



Graduate Student Catalog

2012 - 2013



جامعة قطر
QATAR UNIVERSITY

2012-2013 GRADUATE CATALOG

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A MESSAGE FROM THE PRESIDENT

Welcome to Qatar University !

We really have come a long since 1973 when we started as a single college. In almost three decades, we have developed into a highly-regarded institution of advanced education, with both undergraduate and graduate programs that have garnered regional and international recognition.

Today, we are pleased to offer you a variety of programs that are delivered by a diverse and highly committed faculty body. Here at Qatar University, we work hard to design state-of-the-art programs that are in line with societal needs and with regional and international academic trends.

In recent years, there has been an exciting development in graduate studies at our University, with the addition of carefully-planned, relevant, and exciting programs. Currently, graduate programs are offered by five of the seven colleges. Students enrolling in these programs have the opportunity to receive an education second to none in the region and to gain recognition for their scholarship at institutions and places of employment around the world. When introducing a graduate program, we strive to present it with excellence and to ensure its potential to contribute to the development and strategic direction of Qatar.

This catalog is a rich and informative guide to our graduate programs. Nevertheless, I encourage you to talk to our faculty and staff as well, for they are here to make your experience at our University rewarding and successful. We do not build success alone; we are part of a broader community of knowledge, committed individuals, businesses and government organizations, and we make sure to draw on all these valuable resources for your benefit.

We are delighted that you have chosen our graduate programs to further your education. Although the work is demanding, I can assure you that the academic and professional rewards are great. I wish you a remarkable journey.

Best regards,

Professor Sheikha Bint Abdulla Al Misnad

President

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.

H.H. the Heir Apparent Sheikh Tamim Bin Hamad Al Thani is the Chairperson of the Board, providing leadership and guidance to both the Board members and to the organization as a whole.

H.E. Ahmed Bin Abdullah Al-Mahmoud, Minister of State for Foreign Affairs, is the Board's Vice Chair.

BOARD MEMBERS

H.H. Sheikh Tamim Bin Hamad Al Thani

H.H. the Heir Apparent

Chairperson

H. E. Ahmed Bin Abdullah Al-Mahmoud

Minister of State for Foreign Affairs

Vice Cha

H. E. Saad Ibrahim Al-Mahmoud

Minister of Education and Higher Education

Secretary General, Supreme Education Council

Member

H.E. Sheikh Faisal Bin Qassim Al Thani

Chairman, Qatari Businessmen Association

Member

Dr. Abdulla Bin Ali Al Thani

Vice-President, Education - Qatar Foundation

Executive Committee Chair

H.E. Sheikh Hamad Bin Jabor Bin Jassim Al Thani

Director of the General Secretariat for Development Planning

Member

Mr. Ahmad Mahdi Al Majed

Businessman

Member

Dr. Hessa Sultan Al-Jabir

Secretary General, ictQatar

Member

Dr Abdulla Bin Ali Al Thani

Vice-President, Education

Qatar Foundation

Executive Committee Chair

Mr. Hamad Rashid Al Mahanadi

General Manager, RasGas

Member

Prof. Sheikha Abdulla Al-Misnad

President, Qatar University

Member

Dr. Peter Heath

Chancellor

American University of Sharjah

Dr. Roger Benjamin, PhD

President

Council for Aid to Education (CAE)

Prof. Abdel Aziz El Said El Bayoumi

Academic Advisor to QU President

Secretary General, Board of Regents

PRESIDENT

Professor Sheikha Abdulla Al-Misnad

The President is the Chief Executive Officer of QU, with 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, and has maintained an active role on the Board of Directors of Qatar Foundation for Education, Science and Community Development since 1999. She became a member of the United Nations University Council in 2004, and was awarded an honorary doctorate in civil law in January 2008 from her alma mater in recognition of her «Outstanding achievements in the field of education». Adding to her many achievements, in 2010, Prof Al-Misnad was appointed a member of the Board of Trustees of the American University of Cairo and was honored with the 2011 Woman in Education Service Excellence Award in the 10th Middle East Women Leaders Awards held by the Middle East Excellence Award Institute on March 8.

VICE PRESIDENTS

Dr. Homaid Abdullah AlMidfaa Vice President and Chief Financial Officer

The VP and CFO is responsible for the general supervision of the administrative and financial affairs of Qatar University. 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 on August 25, 2003, Dr Al-Midfaa held several administrative positions among which were Director of the Research and Applied Sciences Center, and Dean of Student Affairs.

Dr. Sheikha Bint Jabor Al-Thani Vice President and Chief Academic Officer

The VP and CAO is responsible for the general supervision of all academic programs, research, continuing education and libraries at Qatar University. Dr Al-Thani began her career at QU University as Assistant Professor of Algebra at the Department of Mathematics in the then-College of Science after completing her PhD in Algebra from University of Exeter UK in 1992. She has held her current position since July 2005 following her tenure as Dean of the College of Arts & Sciences.

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 University of Texas at Austin.

Dr. Hassan Rashid Al-Derham Vice President for Research

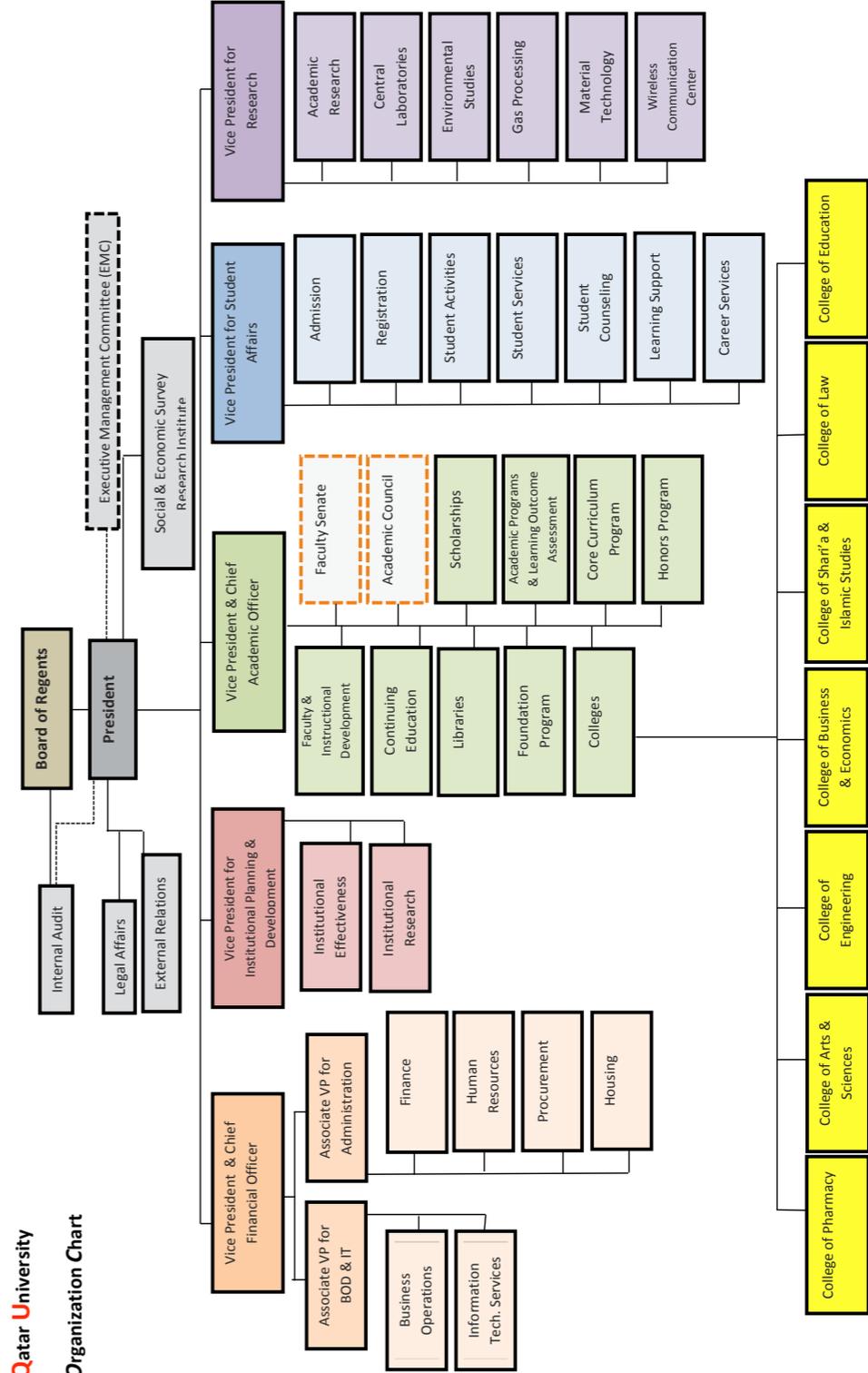
The office of the VP for Research is responsible for encouraging, promoting and facilitating research activities within the QU community. A PhD in Civil Engineering from University of Glamorgan (currently University of South Wales) UK, Dr Al-Derham has held this position since 2007 following his earlier 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.

