Qatar and Gulf History Sub-package, which is part of the Humanities/Fine Arts package.

Natural Science/Mathematics package (3 CH)
Students must complete a minimum of 3 Credit Hours from the following courses:
• MATH 101 Calculus I

Supplemental College/Program Core Requirements package (12 CH)
• CHEM 351 Basic Biochemistry
• CHEM 352 Experimental Biochemistry
• CHEM 239 Physical Chemistry
• CHEM 101 General Chemistry I
• CHEM 103 Experimental General Chemistry I

College Core Requirements (17 CH)
Students must complete a minimum of 17 credit hours in College Core courses, 6 of which in supporting courses and the remaining 11 credit hours in General Science courses, as detailed below.

Supporting Courses package (6 CH)
Students must complete a minimum of 6 credit hours from the following courses:
• STAT 151 Introduction to Applied Statistics
• BIOL 101 General Biology

General Science package (11 CH)
Students must complete a minimum of 11 credit hours from the following courses:
• BIOM 211 Human Anatomy
• BIOM 215 Human Physiology
• BIOM 243 Introduction to Pathology
• CHEM 209 Fundamentals in Organic Chemistry

Major Requirements (115 CH)
A minimum of 115 credit hours of compulsory courses including:
• PHAR 200 Medicinal Chemistry I
• PHAR 201 Medicinal Chemistry II
• PHAR 210 Pharmaceutics I
• PHAR 220 Foundations of Pharmacology & Pharmacotherapeutics I
• PHAR 221 Foundations of Pharmacology & Pharmacotherapeutics II
• PHAR 230 Pharmacy and Health Care I
• PHAR 231 Pharmacy and Health Care II
• 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 Pharmacokinetics I
• PHAR 317 Pharmacokinetics II
• PHAR 320 Pharmacology I
• PHAR 321 Pharmacology II
• PHAR 330 Structured Professional Practice Experience I
• PHAR 340 Professional Skills III
• PHAR 341 Professional Skills IV
• PHAR 350 Pharmacy Ethics and Law
• PHAR 359 Interpretation of Lab Data I
• PHAR 360 Interpretation of Lab Data II
• PHAR 361 Patient Assessment Laboratory I
• PHAR 362 Patient Assessment Laboratory II
• PHAR 370 Pathophysiology I
• PHAR 371 Pathophysiology II
• PHAR 380 Pharmacotherapy I
• PHAR 381 Pharmacotherapy II
• PHAR 390 Integrated Case-Based Learning I
• PHAR 391 Integrated Case-Based Learning II
• PHAR 405 Pharmacy Research, Evaluation and Presentation Skills III (PREP skills III)
• PHAR 406 Pharmacy Research, Evaluation and Presentation Skills IV (PREP skills IV)
• PHAR 410 Pharmaceutics IV
• PHAR 415 Toxicology
• PHAR 420 Pharmacology III
• PHAR 421 Pharmacology IV
• PHAR 425 Pharmacognosy, Alternative/Complementary Treatments
• PHAR 430 Structured Professional Practice Experience II
• PHAR 440 Professional Skills V
• PHAR 441 Professional Skills VI
• PHAR 450 Healthcare delivery systems
• PHAR 470 Pathophysiology III
• PHAR 471 Pathophysiology IV
• PHAR 480 Pharmacotherapy III
• PHAR 481 Pharmacotherapy IV
• PHAR 485 Pediatrics/Geriatrics
• PHAR 490 Integrated Case-Based Learning III
• PHAR 491 Integrated Case-Based Learning IV
• PHAR 505 Pharmacy Research, Evaluation and Presentation Skills V (PREP skills V)
• PHAR 506 Pharmacy Research, Evaluation and Presentation Skills VI (PREP skills VI)
• PHAR 525 Pharmacoepidemiology & pharmacoeconomics
• PHAR 530 Structured Professional Practice Experience III

- PHAR 531 Structured Professional Practice Experience IV
- PHAR 532 Structured Professional Practice Experience V
- PHAR 533 Structured Professional Practice Experience VI
- PHAR 535 Pharmacy Management
- PHAR 590 Integrated Case-Based Learning V
- PHAR 533 Structured Professional Practice Experience VI
- PHAR 535 Pharmacy Management
- PHAR 590 Integrated Case-Based Learning V

Major Electives (8 CH)

A minimum of 8 credit hours in elective pharmacy courses:

- PHAR 445 Rx Elective I
- PHAR 446 Rx Elective II
- PHAR 545 Rx Elective III

Study Plan

FIRST YEAR (35 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	PHAR200	Medicinal Chemistry I	2
	BIOM215	Human Physiology	3
	PHAR220	Foundations of Pharmacology & Pharmacotherapeutics I	1
	CHEM351	Basic Biochemistry	3
	CHEM352	Experimental Biochemistry	1
	PHAR230	Pharmacy and Health Care I	2
	PHAR240	Professional Skills I	2
	BIOM211	Human Anatomy	3
Total Credit Hours in Semester			**17**
Spring	PHAR250	Microbiology for Pharmacy	3
	STAT151	Applied Statistics	3
	PHAR201	Medicinal Chemistry II	2
	PHAR210	Pharmaceutics I	3
	BIOM243	Introduction to Pathology	2
	PHAR221	Foundations of Pharmacology & Pharmacotherapeutics II	1
	PHAR231	Pharmacy and Health Care II	2
	PHAR241	Professional Skills II	2
Total Credit Hours in Semester			**18**

SECOND YEAR (37 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	PHAR 310	Pharmaceutics II	2
	PHAR370	Pathophysiology I	1
	PHAR320	Pharmacology I	2
	PHAR380	Pharmacotherapy I	3
	PHAR316	Pharmacokinetics I	1
	PHAR390	Integrated Case-Based Learning I	2
	PHAR340	Professional Skills III	2
	PHAR305	Pharmacy Research, Evaluation and Presentation Skills I	1
	PHAR359	Interpretation of Lab Data I	1
	PHAR361	Patient Assessment Laboratory I	1
Total Credit Hours in Semester			**16**
Spring	PHAR362	Patient Assessment Laboratory II	1
	PHAR317	Pharmacokinetics II	1
	PHAR350	Pharmacy Ethics and Law	1
	PHAR311	Pharmaceutics III	2
	PHAR371	Pathophysiology II	1
	PHAR321	Pharmacology II	2
	PHAR381	Pharmacotherapy II	3
	PHAR391	Integrated Case-Based Learning II	2
	PHAR341	Professional Skills IV	2
	PHAR306	Pharmacy Research, Evaluation and Presentation Skills II	1
	PHAR360	Interpretation of Lab Data II	1
Total Credit Hours in Semester			**17**
Sum mer	PHAR330	Structured Practical Experiences in Pharmacy I	4
Total Credit Hours in Semester			**4**

THIRD YEAR (39 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	PHAR410	Pharmaceutics IV	2
	PHAR470	Pathophysiology III	1
	PHAR420	Pharmacology III	2
	PHAR480	Pharmacotherapy III	3
	PHAR415	Toxicology	2
	PHAR490	Integrated Case-Based Learning III	2
	PHAR440	Professional Skills V	2
	PHAR405	Pharmacy Research, Evaluation and Presentation Skills III	1
	PHAR450	Healthcare delivery systems	1
	PHAR445	Rx Elective I	2
Total Credit Hours in Semester			**18**
Spring	PHAR425	Pharmacognosy, Alternative/ Complementary Treatments	2
	PHAR485	Pediatrics/Geriatrics	1
	PHAR471	Pathophysiology IV	1
	PHAR421	Pharmacology IV	2
	PHAR481	Pharmacotherapy IV	3
	PHAR491	Integrated Case-Based Learning IV	2
	PHAR441	Professional Skills VI	2
	PHAR406	Pharmacy Research, evaluation and presentation Skills IV	1
	PHAR446	Rx Elective II	3
Total Credit Hours in Semester			**17**
Sum mer	PHAR330	Structured Practical Experiences in Pharmacy II	4
Total Credit Hours in Semester			**4**

FOURTH YEAR (27 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	PHAR530	Structured Practical Experiences In Pharmacy III	4
	PHAR531	Structured Practical Experiences In Pharmacy IV	4
	PHAR532	Structured Practical Experiences In Pharmacy V	4
	PHAR533	Structured Practical Experiences In Pharmacy VI	4
	PHAR 505	Pharmacy Research, evaluation and presentation skills V	1
Total Credit Hours in Semester			**17**
Spring	PHAR535	Pharmacy Management	2
	PHAR525	Pharmacoepidemiology & Pharmacoeconomics	2
	PHAR590	Integrated Case-Based Learning V	2
	PHAR506	Pharmacy Research, evaluation and presentation skills VI	1
	PHAR545	Rx Elective III	3
Total Credit Hours in Semester			**10**

COLLEGE OF SHARIA AND ISLAMIC STUDIES

Sharia Building (Women's Section)
Phone: (974) 4403-4447
E-mail: **shariadean@qu.edu.qa**
Website: **http://www.qu.edu.qa/ar/sharia/index.php**

(Men's section)
Phone: (974) 4403-4400
E-mail: **shariadean@qu.edu.qa**
Website: **http://www.qu.edu.qa/ar/sharia/index.php**

Dean
A. Hakeem Yousuf A. Alkhelaifi

Associate Dean for Academic Affairs
Yousef Mahmood Al-Sidekey

Associate Dean for Research and Graduate Studies
Sultan Ibrahim S K Al-Hashmi

ABOUT THE COLLEGE

The mission of the College is to produce competent graduates in Islamic studies of high quality and international repute who are capable of actively responding to the needs and aspirations of the society and demonstrating communication and research related skills in their dissemination of knowledge. The College will also conduct research that addresses classical, modern & contemporary issues and contributes to the world wide advancement of knowledge in the field.

DEGREE OFFERINGS

The College of Sharia and Islamic Studies offers the following undergraduate Degree programs:
• Bachelor of Dawa and Mass Communication
• Bachelor of Islamic Studies

DEPARTMENT OF DAWA AND ISLAMIC CULTURE

Sharia Building (Women's Section)
Phone: (974) 4403-4476/4467
E-mail: **shafi@qu.edu.qa**
Website: **http://www.qu.edu.qa/ar/sharia/programs.php**

Head
Mohamed Amezzian

Faculty

Professors:
Mohamed Amezzian, Abdelsalam Bishr Mohamed S Khamis, Abdelkader Bekhouch, Dheen Mohamed Mohamed Meerasaheb.

Associate Professors:
Zakaryya Abdelhady, Musaab Al-Idrisi

Assistant Professors:
Ameena Al-Ansari, Shafi Al-Hajri, , Hamed Al-Marwani, Basyouny Nehela, Ramadan Mohamed Matarid, Mohamed Rifai Ameen, Eltigani Ahmed, Mohamed Mrah

ABOUT THE DEPARTMENT

The Department offers a Bachelor of Dawa and Mass Communication degree; its main purpose lies in producing a team of specialized scholars who are capable of presenting the message of Islam as a tolerant, humane, peace-loving, culturally pluralistic and socially dynamic religion. In this way, we are hopeful of serving Qatari society, as well as the Arab-Islamic world and humanity at large.

BACHELOR OF DAWA AND MASS COMMUNICATION

Objectives
• Serving the Islamic world by preparing a team of competent scholars who are able to serve at centers of Islam and Culture in the western world, where there is a dire need for such people who can relate with the "other" as mentioned in the objectives of the program.
• Produce graduate who are progressive, enlightened, understand their religion and are endowed with tolerance, moderation and open-mindedness. They should be trained to engage in dialogue far from extremist and fanatic tendencies.
• Acquaint them thoroughly with modern trends of thought and their religious and philosophical approaches as well influential social and political tendencies which have gained currency.
• Enable them to understand and appreciate the

challenges and demands of time and be capable of accommodating themselves according to its needs.
• Create in them the ability to soundly analyze modern social values and behavioral patterns and take a sensibly objective stance towards them.
• Produce graduates endowed with religious commitment, who work in television and broadcasting corporations as well as internet sites, who are additionally capable of doing research work for Islam.
• Train our graduates to understand Islam through its belief system, heritage and civilization, and present it in a cultured and acceptable manner to the modern mind. In this way they would be expected to safeguard Islamic-Arabic civilization intellectually and in all other aspects.
• Induce in them a positive view and stance towards the culturally "other" and encourage dialogue between civilizations and religions.
• Enable them to present Islam with its wisdom, amenability and adaptability.

Major Declaration
Applicants must satisfy the minimum high school percentage requirement for the major in the semester of admission. A personal interview is also required.

Learning Outcomes
• Understand the nature of different thoughts and philosophies.
• Consider a variety of ways to make decisions and solve problems.
• Preserve and promote pride in Islamic values & ethics.
• Make others know the tolerance of the message of Islam.
• Hold discussions with others in a methodological & contemporary way.
• Discuss intellectual issues in the dialogue of civilizations, as per contemporary trends.
• Use modern, mass-adopted technologies.
• Write scientific research by using diverse tools.

Opportunities
The Program will attract students who are desirous of working in religiously-oriented mass media, in the field of Islamic Dawa in Qatar and abroad, in the field of teaching, in the field of religious and civilization dialogue, and in the field of Islamic Culture.
The Program is geared to serve Qatari society by producing graduates who are:
• Teachers of Islamic Sciences
• Religious Specialists
• Religious media figures
• Preachers and Imams for mosques

Major in Dawa and Mass Communication
A minimum of 120 credit hours are required to complete the major in Dawa and Mass Communication, including the following:
• A minimum of 33 credit hours in core curriculum requirements.
• A minimum of 39 credit hours of major requirements.
• A minimum of 12 credit hours of major electives.
• A minimum of 24 credit hours in minor requirements and electives.
• A minimum of 12 credit hours of free electives.

Core Curriculum Program (33 CH)
Common package (15 CH)
• ARAB 100 Arabic Language I
• ARAB 200 Arabic Language II
• ENGL 110 English I
• ENGL 111 English II
• DAWA 111 Islamic Culture

Social/Behavioral Sciences package (3 CH)
Courses in CCP defined Social/Behavioral Sciences package

Humanities /Fine Arts package (6 CH)
Courses in CCP defined Humanities/Fine Arts package. Students must complete a minimum of 3 Credit Hours from courses listed in the Qatar and Gulf History Sub-package, which is part of the Humanities/Fine Arts package.

Natural Science/Mathematics package (3 CH)
Courses in CCP defined Natural Science/Mathematics package

General Knowledge package (3 CH)
Courses in CCP defined General Knowledge package

General Skills package (3 CH)
Courses in CCP defined General Skills package

Major Requirements (39 CH)
• ISLA 101 Studies in Islamic Creed
• ISLA 102 Quranic Sciences
• ISLA 104 Sciences of Hadith
• DAWA 113 Philosophy of Sirah
• DAWA 204 Research Methodology
• DAWA 202 Introduction to General Philosophy
• DAWA 203 Principles & Methodology of Dawa
• DAWA 301 Contemporary issues of Fiqh
• DAWA 302 World Religions (Comparative Studies)
• DAWA 303 Comparative Mysticism
• DAWA 401 Area Studies
• DAWA 402 World Religious Thought
• DAWA 403 Graduation Project (Capstone)
Major Electives (12 CH)
Students must complete a minimum of 12 credit hours in courses selected from the following list:
• DAWA 114 Modern techniques of Dawa
• ISLA 201 Principles of Islamic Jurisprudence
• ISLA 106 Fiqh of Worship
• DAWA 117 Ethics
• DAWA 214 Textual Study of the Quran
• DAWA 205 School of Islamic Thought
• DAWA 206 International Organizations & Human Rights
• DAWA 207 Islamic Institutions
• ISLA 308 Contemporary Intellectual Trends
• DAWA 305 Modern Philosophy
• DAWA 306 History of Religion
• DAWA 404 Sociology of Religion
• DAWA 405 Independent Studies

Minor in Mass Communication (24 CH)
Students must complete the minor in Mass Communication

Free Electives (12 CH)
Students must complete a minimum of 12 Credit Hours in free electives from courses outside the major.

Study Plan

FIRST YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ARAB 100	Arabic language	3
	ISLA 101	Studies in Islamic Creed	3
	MCOM 103	Media and Society	3
	DAWA 113	Philosophy of Sirah	3
	XXXX XXX	Core Curriculum	3
Total Credit Hours in Semester			**15**
Spring	ARAB 200	Arabic Language	3
	ISLA 102	Quranic Sciences	3
	ISLA 104	Sciences of Hadith	3
	DAWA/ ISLA XXX	Major Electives	3
	XXXX XXX	Core Curriculum	3
Total Credit Hours in Semester			**15**

SECOND YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	DAWA 111	Islamic Culture	3
	ENGL 110	English I	3
	MCOM 223	Media Writing	3
	DAWA 203	Principles and Methodology of Dawa	3
	DAWA/ ISLA XXX	Major Electives	3
Total Credit Hours in Semester			**15**
Spring	ENGL 111	English II	3
	MCOM 222	Communication Theories	3
	DAWA 204	Research Methodology	3
	DAWA 202	Introduction to General Philosophy	3
	MCOM XXX	Minor Electives	3
Total Credit Hours in Semester			**15**

THIRD YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	DAWA 301	Contemporary Issues of Fiqh	3
	DAWA 303	Comparative Mysticism	3
	MCOM XXX	Minor Electives	3
	XXXX XXX	Free Electives	3
	XXXX XXX	Core Curriculum	3
Total Credit Hours in Semester			**15**
Spring	DAWA 302	World Religions (Comparative Studies)	3
	DAWA/ ISLA XXX	Major Electives	3
	MCOM XXX	Minor Electives	3
	XXXX XXX	Free Electives	3
	XXXX XXX	Core Curriculum	3
Total Credit Hours in Semester			**15**

FOURTH YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	DAWA 401	Area Studies	3
	MCOM XXX	Minor Electives	3
	DAWA/ ISLA XXX	Major Electives	3
	XXXX XXX	Free Electives	3
	XXXX XXX	Core Curriculum	3
Total Credit Hours in Semester			**15**
Spring	DAWA 402	World Religious Thought	3
	DAWA 403	Graduation Project	3
	MCOM XXX	Minor Electives	3
	XXXX XXX	Free Electives	3
	XXXX XXX	Core Curriculum	3
Total Credit Hours in Semester			**15**

DEPARTMENT OF ISLAMIC STUDIES

Sharia Building (Women's Section)
Phone: (974) 4403-4424/4425/4488
E-mail: **islamicstudy@qu.edu.qa**
Website: **http://www.qu.edu.qa/ar/sharia/programs.php**

Head
Salih K Karim al-Zanki

Faculty

Professors:
Salih K Karim al-Zanki, A.hakeem Yousuf A Alkhelaifi, Aisha Yousuf Al-Mannai, Abdulhakeem Abdulrahman A Alsaadi, Muhammed Aydin, Hessa A.Aziz M Al-Sowaidi, Hissa Ahmad A Algazal, Mekki Klaina, al-Gurashi al-Basher, Yousuf Mahmmod M M Flamerzi,

Associate Professors:
Yousuf Mahmmod M M Flamerzi, Adnan Al-Hamwi Al-Olabi, Saad-Eddine Dedeche, Abdel Jabbar Ahmad Mohammad Said, Ayman Ali Saleh, Ali Ihsan Pala

Assistant Professors:
Mohammed Saleh M S Alsheeb, Ibrahim Abdulla I Al-Ansari, Yahya Hamad Al-Naemi, Mahroof Athambawa, Essa Abdulla A Kahoni, Hassan Yachou, Sultan Ibrahim, Ahmad al-Own, Mahmoud Said Hamida Attia, Mohamed Abdel Latif Rajab.

ABOUT THE DEPARTMENT

The Department offers a Bachelor of Islamic Studies degree, and its main purpose lies in producing a team of specialized scholars who are capable of presenting the message of Islam and able to address contemporary issues through a combination of tradition and modernity.

BACHELOR OF ISLAMIC STUDIES

Objectives
The Islamic Studies major aims to help students:
1. Promote the right understanding of Islam as a method of life away from extravagance and negligence.
2. Deal with basic resources of Islam and legal texts according to the original right device, and its application in the real life.
3. Develop balanced critical thinking and research, through different methods.
4. Positively connect with the heritage of Islamic thoughts, through different schools of jurisprudence, theology, Sufism and philosophy. These will benefit the students in addressing contemporary life issues.
5. Thoroughly understand the history and development of Islamic Civilization and its human achievements.
6. Promote good manners regarding differences, deal objectively with different opinion, encourage dialogue between civilizations, and realize effective coexistence under multiculturalism.
7. Acquire modern means of communication and information technology to address contemporary issues.
8. Logically face ideological and behavioral deviances, and wrongful judgments.
9. Become advisors and researchers who will meet the needs of society, by spreading Islamic thought and values.

Major Declaration
Applicants must satisfy the minimum high school percentage requirement for the major in the semester of admission.

Learning Outcomes
At the end of the program, the student should:
1. Know the basic resources of Islam and the principles and methods of Islamic jurisprudence.
2. Share noble humanitarian Islamic values.
3. Scientifically analyze Islamic legal texts.
4. Know and scientifically devise Islamic Rulings and combine tradition and modernity.
5. Positively use Scientific Islamic Heritage to address contemporary issues.
6. Positively interact with others and refrain from excessive and extreme behavior.
7. Write scientific research in different branches of Islamic knowledge and have the necessary language tools.
8. Know intellectual and cultural Islamic heritage.
9. Combine tradition and modernity.
10. Know and critically deal with Western efforts in the field of Islamic Studies.

Opportunities
This Islamic Studies major is geared to serve the Qatari society by producing graduates who are:
• Teachers of Islamic Studies.
• Workers in Islamic courts and the Ministry of Justice.
• Religious media figures.
• Preachers and Imams in the Ministry of Islamic Affairs.
• Workers in the Supreme Council for Family affairs.
• Workers in Research Institutions.
• Workers in Islamic Financial Institutions.

DEGREE REQUIREMENTS

Major in Islamic Studies
A minimum of 120 credit hours are required to complete the major in Islamic Studies, including the following:
• A minimum of 33 credit hours in core curriculum

requirements.
• A minimum of 42 credit hours of major requirements.
• A minimum of 9 credit hours of major electives.
• A minimum of 24 credit hours of concentration requirements and electives.
• A minimum of 12 credit hours of free electives.

Core Curriculum Program (33 CH)
Common package (15 CH)
• ARAB 100 Arabic Language I
• ARAB 200 Arabic Language II
• ENGL 110 English I
• ENGL 111 English II
• DAWA 111 Islamic Culture

Social/Behavioral Sciences package (3 CH)
Courses in CCP defined Social/Behavioral Sciences package

Humanities /Fine Arts package (6 CH)
Courses in CCP defined Humanities/Fine Arts package. Students must complete a minimum of 3 Credit Hours from courses listed in the Qatar and Gulf History Sub-package, which is part of the Humanities/Fine Arts package.

Natural Science/Mathematics package (3 CH)
Courses in CCP defined - Natural Science / Mathematics package

General Knowledge package (3 CH)
Courses in CCP defined - General Knowledge package

General Skills package (3 CH)
Courses in CCP defined - General Skills package

Major Requirements (42 credit hours)
• ISLA 101 Studies in Islamic Creed
• ISLA 102 Quranic Sciences
• ISLA 103 Quranic Exegesis
• ISLA 104 Sciences of Hadith
• ISLA 105 Analytical Hadith
• ISLA 106 Fiqh of Worship
• ISLA 201 Principles of Islamic Jurisprudence
• ISLA 202 Logic and Research Methodology
• ISLA 203 Fiqh of Transactions
• ISLA 204 Sufism and Ethics
• ISLA 301 Contemporary Methods in I.S.
• ISLA 302 Family Law
• DAWA 113 Philosophy of Sirah
• ISLA 401 Graduation Project

Major Electives (9 credit hours)
• ISLA 207 Analytical Exegesis
• ISLA 210 Thematic Hadith
• ISLA 308 Contemporary Intellectual Trends
• ISLA 205 Intellectual Foundations of Islamic Civilization
• ISLA 209 Islamic Studies in Contemporary Thought
• DAWA 306 History of Religions
• ISLA 206 The Objectives of the Sharia
• ISLA 107 Precepts of Fiqh
• DAWA 207 Islamic Institutions
• ISLA 307 Islamic Constitutional and Administrative Law
• ISLA 211 Islamic Studies in Legislative and Legal Thought
• ISLA 212 Islamic Penal Code

Concentration in Sharia (24 credit hours)
Students must complete a minimum of 15 CH in concentration requirements and a minimum of 9 CH in concentration electives

Sharia Concentration Requirements (15 CH)
• FIQH 303 Fiqh of Zakat and Awqaf
• FIQH 304 Islamic Ruling and Implications
• FIQH 305 Introduction to Islamic Fiqh
• FIQH 402 Companies, Documentation and Donations
• FIQH 403 Fiqh of Inheritance and Bequest

Sharia Concentration Electives (9 CH)
• FIQH 319 Fiqh of Procedures
• FIQH 415 Islamic International Law
• FIQH 418 Contemporary Ijtihad
• FIQH 425 Al-Qiyas (Analogy)
• FIQH 325 The Philosophy of Islamic Law
• FIQH 421 Fiqh of Evidence

Concentration in Usuluddin (24 credit hours)
Students must complete a minimum of 15 CH in concentration requirements and a minimum of 9 CH in concentration electives

Usuluddin Concentration Requirements (15 CH)
• USUL 301 Principles of Exegesis
• USUL 302 Islamic Theology
• USUL 335 Contemporary Studies in Quran and Sunna
• USUL 403 Methodology of Muhadditheen: Theory and Practice
• DAWA 302 World Religions (Comparative Studies)

Usuluddin Concentration Electives (9 CH)
• USUL 308 Legislative Texts of Hadith
• USUL 405 Miracle of the Quran
• USUL 407 Thematic Exegesis
• USUL 409 Islamic Philosophy
• USUL 439 Contemporary Muslim World

Study Plan: Concentration in Sharia

FIRST YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ARAB 100	Arabic I	3
	ISLA 101	Studies in Islamic Creed	3
	ISLA 103	Quranic Exegesis	3
	ISLA 105	Analytical Hadith	3
	DAWA 113	Philosophy of Sirah	3
Total Credit Hours in Semester			**15**
Spring	ARAB 200	Arabic II	3
	ISLA 102	Quranic Sciences	3
	ISLA 104	Sciences of Hadith	3
	ISLA 106	Fiqh of Worship	3
	XXXX XXX	Core Curriculum	3
Total Credit Hours in Semester			**15**

SECOND YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	DAWA 111	Islamic Culture	3
	ENGL 110	English I	3
	ISLA 201	Principles of Islamic Jurisprudence	3
	ISLA 203	Fiqh of Transactions	3
	DAWA/ ISLA XXX	Major Electives for Sharia	3
Total Credit Hours in Semester			**15**
Spring	ENGL 111	English II	3
	ISLA 202	Logic and Research Methodology	3
	ISLA 204	Sufism and Ethics	3
	DAWA/ ISLA XXX	Major Electives for Sharia	3
	XXXX XXX	Core Curriculum	3
Total Credit Hours in Semester			**15**

THIRD YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	FIQH 303	Fiqh of Zakat and Awqaf	3
	DAWA/ ISLA XXX	Major Electives for Sharia	3
	XXXX XXX	Core Curriculum	3
	FIQH 305	Introduction to Islamic Fiqh	3
	ISLA 301	Contemporary Methods in I.S.	3
Total Credit Hours in Semester			**15**
Spring	ISLA 302	Family Jurisprudence	3
	FIQH 304	Islamic Ruling and Implications	3
	XXXX XXX	Core Curriculum	3
	FIQH XXX	Sharia Concentration Electives	3
	XXXX XXX	Free Electives	3
Total Credit Hours in Semester			**15**

FOURTH YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	FIQH 403	Fiqh of Inheritance and Bequest	3
	FIQH XXX	Sharia Concentration Electives	3
	XXXX XXX	Free Electives	3
	XXXX XXX	Free Electives	3
	XXXX XXX	Core Curriculum	3
Total Credit Hours in Semester			**15**
Spring	FIQH XXX	Sharia Concentration Electives	3
	XXXX XXX	Core Curriculum	3
	ISLA 401	Graduation Project	3
	FIQH 402	Companies, Documentation and Donations	3
	XXXX XXX	Free Electives	3
Total Credit Hours in Semester			**15**

Study Plan: Concentration in Usuluddin

FIRST YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ARAB 100	Arabic I	3
	ISLA 101	Studies in Islamic Creed	3
	ISLA 103	Quranic Exegesis	3
	ISLA 105	Analytical Hadith	3
	DAWA 113	Philosophy of Sirah	3
Total Credit Hours in Semester			**15**
Spring	ARAB 200	Arabic II	3
	ISLA 102	Quranic Sciences	3
	ISLA 104	Sciences of Hadith	3
	ISLA 106	Fiqh of Worship	3
	XXXX XXX	Core Curriculum	3
Total Credit Hours in Semester			**15**

SECOND YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	DAWA 111	Islamic Culture	3
	ENGL 200	English Language I for Arts, Sharia and Education	3
	ISLA 201	Principles of Islamic Jurisprudence	3
	ISLA 203	Fiqh of Transactions	3
	DAWA/ ISLA XXX	Major Electives for Usuludddin	3
Total Credit Hours in Semester			**15**
Spring	ENGL 201	English Language II for Arts, Sharia and Education	3
	ISLA 202	Logic and Research Methodology	3
	ISLA 204	Sufism and Ethics	3
	DAWA/ ISLA XXX	Major Electives for Usuludddin	3
	XXXX XXX	Core Curriculum	3
Total Credit Hours in Semester			**15**

THIRD YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	ISLA 301	Contemporary Methods in I.S.	3
	DAWA/ ISLA XXX	Major Electives for Usuludddin	3
	USUL 301	Principles of Exegesis	3
	USUL 335	Contemporary Studies in Quran and Sunna	3
	XXXX XXX	Core Curriculum	3
Total Credit Hours in Semester			**15**
Spring	ISLA 302	Family Jurisprudence	3
	USUL 302	Islamic Theology	3
	XXXX XXX	Core Curriculum	3
	XXXX XXX	Free Electives	3
	USUL XXX	Usuluddin Concentration Electives	3
Total Credit Hours in Semester			**15**

FOURTH YEAR (30 credit hours)			
Term	Course #	Course Title	Credit Hours
Fall	USUL 403	Methodology of Muhadditheen: Theory and Practice	3
	USUL XXX	Usuluddin Concentration Electives	3
	XXXX XXX	Free Electives	3
	XXXX XXX	Free Electives	3
	XXXX XXX	Core Curriculum	3
Total Credit Hours in Semester			**15**
Spring	DAWA 302	World Religions (Comparative Studies)	3
	XXXX XXX	Core Curriculum	3
	ISLA 401	Graduation Project	3
	XXXX XXX	Free Electives	3
	USUL XXX	Usuluddin Concentration Electives	3
Total Credit Hours in Semester			**15**

CHAPTER 13
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
(COMP 002 OR IC3 Computing 2350 OR Computer Placement Test 2 060 OR COMP F003 OR MATH 119) AND (ENGL 004 OR ENGL 202 OR TOEFL Internet-based Test 061 OR TOEFL_Inst Testing Prog 500 OR Int Eng Lang Test Syst-IELTS 5.5 OR TOEFL Computer-based Test 173 OR ENGL F073)

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 provides an introduction to management accounting as it applies to the use of accounting information in planning and controlling business operations. Students are introduced to cost terms, 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 focuses on essential financial accounting concepts and standards related to corporate reporting with special 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 a rigorous exposure to the theory and application of generally accepted accounting principles, particularly in the areas of liability and equity accounts as well as financial reporting.

Prerequisite
ACCT 221

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 spilt 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 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
Presenting accounting issues related to international business transactions, harmonization of accounting principles, and comparative accounting systems. Topics covered include 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
Fin 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 various assessment tools.

ARAB 110
Intro 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 OR ARAB 109 OR ARAB 100) OR (ARAB 105 AND ARAB 106) AND

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 outcomes.

Prerequisite
ARAB 100 OR (ARAB 105 AND ARAB 106)

ARAB 201
Arabic Language Basics - Adv
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 perdicate; 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, identfying their synthetic forms; and finally, explaining the sections of semi-objects, such as circumstantial, differential, and exceptional. All this is done in an active learing 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 explaning infinitive forms and types; explaining the ascribed noun, diminutive noun, broken plural; andexplaining 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 learing atmosphere, employing various assessment tools (research papers, presentations, tests, etc.)

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 learing 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 contibutions 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 learing atmosphere, employing various assessment tools (poetry readings, research papers, presentations, tests, etc.)

Prerequisite
ARAB 221 OR ARAB 240

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 learing atmosphere, employing various assessment tools (research papers, presentations, tests, etc.)

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 learing atmosphere, employing various assessment tools (applied presentations, tests, critical reading of rhtorical 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 learing 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 learing 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 learing atmosphere, employing various assessment tools (research paper on some functional grammar issues, presentations, tests, etc.)

Prerequisite
(ARAB 213 OR ARAB 241) AND (ARAB 218 OR ARAB 346)

ARAB 326
Literary 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 learing 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 theirArabic 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 learing 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 learing 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 learing 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 assessment tools, such as assignments, presentations, participation in classroom discussions and blackboard forums, testing and scientific research - all in an active learing atmosphere.

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 learing 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 OR ARAB 248

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 tools, such as: applied and analytical assignments, and field studies.

Prerequisite
ARAB 218 OR ARAB 346

ARAB 381
Modern & Cont. Arab. 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; all this in an atmosphere of active learning, employing various assessment tools (modern and contemporary poetry readings [20%], research paper, presentations and tests, etc.)

Prerequisite
ARAB 221 OR ARAB 240

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 learing atmosphere, employing various assessment tools (research paper, presentations and tests, etc.)

Prerequisite
ARAB 224

ARAB 391
literary Rese.Sources& Methods
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 consitute an active learing 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 consitute an active learing atmosphere, employing various assessment tools (research paper, presentations and tests, etc.)

Prerequisite
ARAB 319 OR ARAB 246

ARAB 412
Readings in Arab. Ling. Trad.
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-Mubarred, 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 enbles 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 liguistic bridge between the traditional and the modern, between the genuine and the contemprary at the level of texts, perceptions and methods, capitalizing on what the students acquired of linguistic knowledge,

especially through school curricula: Sources of the linguistic studies, grammar, morphology, philology, and linguistics; all this in an active learing atmosphere, employing various assessment tools (research paper, presentations and tests, etc.)

ARAB 419
Comparative Linguistics
Credit Hours: 3
This course aims to enable the student to make practical comparisions 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 273

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 orientalists (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 Saiid 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 learing atmosphere, employing various assessment tools (research paper, presentations and tests, etc.)

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 learing atmosphere, employing various assessment tools (research paper, presentations and tests, etc.)

Prerequisite
ARAB 351 OR ARAB 248

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 learing atmosphere, employing various assessment tools (research paper, presentations and tests, etc.)

Prerequisite
ARAB 331 OR (ARAB 242 AND ARAB 445)

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 learing 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 the 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 learing 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 learing atmosphere, employing various assessment tools (research paper, presentations and tests, etc.)

ARAB 491
Topics in cont. 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 learing atmosphere, employing various assessment tools (critical readings of interllectual 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 knowlede 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 learing atmosphere, employing various assessment tools (research paper, presentations and tests, etc.)

ARAB 493
Capstone on Arabic Linguistics
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 learing atmosphere, employing various assessment tools (research paper, presentations and tests, etc.)

ARCT 100
Independent Study
Credit Hours: 1 OR 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
Intro to Archtec & 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 Des 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 Arch I
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
Hist & Theory of Arch II
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
Mat & Meth of Building Const 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 StudioIII
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
Mtls & Mthds of Bldg Const 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
Envi. Control Syst 1 Acou& Lig
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, day-lighting, 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
Envi. Cont. Syst.2 Sani.& 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
Const.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
Stru. & Arch. Form 1 Conc.Stru
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
Stru.&Arch.2 Steel&Shell Stru.
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 portofolios, 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-behaviorknowledge can be applied to design projects.

Prerequisite
ARCT 221

ARCT 421
Intro. 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 Valu. & Quan.
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
Comp Applications in Arch advn
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
Cont. Arch. 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 Proj. Prep. & Prog.
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 Mana.
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
Comp. Appl. in Urban Plan.&GIS
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 disinclines 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 Pres. & 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

ARTE 421
Manual Weaving
Credit Hours: 3 OR 4
This course teaches the principles of weaving with a historical overview of this art, from prehistoric ages to modern age. Differences in weaving styles across ages will be explored. Concentration will be on producing artworks using the manual (manual weaving tool) and achieving the values of touch, color, transparency, and space.