Professor 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. Dr Al Sowaidi has held this position since November 2008. Prior to this appointment, he served as a consultant to QU President, and as Vice President for Administration and Associate Dean at the College of Business & Economics (CBE). A PhD in Economics from University of Durham UK, Dr Al-Sowaidi has served as Professor of Economics at CBE since 2004.

ORGANIZATIONAL STRUCTURE

Qatar University Organization Chart





DIRECTORY

Offices	Number	Email
Qatar University Main Line	44033333	info@qu.edu.qa
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	44033754	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
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	elmaatic@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	44034530	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	44034917	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	44034930	iap@qu.edu.qa
Department of Mass Communication & Information Science	44034860	headdepmasscommunication@qu.edu.qa
Department of Mathematics, Statistics & Physics	4403-4604	math-physics@qu.edu.qa
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_IS@qu.edu.qa
Department of Finance and Economics	44035080	fin-econ@qu.edu.qa
Department of Management and Marketing	44035030	manmark@qu.edu.qa
College of Education	44035125	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	44035333	pharmacy@qu.edu.qa
College of Sharia & Islamic Studies	4403 4418	shareastd@qu.edu.qa
Department of Islamic Culture and Dawa	44034450	lanak@qu.edu.qa
Department of Islamic Studies	44034470	shareastd@qu.edu.qa
Environmental Studies Center	44033939	esc@qu.edu.qa
External Relations Department	44033050	ccer@qu.edu.qa
Faculty Senate	44034015	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	wmedclinic@qu.edu.qa
Housing Department	44033160	housing@qu.edu.qa
Human Resources Department	44033240	hroffice@qu.edu.qa
Continuing Education Office	44034020	ceo2007@qu.edu.qa
Core Curriculum Program	44034041	quccprogram@qu.edu.qa
Faculty and Instructional Development	44034030	ofid@qu.edu.qa
Foundation Program	4403 5300	foundation@qu.edu.qa

Honours Program	44034998	quhonors@qu.edu.qa
Library	44034050	library@qu.edu.qa
Information Technology Services	44033400	s.alathba@qu.edu.qa
Internal Audit Office	44033095	
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	44033910	oqm@qu.edu.qa
Office of QU Scholarships (postgraduate studies abroad)	44034009	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	44033774/3789	registration@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	44033805	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	44033873	learningcenter@qu.edu.qa
Academic Support Unit	44033760	learningcenter@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	44033858/3859	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	vp@qu.edu.qa
Vice President for Students Affairs	44033700	vpstudents@qu.edu.qa



- 02. Men's Activities Building
- 15. Women's Activities Building
- 04. Administration Building
- 24. Admissions & Registration
- 18. Al-Bidaa Building
- 33. Book Store
- 14. Business Operations
- 25. Bus Depot
- 34. Computer Center
- 09. Men's College of Arts & Science
- 19. Women's College of Arts & Science
- 22. Men's College of Business
- 36. Women's College of Law, Sharia & Business
- 39. College of Business (New Building)
- 08. College of Education
- 10. College of Engineering
- 40. College of Engineering (New Building)
- 37. College of Law
- 43. College of Pharmacy
- 11. Engineering Workshops
- 13. Fine Arts Workshops

- 23. Men's Foundation/ Office of Research/Procurement
- 35. Women's Foundation Building
- 07. Gulf Studies, Parallel & Continuing Education
- 21. Women's Gymnasium
- 28. Ibn-Khaldoon Hall & QNB
- 03. Information Technology Services /Help Desk
- 26. Men's Library
- 05. Women's Library & Exhibition Hall
- 41. Library (New Building)
- 06. Men's Main Building (Law & Sharia)
- 01. Main Gate
- 16. Medical Clinic
- 27. Mosque
- 20. Women's Parking & Access
- 17. Prayer Hall
- 42. Restaurant Complex
- 38. Research Facility (New Building)
- 30. Sport Courts
- 32. Swimming Pools
- 31. Tennis Pavilion
- 29. University Stadium

Qatar University - Academic Calendar for 2012/2013

Aug-12 (Ramadan/Shawal)

S	M	T	W	T	F	S
	1	2	3	4		
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
Fall	27	28	29	30	31	

Sep-12 (Shawal/Thu Alqada)

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

Oct-12 (Thu Alqada/Thu Alhujja)

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

Nov-12 (Thu Alhujja 33/Muharam 34)

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

Dec-12

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

Jan-13

S	M	T	W	T	F	S
	1	2	3	4	5	
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

Feb-13

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28		

Mar-13

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

Apr-13

S	M	T	W	T	F	S
1	2	3	4	5	6	
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

May-13

S	M	T	W	T	F	S
	1	2	3	4	5	
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

Jun-13

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

Jul-13

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

Aug-13 (Ramadan/Shawal)

S	M	T	W	T	F	S
						1
2	3	4	5	6		
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

Sep-13 (Shawal/Thu Alqada)

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

Start of semester for administrators

Start of semester for faculty members

Last day to withdraw from a course

Last day to withdraw from semester

Start of summer for faculty members

End of summer for faculty members

Start of summer for administrators

End of summer for administrators

Start of Arabic (Hijri) month

1 Working days without classes

1 Working days with classes

1 Final exams days

1 Holidays

1 Weekends

First day of classes

Last day of classes

Start of registration or add/drop

End of registration or add/drop





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. A student is academically dismissed when he/she fails to achieve academic good standing in three consecutive semesters or four non-consecutive semesters.

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.

GPA

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

Grade Points

Numerical value associated with each grade.

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 less than a 2.00 cumulative GPA.

Probation, Disciplinary

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

Readmission

The act of admitting a 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.

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 Abroad Student

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

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 maximum of 48 credit hours or 4 semesters of course work, whichever comes first.

Warning

An official written 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 Graduate Catalog is intended to reflect current academic policies, procedures, degree offerings, course descriptions, and other information pertinent to graduate 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 Graduate 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 most prominent and sole national institution of higher education. With over 10000 students and a 15:1 student-teacher ratio in 2011-2012, the University serves as a national beacon for higher education and academic excellence. Currently, it hosts seven colleges under its umbrella: Arts and Sciences, Business & Economics, Education, Engineering, Law, Pharmacy, and Sharia and Islamic Studies, as well as a Sport Science Program.

With over 70 specializations, the University offers the widest range of academic programs in the country. The majority of its courses are undergraduate degrees; however, following the goals outlined in its Strategic Plan to meet market needs in Qatar for advanced-level professionals, Masters and other graduate programs are offered at several colleges including Arts and Sciences, Education, Business & Economics, Engineering, and Pharmacy.

QU currently offers 20 graduate programs, including Masters programs in Environmental Sciences at the College of Arts and Sciences; Business Administration at the College of Business & Economics; Education Leadership and Special Education at the College of Education (CED); Engineering Management, Computing, Urban Planning & Design, and Environmental Engineering, and a PhD in Engineering at the College of Engineering (CENG); and a PharmD and Master of Science in Pharmacy at the College of Pharmacy.

Moreover, the institution recently launched Masters programs in Gulf Studies and Accounting, both of which started in fall 2011.

Gulf Studies is the first such program in Qatar and the region, and the second in the world. It is an in-depth interdisciplinary MA program within the College of Arts and Sciences. It covers courses relating to heritage, society, politics, economics, media, international relations, and the energy industry of the Gulf States, incorporating disciplines offered in the Departments of Humanities, International Affairs, and English Literature and Linguistics. It is also offered on a part-time basis for those currently employed.

Equally ambitious, QU's MA in Accounting offered by the College of Business & Economics is the first such graduate program in Qatar and the College's second advanced degree after its MBA. Included in the program is a Capstone course in Business Consulting, as well as courses in auditing, corporate governance, business ethics, enterprise resource planning, and fraud detection and prevention.

The College of Sharia & Islamic Studies is in the process of developing Masters programs in Jurisprudence, Theology, Advocacy, and the Media, which will be offered in 2013.

As part of its ongoing progress, the University has committed considerable resources toward upgrading its classroom and campus infrastructure with modern technology such as Lecture Capture and Blackboard, advanced research labs, new and environmentally-friendly buildings, and well-equipped library facilities, which have positively impacted teaching approaches and the students' enjoyment of learning. In keeping with respective accreditation requirements, study and other interactive areas are also in the process of development/upgrading.

Qatar University has a diverse student body comprising over fifty-two nationalities, the majority of which are Qatari nationals; women make up approximately 77% of the student population, and 69% of graduate students.

QU boasts an alumni body of over 30,000 graduates. Its fifth and current President, Prof. Sheikha Abdulla Al-Misnad, is a QU graduate of the Class of 1977. The University is proud to have Her Highness Sheikha Mozah Bint Nasser AlMissned as an alumna of the Class of 1986.

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 diverse and committed faculty who teach and conduct research, which address relevant local and regional challenges, advance knowledge, and contribute actively to the needs and aspirations of society.