Prerequisite
ARTE 121

ARTE 422
Criticism & Art Appreciation
Credit Hours: 2
This course offers an overview of art philosophy of different civilizations from ancient times to modern times. The course also touches on children's art. Comparative analyses of samples of artworks from different cultures and different ages will be conducted for finding out similarities and differences. Students will also complete research papers, in which they explore different approaches to art criticism. Students will also engage in analyzing different artworks, as well as visiting museums and art exhibitions and submit reports about the activities.

ARTE 433
Independent Study
Credit Hours: 1 OR 3
Through this course, independent studies in all major areas of the program can be assigned by the subject teacher to the student who applies for this kind of independent study. This independent study is only offered to address the need of students who need a certain number of credit hours to complete the total number of hours required for graduation. Credit hours for this study ranges between one hour and three hours.

ARTE 434
Capstone Course
Credit Hours: 3
This course offers opportunities for students to apply the knowledge and skills they acquired throughout their course of study in the various aspects of the program. The study is based on conducting a project designed and carried out by the student and supervised by a faculty member. Through the research, a solution to some of the problems surrounding art and art education are tackled theoretically practically. Suggestions to remedy these problems should be offered. The project should reflect the knowledge and skills the student acquired in the program.

Prerequisite
ARTE 124 AND ARTE 220 AND ARTE 223 AND ARTE 225 AND ARTE 325 AND ARTE 121

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.

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

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 Nucliec Acids as the genetic material, how was DNA proven to be the Genetic Material, Chemical and Physical Properties of Nucliec 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
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
Princ 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 wild life 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 Engin & DNA Tech
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 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 AND BIOL 351

BIOL 422
Envir Mgmt & 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. Immunodefeciency, hypersensitivity and auto immunity. Histocompatability and organ transplantation. Immunogenetics.

Prerequisite
BIOL 362

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 icroorganisms 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 and functions, and the differentfactors that affect the success of the culture were rather emphasized in the theoretical part. In the laboratory part the establishment, maintenance and subculture of different types of plant cell / tissue culture were a major task. Beside this the effect of different growth regulators types, concentrations and combinations were also experimental.

Prerequisite
(BIOL 351 AND BIOL 362) OR BIOL 310

BIOL 452
Molecular Analytical Tech.
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
Research Project
Credit Hours: 3
It is undertaken by students in their senior year after completing 90 hours of credit. Research projects are selected with departmental approval and may involve one or more supervisors. Students submit a research thesis that documents their work.

BIOL 497
Research Project
Credit Hours: 0 OR 3
Research Project

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 Mgmt, Safety & Qlty Ctrl
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 work place, 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, bums, 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 paediatric 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. Modem application of antibodies and cytokines in diagnosis and treatment of disease. The immune system and it's relation to infection, transplantation and immunopathology with special emphasis on immunological techniques.

Prerequisite
BIOM 243

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 it's classification. Clotting mechanisms and disorders. Detection of coagulation disorders.

Prerequisite
BIOM 243

BIOM 452
Immunohematology & Bld 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 it's hormones. Adrenal glands and calcium homoeostasis. Hormonal assays. Hormonal control of reproduction in males and females.

Prerequisite
BIOM 215

BIOM 491
Clinic Prac 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
Clin Prac 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
Clin Prac 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
Clin Prac in Microbiology
Credit Hours: 3
Supervised clinical practice in the clinical microbiology laboratoryproviding 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 Immunoh
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.

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

CHEM 103
Expmntl 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

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

CHEM 209
Fundamentals in Organic Chemistry
Credit Hours: 3
CHEM 209 is designed for students pursing 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
Exper. 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 give the student adequate training in the use of organic lab techniques and report writing.

Prerequisite
CHEM 212

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 OR CHEM 201

CHEM 222
Experimental Inorganic Chem
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 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 complexemetric titrations)- gravimetric methods of analysis – spectrophotometry.

Prerequisite
CHEM 101

CHEM 234
Exper. Analytical Chemistry
Credit Hours: 1
Gravimetric analysis – Neutralization reactions – Precipitation reactions – Oxidation and reduction reactions – Complexometry.

Prerequisite
CHEM 103 AND CHEM 231

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 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

CHEM 242
Experimental Physical Chem 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 104 AND CHEM 241

CHEM 275
Principles of Env 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 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 211

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 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 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 210 OR 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 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 OR CHEM 286

CHEM 342
Physical Chemistry III
Credit Hours: 3
This course will introduce students to computational chemistry and its basis in quantum chemistry. 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 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 211

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 351

CHEM 375
Industrial Chemistry I
Credit Hours: 3
Introduction to industrial chemistry, resources of chemical materials, research and development, worldwide chemical industry impact, technological economy, energy, chemical industry impact on environment, industrial catalysis, cements.

Prerequisite
CHEM 241

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 442
Exper. Physical Chemistry II
Credit Hours: 1
Introduction and safety. Chemical kinetics: kinetics of catalytic decomposition of H2O2 (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 341

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 obtain, develop, demonstrate and acquire the necessary research skills in chemistry. Most of the research topics are interdisciplinary, so crossing boundaries across other disciplines. One-to-one supervision will be provided from the faculty members to perform chemical research in a professional environment. The students are required to conduct literature review and to carry out an experimental work, before writing a mini thesis and making an oral presentation.

CHME 201
Intro to Chemical Engin 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
MATH 101 AND PHYS 191 AND CHEM 101

CHME 202
Intro to Chemical Engin 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 Engin Thermod 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

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 AND MATH 102

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 CHME 213 AND GENG 300

CHME 312
Chemical Engin Thermod 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 AND CHEM 341

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 AND CHME 312

CHME 314
Chemical Reaction Engin
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 312

CHME 315
Mass Transfer II
Credit Hours: 3
Distillation, liquid-liquid extraction and leaching. Humidification. Crystallization.

Prerequisite
CHME 313
CHME 324
Chemical Engin Lab I
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
ENGL 203 AND CHME 213

CHME 325
Chemical Engin Lab II
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 324 AND CHME 313

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 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 CHME 315 AND MATH 217

CHME 421
Plant Design 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
Plant Design 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

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, frequency analysis, Bode stability, cascade control, feed-forward control, other control schemes.

Prerequisite
CHME 311 AND MATH 217

CHME 426
Chemical Engin. Laboratory III
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 423 AND CHME 314

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

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

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
CHEM 211 AND CHME 213

CHME 444
Aluminum Production Technology
Credit Hours: 3
The present course will give a comprehensive overview of the process of industrial aluminium production. Topics covered range from theory and principles of electrolysis, electrolyte chemistry, thermodynamic considerations, and heat balance of electrolysis cells. The important concept of current efficiency will be discussed thoroughly. The two main challenges that the world's aluminium industry will face in the years to come, energy and the environment, will be given great attention. Lecture sessions are complemented by weekly tutorials, giving students the opportunity to practice their knowledge, and to gain extensive experience in problem solving. Upon completion of the course the students will have gained a strong foundation for further studies of aluminium production and for a potential career in the aluminium industry.

Prerequisite
CHEM 101 AND CHEM 103

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
Intro 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 AND CHEM 211

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 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 463
Water Processes
Credit Hours: 3
Water resources, basic chemistry of saline water, modeling and analysis of single effect desalination combined with mechanical vapor compression and thermal vapor compression, modeling of multiple effect desalination (MED), modeling of single and multistage desalination processes. Reverse osmosis, Introduction to other membrane processes, Pre- and post-treatment operations.

Prerequisite
CHME 213

CHME 466
Special Top in Chem Engin 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.

Prerequisite
CHEM 211 AND CHME 213

CHME 467
Special Top in Chem Engin 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.

Prerequisite
CHEM 211 AND CHME 213

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 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 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."

Prerequisite
CHME 495

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

CHME 497
Independent Study
Credit Hours: 1 OR 3
This technical elective is to be offered to a small number of students because of laboratory or other resource constraints, and is aimed at enhancing students' independent learning of specialized aspects of chemical engineering.

Prerequisite
CHEM 211 AND CHME 312

CMPE 261
Digital Logic Design
Credit Hours: 3
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.

Prerequisite
CMPS 205 AND CMPE 262

CMPE 262
Digital Logic Des Laboratory
Credit Hours: 1
Selected experiments examining logic devices and circuits, a final design project to accompany and complement the lecture course.

Prerequisite
CMPE 261

CMPE 263
Computer Architecture & Org 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

CMPE 363
Computer Architecture & Org 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 Des
Credit Hours: 3
Fundamentals and evolution of microprocessors. Architecture of a 16-bit microprocessor, assembly language and its development tools; data transfer; arithmetic logic, program control instructions; interrupt organization; memory interface and address decoding; input/output, programmable peripheral, serial input/output interfacing; universal synchronous and asynchronous receivers and transmitters; hardware interrupts, basic interrupt interface, programmable interrupt controllers; analog-digital converters; 32-bit programming.

Prerequisite
CMPE 363 AND CMPE 365

CMPE 365
Microprocessor Based Des Lab
Credit Hours: 1
Experiments to emphasize the practice of assembly language programming, data acquisition software techniques, and hardware for data acquisition systems.

Prerequisite
CMPE 364

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 CMPE 262 AND ELEC 201 AND ELEC 231

CMPE 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.

CMPE 455
Data Comm & Comp Networks I
Credit Hours: 3
Fundamental concepts of communication systems such as the Internet, local area, metropolitan and wide area networks. Layered network architecture; transmission technology; data link layer protocols, broadcast networks and their protocols, flow and error control; concepts of the network layer and routing algorithms; services and protocols of the transport layer; examples of application layer protocols.

Prerequisite
CMPS 303 AND CMPE 263 AND CMPE 456

CMPE 456
Data Comm & Comp Netwrks I Lab
Credit Hours: 1
Practical skills and hands-on experience needed to build small-to-medium size networks. Network simulation tools, installing, configuring, troubleshooting and monitoring computer networks and their components, protocols and services.

Prerequisite
CMPE 455

CMPE 457
Data Comm & Comp 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 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
Mod 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
Sel Top in Cmptr Engin
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 475
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

CMPE 476
Digital Signal Processing
Credit Hours: 3
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.

Prerequisite
ELEC 351 AND CMPE 478

CMPE 478
Digital Signal Processing Lab
Credit Hours: 1
Practical implementation of digital signal processing algorithms using standard kits. Audio signal filtering; spectral analysis of signals, de-convolution of composite signals, spectral shifting of audio signals; channel equalization for communication signals.

Prerequisite
CMPE 476

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
Model and Sim 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 482
Multimedia Networks
Credit Hours: 3
Analysis of main characteristics and challenges of multimedia delivery over IP networks with the analysis of main quality of service mechanisms used at each layer to allow for differentiated services with the ability to explain the main characteristics of IEEE standards for LANs and MANs. Multimedia applications; video and audio streaming; quality of service fundamentals and mechanisms; IEEE standards for wireless local, metropolitan, personal, and 3G area networks.

Prerequisite
CMPE 455

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 485
Fund of Digital Img 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.

Prerequisite
ELEC 351

CMPE 495
Independent Study
Credit Hours: 1 OR 3
Guided reading of selected topics exploring advanced topics in computer engineering. Topics and credit hours vary.

CMPE 498
Design Project I
Credit Hours: 1 OR 2
Study of a specialized topic in computer engineering as a combined hardware and software project. Conduct literature survey; implement a design with both software and hardware components; public presentation of a well-referenced report containing theoretical background, design, theoretical results, conclusions, and recommendations.

Prerequisite
CMPE 370

CMPE 499
Design Project II
Credit Hours: 3 OR 4
Continuation of CMPE 498; represents the completion of the project started in CMPE 498.

Prerequisite
CMPE 498

CMPS 101
Intro 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
Exposure to problem solving techniques and operations on data using the fundamental components of a programming language. Problem solving techniques and presentations; motivations to programming languages and program execution; fundamental components of a programming language including simple and structured data representation; mathematical and logical operations; input/

output, control and loop structures; functions; recursion; memory referencing; and simple file processing.

Prerequisite
CMPS 152

CMPS 152
Programming Concepts - Lab
Credit Hours: 1
Practical experience with programming using fundamental components of a programming language and exploring additional features illustrated by solving problems of various types and requirements. Purpose of programming environments; coding quality and professionalism; coding solutions to problems using fundamental programming language features; explorations of additional language features; debugging, testing and program evaluation.

Prerequisite
CMPS 151

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 market place.

CMPS 205
Discrete Structures for Compt
Credit Hours: 3
Introduction to the elements of mathematics applicable to the computing field. Logic and methods of proof; logic gates and simple sequential circuits; Boolean algebra and minimization; set theory; relations and functions; sequences and sums; induction and recursion; numbering systems, combinatorics; discrete probability; graphs and trees.

CMPS 251
Objec-Oriented Programming
Credit Hours: 3
Fundamentals of object-oriented programming paradigm illustrated with an object-oriented programming language. Object-oriented design; encapsulation and information hiding; coherence, inheritance, abstraction, polymorphism, coupling; graphical user interface programming; additional features of the language.

Prerequisite
CMPS 151 AND CMPS 252

CMPS 252
Object-Oriented Programming-Ib
Credit Hours: 1
Practical experience with object-oriented programming, covering object-oriented features illustrated by various types of problem-solving techniques. Motivations to the programming environment; coding quality and professionalism; using object-oriented features of a programming language to code solutions to various problems; exploring additional language features; debugging, testing and evaluation of programs.

Prerequisite
CMPS 251

CMPS 303
Data Structures
Credit Hours: 3
Static and dynamic presentation, implementation, analysis, and applications of abstract data types (ADT) for linear and non-linear data structures and fundamental algorithms for software system development. ADTs; algorithm efficiency; searching, sorting; recursion; lists, stacks, queues, trees, graphs; hashing and file management.

Prerequisite
CMPS 251 OR CMPE 265

CMPS 307
Intro. to Proj. Manag. & Entr.
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 311
Object-Oriented Modeling
Credit Hours: 3
Modeling techniques and skills used in the stages of an object-oriented life cycle development process and hands-on modeling experience using a common modeling language. An overview of object-oriented development processes; motivations to object-oriented modeling methods and notations; class, state, and interaction modeling; system conception; domain and application analysis; system and class design; implementation modeling and design patterns; object- oriented languages

code generation and reverse engineering.

Prerequisite
CMPS 251

CMPS 321
Information Systems
Credit Hours: 3
Fundamentals, features, and characteristics of various types of information systems, theories, and methodologies. Types of information systems; capturing, representation, organization, and transformation of information; impact of computer-based information systems on business organizations; decision-support systems, knowledge-based systems; organization and management of information systems; information security, privacy, integrity; protection of information in organizations, future trends.

Prerequisite
CMPS 251

CMPS 323
Des & Analy 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 345
Automata & Formal Language
Credit Hours: 3
Theoretical models of computation, their capabilities, and limitations. The study of formal languages (regular and context-free languages); computational models for generating or recognizing these languages (finite-state automata, context free grammars, push-down automata, and Turing machines); introduction to decidability; halting problem, NP-completeness, and reducibility.

Prerequisite
CMPS 205

CMPS 351
Fund of Database Systems
Credit Hours: 3
Fundamentals of database design, modeling, architectures, and query notations and languages with a focus on relational databases. Motivations to the concepts of database systems including components, types and architectures, data modeling (diagrams, models, and schemas); relational data model, mapping conceptual schema to a relational schema; relational algebra, relational calculus, SQL; normalization.

Prerequisite
CMPS 251 AND CMPS 352

CMPS 352
Fund of Database Systems Lab
Credit Hours: 1
Practical experience on database system development for different types of requirements. Familiarity of a DBMS architecture and features; practical modeling, design, analysis, and implementation of database systems with various requirements; querying and reporting; embedding SQL in programming applications.

Prerequisite
CMPS 351

CMPS 356
Sftwr Devlpmt of Entrprise App
Credit Hours: 3
Introduction to issues, architectures, and technologies for designing and developing multi-tiered enterprise applications. Emphasis on object-relational mapping, multithreading, user interface development, application integration patterns, and approaches, internet technology standards such as markup languages, web services, and application security; hands-on project using state-of-the-art software architectures, open source application frameworks, middleware, and development tools to design, develop, test, and secure an enterprise application.

Prerequisite
CMPS 351

CMPS 372
Computer Architecture
Credit Hours: 0 OR 3
Review of the Von Neumann Architecture; Cache memory; I/O communication and buses; Pipelining; Risc Processors; Instruction level parallelism and Superscalar processors; Parallel processors.
Lab Session: Use of a Hardware Description language in circuits design.

Prerequisite
CMPS 322

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 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 405
Operating Systems
Credit Hours: 0 OR 3
Fundamental concepts of operating system design and implementation. Overview of operating system components; concurrency; mutual exclusion and synchronization; implementation of processes; deadlock; scheduling algorithms; memory management; input/output and file systems; protection and security.

Prerequisite
CMPS 303 AND CMPE 263 AND CMPS 406

CMPS 406
Operating Systems Laboratory
Credit Hours: 1
Practical experience with an operating system's components, associated services, and implementations. Operating system structure, components, services, shell commands; process management, inter-process communications; problem solving with concurrency, mutual exclusion, synchronization; implementations of CPU scheduling algorithms, memory placement algorithms; protection and security.

Prerequisite
CMPS 405

CMPS 411
Software Engineering
Credit Hours: 3
Fundamental principles of classical and modern software engineering theory and practice. Taxonomy of software systems; software project management, process models; requirements engineering, design, architectures, user interface design; software development methods; verification, validation, testing; software management (people, cost, quality, process improvement, configuration); emerging technologies.

Prerequisite
CMPS 303

CMPS 433
Multimedia Systems
Credit Hours: 3
Comprehensive study of various types of multimedia objects and their characteristics, presentation formats, and associated algorithms. Illustration by development and manipulation of multimedia objects using supported tools; taxonomy of multimedia objects; authoring programs, text, images, 2D and 3D graphics, audio, video; data compression; multimedia content design, human-computer interaction; and multimedia application development.

Prerequisite
CMPS 303

CMPS 445
Compiler Construction
Credit Hours: 0 OR 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 454
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 455

CMPS 465
Parallel & Distributed Systems
Credit Hours: 3
Principal concepts of parallel and distributed systems. Shared and distribute memory architectures; parallel and distributed programming paradigms; inter- process communication and message passing; distributed memory and file systems; process and data migration; load balancing; fault tolerance; security and protection.

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 485
Computer Security
Credit Hours: 3
Comprehensive study of information security fundamentals. Information assurance, risks, vulnerabilities; access control, protection methods; encryption, authentication; host-based, network-based, and physical security; legal and ethical implications.

Prerequisite
CMPE 455

CMPS 493
Senior Project I
Credit Hours: 1
The first of a two-course sequence incorporating conceptual knowledge and practical skills learned throughout the computer science program and applying them through teamwork for a substantial project. Team members experience different roles and gain an increasing range of diverse technical skills in all phases of the project development; course focus on the early stages of project work.

CMPS 495
Independent Study
Credit Hours: 1 OR 3
Guided reading of selected topics exploring advanced topics in computing. Topics and credit hours vary.

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
The second of a two-course sequence incorporating conceptual knowledge and practical skills learned throughout the computer science program and applying them through teamwork for a substantial project. Team members experience different roles and gain an increasing range of diverse technical skills in all phases of the project development; course focus on the later stages of project work.

Prerequisite
CMPS 493

CVEN 210
Properties & Testing of Matrl
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 211
Engineering Mechanics
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. External forces and concept of stress. Stresses and strains, Axial loading and axial deformation, Hooks law, Statically indeterminate members, Stresses due to temperature. Torsion. Pure bending. Transverse loading and shear stresses in beams and thin walled members. Multiaxial loading. Transformation of stresses and strains. Principal stresses and strains. Axially compressed members and buckling of columns.

Prerequisite
MATH 102

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 211 OR CVEN 213)

CVEN 213
Statics
Credit Hours: 3
Fundamental concepts and principles of mechanics, vectors, and force vectors and resultant. Free-body diagram of forces and equilibrium of particles and rigid bodies in two and three dimensions. Moment of a force about a point and about an axis. Equilibrium of rigid body. Analysis of trusses and frames. Shear forces diagrams and bending moment diagrams. Centroids and centers of gravity. Moment of inertia of an area.

Prerequisite
MATH 102

CVEN 214
Strength of Materials
Credit Hours: 3
External forces and concept of stress. Stresses and strains, Axial loading and axial deformation, Hook's law, Statically indeterminate members, Stresses due to temperature. Torsion. Internal forces in beams, pure bending. Transverse loading and shear stresses in beams and thin-walled pressure vessels, beam deflection. Multiaxial loading. Transformation of stresses and strains. Principal stresses and strains. Axially compressed members and buckling of columns. Lab session and experiments.

Prerequisite
CVEN 213

CVEN 220
Analysis of Structures
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. Influence lines for determinate structures.

Arches and cables. Introduction to 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, surveying measurements, Vertical Distance Measurements: different types of levels, leveling procedure and computations, profiles and cross sections. Horizontal Distance Measurements (EDM): Taping, Electronic Distance Measurements. Angular Measurements, Theodolites and total stations. Traverse Computations and adjustment - determination of areas and volumes. Setting out of construction works. Basic computer-aided surveying.

Prerequisite
MATH 101
CVEN 320
Des of Reinforced Concr Membr
Credit Hours: 3
Introduction to limit-state design of reinforced concrete structures. Loads and load combinations acting on reinforced concrete structures. Analysis and design of beams(regular and irregular), one-way and two-way solid slabs on beams(using direct design method). Design of stair systems. Bond and development length of reinforcement. Deflections and cracks. Design and analysis of columns subject to axial load and bending.

Prerequisite
CVEN 220 AND (CVEN 214 OR CVEN 211)

CVEN 321
Analy of Indeterminate Sturct
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
Analy and Des of Hydraulic Sys
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 101 AND CHEM 103

CVEN 352
Waste Management
Credit Hours: 3
Physical, biological and chemical water quality parameterization and measurements, wastewatergeneration 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. Highway classification. Geometric design of highways; horizontal and vertical alignment design. Highway drainage. Intersection design of both at-grade and interchanges. Traffic characteristics. Highway materials. Introduction to flexible pavement design. Highway maintenance and rehabilitation.

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, Specs & Local Regln
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

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 Engin Des Project I
Credit Hours: 1
Analytical, design, experimental, or field work carried out in accordance with a pre-approval project plan under the supervision of faculty member(s).

CVEN 402
Civil Engin Des Project II
Credit Hours: 2
This Course is a continuation of course 504401

Prerequisite
CVEN 401

CVEN 420
Des of Steel Structures
Credit Hours: 3
Introduction to different types of steel structures. Loads and load combinations acting on steel structures. Analysis and design concepts, LEFD design concepts. Properties of steel, Common steel sections. Structural systems and general layout. Design of tension members. Steel connections. Design of axially loaded compression members and columns, column base plates. Design of steel flexural members, local bucking of beams, lateral torsion-flexure buckling, crippling of webs, floor beams, purlins. Analysis and design of beam-columns, cross section strength, overall member strength. Design of plate girders. Design of composite members

Prerequisite
CVEN 220 AND (CVEN 214 OR CVEN 211)

CVEN 422
Des of Reinforced Concr Struc
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
Sel Top in Struc Des
Credit Hours: 3
Analysis and design of prestressed structures. Introduction to structural dynamics. Analysis and design of shear walls. Analysis of plates and shells.

Prerequisite
CVEN 320

CVEN 424
Structural Matrix Analy
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
Sel Top in Geotech Engin
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
Sel Top 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 Env Eng
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 Des
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 studies: Speed, travel time and delay, Traffic volumes, traffic accidents, and parking study. Traffic stream characteristics, Capacity and Level of service (LOS) analysis for freeways and multilane highways. Accident studies and statistics. Design aspects of parking facilities. Basic intersection signalization. Traffic signal design and timing.

Prerequisite
CVEN 360

CVEN 462
Sel Top in Transport Engin
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 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
Sel Top in Const Engin & Mgmt
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: 2 OR 3
Aims at introducing students to the foundations, manifestations and structures of Islamic Culture and to enlightening him about the challenges facing this culture.

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.
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 it 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
Intro 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 understanding with respect to:
- Discussion, comparison, and criticism of the views being studied.
- Entrench philosophical concepts of various schools of Islamic thought in the students to enable him to develop his mental abilities and intellectual acumen.
3- In the field of creativity:

DAWA 206
Inter Org & 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

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 102 OR ISLA 203

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. Deeping 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
Comperative 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 of the origin of religions presented by scholars of sociology of religion and the alternative given by Islam in a clear and lucid manner.

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 ENGL F073 OR ENGL 2011) AND (COMP 2 OR COMP F003 OR MATH 119)

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
(ENGL 004 OR ENGL F073 OR ENGL F022 OR ENGL 202TOEFL Internet-based Test 061 OR TOEFL_ Inst Testing Prog 500 OR Int Eng Lang Test Syst-IELTS 5.5 OR TOEFL Computer-based Test 173 OR) AND (MATH 002 OR MATH 119 OR MATH 004 OR MATH F014 OR MATH 021 OR Scholastic Aptitude Test-SAT 500 OR Mathematics Placement Test 180 OR American College Testing-ACT 21)

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
(ENGL 004 OR ENGL F073TOEFL Internet-based Test 061 OR TOEFL_Inst Testing Prog 500 OR Int Eng Lang Test Syst-IELTS 5.5 OR TOEFL Computer-based Test 173 OR OR ENGL 202) AND (MATH 002 OR MATH 004 OR MATH 119 OR MATH 021 OR Scholastic Aptitude Test-SAT 500 OR Mathematics Placement Test 180 OR American College Testing-ACT 21)

ECON 201
Microeconomics
Credit Hours: 2
Consumer behaviour. Marginal utility and the indifference curves, production theory. Production functions. Production possibility frontier. Production costs in the short-and long-term. Markets perfect competition, monopoly, monposony. Monopolistic competition, and oligopoly. Distribution theory, wages, rent, interest and profits.

ECON 202
Macroeconomics
Credit Hours: 2
Aggregate supply and demand. Says law. Circular flow of income. Consumption function. Saving function. Determination of National Income. Aggregate supply and demand. The multiplier. The Keynsian system. Money in the national economy. Fiscal and monetary policy. Monetarism versus Keynsianism. 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
Math Econ & 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
Econ 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
Econ of Arb 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
Econ of Labor & Indust
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
Adv 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: heterosecdasticity, autocorrelation and multicollinearity.

Prerequisite
ECON 111 AND ECON 112 AND STAT 222

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 & Econ 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 Poly & Foreign Exch
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
Proj Eval & 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 MAKT 115 AND ACCT 112

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 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

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 well being of the young child.

EDEC 412
Comm. 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. This course includes field hours.

EDEC 413
Int. math&Sci. 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 312

EDEC 452
Teach. Read. & Writing to Youn
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
Teach. Arabic Langu. to Young
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 EDUC 313

EDEC 454
Inter. Social Studies to Young
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

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 also explored. This course includes an extensive field-based component.

Prerequisite
EDUC 311 AND EDUC 313

EDEC 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 minimum of 360 field hours.

Prerequisite
EDUC 310 AND EDUC 315 AND EDUC 312 AND EDUC 316 AND EDUC 317 AND EDUC 318 AND EDUC 314 AND EDUC 313 AND EDUC 311

EDPR 410
Read. & Write. in all Discip.
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 311 AND 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

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 312

EDPR 448
Teaching Prim. level Social St
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

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 and the State of Qatar National Curriculum Standards in Science and will have a field-based component in a primary school setting.

Prerequisite
EDUC 312

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 and the State of Qatar National Curriculum Standards in Mathematics and will have a field-based component in a primary school setting.

Prerequisite
EDUC 312

EDPR 452
Methods in Inquiry & Research

Credit Hours: 3
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 qualitative 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.

Prerequisite
EDUC 312

EDPR 453
Teaching Primary Level Eng.
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

EDPR 454
Teaching Primary Level Eng. 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.

Prerequisite
EDUC 312

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 minimum of 360 field hours.

Prerequisite
EDUC 310 AND EDUC 315 AND EDUC 312 AND EDUC 316 AND EDUC 317 AND EDUC 318 AND EDUC 314 AND EDUC 313 AND EDUC 311

EDSE 331
Read. & Writ. Across the Curr.
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.

EDSE 332
2nd Lang.Lear.in the Seco.Clas
Credit Hours: 3
This course is designed for in-service teachers to enable them to teach in multi-lingual settings by selecting and modifying curriculum and instruction for second language learners. During this course, current and past methodologies for teaching limited-language-proficient

students at the secondary level will be thoroughly introduced and analyzed. Students will determine which strategies are best for their particular teaching situations. As the course progresses, participants will reference the varying methodologies make their own instructional plans and units. Emphasis will be placed on incorporating a variety of teaching strategies and standards while stressing both content skills and language skills.

EDSE 340
Meth I: Inst. Strat 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.

Prerequisite
EDSE 331 and EDSE 332

EDSE 341
Meth I: Inst.Strat 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 will include an eight-hour field-based experience in a preparatory or secondary school setting.

Prerequisite
EDSE 331 and EDSE 332

EDSE 342
Meth.I:Inst.Strat.for Islm. St
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 wil also study the provisions of proper recitation and Tajweed of the holy Quran.

Prerequisite
EDSE 331 and EDSE 332

EDSE 343
Meth.I:Inst. Strat for Soci.St
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 and EDSE 332

EDSE 344
Meth. I: Inst Strat for Math.
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 the State of Qatar, Science. Topics will include the use of ICT in mathematics; use of action research to inform instruction; and strategies to encourage, design, mentor and assess student research.

Prerequisite
EDSE 331 and EDSE 332

EDSE 345
Meth.I : Inst. Strat. for Phys
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 and EDSE 332

EDSE 346
Meth.I: Inst.Strat.for Chem.
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 and EDSE 332

EDSE 347
Meth.I: Inst. Strat. for Biol.
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 and EDSE 332

EDSE 460
Meth II: Inqu.& 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 .

Prerequisite
EDSE 340

EDSE 461
Meth.II:Inqu.& 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
Meth.II Inqu.&ICT for Islm.St.
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.
Prerequisite
EDSE 342

EDSE 463
Meth.II:Inst.Strat for Soci.St
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.

Prerequisite
EDSE 343

EDSE 464
Meth.II: Inqu.& ICT for Math.
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. This course includes eight hours of field experience.

Prerequisite
EDSE 344

EDSE 465
Meth.II: Inqu.& ICT for Phys
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.

Prerequisite
EDSE 345

EDSE 466
Meth.II: Inqu.&ICT for Chem.
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.

Prerequisite
EDSE 346

EDSE 467
Meth.II: Inqu. & ICT for Biol.
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.

Prerequisite
EDSE 347

EDSE 491
Stud. Teah. in Seco. Ed.
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.

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, analysing, and justifying those problems logically and critically. This is 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. This course also aims on assuring the importance of students' personal awareness of the importance and role of the educational process in participating in solving the Qatari society problems. It is to be considered that education is a society issue that requires forming an effective partnerships with institutions and many religious, environmental, health, and security parties in the society. All these objectives are to be achieved in a distinguished,

educational environment that is open to the local and international realities, an environment that is varied in its ways of presentation, research, analyses and evaluation. The role and importance of the university student in communication and dialogue can't be overlooked in developing transparency and the spirit and soul. Consequently, this syllabus motivates students to cooperate and participate in suggesting some topics that require group work and offer solutions with peers. This in turn develops their abilities to discuss issues, to have a dialogue, to search, analyse problems and suggest proper solutions. By being involved in all of these processes, their role as effective and productive university students will be enhanced and will assure their loyalty and belongings to their Qatari society, keeps their ethics, values, morals and distinguish their identities, in addition to motivating them to keep their society's wealth and possessions.

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
Fnd of Ed in Qtr & School Rfrm
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 ply within the initiative of educational progress in Qatar through examining some of the issues related to the initiative and the responsibilities of teachers.

EDUC 311
Applic in Sc Lang Acquisition
Credit Hours: 3
This course provides an introduction to the field of Second language acquisition and learning, an intricate process that involves the dynamic interaction of individual and social variables. It considers a wide range of theories, models, and research that have been proposed to account for this process. Participants are guided to evaluate and consider the implications of different perspectives for second language teaching in a variety of contexts.

Prerequisite
EDUC 313

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 Child
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

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.

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 312 AND (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. This course includes a field-based component.

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 class room

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
Std 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
Std 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
Std 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
Std 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
Basic Concepts: Voltage, current, power, and energy. Independent and dependent voltage and current sources. DC Circuits Analysis: Ohms law, Kirchhoff's current and voltage laws. Series and parallel DC circuits' analysis, nodal analysis, and mesh analysis. Superposition, source transformation, and maximum power transfer theorems, Thevenin's and Norton's theorems. Capacitance and Inductance: series and parallel connections of capacitors and inductors. AC Circuits Analysis: Sinusoidal sources, rms value, phasor representation, complex impedances. Kirchhoff's laws in the phasor domain, parallel and series AC circuits. Experiments will be conducted to support the course including the use of computer software for circuit analysis.

Prerequisite
MATH 102 AND PHYS 193

ELEC 202
Electric Circuits II
Credit Hours: 3
First & Second-Order Circuits: Source free for series and parallel RC, RL, and RLC circuits. Step response of series and parallel RC, RL and RLC circuits. AC Circuits Analysis Theorems and Techniques. AC Steady state power calculation and power factor correction: Poly-phase circuits, balanced and unbalanced three-phase circuits. Magnetically-Coupled circuits and mutual inductance: Transformers. Series and Parallel Resonance: Passive filters. Fourier analysis: Response of electric circuits to non-sinusoidal signals. Average, rms, and power values for non-sinusoidal signals. Laplace transform and its application to First & Second-Order circuit analysis. Two-port networks: Different representations of two-port networks, interconnections of two-port networks.

Prerequisite
ELEC 201

ELEC 203
Electric Circuits II Lab
Credit Hours: 1
Selected experiments are performed, these including; Response of RL and RC circuits; Series and Parallel Response of RLC networks; Measurement of average and rms values; Sinusoidal Steady State Analysis using Circuits techniques; Three-phase circuits; Measurement of three-phase power; power factor correction, etc.

Prerequisite
ELEC 202

ELEC 231
Fundamentals of Electronics
Credit Hours: 3
Semiconductor Materials and PN Junction: Forward biased, reverse biased, and I-V relationship. Diode and Zener Diode Circuits: DC analysis, models, and applications. Bipolar Junction Transistor: Transistor structure, biasing, and I-V relationship. DC analysis of transistor circuits. Basic transistor applications: Switch, digital logic, etc. Basic transistor amplifier configuration. Design and applications. Field Effect Transistor: MOSFET, DC circuit analysis. Basic MOSFET applications: switch, digital logic gates, and amplifiers.

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

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. Logic Minimization Techniques. Sequential Logic Design. State minimization Techniques. Sequential Circuit Implementation. PLA and Memories. Introduction to Computer design.

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

ELEC 263
Computer Arch & 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 299
Elect Engineering Seminar
Credit Hours: 0
Selective weekly seminars given by the faculty and invited speakers from the industry. Topics include contemporary engineering issues, ethical issues, engineering skills, and various other issues that help students in their future careers.

ELEC 311
Electromagnetics
Credit Hours: 3
Electromagnetic phenomena explored in modern applications, including communications, circuits, power systems, computer, radar, and sensors. Fundamental concepts covered are: Differential and integral forms of Maxwell's equations and their physical meanings. Solution of Maxwell's equations for non-time varying fields; Solution of Maxwell's equations for time-varying fields; traveling waves, refraction, reflections, and Poynting's theorem; Uniform plane waves, transmission lines, and waveguides. Electromagnetic radiation and introduction to antenna theory.

Prerequisite
MATH 217 AND PHYS 193 AND MATH 385

ELEC 312
Electric Machines
Credit Hours: 3
Magnetic Circuits: Magnetic equivalent circuit, analogy with electric circuits, losses, linear and non-linear magnetic circuits calculations. Transformers: Single phase transformers, principle of operation, equivalent circuit, equivalent parameters determination, three phase transformers, connections of transformers, autotransformers, harmonics. Principles of operation of DC machines. Electromechanical Energy Conversion Devices: Principle of energy storage and conversion, force and emf production, torque production in rotating machines. Three Phase Induction Motors: Construction, theory of operation, equivalent circuit, starting of induction motor, speed control. Synchronous Machines: Construction, theory of operation, Equivalent circuit and power flow, power and torque characteristics, starting, synchronization, power factor control, speed control.