HISTORY

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

Intrinsic to QU's aims to become a beacon of academic excellence and best practices aligned with international standards, is its adherence to preserving the language, history, and cultural traditions of Qatar and the Islamic world.

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, QU 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 for its Biomedical Sciences Program, Chemistry Program, Pharmacy College and four of its programs at the College of Engineering, with the most recent successes being the IRTE recognition accorded the College of Education, RSS accreditation of the Statistics Program, College of Business & Economics accreditation by the ACCSB, Foundation Program Department of English accreditation by the CEA, and the ISO/IEC 17025-2005 accredited status accorded the laborato-

ries of the Environmental Studies Center, Central Laboratories Unit and Materials Technology Unit.

Similar exercises are on-going for the Department of Mass Communication, College of Law, and several programs under the College of Arts and Sciences.

Additionally, an institution-wide exercise is currently in progress to gain accreditation status with the US-based Southern Association of Colleges and Schools (SACS).

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 enjoyable and motivating academic experience for its students.

The project was led by H.H. the Heir Apparent Sheikh Tamim Bin Hamad Al-Thani, QU President Prof. Sheikha Abdulla Al-Misnad, and the Office of Institutional Planning and Development (OIPD).

Reform efforts resulted in the establishment of a Board of Regents that essentially guides Qatar University's policies and operations.

In 2009, the Rand-Qatar Policy Institute (RQPI) published its report on QU's reform initiative, stating that "Qatar University has taken steps unprecedented in the region to transform itself into an institution that is at the cutting edge of higher education philosophy and practice". The report concluded that the institution had implemented 35 of 45 key reform recommendations proposed by the RQPI experts who conducted the research, with the remainder of reforms in progress.

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. An important aspect of the reform exercise was QU's strengthened commitment to its students. In recognition of the importance of students' involvement in the campus environment, student services were given greater focus and support in the establishment of the Learning Support Center, Counseling Center, Career Services Center, Help Desk Section, and latterly, a Call Center, and a student website. Through the Student Affairs newsletter, the student population can keep abreast of developments on campus and within the community.

The institution recently established the Qatar University Student Representative Board (QUSRB) whose guiding principle is to serve and act in the interest of the students in particular and the QU community in general. Student participation in university affairs is further bolstered by the annual "Meet the President" event in which QU President engages in an in-depth dialogue session with students on QU projects, plans, and developments.

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, and is reflected in its research funding which amounted to USD 60 million in 2009-2010. The institution's commitment to promoting a culture of research is also reflected in its annual Qatar University Research Forum (QURF), and the introduction of several new research centers of excellence, such as the Social and Economic Survey Research Institute (SESRI), the QU Wireless Innovations Center (QUWIC), and the planned QU Marine Station. As part of its expanding research activities, coupled with its commitment to marine environment research, the University recently launched its new marine research vessel; the "Janan", which will replace its current vessel "Mukhtabar Al Bihar". The vessel is equipped with cutting-edge technology and is expected to advance marine environmental studies and research in Qatar and the Gulf region

QU has had considerable success in gaining a large percentage of NPRP (National Priorities Research Program) and UREP (Undergraduate Research Experience Program) awards under the Qatar National Research Fund (QNRF). During the 2011/2012 academic year, QU received the highest number of awarded proposals (40%) among academic institutions in Qatar in the 5th cycle of the NPRP, maintaining its unbroken lead. QU students won 70% of the available awards in the 11th cycle of the Undergraduate Research Experience Program (UREP) competition last year amid the program's newly heightened requirements, with 98 successful proposals.

The institution has also parlayed its research priorities into partnerships with government, business, industry and civil society organizations. For instance, establishing Chair positions in Sustainable Development (Shell) at the College of Arts and Sciences, Aluminum Production (QP/Hydro), Environmental Engineering (Maersk Oil Qatar), and Architecture (Msheireb) at the College of Engineering.

A Visiting Fellowship Program was recently launched through an MOU between QU and Brookings Doha Center (BDC), and an Academic Chair established at the Department of Mechanical & Industrial Engineering through an agreement between QU and Oryx GTL.

In a similar vein, in conjunction with experts and industry leaders, several colleges and centers have established programs, projects and courses such as the Plant Design contest, Gasna and Life is Engineering projects at the College of Engineering, a clinical training agreement between College of Pharmacy and EbnSina Medical; an MOU between the Environmental Studies Center (ESC) and ExxonMobil on the coastal and marine ecology of northern Qatar, and an agreement between the Materials Technology Unit (MTU) and Qatar Science and Technology Park (QSTP) to establish a Polymer Center, to name a few.

STUDENTS

Qatar University prides itself on the quality of its students and alumni. It started with 150 students in 1973 and has grown to total around 10350 in the academic year 2011-2012, including Foundation Program students. The University is committed to ensuring that campus life is an enriching environment for encouraging volunteerism, civic responsibility, and leadership, as reflected in students' participation in the Qatar Career Fair, planning and execution of Eid charity projects, organization of the National Day parade at QU, and involvement in projects connected with Qatar's bid for World Cup 2022, in addition to many

extracurricular academic societies and clubs.

In 2010-2011, QU awarded 421 scholarships across colleges and disciplines. It also awarded internal 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. In recent years, a number of student events and extracurricular activities -such as the Cultural Village, Sponsorship and Internship Day, Clubs Day, have become staples of the academic calendar. QU also encourages exchange visits with foreign universities and study and training trips for its students to gain exposure and perspective on an international level.

EDUCATION SYSTEM AT QU

The QU education system is based on the US semester system of two periods of study in fall and spring, and course work measured in credit hours. The academic year 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 GPA of 3.00 for Doctorate and Masters level and 2.50 for Diploma level. The graduation ceremony is held once per academic year.

FACULTY

QU aims to attract qualified professionals and experts in their respective fields, to ensure a continuum of academic excellence throughout the colleges thus 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.

LANGUAGE OF COMMUNICATION

Arabic remains the official language of administrative communication. While English proficiency is a requirement for prospective students and faculty in many majors, and a number of courses are conducted in English, the institution upholds its responsibility to promote the Arabic language in all its aspects.



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 which integrates distinction and modernism with the ideals of traditional Qatari design. Students enjoy a wide range of services offered on campus to enrich their academic and social experiences. Many of these services can be utilized by students whether during the day or after class hours, and students are encouraged to reach out for these excellent resources

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, use a web browser to go to <http://my.qu.edu.qa> and log in with your QUID and password.
- **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.
- **QSpace:** Qatar University's Institutional Repository: QSpace, is a digital archive comprising the University's intellectual output. QSpace manages, preserves and makes available the academic works of faculty, graduate students and research centers.
- **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 e-mail account is the official form of communication between QU and students; therefore, students are expected to access their QU e-mail frequently.
- **Blackboard:** 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 login to Blackboard using their QU ID accounts at: <http://elearning.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 point on campus
- **Help Desk:** The IT Services Helpdesk assists students with questions related to laptop and desktop computing, remote access issues, connecting to the QU network, password and login information, email, virus and spy-ware issues.
- **Lecture Capture Software:** To enhance the university teaching and learning experience, many lectures are captured using lecture capture software (echo360R). Lecture capture is 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.

IT Helpdesk contact information:

Phone: (+974) 4403-3456

Email: helpdesk@qu.edu.qa

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

Hours: 7:30am – 2:30pm, Sunday – Thursday

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 8:00 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 in the Food Court Building and sells a wide selection of stationary and classroom supplies, study and research aides, paint and art materials, Arabic and English language books and magazines and computer equipment. The bookshop also offers copying services.

Textbooks

The Textbooks Hall provides faculty and students with text books designed to support course curriculum. As part of a University-wide

initiative to boost learning skill acquisition and enhance research, QU provides a subsidy that equals 50% of total price for text books costing more than QR 50. For more information, please visit: <http://www.qu.edu.qa/students/services/textbooks/index.php>

Cafeterias

Qatar University offers a number of dining locations within various buildings around the campus. In 2009, a modern dining facility was completed on the Women's Campus, housing fast food restaurants and coffee/ juice shops, in addition to functioning as a location for light entertainment activity. It also houses a bookshop, bank, and administrative offices. For more information, please see: <http://www.qu.edu.qa/students/services/food/index.php>

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 & Printing Center

Qatar university provides copying and printing services at the copy centers, which are located in both the Women's and Men's Activities Buildings and Library Building.

For more information, please see:

http://www.qu.edu.qa/students/services/primary_services/copy_center.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.

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 Service

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, benefiting from any services at QU, etc.

For additional information regarding the student campus card, please visit their website at: http://www.qu.edu.qa/offices/ceo/programs/certificate_programs/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 and units: the Gas Processing Center, Environmental Studies Center, Center of Advanced Materials,

Center of Advanced Materials (CAM)

The CAM is the hub of Materials Science and Engineering research activities in Qatar. The center concentrates on applied research in the areas of Nanotechnology, Composites, Corrosion, Construction materials and life cycle assessment. There are six laboratories, which together provide a large number of research and consultations services, including failure analysis, materials selection consultation, non-destructive and mechanical testing, long-term industrial studies, and many more. Furthermore, CAM offers community services as well as training courses to university members, for which details and applications are available at the Center's website.