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

ELEC 321
Power Systems Analysis
Credit Hours: 3
Power System Components. Per unit system, System modeling and Impedance diagram. Transmission Line: Parameters calculations(R, L, C), steady state operation, reactive compensation, different models representation; Short, medium and long lines, ABCD parameters, cascade connection and parallel operation of transmission lines. Power Flows: Bus admittance matrix, power flow equations, solution of power flow equations, and control of power flow. Symmetrical Fault: Calculation of short-circuit current, short- circuit capacity.

Prerequisite
ELEC 202

ELEC 333
Electronics Engineering
Credit Hours: 3
Operational amplifiers design and applications, Differential amplifiers and multistage amplifiers, Frequency response and design of the differential amplifiers, Analysis of active filters and tuned amplifier circuits design and applications, Analysis and design of signal generators and power amplifiers.

Prerequisite
ELEC 231

ELEC 334
Electronics Engineering Lab
Credit Hours: 1
Selected experiments examining differential and operational amplifiers circuits design and applications. Fundamentals and design concepts of electronic circuits including filters, oscillators, and power amplifiers. Use of computer simulation for analysis and design of electronic circuits.

Prerequisite
ELEC 333

ELEC 341
Communications Engineering
Credit Hours: 3
An introductory course to analog and digital communication systems. Distortionless analog communication; amplitude, frequency, and phase modulation system architectures; frequency division multiplexing. Sampling, quantization, and pulse code modulation (PCM); time division multiplexing. Baseband digital communication; intersymbol interference (ISI); Nyquist's ISI criterion; eye diagrams. Passband digital communications; amplitude, phase and frequency-shift keying; signal constellations. Random processes, random signals and noise. Performance analysis of BPSK in noise.

Prerequisite
ELEC 351 AND GENG 200

ELEC 342
Communications Engineering Lab
Credit Hours: 1
Construction and testing of analog and digital modulation circuits. Emphasis on spectral analysis, bandwidth requirements, and other practical considerations. Phase looked loops. Frequency and phase modulations. Sampling and quantization.

Prerequisite
ELEC 341

ELEC 351
Signals & Systems
Credit Hours: 3
Continuous and Discrete Time Representation of Signals and Systems: Signal and system properties. Systems Modeling. Convolution and Time Domain Response of Systems. Laplace Transform: Transfer functions. Z-Transform: Transfer functions. Fourier series, and Fourier transform, frequency response.

Prerequisite
ELEC 201

ELEC 352
Control Systems
Credit Hours: 3
Examples of automatic control system. Block diagrams reduction. State-space modeling. Open-loop and closed-loop systems, feedback systems characteristics. Time domain analysis of second-order systems and two-dominant-pole model. Performance Specifications: Stability, transient response, and steady-state errors. Root locus analysis and design. Frequency Response Analysis and Design: Nyquist stability criterion, gain and phase margins, compensation using Bode plot. Pole placement design.

Prerequisite
ELEC 351 AND MATH 217

ELEC 364
Microprocessors
Credit Hours: 3
Microprocessors and micro controllers 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

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 ELEC 262 AND GENG 106

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

ELEC 371
Sensors and Instrumentation
Credit Hours: 3
Measurement systems: components and behavior. Measurement & error: accuracy, precision, statistical analysis, calibration. DC & AC bridges. Resistance and capacitance measurement. Common industrial sensors to measure various physical quantities (e.g. temperature, displacement, velocity and acceleration, force and pressure, and light). Signal processing techniques applied to sensors' systems. Computer acquisition: DAQ, grounding, shielding, and cabling. The course includes a Lab which provides basic background in measurements & instrumentation and conventional sensors. CAD tools are used to analyze, acquire and present data.

Prerequisite
ELEC 333

ELEC 375
Biomedical Engineering
Credit Hours: 3
Part 1: Biomedicine and Electrical Engineering; Human physiology and anatomy, biosystemsand modelling of physiology; Engineering and human senses; Brain studies and EEG (electrical activity and disorders); heart and ECG; eye, perception and image processing ; hand and automatic control; human body as a communication system (auditory system, speaker and speech analysis); Part 2: Biomedical processes and systems; Filtering for removal of artefacts; Biomedical Event detection, characterization and automatic diagnostic; Frequency characterization; Pattern classification and diagnostic decision; Lab experiments.

Prerequisite
ELEC 351 AND ELEC 371

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 415
Power Electronics & Drives
Credit Hours: 3
Power Semiconductor Devices, AC/DC converters, Choppers, Inverters, Cycloconverters. Elements of Electric Drives; DC motor drives including conventional, brushless and modern permanent magnet motors; AC motor drives including induction and synchronous motors.

Prerequisite
ELEC 312 AND ELEC 333

ELEC 416
Sel Top in Elect Mach Drives
Credit Hours: 3
Selected topics in the field of electric machines and drives that deals with new trends and practical issues.

Prerequisite
ELEC 312

ELEC 422
Adv 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 Dist Systems
Credit Hours: 3
Load characteristics. Distribution transformers. Underground cables. Primary and secondary distribution systems. Power losses and Voltage regulation. Voltage dip due to motor starting, LV distribution protection. Reactive power compensation, Distribution generation. Electricity tariffs. Introduction to power quality.

Prerequisite
ELEC 321

ELEC 424
Operation of Power Systems
Credit Hours: 3
Electric Load Forecasting; Techniques used for forecasting, short term load forecasting, long-term load forecasting. Economic dispatch and unit commitment, least error squares algorithm, State estimation, Power system control, load frequency control and Automatic generation control.

Prerequisite
ELEC 321

ELEC 425
Sel 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 438
Sel 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

ELEC 444
Digital Communications
Credit Hours: 3
Theory and techniques of modern digital communication systems. Information sources and source coding. Digital transmission through AWGN channels. Band limited channels. Channel capacity and error correcting codes. Multiple access techniques and spread spectrum communications. Introduction to fading channels.

Prerequisite
ELEC 341 AND GENG 200

ELEC 446
Sel Top in Comm Engineering
Credit Hours: 3
Selected topic in the field of Communications Engineering that deals with new trends and practical issues.

Prerequisite
ELEC 341

ELEC 447
Wireless Communications
Credit Hours: 3
Introduction to Modern wireless communication systems. Cellular radio fundamentals: cellular design concept, interference and capacity, cellular geometry, frequency re-use, cell splitting and sectoring, trunking models and traffic evaluation. Mobile radio propagation: small scale, large scale fading and diversity techniques. Wireless network optimization: channel allocation, handover strategies, power control. Modern modulation techniques for wireless communication systems. Multiple access techniques. Introduction to wireless security mechanisms. Introduction to common wireless networks. Wireless system standards: 1G, 2G, 3G, and 4G standards, GSM system description.

Prerequisite
ELEC 341

ELEC 453
Adv Control Systems
Credit Hours: 3
State-space representation, and solution of linear state equation. Controllability, observability, state feedback pole placement design, entire eigen-structure assignment

for regulators design, state observer design, and linear optimal control design. Properties of nonlinear systems, Lyapunov stability, and nonlinear control system design. Intelligent control: fuzzy sets and systems, fuzzy control systems design.

Prerequisite
ELEC 352

ELEC 456
Digital Signal Processing
Credit Hours: 3
Review of Fundamentals (discrete signals and systems; Sampling & Quantization; Discrete-time Fourier Transform; Z transform); introduction to filter design. Discrete Fourier transforms. Fast Fourier Transform; linear and circular convolution; overlap-add method; FIR Digital filters; IIR Digital filters; Digital Spectral Analysis; Periodogram and Correlogram. Time-Frequency analysis and the spectrogram; signal enhancement; applications to voice, EEG and ECG analysis; introduction to 2D signals and images.

Prerequisite
ELEC 351

ELEC 457
Sel Top in Ctrl Sys - Sig Proc
Credit Hours: 3
Selected topics in the field of Control and signal processing that deals with new trends and practical issues.

Prerequisite
ELEC 352

ELEC 469
Computer Networks
Credit Hours: 3
Network classifications, architecture and topologies. Layered reference models. Functional description of layers. Switching and routing. Network protocols. Network control: traffic management and congestion. Fundamentals of network performance analysis. Examples of networks such as the Internet, ATM.

Prerequisite
ELEC 341 AND GENG 106

ELEC 471
Sel Top in Cmptr Engineering
Credit Hours: 3
Selected topics in the field of Computer Engineering that deals with new trends and practical issues.

Prerequisite
ELEC 364

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 481
Power Elec & Renewable Energy
Credit Hours: 3
Introduction to power electronics, and renewable energy sources and their impact on environment. Power Semiconductor Devices. DC/DC Converters principle and design. Inverters concept of operation, design, and applications. Rectification of utility input: concepts and control. Renewable energy sources: Solar energy, Wind energy systems, and fuel cells. Renewable energy source modeling and interfacing. Renewable energy sources in grid-connected and island modes. Several laboratory experiments and computer-based exercises are conducted to enhance and consolidate the understanding of power electronics & renewable energy principles and applications.

Prerequisite
ELEC 333 AND ELEC 312

ELEC 482
Selected Topics in Power Elec.
Credit Hours: 3
Selected topics in the field of power electronics that deals with new trends and applications shedding the light on the practical issues related to specific application. Several selected laboratory experiments, computer based exercises, and digital simulations labs are conducted to enhance and consolidate the understanding of advanced power electronics principles and applications.

Prerequisite
ELEC 333 AND ELEC 312

ELEC 483
Electric Drives
Credit Hours: 3
Introduction electric drive systems. Dynamics of electric drive systems. Joint speed torque characteristics of electric motors and mechanical loads. Speed-torque characteristics of electric motors. Modeling of electric drives systems. Speed control of DC motors. Design of feedback control system for electric drives. Speed control of induction motor: Basic principles for speed control, voltage/frequency control, slip energy recovery, and current source speed control. Braking of electric motors (dc and induction 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 352

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 486
Advance Bio. Sys. Engineering
Credit Hours: 3
Review of bio-medical applications; system theory approach to modelling; non-invasive determination of blood pressure; physiology of oxygen transport; physiology of cardiac output, ECG monitoring and detection of abnormalities; screening for cervical cancer and breast cancer; system and algorithm implementation; data types; digital signal processors; Medical monitoring and System theory; innovation in the medical industry; applications and lab experiments.

Prerequisite
ELEC 375

ELEC 487
Selected Topics in Bio. Engin.
Credit Hours: 3
Selection of special topics in the field of Biomedical Engineering covering a broad or specialized treatment of topics including but not limited to Biomedical Engineering Design, Biomedical electronics, biomedical imaging.

Prerequisite
ELEC 375

ELEC 488
Medical Imaging Systems
Credit Hours: 3
Part 1) Magnetic Resonance Imaging (MRI): MRI signal, magnet technologies, RF coils and circuits, simulation experiments. Part 2) Ultrasound: generation and interaction with tissues, piezoelectric transducer design and software simulation, ultrasound systems. Part 3) X-ray: X-ray tube, X-ray attenuation, Computed Tomography scanners. Part 4) Nuclear Medicine: Basic radioactivity, detector design and simulation experiments, gamma-camera, PET and SPECT. Part 5) medical image processing: theory and lab experiments. Part 6) automatic medical image interpretation and diagnosis: including design and lab component.

Prerequisite
ELEC 375

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: 0 OR 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.

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
Adv 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

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

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
Engl Lang I -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
Engl Lang II -Arts Shareea Edu
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
Engl Lang I Post Found
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
Engl Lang II Post Found
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 background in computing, as well as computer science students trying to understand NLP in more depth. The course may also interest students beyond these two fields, particularly those who dwell on issues like computer-assisted language learning (CALL), and Artificial Intelligence (AI).

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
Engl Phonetics & 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 ENGL 203TOEFL_Inst Testing Prog 500 OR Int Eng Lang Test Syst-IELTS 5.5 OR TOEFL Computer-based Test 173 OR TOEFL Internet-based Test 061 OR

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 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. Example s 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 215 OR ENGL 156

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 time.

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

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, interart 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, selfreflexivity, 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. When a topic is approved for inclusion in the course offerings, the instructor is required to present a fully-fledged course description as it is the case with other courses in the program.

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 with 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: 1 OR 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 writing and as scripts for performance as several of them have been reconceived for the big screen. This subject is also at the junction of Literature and Cinema as well as other art-forms such as paintings of the Renaissance period. The course has as its aim to offer an innovative interdisciplinary analysis of Shakespeare as well as an overview of current philosophical approaches.
Finally, the course argues for the critical importance of thinking Shakespeare now. We will therefore consider what Shakespeare has to offer now and in the future and how our past still informs our present and vice versa.
Plays include Macbeth, Othello, Hamlet, and King Lear, supplemented by readings in Shakespearean criticism and in contemporary theory

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

ENVS 180
Man & Environment
Credit Hours: 2 OR 3
1-Environment Identification – Available Natural Resources 2-Environment and Ecosystem 3-Sustainable Development 4-Atmosphere Layers 5-Air Pollution 6-Water Pollution 7-Solid and Hazardous wastes 8-Global Environmental Changes and Human Health 9-Renewable Energy and Conservation

ENVS 181
Mankind & Biosphere
Credit Hours: 2
1. Population and Consumption 2. The Problem of Overpopulation 3. Land and Food resources 4. Human Behavior and its effects on food quality 5. Environment and Human Health

FEDU 400
Management of Learning Environ
Credit Hours: 3
This Course is intended to provide the student with knowledge, skills, and disposition attributes related to management, learning environment. It would also provide him with basic concepts, dimension of learning management, the new trends and strategies in learning management. Problems of learning management and how to deal with it.

Prerequisite
FEDU 211

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 STAT 222 AND ACCT 111

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 OR INTA 100) AND (MATH 119 OR MATH 101)

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
Fin Markets & Inst
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
Fin Inst 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
Mgmt 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
Inter 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 410
Financing for Entrep. 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 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: 2 OR 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 "figh" 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 313
Donations Contracts
Credit Hours: 3

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: 2 OR 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: 2 OR 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, Docu. & 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 t and focuses on the areas where Qiyas is applicable and not.

FREN 100
French Language-Beginners
Credit Hours: 2
This is a practical course covering a variety of communication skills with a view to helping the student understand how the French language functions.

FREN 101
French Language I
Credit Hours: 3
This course is designed for students who wish to begin learning French. It will help them become familiar with the foundation of the French language, and the develop the four basic language skills of reading, writing, listening and speaking.

FREN 110
French I
Credit Hours: 2
This is an activity-based course taking students from beginner to pre-intermediate level. It progresses at a pace that is easy for the students to follow with an emphasis on language skills and structure.

FREN 111
French II
Credit Hours: 2
This course is a continuation of French (1) and focuses on developing the same language skills at a more advanced level. The emphasis remains on students'practical use of French and oral drills in the language lab.

Prerequisite
FREN 110 OR FREN 221

FREN 200
Pre-Intermediate French
Credit Hours: 2
This course is a continuation of the French Language beginners' course. It concentrates on communicative skills with a view to helping the students to experience basic language situations and reinforce their knowledge of French. The course will develop the students ability to deal with various texts as units in both the listening, speaking and reading components of the course.

FREN 201
French Language II
Credit Hours: 3
Students will continue to develop their knowledge and understanding of French through the four skills: listening, speaking, reading and writing, This course will enable students to communicate in the language at a basic level in a variety of everyday situations.

Prerequisite
FREN 101

FREN 210
French III
Credit Hours: 2
This is an intermediate to upper intermediate course concentrating on listening comprehension, reading skills and grammatical structure. The students will learn the various forms of the verb and will be introduced to some basic writing skills. Work in the lab will focus on the nasal vowels and phonetic transcription.

Prerequisite
FREN 111 OR FREN 222

FREN 211
French IV
Credit Hours: 2
This is a continuation of French III and focuses on developing the same language skills at a more advanced level.

Prerequisite
FREN 210

FREN 221
Intro to Modern French I
Credit Hours: 2
These are introductory courses. Students are required to master simple sentence construction through grammar exercises and work in the language laboratory (phonetics: oral vowels and grammar). The courses also aim to introduce students to the use of dictionaries (French/ French) and other reference books.

FREN 222
Intro to Modern French II
Credit Hours: 2
These are introductory courses. Students are required to master simple sentence construction through grammar exercises and work in the language laboratory (phonetics: oral vowels and grammar). The courses also aim to introduce students to the use of dictionaries (French/ French) and other reference books.

Prerequisite
FREN 221

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 V
Credit Hours: 2
This is an upper-intermediate to advance level with emphasis on reading contemporary texts. The students will be introduced to the use of the modals and negation. Attention will also be paid to problems relating to the pronunciation of consonants by Arab speakers of French.

Prerequisite
FREN 211

FREN 311
French VI
Credit Hours: 2
This course is a continuation of French V and focuses on the same skills at a more advanced level.

Prerequisite
FREN 310

FREN 321
Intermediate French I-Parrt A
Credit Hours: 2
This course is a continuation of the Introduction to French I and Introduction to French II courses.. It concentrates on oral listening and a study of everyday language through the approach of press articles (texts dealing with various topics). Concerning written skills the students will be asked to write descriptive paragraphs, to substantiate the main concepts of a text and identify logical tags, they finally should be able to make a resume. In the field of grammar different verbal forms will be taught. Work in the laboratory: phonetics: the nasal vowels; transcription. Grammar: structural exercises in connection with the lexical and syntactic elements of the two courses.

Prerequisite
FREN 222

FREN 322
Intermediate French I-Part B
Credit Hours: 2
This course is a continuation of the Introduction to French I and Introduction to French II courses. It concentrates on oral listening and a study of everyday language through the approach of press articles (texts dealing with various topics). Concerning written skills the students will be asked to write descriptive paragraphs, to substantiate the main concepts of a text and identify logical tags, they finally should be able to make a resume. In the field of grammar different verbal forms will be taught. Work in the laboratory: phonetics: the nasal vowels; transcription. Grammar: structural exercises in connection with the lexical and syntactic elements of the two courses.

Prerequisite
FREN 321

FREN 421
Intermediate French II-Part A
Credit Hours: 2
These courses are concerned with written texts. Students will gradually move from article to contemporary text which will be tackled in depth. In the field of grammar the course concentrates on the use of the modals and the negotiation of arguments (argumentation). Language Laboratory: Phonetics: the problem of consonants for Arabic speakers.

Prerequisite
FREN 322

FREN 422
Intermediate French II-Part B
Credit Hours: 2
These courses are concerned with written texts. Students will gradually move from article to contemporary text which will be tackled in depth. In the field of grammar the course concentrates on the use of the modals and the negotiation of arguments (argumentation). Language Laboratory: Phonetics: the problem of consonants for Arabic speakers.

Prerequisite
FREN 421

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 found in C++. 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
Engin 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-Stat 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 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

GENG 221
Engin 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
MATH 101

GENG 222
Engin 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 AND PHYS 191 AND PHYS 191

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
MATH 101 AND 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

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
Gen Econ 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 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
Intro 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.

Prerequisite
GEOG 240 OR GEOG 239

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 facingthe Arab world and studying some Arab countries.

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 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 (computers, units of data storage, entry and output), software, users (including management, professional and various users), data (their sources), 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: main two types of data (raster and vector data), design and implementation of geodatabases. Methods for planning and implementing a successful GIS project using one of the available GIS systems in the department.
Practical section: Training students on the preparation of a complete GIS workstation, develop student’s ability to analyze and compare different GIS systems available in the department to recognize their strengths and weaknesses. 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 (due to the fact that most GIS data are held in different formats). Conduct all stages of a GIS project with local scenarios using one of the available GIS software packages.

GEOG 357
Geography of the World
Credit Hours: 3

GEOG 441
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 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.
This course aims at studying the global environmental systems and the imbalance these systems are facing. The course includes three parts:
1) Introduction to the environmental systems of the earth and the mutual relationship between the environmental components and the living species.
2) Studying the negative effects of human activities and the environmental imbalance.
3) 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

GEOL 101
Principles of General Geology
Credit Hours: 0 OR 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.

GEOL 211
Principles of Paleontology
Credit Hours: 0 OR 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: 0 OR 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
Struc Geology & Geotectonic
Credit Hours: 3
Evolution of Earth through geologic time, internal structure of the Earth, continental drift theory, isostasity, 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
Geol of Qtr & Arabian Pen
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 Sens
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

HECO 182
Mother & Child Care
Credit Hours: 3

This course aims at providing students with the scientific facts related to the topics of motherhood and childhood, which covers the various stages of a mother' life starting from the puberty stage to the pregnancy and birth stage, and what helps her discover her tasks during the stage of motherhood. This course includes the factors that affect the mother's health and well-being during the prenatal stage, perinatal, and postnatal stages, and some difficulties that some mothers face during pregnancy and breastfeeding. The course also covers caring for breastfed infants and the factors affecting their development after birth, as well as the common problems during the first years of a child's life and how to care for them.

HECO 283
Family Relationships
Credit Hours: 3
This course was designed to enable students to acquire wide knowledge on family and family relations .It deals with the definition of the family, its functions, and characteristics while concentrating on the factors leading to the change of its functions .It also discusses some theories dealing with the origin of the human family. The course also discusses the requirements of family growth stages as well as the critical situations that the family pass through during these situations besides suitable solutions. This course concentrates also on marriage and coordination in married life, factors leading to family members' lack of coordination, its relation and problems in the Qatari society .This is to be dealt with through students' research.

HECO 489
Nutrition Education
Credit Hours: 2
This course aims at acknowledging students with the topic of Nutritional Enlightment and its objectives ,traditions and customs and their effects in Nutrition Education .It also deals with the role of the mother and school in Nutrition Education, dealing with wrong bad habits and methods of evaluating them .The students set acculturation nutrition programs for different society categories ,taking care of methods and means of nutrition acculturation according to the needs of the society .They also identify the bases for preparing and planning the different nutritional programs as well as methods of evaluating them , in addition to a brief note on nutrition survey , its objectives and uses .

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
Historiography
Credit Hours: 3
This course examines the rise of historiography, and its evolution from ancient times to the contemporary period, discussing the schools of history, and philosophies, and methods in the interpretation of history. It also highlights

the nature of primary and secondary sources, their critique, and employment in historical writings. The course provides a systematic overview of the requirements of writing history, and methods and techniques that a historian depends on in writing history.

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 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 since1500CE
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 240
Hist & Civil of Anc Egypt
Credit Hours: 3
Discovery of the Ancient Egyptian Civilization and Study Sources, Characteristics of Ancient Egyptian History from the Old Kingdom to the Macedonian Conquest, Unification of Egypt, the Old Kingdom, the Middle Kingdom, the New Kingdom (Empire), the Persian Period and Fall of the Pharaohic State, Bases of the Ancient Egyptian Civilization and Major Aspects: administration, government system, economic, social and intellectual life.

HIST 241
Ancient Near East Hist & Civl
Credit Hours: 3
Sources of the History of the Near East, Characteristics of Mesopotamian History during the Sumerian, Akkadian, Babylonian and Assyrian Periods, Foundation of the Babylonian-Chaldean State and its Fall, Characteristics of the History of Syria from the Third Millennium B.C. to the End of the Second Millennium B.C., International Relations during the Second Millennium B.C., States in Syria and Palestine during the First Millennium B.C., Rise and Fall of the Persian Achaemenian State.

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 248
Hist of Arabs Before Islam
Credit Hours: 2
The Arabs and Their Genealogies, the Arabian Peninsula and its Ancient Tribes, Southern Arabs and Their States, Northern Kingdoms (Nabatis and Palmyrians), Cities of Hejaz (Makkah, Yathrib and Ta'if), Border Emirates (Ghassanids and Muntherites), Kinda Kingdom, General Conditions in the Arabian Peninsula before the Advent of Islam.

HIST 314
Econ&Soci Hist the Muslm 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
Hist of Islam Sect & Move.
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 Asia Rela Mode&Cont
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, labour markets, regional integration, the Gulf's changing place in the global economy and the question of reform.

HIST 331
Anci Gree&Rome 1200BCE to500CE
Credit Hours: 3
This course examines various developments of ancient Greece; the Roman Republic and Empire. Topics covered include the rise of Greek city-states; the Peloponnesian and Persian wars; Alexander the Great; Rome's expansion through the Punic Wars; and issues of commerce, justice, citizenship, taxation, and cultural conflict. The course concludes with a brief examination of the decline and collapse of the western half of the Roman Empire.

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 Rena & Refo 1400- 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
During the past five decades, archaeological evidence from the Arabian Gulf region was accumulated as a result of intensified foreign exploration and excavation, which is still ongoing in many areas of the Gulf. Therefore this course provides background knowledge of archaeology in the Arabian Gulf from Prehistory to the Islamic period. This course will explore the role played by Arabian Gulf societies in trade between Mesopotamia and the East, particularly during the Bronze Age.

HIST 336
Wom.&Gend in the Anci Near Eas
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 Abso&Revo1648to1815
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 344
Mod & Cntm Iran & Central Asia
Credit Hours: 3
Political Conditions in Persia from the Early 16th Century, Rise of the Modern State: the Safavid, Afshari, Zandi and Qajar Dynasties, Afghan Invasion of Persia, Political Reforms in Persia in the Qajari State and Foreign Concessions, Constitutional Revolution, Rise and Fall of the Pahlavi State, Islamic Revolution in Iran.
Afghanistan and Tribal Conflicts, Emergence of the Modern State in Afghanistan, Russian Invasion, the Mujahedin Movement, Central Asia, the Concept of Central Asia, Soviet Occupation, Fall of the Soviet Union and Emergence of the Independent States

HIST 349
Mod & Contemp Africa
Credit Hours: 3
Definition of the African Continent in Early Times, Phases of the Continent's Discovery, Motives of European Colonization of Africa, Governance Systems and Administration under Imperialism and the Racial Discrimination Policy, African Resistance and Liberation Movements, Africa's Post-Independence Problems, African Unity, African Maghreb Countries from Colonization to Independence (Libya, Tunisia, Algeria, Morocco, Mauritania), Ottoman Rule of Egypt (1517-1798), French Campaign on Egypt, the Mohammed Ali Era, Foreign Intervention in Egypt and Arabic Revolution, British Occupation of Egypt, Egyptian Rule of Sudan, the Mahdia Revolt, Evolution of National Egyptian Movement from Occupation (1882) to the 1919 Revolution, Egypt and Sudan in the Inter-War Period, Evolution of the National Movement in Egypt and Sudan to Independence.

HIST 350
Mod & Contemp Gtr Syria & Iraq
Credit Hours: 3
Account of Conditions in Greater Syria and Iraq from the Advent of the Ottoman Rule, Intellectual Awakening and Liberation Trends, Great Arab Revolt (1916), 1929 Revolt in Iraq and National Movements in Greater Syria, French Mandate on Syria and Lebanon, British Mandate on Tran-Jordan, Palestine and Iraq, Evolution of the National Movement in Greater Syria and Iraq to Independence (Palestinian Revolt 1936-37, Rashid Ali Al Kailani Uprising) Palestinian Cause and Its Evolution

HIST 351
Abbasid State
Credit Hours: 3
Nature of the Abbasid Revolution, Abbasid Caliphate from Al Saffah to Al Mu'tasim, Baghdad the Capital, Economic and Social Changes, Conflict between Al Ameen and Al Ma'mun, the Abbasids and Byzantium, Foundation of Samarra and Influence of the Military, Samarra Caliphs (influence of the military, political, financial and administrative weakness, regionalism, chaos), political conflicts (resurgence of power under Al Mu'tamid and Al Muwafaq 256-279 A.H.L870-892), the Zanj Revolution, Al Maghreb States, Al Mashreq States , Return to Baghdad, Principalities (cultural prosperity despite political weakness), the Buwayhi Dynasty in Iraq.

HIST 356
Econ & Soc Hist of Islamic Wld
Credit Hours: 3
Islamic World, Agriculture (indigenous and imported), Food and Industrial Crops, Irrigation and Its Means, Economic Growth and Its Impact on Rural Areas, Industry (metallurgy and its methods), Types of Industries and Crafts, Trade and Trade Routes, Marine Routes, Transactions, Companies and Monopolies, Trading Communities and Moslem Communities, the Islamic City and its Characteristics, the Countryside, Customs and Traditions, Women, Feasts, Festivals and Means of Entertainment, Costumes, Foods and Drinks.

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 identit

HIST 390
The Hist of Mode China & Japan
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
Hist of Islam Arts & Archi
Credit Hours: 3
This course deals with all Islamic forms, styles and designs of art and architecture from the rise of Islam in the seventh to the thirteenth century. It begins with the impact of the ancient and neighbouring civilizations on the Islamic culture. Numismatics, pottery, ceramic, metallic crafts, glass and crystals, carpet and textiles will be studied. Additionally, urban planning and design of mosques, castles, walls and public buildings in main Muslim cities of Damascus, Baghdad, Jerusalem will be also studied.

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
Nati & its Cons 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
Europ.Bet. the Two World Wars
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
Inte.Hlst of Eurp the 20 Cent.
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 442
Mod Arabian Gulf
Credit Hours: 3
The Arabian Gulf at the Outset of the Modern Age, Portuguese Presence and Its Resistance, International Rivalry in the Gulf Region (The Dutch, French and British), Regional Forces in the Gulf Region, the Ottoman State and Its Relations with the Gulf Region, Advent and Growth of Arab Political Organizations, British Policies in the Gulf Region in the 19th Century, Political Conditions in the Gulf Region at the Outset of the 20th Century, Evolution of Arab Emirates, Oil Discoveries and their Political Effects on Gulf Conditions, the USA and Its Oil Interests, Economic and Social Effects of Oil in the Gulf Region, Building Modern Arabian Gulf States.

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, Ummayad 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
Mod & Contemp Arabia
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 449
Mod & Contemp America
Credit Hours: 2
Discovery and colonization of America , the American Revolution and Rise of the USA, the US Constitution , Evolution of the USA Civil War, Monroe Doctrine and US Foreign policy , Rise of the USA as great Power , Independence movements in Latin America .

HIST 450
Inst Political & Social Theo
Credit Hours: 3
Rise and Evolution of Democracy, Utopia, Individualism, Liberalism, Evolution of Capitalism in the Modern Age (Commercial Capitalism and Industrial Capitalism), Socialism: Rise, Evolution and Critique, Political Parties and Pressure Groups, Political Democracy

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 459
Indian Sub-Cont, China & Jap
Credit Hours: 3
Study of Topics in the History of the Indian Peninsula and its European Colonization, 1957 Indian Revolt, Evolution of the National Movement to Independence and the Rise of the State of Pakistan, Modern History of China, South-East Asia and Japan to World War Two.

HIST 460
Mod & Contemp Middle East
Credit Hours: 3
Concept and Importance of the Middle East, the Middle-East Before the First World War, The First World War and its Effects on the Middle East, the Middle East in the Inter-War Period, World War Two and the Middle East, Oil Discoveries and Their Social and Economic Effects on the Region, the Arab- Israeli Conflict, the Cold War and Its Effects on the Middle East, the Middle East at the End of the 20th Century.

HIST 461
Independent Study
Credit Hours: 1 OR 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
Honors Freshman Seminar for Social Sciences
Credit Hours: 3
The Honors Freshman Seminar course for Social Sciences introduces students to research and academic writing skills. These include proper use of resources, research design, critical reading and analysis, and academic writing. This seminar course involves group-work, poster presentations, and writing a research paper. Students are also introduced to various research methodologies in social sciences, and are encouraged to rely on these methodologies in conducting and writing their research papers. The thematic focus of the seminar course differs each semester.

IENG 210
Work Methods & Measrmts
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 101

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

IENG 320
Statistical Quality Ctrl
Credit Hours: 3
Concepts and statistical methods for controlling the quality of products and services. Process control techniques, acceptance sampling methods, statistical analysis using QC tools and basics of other methods such as DOE, capability analysis used by management to control processes, costs and to improve quality.

Prerequisite
GENG 200

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 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
Prod Plan & Inventory Ctrl
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 210 AND GENG 360

IENG 350
Cmptr 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 410
Ergonomics & Safety Engin
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 AND MECH 230

IENG 411
Maintenance Plan & Ctrl
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 420
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 320

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 450
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

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 Engin
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
GENG 106

IENG 460
Manufacturing Systems Des
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
GENG 106 AND MECH 230

IENG 478
Innovation & Entrepreneurship
Credit Hours: 3
This course combines class room 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 Eng & Risk Mngmt
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 498
Indust Systems Des
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.

IENG 499
Independent Study
Credit Hours: 1 OR 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.

INST 225
Educational Technology
Credit Hours: 1 OR 3
This course was designed to help student teachers in acquiring information, skills, and renewable attitudes related to the employment of the Educational Technology in all aspects of the educational process. The course addresses many topics concerning the nature of the field of educational technology and related areas, such as information technology (IT), which implies digital information, computer educational applications, and the other kind of advancements technology such as multimedia, computers, internet, and so on, in a theoretical & practical ways.

INTA 100
First Year Seminar
Credit Hours: 3
The First year Seminar is a small interdisciplinary courses 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 selfperception 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
Intro 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
Intro to Inter 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 interests, 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 state-society relations.

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 209
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 and the Islamic world, relations marked with both friendship and challenges. The importance of relations between Islam as culture and civilization and the West as a dominant culture of the modern world will be discussed and analyzed.

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
Chin.Soci&Poli.in the21st cent
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: 6
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).

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
Inte. 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 Soci. & Civi.
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).

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
Fore. Policy of the Unit. Stat
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 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.

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 Intl 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

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 Reso. & 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 Inter. 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 understand ethical issues and moral behaviors at the level of international relations.

INTA 460
Intl 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, “modern” scourges such as polio, West Nile virus and SARS, and the global challenge of AIDS.

INTA 461
Special Topics
Credit Hours: 3
A rotating course topic is applied for this course.

INTA 465
Lead. & 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 (Shaadh, 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
Princ. of Islm. 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 (Taqleed) 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 Found of Islm Civ
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
Islam Stud in Contemp 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
Isla St. in Legis.&Legal Thou.
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 an d post-modernism on Islamic Studies.

Prerequisite
ISLA 102 AND ISLA 103 AND ISLA 104 AND ISLA 201

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
Islam Constitut & Administ 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 Intellectl 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 programme 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

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 111
Legal Research & Writing I
Credit Hours: 3
This course is a series of exercises introducing students to the way lawyers analyze and frame legal positions in litigation, conduct legal research, and present their work in writing and in oral argument. Students actively learn research and writing skills by preparing initial and final drafts of memoranda and briefs and by becoming familiar with accessing both print and electronic research materials.

Prerequisite
LAWC 101

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 societyand, 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 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, evolvement 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 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
Credit Hours: 3
This course is intended to provide a general introduction to the legal environment that affects individuals, businesses, and business transactions. In addition to providing a

general introduction to the Qatari legal system, this course will concentrate on specific legal topics such as companies, intellectual property rights and contracts. Although the focus will be on the Qatari law, other countries' laws (in particular those of the United States of America) will be referred to throughout the study.

Prerequisite
ENGL 004 OR ENGL 111TOEFL_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

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 223
Legal Writing II
Credit Hours: 3
In Legal Writing II, students will build upon the foundation provided in the earlier course Legal Writing I. Students will write memoranda based upon legal research provided to them and test their understanding and writing skills. The lab component of this course aims to equip law students with the ability to communicate using the advanced technical English language required to practice law and for academic legal study in English. Through training in speaking, reading, writing and listening, these skills will enable students to apply their abilities in every aspect of academic study and in the practice of law in any industry.

Prerequisite
LAWC 111

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: 2 OR 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 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

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 Civil & Cmmrc Proc
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
Cmmrc Papers & Banking Transc
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 217

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 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 324

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.

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

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 323

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 force against internationally protected persons, taking of civilian hostages, etc...

Prerequisite
LAWC 323

LAWC 449
Environment Law & Regln
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 Proc in Civ&Cmrl Mtrsll
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
Altenat 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 the 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 invited to travel abroad to represent Qatar University at a moot court competition in the Spring semester.

Prerequisite
LAWC 111 AND LAWC 223

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 of the semester will be focused on developing students’ oral arguments to a level necessary for participating in a moot court competition. Some of the deadlines for 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.

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 Mgmt
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
Entrep-Small Bus Mgmt
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 corporative and tactical production planning as well as production and quality control.