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 Qatari 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 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://www.qu.edu.qa/library/index.php>.

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. Routine medical procedures for patients, including medical checkups, diagnosis and prescription of treatments.
3. Antenatal healthcare to promote the health of the mother and her fetus during pregnancy.
4. Transfer of urgent or critical medical cases to Hamad Hospital emergency sector, accompanied by a clinic nurse.
5. Referral of patients to different specialist clinics approved by the Supreme Council of Health.
6. Follow-up care for students with health conditions during their exam periods.
7. Provision of medical supplies and services during the formal holidays and graduation parties as required.
8. Contributing to University-wide Health Education and awareness programs.

Location and Working Hours

Main Clinic: Located in the women's section – main square. The clinic currently accepts walk-ins and appointments for female students/employees; anyone may call the clinic to request support at their locations.
Working hours: 7:30am – 7:30pm

Gymnasium's Clinic: Located in the women's Gymnasium building, where nurses are available to provide basic medical services, as well as first aid regarding sports injuries.
Working hours: 7:30am – 2:30pm

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

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

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. Although at present, student accommodation is off-campus, it offers a highly convenient location, positive learning environment and is enhanced with reliable 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, graduated students and conference attendees. For additional information, refer to the Business Operations Department website at: <http://www.qu.edu.qa/offices/businessops/services/index.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>



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 Departments 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.

Sport 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 childrens/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

Student Services

Student Affairs offers extensive student services and programs designed to create a stimulating and supportive environment that enhances the personal development, learning, educational success and career preparation of students.

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 provides students with sponsorship and internship opportunities and supports a list of publications on career guidance which may be borrowed by students. 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. These services include individual and group counseling, psychological testing, and psycho-educational programs.

The aim of the Center is to promote the personal and social growth and development of the QU student, and to help him/her adjust to the demands of university life and education. For additional information regarding the services provided by the student counseling center, please visit their website at: <http://www.qu.edu.qa/students/services/scc>.

Helpdesk

The Student Helpdesk aims to provide students with a single point of reference for all general inquiries. Students can contact the Helpdesk through:

- Email: studenthelp@qu.edu.qa
- Telephone: Men: 4403-3845 Women: 4403-3780
- Visit the Helpdesk at the Admission and Registration building ground floor

The Helpdesk provides the following services to QU students:

Students 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 if necessary, transfers their calls to the concerned departments. The Student Call Center is available during university working hours (7:30 am to 2:30 pm) at 4403-4444, and serves as a vital link for internal and external university communications. It remains an important part of the services offered by Qatar University; in addition to assisting students, it reduces the pressure on the rest of the departments in the Student Affairs Sector, colleges, and various offices at the university.

International Students

The International Students Section provides support services that are 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, international students at QU represent more than 70 countries.

The International Students Section is responsible for the welfare of the students whose residency permit is sponsored by Qatar University, and helps international students to secure their entry visa, as well as residency permit and exit permit; issues annual airline tickets for eligible scholarship students; issues formal sponsorship letters; and coordinates 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>.

New Student Orientation

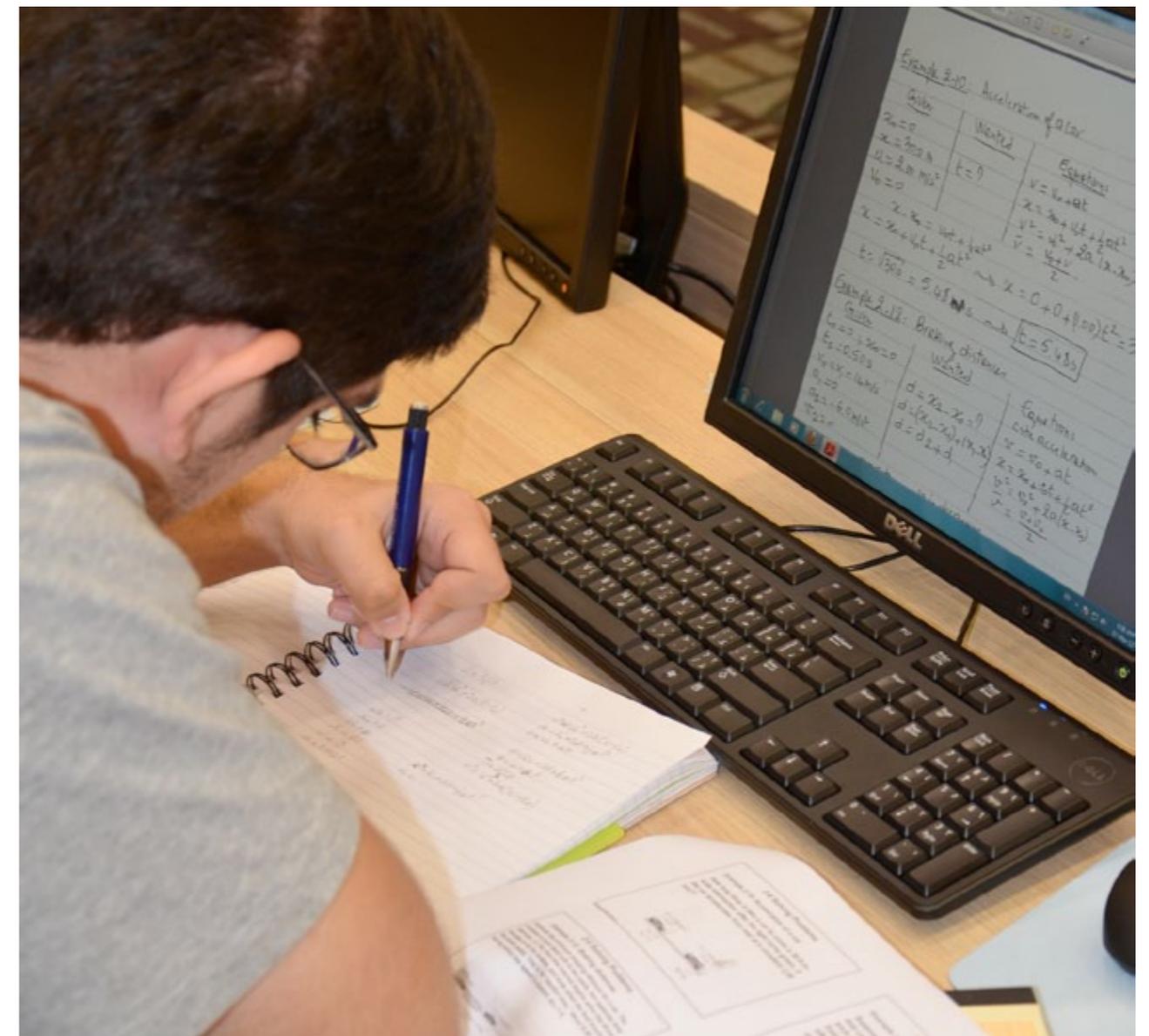
New Student Orientation for graduate students is organized by individual programs. Students are encouraged to contact their program regarding New Student Orientation requirements and schedules.

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 the following special needs categories:

- a. Physical impairment
- b. Visual impairment (blindness or low vision)
- c. Speech and language disorder
- d. Students with learning difficulties (such as: Dyslexia)
- e. Students who suffer from temporary disability such as temporary diseases or injury due to accidents.

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





CHAPTER 4 ADMISSION

All applicants who satisfy the University's minimum admission requirements are considered for admission. These minimum admission requirements are based on a number of academic qualifications that 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 State of Qatar. Students are admitted on a competitive basis.

GRADUATE APPLICATION CATEGORIES

Applicants are offered graduate admission to Qatar University in one of the following categories:

1. First Year Admission

All applicants who have never attended a graduate program are classified as First Year applicants. First Year applicants may apply for either fall or spring admission, if available, and are required to submit the following:

- Complete Online Admissions Application
- Final and official university transcript satisfying the degree and cumulative GPA requirements of the intended program
- English language proficiency score certificate that meets QU requirements
- Health Certificate
- Photocopy of the applicant's Qatar ID card
- Non-Qatari applicants must also provide a copy of their passport
- Two recent identical passport-size photographs with white background

First Year applicants must satisfy all QU graduate admission requirements for the semester of intended admission, and 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 graduate admission at QU.

2. Transfer Admission

All applicants who are currently or who have previously attended a graduate program and who have earned at least 3 credit hours are considered transfer applicants, and may apply for transfer admission to Qatar University. Transfer applicants may apply for either fall or spring admission, if available, and are required to submit the following:

- Complete Online Admissions Application
- Final and official university transcript satisfying the degree and cumulative GPA requirements of the intended program
- English language proficiency score certificate that meets QU requirements
- Health Certificate
- Photocopy of the applicant's Qatar ID card
- Non-Qatari applicants must also provide a copy of their passport
- Two recent identical passport-size photographs with white back ground

Transfer applicants must satisfy all QU graduate transfer admission requirements for the semester of intended admission, and 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 shall not be considered for admission.