Prerequisite
(MAGT 101 OR MAGT 112) AND (STAT 220 OR STAT 155)

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. IStudents' 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)

MAGT 328
Business Planning for Entr.
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 & Susta. Succ. Enter.
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
MAKT 101 AND ACCT 110 AND FINA 201

MAGT 401
Quant Methods-Dec Making
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 155 OR STAT 153

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 302
Marketing Management
Credit Hours: 3
This course focuses on the application of marketing and management principles to the marketing function. Topics covered include strategic marketing, study of the social and economic environment of marketing as well as the management of marketing mix.

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 304
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 401 OR MAKT 301 OR MAKT 302

MAKT 401
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 401 OR MAKT 302

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 401 AND MAKT 301

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 405
Promotion Management
Credit Hours: 3
This course focuses on developing an understanding of the terminology of promotion and an understanding of the role of advertising both in the firm and in society, and an ability to integrate the different aspects of advertising into a comprehensive promotional plan.

Prerequisite
MAKT 302

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 301 OR MAKT 302

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 stochiometry 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: 3
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 Assess
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. Applications of the integral

Prerequisite
Prerequisite
MATH 004 OR MATH P100 OR Scholastic Aptitude Test-SAT 550 OR American College Testing-ACT 24 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 111 OR ENGL 250 OR ENGL 201 OR ENGL 202)

MATH 102
Calculus II
Credit Hours: 3
MATH 102 is the second course in a three-course calculus series (CALCULUS I-III) which is required for Science and Engineering students. It starts from the study of transcendental functions. Then a very important part covers the techniques of integration. Parametric equations and polar coordinates are studied and applied to finding area in polar coordinates. Finally the sequences and series are taken into account. A number of tests for convergence are learned in this course. Taylor and Maclaurin's series are applicable series.

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.

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 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 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 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 (ENGL 004 OR ENGL 111 OR ENGL 202 OR ENGL F073TOEFL 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 OR ENGL 040)

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
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 101

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 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 OR CMPS 251 OR CMPS 223) AND MATH 102

MATH 385
Advanced Mathematics
Credit Hours: 3
Advance Mathematics is a course designed only for electrical engineering students. It is a 3 credit single semester course with three contact hours a week. This course introduces the students to some of vector calculus concepts, some special functions, complex numbers and complex functions. It focuses mainly on line integrals, surface integrals and on some applications of these integrals, Gamma functions, Beta functions and Bessel functions. The prerequisite of this course is Calculus III.

Prerequisite
MATH 211

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 Elementary Algebra 082 OR MATH 003) 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 500 OR TOEFL IBT 061 OR TOEFL CBT 173 OR 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. & Writ. 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 Comm.
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 222

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 Rept. Writ.&Edit. Arab.
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 Rept. Writ.&Edit. Engl.
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 & Prod.
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 OR MCOM 223

MCOM 349
Sports Journalism
Credit Hours: 3
This courses 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
Mult. Rept. & 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 OR MCOM 223

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
Brod. New.Report & Writ. 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 OR MCOM 223

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 361

MCOM 367
Brod. New.Report & Writ. 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
Princ 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 103 OR MCOM 101

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
Advert. Copy Writing & 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 OR MCOM 223

MCOM 388
Public Rela. Writ. & pres
Credit Hours: 0 OR 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 AND MCOM 342 OR MCOM 344

MCOM 450
Mult. Journalism - Capstone
Credit Hours: 3
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 OR MCOM 223

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 AND MCOM 361 OR MCOM 362

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: 3
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 Commu. Capstone
Credit Hours: 3
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

MECH 213
Engineering Measurements
Credit Hours: 1 OR 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 223
Solid Mechanics
Credit Hours: 3
Axial stress and strain, statically indeterminate members, thermal stresses. Multiaxial loading. Torsion of circular shafts, flexture of beams, transverse loading, combined stresses. Carrying out laboratory experiments.

Prerequisite
GENG 221 OR GENG 210

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
Basic concepts and definitions. Properties of pure substances and ideal gases. Work and heat. The first law of Thermodynamics and its application to closed systems and control volumes. The second law of Thermodynamics and the concept of efficiency. Entropy and irreversibility. Exergy analysis. Carrying out laboratory experiments

Prerequisite
MATH 101

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

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 AND MATH 217

MECH 323
Mechanical Design I
Credit Hours: 3
Design philosophy and methodology: phases of design process, design consideration, standards and codes. Engineering materials: classification, specification and selection. Factors affecting constructional details: manufacturing and assembly processes, safety, aesthetics and economy. Three-dimensional stresses, stress concentration and failure theories. Design for static and fatigue loading. Applications on designing various machine elements such as beams, shafts, springs, fasteners and power-screws. Design of practical mechanical systems. Term projects.

Prerequisite
MECH 223 AND MECH 230 AND GENG 111

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 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
GENG 222

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
MATH 217 AND MECH 343 AND MECH 241

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 421
Mechanical Design II
Credit Hours: 3
Design based on rigidity and deflection limits. Load determination and motor selection. Elements of power transmission equipment: shafts and bearings, housings and frames. Friction transmission equipment: belts, brakes and clutches. Positive transmission equipment: couplings, keys, chains and gears. Applications on designing some relevant mechanical assemblies. Role of computers in the design process. Term projects.

Prerequisite
MECH 321 AND MECH 323

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
Cmptr Aided Des
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

MECH 427
Mechanics of Composite Matrl
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 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, Castibality 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
Mod 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 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 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 344

MECH 442
Refrigeration and AC
Credit Hours: 0 OR 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
Des 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 342 AND MECH 344

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 480
Senior Project I
Credit Hours: 1
Carry out analysis and design of a system in one of the areas of mechanical engineering. Students follow systematic design approach, apply project planning and scheduling techniques, devise analytical, computational and/or experimental solutions, and design and build their own test-rig. Students attend technical seminars and learn to interact with speakers and at the end of the semester; they are required to present a seminar on the project status, progress and future work.

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 Analy and Ctrl
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 490
Senior Project II
Credit Hours: 3
Participating students continue the work on the topic selected in MECH480. Students are required to present their findings at the end of the project in the form of a seminar as well as a written formal report.

Prerequisite
MECH 480

MECH 499
Independent Study
Credit Hours: 1 OR 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.

MIST 201
Intro to Management Info Sys
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 (COMP 002 OR IC3 Computing 2350 OR Computer Placement Test 2 060 OR CMPS 165 OR MATH 119)

MIST 301
Intro to Progm 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 Comm & 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 404
Info Technology for Fin Serv
Credit Hours: 3
This course introduces students to the changing relationship between IT providers and the financial

community, the impact of technology on the organization of banking institutions and its impact on market structures. The course emphasizes the impact of information technology on the control and supervision of financial institutions to gain competitive advantage.

Prerequisite
MIST 201

MIST 405
Innovation with Info Tech
Credit Hours: 3
This course emphasizes the application of IT solutions to business problems, transformation of ideas or technologies into products or processes. The course develops technical expertise and business skills to manage risk and encourage innovation.

Prerequisite
MIST 401

MTHL 220
Adolescent Development
Credit Hours: 1 OR 3
This course aims to supply the students with basic developmental principles and theories in different aspects of human development, and to help them identify the developmental features of the deferent developmental stages in general, and adolescence in particular. In addition, the course discusses some issues and problems related to adolescence in the local community and in the larger Arabian and Islamic culture.

MTHL 325
Health Psychology
Credit Hours: 2
This course addresses the concepts of health and illness from psychological, social, and biological aspects. This course examines the role of health behaviors in personal and public health care. The course also deals with individual differences in health by focusing on the role of personality and lifestyle or locus of control as psychological determinants for health. Among other topics that this course covers are: health concept and its relationship to psychological stress, psychology of chronic illnesses, and the application of health psychology in public health domains, health education, and prevention-health care.

NUTR 221
Princ of Food Sci & 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 231
Human Nutrition
Credit Hours: 2 OR 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 Food Production&Equip
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
Intro.to Diet. & Nutr Practice
Credit Hours: 3
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 323
Food Microbiology
Credit Hours: 3
Characteristics of important genera in food microbiology, their identification and implication in the food industry. Factors affecting the survival of microorganisms in foods. Sources of microbial contamination. Methods of growth control of microbes in foods and the death curve. The concepts of food contamination, spoilage and poisoning. Incidence of microorganisms in various food categories. Overview of food poisoning. Beneficial microorganisms in foods. Microbial enzymes and foods. Microbial indicators in quality of food.

Prerequisite
BIOL 101

NUTR 329
Nutrition Education and Comm
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
Nutr. through the Life Span
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 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 & Qlty 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
Mgmt of Food Serv 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
Mgmt of Food Serv Op 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
Prof. Iss. in Diet.& 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 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
Found Pharmaco & Pharmacoth I
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
Found Pharmaco & Pharmacoth 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 I
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
Pharmacokinetics I
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
Pharmacokinetics II
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 and vocabulary terms related to drug therapy

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
Struc Practical Exp in Pharm 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 Ethics and Law
Credit Hours: 1
Pharmacy Ethics and Law (PHAR350) is a course that focuses on legal, cultural, and ethical aspects of pharmacy practice and research. 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 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 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 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 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
Integ 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
Integ 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 (PHAR405) is third 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 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
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 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 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 related to drug therapy.

Prerequisite
PHAR 420

PHAR 425
Pharmacog Alt-Comp Treatments
Credit Hours: 2
Pharmacognosy, Complementary/Alternative Medicine Treatments (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
Struc Practical Exp in PharmII
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 (PHAR240, PHAR241,

PHAR340, PHAR341, PHAR440, PHAR441) courses. PHAR441 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 445
Rx Elective 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 students' understanding of topics or issues addressed within didactic courses and/or complement the existing curricular content. The activities undertaken by the students will provide them with hands on experience with the conduct of a research project including database design, data management, analysis and interpretation.

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 490
Integ 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
Integ 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 505
Pharmacy Research, Evaluation and Presentation Skills V (PREP skills V)
Credit Hours: 1
Pharmacy Research, Evaluation and Presentation Skills V (PHAR505) is fifth 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 406

PHAR 506
Pharmacy Research, Evaluation and Presentation Skills VI (PREP skills VI)
Credit Hours: 1Credit 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
Pharmacoepide, Pharmacoecon
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
StrucPractical Exp in PharmIII
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
Struc Practical Exp in PharmIV
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
Struc Practical Exp in Pharm 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
Struc Practical Exp in PharmVI
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 Management
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
Pharmacy Elective III
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 enhance the students understanding of topics or issues addressed within didactic courses and/or complement the existing curricular content. The activities undertaken by the students will provide them with hands on experience with the conduct of a research project including database design, data management, analysis and interpretation

PHAR 590
Integ 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 % 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 ENGL 004 OR ENGL F073TOEFL Internet-based Test 061 OR TOEFL_Inst Testing Prog 500 OR Int Eng Lang Test Syst-IELTS 5.5 OR TOEFL Computer-based Test 173 OR

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.

Prerequisite
PHIL 100

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 100 AND 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
Phil. & 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 100 AND 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 100 AND PHIL 110

PHIL 400
Philosophy of Science
Credit Hours: 3
This course will introduce the students to the main problems and ideas in the philosophy of science.

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

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

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

PHYS 183
Intro to General Physics
Credit Hours: 3
This course is designed primarily to be appropriate for prospective elementary school teachers. The course is aimed to investigate in detail the physical principles and concepts discussed in elementary schools. It is algebra and trigonometry-based study of some selected topics drawn from classical and modern physics, with an emphasis on real-life applications. Topics studied 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, Magnetic Materials, Wave Motion, Sound and light, Optical

instruments, Atomic Structure of Matter, and Radiation and Radiation protection. This course includes experimental work to investigate the basic principles and laws studied in the course lectures.

PHYS 191
General Phys I -Engineering
Credit Hours: 3
•Physics and Measurements: Units and Physical Quantities- Vectors- Motion in One Dimension- Motion in Tow 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 Rigid Objects.
•Angular Momentum: Angular Moment- Angular Moment of a Rotational Objects – Conservation of Angular Moment- The Motion of Gyroscopes and Tops.
•Elasticity: Elastic Properties of Solids- Type of Elasticity- The Center of Gravity and Static Equilibrium.
•Universal Gravitation: Newton's Law of Gravitation, Measuring the Gravitational Constant – Free-Fall Acceleration and the Gravitational Force- Kepler's Law and Motion of Planets- Energy Considerations in Planetary and Satellite.
•Waves: Definitions of Waves, Pulse on a Rope, Transverse Wave, Longitudinal Wave, Complex Waves, Earthquake Waves, Amplitude of Waves, Wavelength of Waves, Frequency of Waves.
•Temperature: Definition of Temperature, Thermal Equilibrium, Zeroth Law of Thermodynamics, Celsius Scale, Kelvin Scale, Fahrenheit Scale, Thermal Expansion, The Mole, The Ideal Gas Law.
•Heat: Definition of Heat, Heat Capacity, Specific Heat, Calorimetry, Phase Change, Energy Transfer Mechanism, First Law of Thermodynamics, Thermal Processes.

Prerequisite
MATH 101

PHYS 192
Expmntl Gen Phys For Engin 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

PHYS 193
General Phys for Engin 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 180 OR PHYS 181 OR PHYS 101) AND (PHYS 192 OR PHYS 103)

PHYS 194
Expmntl Gen Phys For Engin 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 AND PHYS 192 AND PHYS 191

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

POPL 100
Intr.to Public Poli.& 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 analyse 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 Dev. 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
Disa.-Plan.% Crisis Mang. Fund
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
Intr. to Energy Law & 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 & Envi. 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 decisionmakers
in this field.

POPL 241
Comm.-Based Policy Dev.& Anal.
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 245
Intr.to Theo.& Pra.of Urb Plan
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
Prin.&Tools Ev-Ba.Pol.Dec.Mak.
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:Sci. Tech.& 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
Intr.Env.Clim.Chan.Poli.&Polic
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
Org.Beh.&Mang.in Pupl.Ser.Agen
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 Dev.
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 well-being; economic inequality and poverty; intra-household resource allocation and gender inequality; population change, credit markets and microfinance; labor markets and trade policy.

Prerequisite
POPL 242

POPL 350
Housing & Community Dev.
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
Tran.&Transit-Ori Dev.
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 387
Energy Conservation
Credit Hours: 3
This course provides an examination of how governments provide clean, safe, environmentallysustainable 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 & Plan.
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 week governance and infrastructure. This course is applied through a case study approach.

POPL 400
Public Lead.& Policy Dev.
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
Econ. Policy Appr. to Sust.
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 analyse existing policies in the transportation, agricultural, and energy sectors.

POPL 432
Sust.Plan.& Prot.of Cult.Reso.
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 230

POPL 439
Env. 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 ofthose 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 Plan. & 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
Comm.Fun.for Lead.in Pub.Poli.
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 340

POPL 485
Public Policy&Know. Based Econ
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 the figure in an energy supply matrix. These issues will be illustrated through case studies.

POPL 488
Public Policy Plan.&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.

PSYC 201
Introduction to Psychology
Credit Hours: 3
The course provides students with introductory knowledge and skill 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 comprehensives and accurate understanding behavior.

PSYC 203
Health Psychology
Credit Hours: 3
covers This course various theoretical prepective, models and research it surveys the biological, behavioral and social factors that influence health .

Prerequisite
PSYC 201

PSYC 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.

PSYC 206
Introduction to Social Psyc.
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 201

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 humen life span development including intellectual, social, and emtional aspects of the normal individual, with a major emphasis on childhood and adolescent developmenet.

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 courses 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 esponses.

Prerequisite
PSYC 301

PSYC 405
Internship
Credit Hours: 6
The field/ clumintating experince is an internship experince designed to intergrate psychological theories, knowledge, and skills in a practice setting, which results in a written report that demonstrates probem-solving, is overseen by a faculty member, and is designed around a major issue in one of the core disciplines in the degree.

Prerequisite
PSYC 221 AND PSYC 400 AND PSYC 401 AND PSYC 403 AND PSYC 406

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 400 AND PSYC 401 AND PSYC 403 AND PSYC 405

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 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 200
Inter. Health and Global Soci.
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
Rese. Methods for Pub. 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
Biost. Methods for Pub. 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

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
P H S, Manag. & Policy Devel.
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 Assess. Meth. for H E P
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
Fina. Manag. 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 analyse 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 Evalu. Sys.
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 and Disease Prevention for Women Across the Lifespan
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
Prevention Science
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 competencies that are essential to success in the field of Public Health Sciences.

Prerequisite
PUBH 303 AND PUBH 390 AND (PUBH 222 AND PUBH 426) OR (MAGT 302 AND PUBH 420)

SOCI 111
Society & Culture
Credit Hours: 3
This gateway course to the department introduces students to the scholarly approaches used by the disciplines of sociology and anthropology. Both disciplines are concerned with understanding the shape of the societies that humans construct, as well as the values and beliefs that those societies and cultures impart upon individual members. This course is intended to give students the conceptual foundations to proceed in the social sciences. Students will delve deeply into the theories of culture and society, explore the theories of cultural change, and comparatively assess cultures and cultural difference. This course includes field-based projects.

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 Methods
Credit Hours: 3
The scientific method is central to much analysis in the

social sciences. This course introduces students to the logic of scientific inquiry in the social arena. Students will investigate strategies for research design, sampling populations, measurement, and various structured methods of data collection. Students will also learn basic strategies for analyzing and presenting that data.

Prerequisite
SOCI 120 OR SOCI 121 OR SOCI 241 OR SOCI 247 OR SOCI 203

SOCI 262
Qualitative Methods
Credit Hours: 3
Qualitative methods provide a second methodological frontier in the social sciences and a key complement to quantitative research. In this course, students will be trained in quantitative methods, with a strong focus on ethnographic methods. Ethnographic methods, frequently utilized by anthropologists, geographers, political scientists, sociologists, international development specialists, and many other disciplinary practitioners, take a holistic approach to social research. In this course, students will have the opportunity to practice these methods in the field, and to deploy their training in the implementation of an independent research project of their own design. Field-based projects and exercises are central to this course.

Prerequisite
SOCI 120 OR SOCI 121 OR SOCI 241 OR SOCI 247 OR SOCI 203

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 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
Family & Kinship
Credit Hours: 3
The importance of family and kinship is seemingly a universal aspect of human existence. A quick survey of different societies around the world, however, yields a fundamental conclusion: the concept of family and the calculation of kinship is extraordinarily variable over time and over place. In this course, students will investigate the classic approaches to studying family and kinship. They will develop a deep understanding of the variability of family and kinship across time and across cultures, and will grapple with the theories that explain that variability. While the focus will be on Arabian conceptions of family and kinship, students will explore family and kinship in other settings as well.

Prerequisite
SOCI 203 OR SOCI 120 OR SOCI 241 OR SOCI 247

SOCI 265
Population & Migration
Credit Hours: 3
Demography and populations studies have long been central to the sociological mission. But throughout history--and particularly in the contemporary era-- millions of people are on the move. In this course, students will focus on the combination of these two traditions. Students will explore the theories developed to explain and understand population growth and change in human society. With that toolkit, students will also explore the theories that explain the increasing movement of people outside the communities, regions, and nations that are their home.

Prerequisite
SOCI 121 OR SOCI 120 OR SOCI 241 OR SOCI 247 OR SOCI 203

SOCI 267
Urban Studies
Credit Hours: 3
This course examines the conceptual foundation and theoretical frameworks through which the social science's understanding of urbanization and urbanism have been developed. Students will explore classic social theory concerned with urbanism and urbanization. Specific attention will be given to what those theorists had to say about the Middle Eastern City, as well as the Arabic literature's own tradition of urban studies. Turning to the contemporary era, students will explore the modern and post-modern city, and grapple with the role of globalization and neoliberalism in shaping the cities around the world, including those located here on the Arabian Peninsula.

Prerequisite
SOCI 120 OR SOCI 121 OR SOCI 241 OR SOCI 247

SOCI 268

Culture, Health & Disease
Credit Hours: 3
This course examines the social and cultural dimensions of health, illness and disease in the global arena. As such, the course introduces students to the fields of medical sociology and medical anthropology. Students will examine multiple themes over the course of the semester, including the social construction of health and disease and medical knowledge, the conceptualization and subjectification of the body, as well as the patterns of distribution of disease and mortality in Qatar and around the world. Students will also investigate the organization of the health care system in Qatar and in other parts of the world, the connection between environment and disease, and the cultural articulation of the relationship between doctors and patients.

Prerequisite
SOCI 120 OR SOCI 121 OR SOCI 241 OR SOCI 247 OR SOCI 203

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 120 OR SOCI 241 OR SOCI 247 OR SOCI 203

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 120 OR SOCI 241 OR SOCI 247 OR SOCI 203

SOCI 362
Comparative Ethnography
Credit Hours: 3
Ethnography is the craft of Anthropology. In producing ethnographies, scholars seek to capture the entirety of the different social and cultural worlds that continue to characterize our world. In this course, students will utilize the comparative approach to build an understanding of social and cultural difference through the analysis of different social and cultural systems. Students will explore how those cultural differences come about, the factors that either foster or prevent cultural change, and the various theories scholars use to grapple with culture and cultural change.

Prerequisite
SOCI 121 OR SOCI 120 OR SOCI 241 OR SOCI 247 OR SOCI 203

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 364
Violence
Credit Hours: 3
In its many forms, violence seems to be an enduring facet of human society. This course focuses explicitly upon the phenomenon of violence, the theories by which we might explain its ongoing presence in society, and the critical approaches to discerning the source of that violence. This examination of violence moves across scales: focal points include gender-based violence, terrorism, crime and criminology, human trafficking, and much more. While the focus of this course is global, students will have the opportunity for the practical application of these ideas in analyses of Qatar.

Prerequisite
SOCI 121 OR SOCI 120 OR SOCI 241 OR SOCI 247 OR SOCI 203

SOCI 365
Study of Gender
Credit Hours: 3
This course explores and analyzes the profound importance of gender in the organization of social life and in the construction of personal identity, with a strong emphasis on women's experiences. Gender is studied in the context of race, ethnicity, class and the other basic social divisions that characterize human social life. The course focuses intently on how groups divide labor between men and women; how they construct ideologies and social frameworks to maintain and naturalize these social divisions; and how both men and women experience, endure and challenge the gender-based constraints in the contemporary world. While the focus of this class is global, significant segments of the course will focus on women in Arab society, political participation, and human rights issues with a gender dimension.

Prerequisite
SOCI 120 OR SOCI 121 OR SOCI 241 OR SOCI 247 OR SOCI 203

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 121 OR SOCI 241 OR SOCI 247 OR SOCI 203

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 121 OR SOCI 241 OR SOCI 247 OR SOCI 203

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 121 OR SOCI 241 OR SOCI 247 OR SOCI 203

SOCI 460
Statistics In The Social Sci
Credit Hours: 3
This course is designed to introduce students to statistics utilized in quantitative analysis in the social sciences. 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 research in analyzing social phenomena. This course will include a significant applied focus on contemporary social issues in Qatar and around the world.

Prerequisite
(SOCI 261 OR SOCI 242 OR SOCI 343 OR SOCI 443) AND (SOCI 262 OR SOCI 344 OR SOCI 302) AND (SOCI 360 OR SOCI 342 OR SOCI 340 OR SOCI 341 OR SOCI 204 OR SOCI 243 OR SOCI 304)

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 462
Change in Contemp Arab Society
Credit Hours: 3
Arab society, and particularly the petroleum-rich states of the Arabian Peninsula, have undergone significant and rapid change over the last decades. This course utilizes the sociological and anthropological toolkit to grapple with the scope and breadth of that change. Themes explored in this class include, but are not limited to, shifting gender roles and the place of women in Arab society, youth and youth culture, family and kinship in the contemporary era, migration and urbanization in the Gulf States, the impact of globalization on the peoples and cultures of the Arabian Peninsula, and the role of media in Arab cultural change.

Prerequisite
(SOCI 120 OR SOCI 121 OR SOCI 203 OR SOCI 241 OR SOCI 247) AND (SOCI 360 OR SOCI 204 OR SOCI 243 OR SOCI 304 OR SOCI 341 OR SOCI 340 OR INTA 306 OR SOCI 342)

SOCI 463
Labor & Class-Petrol Society
Credit Hours: 3
This course explores Khaleeji society through the canonical frameworks of labor, class and social differentiation. From a beginning point grounded in classical social theory, students will use these tools to critically explore the concept of a "Petroleum Society" and ascertain its utility in explaining the social, cultural, political and economic experience of the Gulf societies. This course includes specific focus on the development experiences of the Gulf, the population structure and workforce in the Gulf states, migration and labor, and an exploration of the cultural and social factors shaping work expectations among Gulf locals.

Prerequisite
SOCI 360 OR SOCI 243 OR SOCI 204 OR SOCI 342 OR SOCI 304 OR SOCI 341 OR SOCI 340

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 243 OR SOCI 204 OR SOCI 342 OR SOCI 304 OR SOCI 341 OR SOCI 340

SOCI 465
Industrial Organization & Work
Credit Hours: 3
This course begins with an exploration of classic and modern theories of work. Students will use these frameworks to explore the social organization of work and emergent forms of work in the contemporary era, and the impact of globalization upon the distribution of work and industry. Students will also familiarize themselves with the international organizations that monitor and analyze work in the contemporary world. In the second half of the course, students will gain field experience in organizations here in Qatar and will explore new and emergent forms of bureaucracy and management.

Prerequisite
SOCI 120 OR SOCI 121 OR SOCI 241 OR SOCI 247 OR SOCI 203

SOCI 466
Soc, Rel, & Polit Movements
Credit Hours: 3
This course expands the focus of political sociology to include an analysis of the social and religious realm. Political sociology traditionally focuses on the role of the political in the unequal distribution of power in human society. After reviewing the classic theories of political sociology, students in this course will use those tools to examine social, religious, and political movements in Arabian society and in other parts of the world. Case studies will focus on the civil rights movement in the United States, the women's rights movements in many parts of the world, the Islamic Brotherhood in Egypt, and the potential for labor movements in the Gulf States.

Prerequisite
SOCI 120 OR SOCI 121 OR SOCI 241 OR SOCI 247 OR SOCI 203

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 242 OR SOCI 343 OR SOCI 443) AND (SOCI 262 OR SOCI 344 OR SOCI 302) AND (SOCI 360 OR SOCI 304 OR SOCI 243 OR SOCI 204 OR SOCI 340 OR SOCI 341 OR SOCI 342) AND (SOCI 460 OR SOCI 401)

SOCI 470
Independent Study
Credit Hours: 1 OR 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: 1 OR 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
Intro to Social Work and Welfare
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.

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 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 Behv & Soc 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 Behv& Soc 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 WIfre Policy & Srvcs 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 WorkGen 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 MethodsI
Credit Hours: 3
The first of two social work research courses, this course introduces various social work research methods and techniques. The basic problem-solving process is presented and related to other research methods. Students will develop beginning skills in research and evaluation methods through the use of practical applications to learn how to critically evaluate research studies and to find answers to research questions.

Prerequisite
SOWO 101 AND STAT 153 OR STAT 101

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
Chldrn&Fam Practices&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 WIfre Policy & Srvcs 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 410
Social Work Research MethodsII
Credit Hours: 3
The second of the two social work research courses, this course gives students the opportunity to integrate traditional research methods and technology into practice that is relevant to their interest. Students will be involved in quantitative and qualitative social work research.

Prerequisite
SOWO 360

SOWO 420
Social WorkGen 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 WorkGen 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 440
Integrative Seminar
Credit Hours: 3
A capstone seminar the enables students to integrate the theory, knowledge, values, skills, ethics, and cultural competence of generalist social work practice. Taken concurrently with the Social Work Practicum, this course provides students the opportunity to examine and review practice content and issues encountered in the practicum, as well as serve as a process group for the complex experience of becoming a generalist professional social worker.

Prerequisite
SOWO 321 AND SOWO 400 AND SOWO 430

SOWO 441
Social Work Practicum
Credit Hours: 12
This is a 400 plus clock hours practicum placement that builds on the competencies gained in the social work courses. The practicum is educationally directed, coordinated, and monitored for all students. Structured learning opportunities 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 the Integrative Seminar.

Prerequisite
SOWO 321 AND SOWO 430

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 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.

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
Thry & Prctce-Indv 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
Thry & Prctce-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
Thry & Prctce-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
Thry & Prctce-Indv 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
Rsrch Meth Exerc Sci & 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 119 OR MATH 101

SPSC 209
Biomchncs & Mvmnt 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

SPSC 210
Princ of Trning & 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 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

SPSC 305
Sport Mrktg & Mngmt 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 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 acquisitionand performance related to sport in particular. This course deals with learning theories, information processing, motor control and motor skill learning and emphasizes why and howchildren 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

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

SPSC 310
Princ of Trning & 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 life style 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

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 dieses 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 306

SPSC 405
Testing & Exercise Prescrption
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
Concpts 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 Mrktg & Mngmt 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 & Econ 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 SPSC 475 AND EDEC 411

STAT 101
Statistics I
Credit Hours: 3
Statistics I 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, F – distribution and Chi-Square 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.

STAT 102
Statistics II
Credit Hours: 3
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
Intro 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
(STAT 101 OR STAT 153) AND MATH 102

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
(ENGL 004 OR ENGL 111 OR ENGL 202TOEFL Internet-based Test 061 OR TOEFL_Inst Testing Prog 500 OR Int Eng Lang Test Syst-IELTS 5.5 OR TOEFL Computer-based Test 173 OR OR ENGL F073 OR ENGL 040)

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 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 OR STAT 251 AND MATH 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 AND STAT 211 OR STAT 251

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 AND STAT 211 OR STAT 251

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 AND STAT 211 OR STAT 251

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 AND STAT 211 OR STAT 251

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 AND STAT 211 OR STAT 251

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 357) AND (STAT 361 OR STAT 452)

STAT 481
Multivariate Analysis
Credit Hours: 3
Organization of Multivariate Data; Multivariate Distributions; Mahalanobis Distance; Hotelling's T2; 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: 1 OR 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
Graduation 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 advanced training in principles and methods of translation from English to Arabic and vice versa. A set of primary theories and basic principles will be introduced and a variety of text types are covered, ranging from legal to journalistic genres, in order to train students how to apply these theoretical concepts to different texts. Primary theoretical positions on translation equivalence are presented, assessed and related to the practical task of translating.

TRAN 202
Theo.&Practical Models of Tran
Credit Hours: 3
The course introduces students to more advanced theoretical models of translation: Formal equivalence (Catford), Dynamic equivalence (Nida), Pragmatic (Koller), Textual and Contextual (Beaugrande). These are used in translating a variety of text types and genres, predominantly from Arabic into English, and gives the students the tools to identify, analyze and resolve complex translation problems and to develop a rational approach to the task.

TRAN 301
Media Translation I
Credit Hours: 3
The course offers students the opportunity to be trained in the practice of translating a variety of authentic texts that appear in print or in other aural or visual media, with emphasis on issues involved in international crises, cooperation, development and government structure. Students will explore translation strategies related to the media and will be encouraged to examine practical problems, which are regularly encountered in the process of translating news reports, editorials and headlines

Prerequisite
TRAN 201 AND TRAN 202

TRAN 302
Specialized Translation I
Credit Hours: 3
The course provides focused training in the translation of texts in the fields of international relations, law and journalism (social sciences and the humanities) from and into English and Arabic. The treatment of such texts will be guided by theoretical input covered in TRAN 201 and more importantly by input from the area of Terminology and its application in these fields.

TRAN 303
Intercultural Communication
Credit Hours: 3
With globalization increasingly impacting on many aspects of our life, communication across cultural boundaries is becoming part of the necessary skills for educated individuals to increase mutual respect and minimize antagonism. Culture is a complex semiotic system with its sophisticated vocabulary of symbols, beliefs, attitudes, values, customs and norms of behaviour. Since language is enmeshed in culture, it is therefore impossible to translate between languages without a clear awareness of the cultural issues involved in every translation assignment. 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 non-verbal communication styles in both high and low context cultures, and the effect of bias and conflicting value systems on cross-cultural communication.

Prerequisite
TRAN 201

TRAN 310
Func. Arab. Grammar for Tran.
Credit Hours: 3
This course aims to develop the student's proficiency in using the two languages correctly from the aspects of focusing on grammar, functional syntax, and the use of language in its functional syntactical dimensions. The course enables the student to derive verbs according to various verbs according to semantics and to derive the various forms from the root and determine sentence structure and various connotations of meanings resulting from different concepts of grammar. Such as; morphology, assertions, descriptive sentences, exceptional rules, negations, legend, and syntax. It also provides a number of practical texts to illustrate the various grammatical and morphological points to enable students to use contemporary Arabic language probably.

TRAN 311
Func. Engl. Grammar for Trans.
Credit Hours: 3
This course targets English grammar points from a translation perspective. It emphasizes that formal rules of grammar must be seen as embedded in communicative contexts to help students internalize English structures. It will develop an understanding of the major characteristics and basic details of English grammar and lexis in context, together with the necessary skills required in applying syntactic and semantic aspects in order to evaluate and improve the quality of translated texts.

TRAN 312
Ling. Comparison of Arab&Engl
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 313
Discourse Analysis for Trans.
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
Media Translation II
Credit Hours: 3
This course builds on Media Translation I, focusing on non-print media (film, television). It aims to provide students with grounding in the functioning of audiovisual translation (dubbing, subtitling, voice-over) and translation technology while helping them develop critical awareness of the wider cultural and ideological implications of media translation. Current debates in media and translation studies will also be examined, with particular emphasis on the use of intercultural translation in the global media.

Prerequisite
TRAN 301

TRAN 315
Specialized Translation II
Credit Hours: 3
The course provides focused training in the translation of texts in the fields of business, science and technology from and into English and Arabic. The treatment of such texts will be guided by theoretical input covered in TRAN 302 and more importantly by input from the area of Terminology and its application in these fields.

Prerequisite
TRAN 302

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.

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.

UNIV P100
Skills for University Success
Credit Hours: 1 (Note: This course credit may not be used to satisfy credit hour requirements of degree programs)
This course is designed to introduce students to the university and to assist them in developing essential skills and learning strategies needed for effective study and success at the university. The course covers topics including introduction to the University, skills for academic success, and campus and community engagement. The course emphasizes informal classroom settings, discussions, debates, and active engagements through different type of activities.

USUL 301
Principles of Exegesis
Credit Hours: 3
Educating the students on the basic scientific principles of Tafseer, the characteristics of an exegete, the principles that he needs to adhere to and the views of various schools of thought and methodologies with regard to the exegesis of the Quran.

USUL 302
Islamic Theology
Credit Hours: 3
Introducing the student to Ilm al-kalam (Muslim theology), the reasons for its rise, significant theological sects, their views and methodologies. Creating harmony between the various theological schools after thoroughly understanding their thought.

USUL 308
Legislative Texts of Hadith
Credit Hours: 3
This course instructs the student on the ways to derive Islamic legal judgements from their original sources and rulings of Shariah regarding food, drinks and human rights in Islam. It also inculcates in students the readiness to follow the rulings of Shariah in letter and spirit.

USUL 335
Contem. Studie in Quran& Suna
Credit Hours: 3
Introducing the student to contemporary studies on the Quran and Sunnah in the Middle East. Enabling the student to thoroughly comprehend some of the doubts being raised around the Quran and Sunnah in their various dimensions in an academic manner, and their academic rebuttal as well. The students will also be introduced to the modern and contemporary methodologies being employed in the study of the Quran and Sunnah.

USUL 403
Methodology of Muhaddittheen
Credit Hours: 3
This course is designed to educate the students the manner of Takhreeh of ahadith with regard to their place in the hadith sources and then to be able to judge the narrations both with respect to their text and chain of narration.

USUL 405
Miracle of the Quran
Credit Hours: 3
Introduce the student to the concept of the inimitability of the Quran and its various modes, its significance and role in the acknowledgement of the source of revelation and

employing Quranic objectives and understandings in the light of the requirements of the modern period.

USUL 407
Thematic Exegesis
Credit Hours: 3
Enable the student to understand the objectives of the Quran through the study of juristic verses from surahs Baqarah, Ma'idah and Nisa' and the views of scholars of various juristic schools of thought. Moreover, it aims at teaching the application of the text to the current situation. Derivation of legal rulings from Quranic verses.

USUL 409
Islamic Philosophy
Credit Hours: 3
To provide students an understanding of the history of Islamic philosophy and various philosophical schools and theories in Islam.

USUL 439
Contemporary Muslim World
Credit Hours: 3
Acquaint the students with Muslim societies of the world through their religious, social and political culture, define the terms of 'Islamic world' and 'Muslim Ummah', the cultural diversity of the Muslim world, and assists the students in understanding the challenges faced by the contemporary world and the stance of the Muslim world in this regard.