TRANSFER OF CREDIT

Transfer credit may be considered for graduate coursework earned from a university other than QU that is accredited by an international accrediting association or by the Ministry of Higher Education or equivalent in that country. Transfer applicants must submit an official transcript, as well as a catalog course description or course syllabus for all courses for which transfer credit is sought.

Grades 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. A maximum of 9 credit hours with a minimum grade of 'B' may be considered for transfer credit evaluation. As some colleges accept fewer transfer credit hours, students are advised to consult their program director to determine the maximum number of credit hours and the specific courses that may be transferred and applied towards their degree program. Credit hours earned earlier than five years from the date of admission to QU cannot be transferred.

3. Non-Degree Students

Qatar University offers non-degree admission to a limited number of individuals who may enroll in graduate credit courses at QU, but who are not considered as pursuing a graduate degree program. Credit earned by non-degree students may not be used towards a graduate degree at Qatar University. Non-degree students may register for a maximum of 12 credit hours or 2 semesters of course work at QU, whichever comes first.

Non-degree applicants must submit all required original documentation, including an official transcript, to the Admissions Department. To be considered for non-degree admission, applicants must satisfy the following minimum requirements:

- Complete Online Admissions Application
- Final and official university transcript satisfying the requirements of the intended program
- Certificates that meet Qatar University's English competency requirements
- Health Certificate
- Photocopy of the applicant's Qatar ID card
- Non-Qatari applicants must also provide a copy of their passport
- Two recent identical passport-size photographs with white back ground

Non-degree students are held to the same academic and Student Code of Conduct standards as all other Qatar University degree-seeking students. All QU coursework taken by a non-degree student remains on the academic record. If a non-degree student is dismissed from Qatar University, this dismissal is permanent and the student is not eligible to return to at any point in the future.

ADMISSION REQUIREMENTS

In general, QU considers applicants who have completed a Bachelor's degree and who have satisfied the minimum English competency requirements. It is important to note that the minimum university grade point average (GPA) admission requirements may change according to the strength of the applicant pool and the available capacity in each college or program. Additionally, the university GPA requirements do vary by college, and colleges do reserve the right to stipulate additional requirements to the admission minimums before the applicant is considered for admission.

A complete listing of admissions requirements by academic program is listed in Chapter 9 of this Catalog.

ADMISSIONS APPLICATION FEE

All graduate applicants to Qatar University are required to pay a QR 350 application fee as part of their admission application. Admission applications will not be considered complete, and consequently an admission decision will not be made, until the admissions application fee is submitted.

ENGLISH COMPETENCY REQUIREMENT

In order to be considered for graduate admission, all applicants must demonstrate proficiency in English language by achieving the minimum score on the TOEFL or equivalent test required by their intended academic program according to the following conversion table:

TOEFL			IELTS
Paper Based pBT	Computer Based cBT	Internet Based iBT	
500	173	61	5.5
520	190	68	6

A test score of a test taken more than 2 years before the start of the semester of the intended admission is not accepted. Students with such scores must retake the required test to validate these scores.

UNIVERSITY TRANSCRIPT REQUIREMENTS

All graduate applicants should submit the official transcript directly to the Admissions Department. QU requires that all university transcripts submitted by non-QU graduates be final, official and authenticated according to the following sets of standards:

1. Universities in Qatar

All applicants who attended a private university located in 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 university official.
4. The university must be recognized by the Qatar Ministry of Education (no Ministry stamps required from recognized universities).

2. International Universities

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

1. The transcript must be final.
2. The transcript must be official.
3. An Arabic or English translation of the final transcript must accompany the transcript if it is issued in a language other than Arabic or English.
4. 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 equivalent in that country in which the university is located. The transcript must also be certified by either:
 - The Qatar Embassy in that country; or
 - The Embassy of that country located in Doha.

ADMISSION DATES AND DEADLINES

Admission into the incoming class is both competitive and limited. Therefore, applicants are strongly encouraged to submit their admissions application and all required documentation as early as possible. Applicants are reminded that all documents required to complete the admission application must be submitted to the Admissions Department by the appropriate deadlines, and applications will not be accepted after the published application deadline. A comprehensive listing of admission application deadlines can be found on the QU website at: www.qu.edu.qa.

RE-ADMISSION

Admission is competitive and considers the academic qualifications of applicants, as well as the capacity of each program for the semester of admission. Students admitted to the University who fail to register for classes by the end of the Drop/Add period for the semester of admission will have their admission cancelled and their admission file will no longer be kept. Students who have had their admission cancelled and who wish to attend Qatar University in a future semester will need to re-apply for admission, submitting all required documents again. Re-admission applicants must satisfy all QU graduate 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. Graduate students who have been academically dismissed from Qatar University may seek re-admission if they meet current admission requirements.

ORIENTATION

New Graduate students orientation varies by college and program. As attendance at orientation is mandatory for some colleges and programs, all students are encouraged to consult with their program director regarding orientation dates and times.





CHAPTER 5 TUITION, ASSISTANTSHIPS AND ACADEMIC SCHOLARSHIPS

TUITION FEES

Diploma Level Students

Tuition fee for students enrolled in any of the Diploma Programs is QR 1,000 per credit hour.

Master Level Students

Tuition fee for students enrolled in any of the Master Programs is QR 1,250 per credit hour.

Doctorate Level Students

Tuition fee for students enrolled in any of the Doctorate Programs is QR 1,250 per credit hour.

Arabic for Non-Native speakers Program Students

Tuition fee for students enrolled in the Arabic for Non-Native Speakers Program is QR 600 per credit hour.

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.

Textbooks

For textbooks costing QR 50 or more, the student is charged 50% of the book price. Students are charged full price for text books priced below QR 50. This is a non-refundable payment.

University Housing

Students living in the student accommodation facilities provided by the University are charged QR 2000 per month for room, board and transportation to and from the university. This is a non-refundable charge.

University Transport

Transportation provided by the University is available at a rate of QR 700 per semester. This is a non-refundable charge.

ACADEMIC SCHOLARSHIPS

As of November 2011, the Higher Education Institute of the Supreme Council for Education (HEI SCE) recognizes Qatar University Doctoral and MSc degree programs. The list identifies the best universities for scholarship recipients based on international ranking criteria to achieve the best academic and research outputs. For further information, visit the HEI SCE website:

<http://www.english.education.gov.qa/content/resources/detail/15149>

The list of official universities and colleges includes many Qatar University graduate programs:

http://www.english.education.gov.qa/section/sec/hei/sco/_univlist

Scholarships application details are available on the entry requirement webpage:

<http://www.english.education.gov.qa/section/sec/hei/sco>

Diploma in Education Scholarships

These scholarships are awarded under specific criteria to students admitted to the Diploma programs offered by the College of Education. In order to maintain a scholarship award, a student 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 applicable University 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>

GRADUATE ASSISTANTSHIPS

Outstanding graduate students will be offered graduate assistantship (GA). A GA will be paid QR180 per hour for 20 hours of work per week. He/she is personally responsible for all of his/her expenses, including housing, tuition, insurance, travel and any other incurred expense while studying at Qatar University.

Eligibility and Application Process

A student may be considered for a GA position based on:

1. The student is either accepted for admission or already enrolled in a graduate program at QU.
2. The student has demonstrated an exceptional performance at the undergraduate level (for those applying for a Master degree) or Master's level (for those applying for a PhD degree). Exceptional performance is defined by no less than a GPA of 3.5 out of 4.00 scale.
3. A graduate assistant who is applying for a program that is either taught in English/Arabic or uses English/Arabic extensively, must fulfill the language proficiency defined by the University.

Application for a graduate assistantship should accompany the application for admission to the graduate degree program. Deadlines of applications for the GA are the same as the deadlines for admission applications.

APPOINTMENTS

The Chair of the Department should recommend to the Dean of the relevant college the names of the admitted students who are recommended for graduate assistantship, their academic status, workload, and assigned duties. The list of recommended GAs must be received by the Deans' offices at the same time the list of approved accepted graduate students' list. Those students selected to receive the GA positions are informed in writing after they confirm that they will be attending QU. Once all approvals are confirmed and prior to the starting date of the appointment, newly accepted graduate assistants should receive a letter (email) from the VPCAO office (with a copy to the Dean and Chair of the concerned GA) summarizing their general duties and a link where they can find the QU rules and regulations. In the first week of commencing duty, graduate assistants will go through an initial orientation session of their assigned duties by their supervisors as designated by the Chair of the Department. This may include a description of specific duties, standards for evaluation of performance, training as appropriate if GAs are assigned to laboratory instructions, and resources available amongst others. A hard copy of the assignment in general or specific terms will be given to the GAs.

Once the graduate assistant arrives on campus, a special contract should be prepared and signed at the QU HR office; a copy will be handed to the GA for his/her future reference.

In case a student resigns from a GA appointment before the end of a semester, the student should send a letter to the Chair of the Department as early as possible, stating the reasons for his/her resignation. Termination of a contract must follow the QU procedures and guidelines. The student should check with HR to ensure no other matters are left standing.

Reappointment to a GA position is contingent upon prior performance, departmental research and teaching needs, and available funds.

Meeting the Language Proficiency Requirements

New graduate students must show that they meet the minimum English language proficiency requirements (TOEFL or IELTS tests), as well as that of the Arabic language proficiency requirements, if required. Applicants should contact their academic departments or the Admission Office for further information.

Maximum Duration of GA Support

The maximum length of a full-time GA for receiving support is limited to the normal length of time for completing the degree, in most cases not to exceed two years for a Master's degree student and four years for a doctoral degree student. Part-time GAs' duration is prorated according to the full-time duration.

Responsibilities and Load

The duties and responsibilities of GAs should be clearly stated in the contract. GAs will serve under the direction and supervision of appointed faculty members, as designated by the Chair of the Department. The following guidelines apply:

1. Graduate teaching responsibilities may include assignments such as assisting in laboratory sessions, teaching tutorials and help sessions, help in grading laboratory reports/papers and quizzes, proctoring exams, and organizing/uploading course handouts as instructed by the supervising faculty. In addition, graduate assistants could be assigned additional academic and/or research duties as deemed appropriate by the department chair.
2. Full-time students awarded GAs are not allowed to work outside the University.
3. Full support for a GA is defined as being registered for 9 credit hours.
4. A full-time GA works 20 hours per week.
5. GAs are expected to maintain the highest standards of academic honesty and integrity and abide by college and University rules and regulations.
6. GAs are not permitted to enroll in any course for which they are assigned assistantship responsibilities.
7. A GA who drops a course, withdraws from the University, or resigns an assistantship after the drop and add period of the semester, will lose the paid tuition for those courses.
8. A GA can hold only one assistantship at a time.

Evaluation

The faculty member supervising or directing the instructional activities of the GA, should complete an evaluation form of the student's performance at the end of each term and submit it to the department chair. The department chair will evaluate all GAs working in the department at the end of every academic year, and provide each one of them with a written evaluation of performance. A copy of this formal evaluation should be sent to the dean's office, and to the VPCAO Office for record.

Summer Appointment

If no teaching assistantships are available during the summer, GAs may be hired as research assistants by faculty who have research grants, or be assigned other duties based on the approval of the VPCAO.

End of Contract

Graduate assistants are expected to meet the standards of performance described at the time of their appointment, and to maintain satisfactory academic progress toward their degree. Their contract may be terminated with one month's notice at any time that their performance is considered to be unsatisfactory by the concerned department. Although immediate termination of contract may be called upon for serious misbehavior or failure to perform and attend to duties, all terminations must follow the legal guidelines adopted by QU. Any appeals of the termination decision should also follow QU guidelines.



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.

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.

CONFIDENTIALITY OF STUDENT RECORDS

All student and associated financial records are considered confidential. Student's University records are established and maintained for administrative purposes. Access to these records is limited to the student and designated University officials as stated below. Access to these records by other individuals requires the student's explicit written consent, with the exception of the student's parents or his/her legal guardian. Designated University officials are determined to have legitimate educational interest if the information requested is necessary for that official to perform a task that is related to their normally assigned job functions or related to their performance of a contract with the university. A "university official" includes faculty, staff, a member of the board of trustees, third-parties acting on behalf of the university, and individuals, including students, serving on university committees. The determination as to whether a legitimate educational interest exists will be made by the custodian of the records on a case-by-case basis. Should contractual agreements between the student and external agencies sponsoring him/her require the release of these records to such agencies, the student must sign a release letter to that effect once he/she is admitted to the University.

A student working at QU is considered an employee of the University and, as such, is sometimes required to handle confidential materials. Therefore, he/she is not permitted to divulge any confidential information, and is required to sign a statement of confidentiality prior to working at the University. Intentional release of confidential information may result in disciplinary action against the student and could result in his/her suspension or dismissal from the University.

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, display-

ing, 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 publicly 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:

- The concepts of procedural fairness, and
 - 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 acceptable 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 selected at the beginning of the academic year. Members of this committee serve for two years and they include the Associate/Assistant Dean of Student Affairs of the college, and one or two selected 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.

RESOLVING STUDENT DISPUTES

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

Academic disputes

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 page 59.

Scope

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

Informal resolution

The student should first try to resolve the grievance informally by discussing the grievance with the faculty member as soon as is reasonably possible after the student becomes, or should become aware of the matter. If the student and faculty member 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

- 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.
- If the student is not satisfied with the outcome, he/she has the right to appeal the decision within (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.
- In all cases, if the student does not receive a formal response within (10) business days of the complaint/appeal submission, he/she should consider the request rejected.
- 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.
- All documents related to the complaint, appeal, and decision shall be kept at the Office of Vice President for Student Affairs.

Non-Academic disputes

Non-academic issues 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 by-passed.

Formal resolution

- 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.
- 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 confidentiality. The student will be informed of the decision via e-mail within ten (10) business days of the complaint's submission.
- 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.
- 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.
- 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, graduate students must select and register in courses that constitute the requirements towards the degree he/she pursues. Registration for classes takes place prior to the beginning of every semester. The student is assisted by his/her assigned advisor to ensure he/she has registered for the appropriate courses for each semester. Students requiring academic advisement should check with their advisors before registering. The following information outlines the steps and requirements necessary to successfully complete the course registration process.

Methods of Registration

Graduate students register for courses online through the *myQU* portal after first meeting and consulting with their academic advisor. In order to access their *myQU* account, new students must use the username and password information provided to them in their admission letter. Once students have successfully registered for the semester, they can view their course schedule, classroom locations, meeting times, and faculty assignments for all registered courses through their *myQU* account.

Students experiencing difficulty accessing their *myQU* account should contact the Student Help Desk by e-mail at studenthelp@qu.edu.qa.

Important Registration Information

Graduate students are responsible for their own registration. They are only officially registered in a course when the course appears on the student's schedule in his/her *myQU* account.

It is sometimes necessary for an academic department or college to make changes to its class schedule, such as changing the class time, location, instructor, merging of sections, or even canceling the course. Departments will make every effort to announce such changes, however, it is the student's responsibility to revise his/her registration according to such changes. The first week of classes in the semester is designated 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)** he/she has not yet completed, on the assumption that he/she 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 pre-registered courses that the student is no longer eligible to take. Consequently, **the student is responsible** for checking his/her final grades to make sure that he/she has successfully satisfied the **Prerequisite(s)** and that he/she is 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 his/her 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. This information is also published widely for the University community and updated regularly on the University's web site.

Academic Load:

Graduate students may register for a maximum number of credit hours each semester, as follows:

1. A graduate student is permitted a maximum semester course load of 12 credit hours. Students admitted to the College of Pharmacy's PharmD program may carry a maximum of 18 credit hours per semester.
2. A graduate student on academic probation is permitted to carry a maximum semester course load of 6 credit hours.
3. The maximum course load for all graduate students during the summer session is 6 credit hours.

Due to the nature and requirements of their programs, individual colleges may encourage students to register in fewer credit hours than the maximum academic load.

Dropping and Adding Courses:

Graduate students may drop or add courses online using myQU during the designated period for drop/add. This period is determined by the University, specified in the academic calendar and updated on the University's web site. A course that is dropped before the drop deadline will not appear on the student's transcript.

Courses you cannot register for by using myQU:

Graduate students may not register for the following courses via myQU: Independent Study, Master's Thesis/Project, and Continuous Enrollment and variable credit courses. Students requiring these courses should contact their program director for approval. Once registered for these courses, students can access the information regarding the course meeting time, classroom location and instructor through their myQU account.

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, graduate students 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 academ-

ic 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 director of the graduate program. Withdrawal from a semester must be within the time limit set by the academic calendar.

A graduate student cannot withdraw for more than two semesters; the exception to this provision is during a study adjournment (emergency reasons). If a graduate 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 graduate student may apply for withdrawal 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 two semesters.

RE-ENROLLMENT AND RE-ADMISSION

A graduate student, who withdraws 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 graduate office of the College in which the student wants to re-enroll. A graduate student seeking to return to QU after an absence of more than two consecutive semesters may be required to re-apply for admission to the program and must satisfy the admission and program requirements for the semester of re-admission.

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's web site. It is the responsibility of the student to be familiar with these dates. A graduate student who misses a final exam due to circumstances beyond his/her control (family illness or death, personal illness, etc.), must contact the instructor to justify his/her absence and submit proof of the circumstance. This must take place by the time the instructor submits his/her 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 will provide the Registrar with the final grade to replace the "Incomplete" grade. In cases where a different form of assessment is administered in lieu of a final examination, the student is responsible for meeting all requirements and deadlines as determined by the instructor of the course.

STUDY PRINCIPLES AND POLICIES

Attendance

Class participation and attendance are important elements of every student's learning experience at QU, and graduate students are expected to attend all classes. Keeping track of the student's attendance and observation of the student's performance in class are the responsibilities of the instructor.

A graduate 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, the student, with the instructor's prior permission, could 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.

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

- If a graduate student attends only a part of a 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 and add.
- 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 graduate student who, without prior permission from the instructor, does not take the final exam, will receive a zero score for that exam. The student may appeal to the instructor, who, based on documentation and evidence presented by the student, may invoke the regulations applicable to an incomplete grade.

Student Coursework Assessment and Grading

Graduate 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 students' performance using a variety of mechanisms, methods and tools. They are required to assess each student's performance and progress in the class while recognizing his/her areas of strengths and weaknesses.

Grading is a cumulative notion that is based on the student's performance during the semester. Where possible, the student's final grade will be based upon several 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 him/her.

Grading Policy

Instructors shall determine the grade for each 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 with Distinction		
P	Pass		
NP	Not Pass		
CC	Continuing Course		
I	Incomplete		
TC	Transfer Credit		
W	Withdrawal		
WF	Withdrawal Failing		
Au	Audit		

Grade Point Average (GPA)

The Grade Point Average (GPA) is calculated on the basis of all graduate coursework identified in a student's program of study, as well as any additional coursework that is acceptable to the degree program. Qatar University coursework taken while in non-degree status will not be used in the calculation of the student's GPA.

Every letter grade has grade points corresponding to it. These constitute the basis for calculating the 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 overall GPA is 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. It is worth noting that each semester has a GPA, and all earned courses have another GPA known as the cumulative GPA.

Grade Reports and Transcripts

Official transcripts are the recorded results of the student's academic work. They contain all the essential information pertaining to the student's course grades, academic level, scholarship, and degrees received. They summarize his/her academic history. At the end of each semester, every student is issued a grade report through their myQU account summarizing the final grades earned and the academic standing in that semester. Graduate students may obtain their official transcript from the Registration Department.

Graduation Requirements

Each graduate program offers a study plan consisting of required and elective courses. An academic degree is awarded to students who complete all the requirements of the graduate program in which he/she is enrolled with a minimum cumulative GPA of 3.00 for Masters and Doctorate level and 2.50 for Diploma level. As graduation and credit hour requirements do vary by graduate program, students are encouraged to consult with their graduate program advisor regarding their program's academic and graduation requirements.

Internships

The University values internships and clinical experiences. 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 graduate program director, in conjunction with the internship instructor, determines the number of credit hours to be awarded to an internship. Upon completing the requirements of an internship, the student receives a grade from the instructor. To apply for an internship, graduate students must have the support of their academic advisor and the head of the program in which he/she is enrolled.

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" due to poor performance. 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 director of the graduate program must also approve. If the justification is related to medical reasons, 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 the student must provide his/her own ID in addition to that of the student. If the incomplete grade is given because the student did not take the final exam, the student should arrange with his/her instructor to take a make-up exam. The deadline for changing an (I) grade is the last day of the second week of classes in the following 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 Office of the Registrar will remind instructors who have given incomplete grades to change them before the deadline.

Academic Probation

All Masters and Doctorate level students who earn a cumulative grade point average below 3.00 (B) and all Diploma level students who achieve a cumulative grade point average below 2.50 are automatically placed on academic probation and is noted in their academic record. A graduate student on academic probation must gain the approval of

his/her academic advisor and the director of the program/department head, and may not register for more than the maximum number of semester credit hours allowed for this category of students. Students on academic probation may be advised by their academic advisor to register for fewer courses to improve the likelihood of raising their GPA and consequently removing the probation.

Once placed on academic probation, graduate students have the next semester or a total of two (2) separate semesters (summer session not included), to remove the academic probation before being dismissed from the University.

A graduate student placed on final probation may not withdraw from a semester or leave the University for the remainder of the semester. If a student on final probation does not register in any courses in a given semester, he/she will be dismissed from the University at the end of that semester.

Academic Dismissal

A graduate student will be dismissed from the University for academic reasons under the following conditions:

- Failing a graduate course two (2) times.
- Failing to achieve a minimum GPA of 3.00 for Masters and Doctorate level and 2.50 for Diploma level for the next semester or a total of two (2) separate semesters.
- Failing to meet graduation requirements within four years of enrollment in the program.

Repeating a Passed Course

A graduate student may repeat any passed course taken at Qatar University in which a final grade of C+ or below was earned. The student who repeats a course to improve his/her academic standing must abide by the following conditions:

- A passed course may only be repeated once.
- The repeated course may only be counted once towards the total number of credit hours required for graduation.
- A notation of 'R' next to the grade on the final transcript indicates that the course has been repeated.
- The grades of a repeated course, including a grade of 'F', are included in the overall GPA.
- Courses transferred from another accredited college or University cannot be repeated for additional credit.

Repeating a Failed Course

A graduate student may repeat a failed course only once to improve the grade in that course and the overall GPA. Failing grades will not be removed from the student's record, and are included in the calculation of his/her overall GPA along with the repeated grades. An "R" notation will appear next to the grade(s) of repeated courses on the student's transcript.

Grade Appeal and Changing a Grade

A student who believes that an unfair or erroneous grade is received 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, he/she submits a grade change to the



director of the program/department head. The student will be notified of the grade change once it is made and sent to the Registration Department for posting .

If the instructor does not agree with the student's claim, the student may submit a written, signed, and dated appeal to the director of the program or department head, explaining his/her position. The director of the program/department head will review the merits of the appeal, and may consult with the relevant faculty in the college before ruling on the appeal. Should the course instructor also be the director of the program/department head, the student should submit his/her written complaint directly to the Dean of the College.

If the student is not satisfied with the decision of both the instructor and the director, he/she may submit a written appeal to the 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. He/she will not make a decision regarding the grade change.

Auditing Courses

QU allows students to audit courses on a non-credit basis, subject to approval of the director of the program/department head. Permission to audit a course is contingent upon the rules of the program, 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 not obliged to take exams and so does not receive the normal grade (A-F); instead, 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 course only once.

Transfer Students

QU welcomes students transferring from other accredited institutions of higher education. Additional information regarding transfer admission requirements can be found in the admissions section of this Catalog.

Transferring Credits to QU

In order to take courses at another accredited university, students should seek approval before attending another university. Graduate students must submit their request to the Registration Department by the appropriate deadline. Masters and Doctorate level Students with a cumulative GPA below 3.00 and Diploma level students with a GPA below 2.50 are not eligible to take courses at another university, and will not be allowed to transfer courses taken at other universities.

Academic courses taken at other colleges or universities may be considered for transfer to QU under the following conditions:

- The college or university attended is accredited.
- A maximum of 9 credit hours may be transferred from a peer graduate

program at another college or university.

- 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 at least 90% of the course content of their counterparts at QU. Only courses with a grade of "B" 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.

Change of Academic Major

Graduate students may change their academic major within their particular graduate program with the approval of the program director. Students seeking to change their graduate programs need to apply for admission to the new program through the Admissions Department. All admissions requirements and timelines apply.

Transferring QU Credit to Other QU Programs

Transfer credit may be considered for graduate students transferring between graduate programs at Qatar University. Students seeking to transfer between QU graduate programs, must have earned a minimum cumulative GPA of 3.00 for Masters and Doctorate level or 2.50 for Diploma level course work at QU. Students must also meet the minimum admissions requirements for their intended program of study for the semester of application.

A maximum of 50% of the credit hours required for graduation in the intended program of study may be applied as transfer credit. Courses with a minimum grade of 'B' for Masters and Doctorate level and C+ for Diploma level course work from QU may be considered for transfer credit evaluation. As some colleges may accept fewer or no transfer credit hours, students are advised to consult the program director to determine the maximum number of credit hours and the specific courses that may be transferred and applied towards their new degree program. Credit hours earned earlier than five years from the date of graduation or the last semester of attendance cannot be transferred. Grades, credit hours, and quality points earned in QU courses accepted for transfer will count toward the total number required for graduation.

Other Requirements

Several programs require a written and/or oral general examination. The examination may be an initial diagnostic or a final comprehensive examination over the student's fields of study. Students must pass all examinations required by the program in order to complete all degree requirements. They are advised to consult with the director of the program/department head for specific program requirements.



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.

Graduate 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 COLLEGES AND DEGREES

COLLEGE OF ARTS AND SCIENCES

College of Sciences Building (Women's Section)

Phone: (974) 4403-4500

Email: cas@qu.edu.qa

Website: <http://www.qu.edu.qa/cas>

Dean

Eiman Mustafawi

Associate Dean for Academic Affairs

Vacant

Associate Dean for Research

Mohamed Ahmedna

Assistant Dean for Student Affairs

Wesam Al-Madhoun

ABOUT THE COLLEGE

The College of Arts and Sciences offers a variety of quality academic majors in a number of departments, comparable to those in other national and international educational institutions. The College applies rigorous academic standards in order to prepare students for leadership roles in a complex global society. It strives to graduate young men and women who are dedicated to the enhancement of knowledge and scientific research, and who are critical thinkers, independent lifelong learners, and responsible citizens.

DEGREE OFFERINGS

The College of Arts and Sciences offers the following graduate degrees:

- Master of Arts in Gulf Studies
- Master of Science in Environmental Sciences
- Master of Arts in Arabic Language and Literature
- Master of Science in Biomedical Sciences (NEW)

MASTER OF ARTS IN GULF STUDIES

College of Sciences Building, Room B111 (Women's Section)

Phone: (974) 4403-4519

Email: olga.tkachuk@qu.edu.qa

Website: http://www.qu.edu.qa/artssciences/graduate_programs.php

Coordinator

Abdullah Baabood

ABOUT THE PROGRAM

This in-depth interdisciplinary MA program offers students an opportunity to examine issues pertinent to the Gulf Region, encompassing the Arabian Peninsula, Iraq and Iran. Taught by experts in the field, the program offers students interested in politics, economics, history, literature, and ecology of the Gulf the opportunity to engage in their research while remaining present in the very region that they are studying. The curriculum emphasizes advanced principles of research methodology in various areas of importance, including: culture, media and ICT, environment, politics, international relations, security, and the role of the energy industry in Gulf countries. This multi-disciplinary approach is suitable for gaining an in-depth understanding of the diversity, challenges and opportunities of this important area of the world.

Objectives

We would like to attain the following objectives:

1. advance analytical approach to politics, economics, and social issues of the region
2. provide the means towards human capacity building
3. foster the integration of a broad knowledge base and human capacity building
4. address society's needs and aspirations
5. support Qatar National Vision 2030 for human, social, economic and environmental development

Its educational objectives are:

1. To address society's needs by developing human capacity equipped with a broad research-oriented training in the social sciences.
2. To establish a firm foundation from which students can progress onward to related doctoral studies.
3. To advance students' analytical capabilities in history and in the social sciences and to develop their appreciation of different approaches to the study of the politics, economics, societies, and the modern history of the Gulf and the Middle East in general.
4. To enable students to engage in advanced study of socio-economic problems and policy issues pertaining to the Gulf region and the Middle East more generally.
5. To develop students' research abilities and their understanding of

the relationship between conceptual tools, a theoretical framework and methodological approaches.

Admission Requirements

Eligible applicants must have:

1. Completed a Bachelor degree with a grade point average of at least 2.80 out of 4.00, or equivalent, from a university or college accredited by an international accrediting association or by the Ministry of Higher Education or comparable in that country.
2. Achieved a minimum score of 520 on the paper-based TOEFL or equivalent test, taken within 2 years of the start of the intended semester of admission.
3. A satisfactory performance in the personal interview with the Admission committee.

All applicants to the Master of Art in Gulf Studies program are required to submit the following documents to the Admissions Department:

- Complete Online Admissions Application
- Final, official and certified university transcripts
- Official TOEFL score report or equivalent score report
- A 500 word letter of intent
- Two confidential letters of recommendation should be e-mailed directly to the program at: gulfstudiesprogram@qu.edu.qa
- Curriculum Vitae (C.V.)
- Health Certificate
- Photocopy of the applicant's Qatar ID card (Non-Qatari applicants must provide a copy of their passport)
- Two recent identical passport-size photographs with white background
- Application Fees: QR 350

Admission to the Master of Art in Gulf Studies program is offered in the Fall and Spring semesters. For additional information on the program, please contact us at: gulfstudiesprogram@qu.edu.qa.

Learning Outcomes

To provide a comprehensive, interdisciplinary knowledge base of the contemporary Gulf States and their relationship within the regional and global context:

1. Students will apply independent research skills.
2. Students will apply social science concepts from different disciplines to their study on the Gulf region.
3. Students will analyze the social and political dynamics of the Gulf States.
4. Students will critically analyze the tools used for studying the modern history of the Gulf.
5. Students will evaluate the modern Gulf in relation to either the economic, political, cultural or social setting in global context.
6. Students will critically evaluate the processes that marked the historical development of modern states in the Gulf region.

Opportunities

As a result of the interdisciplinary nature of this program, the employment prospects for graduates are strong, and cater for several different career paths. Graduates will be suited to pursue career opportunities in both the public and private sectors. This degree will equip students with the necessary skills to pursue professions in governmental ministries and agencies that deal with foreign affairs, heritage and tourism; media organizations; the field of education; the non-profit sector and commercial organizations. It will also provide a solid foundation to those who would like to pursue doctoral studies.

DEGREE REQUIREMENTS

Master of Arts in Gulf Studies

A minimum of 36 credit hours are required to complete the Master of Arts in Gulf Studies, including the following:

- A minimum of 21 credit hours of core courses
- A minimum of 15 credit hours of elective courses

Core Requirements (21 credit hours)

- GULF 510 Contemporary History and Politics in the Gulf
- GULF 520 State and Society in the Gulf
- GULF 530 International Relations of the Gulf
- GULF 500 Advanced Research Methodology
- GULF 531 Political Economy of the Gulf
- GULF 570 Thesis

Major Electives (15 credit hours)

- GULF 533 Global Energy Geopolitics
- GULF 532 Security of the Gulf States
- GULF 521 City and Society in the Gulf
- GULF 540 Environment and Climate Ecology
- GULF 523 Human Rights and the Gulf State
- GULF 550 Media and Information Communication Technology in the GCC
- GULF 524 The Arabian Peninsula Literature and Culture
- GULF 560 Special Topics
- GULF 511 Politics of the Gulf

STUDY PLAN

Master of Arts in Gulf Studies

FIRST YEAR (18 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	GULF 500	Advanced Research Methodology	3
	GULF 510	Contemporary History and Politics in the Gulf	3
	GULF 520	State and Society in the Gulf	3
Total			9
Spring	GULF 530	International Relations of the Gulf	3
	GULF 531	Political Economy of the Gulf	3
		Elective	3
Total			9

SECOND YEAR (18 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall		Thesis 1	3
		Elective	3
		Elective	3
Total			9
Spring		Thesis 1	3
		Elective	3
		Elective	3
Total			9

MASTER OF SCIENCE IN ENVIRONMENTAL SCIENCES

College of Sciences Building, Room 222 (Women's Section)
Phone: (974) 4403-4565 / 4566
Email: biology@qu.edu.qa
Website: <http://www.qu.edu.qa/artsscience/bioenvi/>

Head

Hamda Al-Naemi

ABOUT THE PROGRAM

The M.Sc. Environmental Science Program is dedicated to the graduation of professionals and researchers who are committed to the development of a sustainable future for Qatar.

The program aims to provide a nationally prominent, interdisciplinary graduate program in environmental science that is the first choice of students, and one that provides every graduate with the acumen, literacy and knowledge of the environment that empowers them to be responsible and active citizens, with a deep social conscience.

Objectives

This M.Sc. program addresses the need for a workforce that can solve a broad range of burgeoning environmental issues. It prepares students for research in environmental science, for doctoral study, and for technical positions in universities, industry or governmental agencies. The curriculum emphasizes advanced principles of environmental science in areas such as conservation, pollution, marine ecology, global change, environmental law and economics, and sustainable development. Being multidisciplinary in nature, this program will serve a wide variety of post-graduate students who may have diverse backgrounds and goals.

We would like to attain the following objectives:

1. Develop the student's sense of community, effective engagement with others, responsibility, integrity and ethics
2. Develop the student's foundation skills and the understanding necessary to comprehend, evaluate and solve a plethora of environmental problems and issues.
3. Explain the utility and dimension of the technologies available to the graduate students in their studies about the environment.
4. Explain how to communicate effectively and decisively as professionals, in diverse settings and communities, on an eclectic range of environmental issues.

Admission Requirements

Eligible applicants:

1. Completed a Bachelor degree in Science, engineering, or related field with minimum cumulative GPA of 2.80 out of 4.00 or equivalent from a university or college accredited by an international accrediting association, or by the Ministry of Higher Education or comparable authority in that country.
2. Achieved a minimum score of 520 on the paper-based TOEFL or equivalent test taken within 2 years of the start of the intended

semester of admission.

3. Passing an interview with the College's admission panel. The panel may request additional bridging course(s).

All applicants to the Master of Science in Environmental Sciences program are required to submit the following documents to the Admissions Department:

- Complete Online Admissions Application
- Final, official and certified university transcripts
- Official TOEFL score report or equivalent score report
- Two confidential recommendation letters from undergraduate professors or employers
- Curriculum Vitae (C.V.)
- Health Certificate
- Photocopy of the applicant's Qatar ID card (Non-Qatari applicants must provide a copy of their passport)
- Two recent identical passport-size photographs with white background
- Application Fees: QR 350

Admission to the Master of Science in Biological Sciences program takes place in the fall semester only. For additional information on the program, please see our website at:

http://www.qu.edu.qa/engineering/master_brief/master_env_eng.php

Learning Outcomes

Graduates of the Master of Science in Biological Sciences will be able to:

- Operate effectively as a team member
- Apply national and international environmental laws and regulations, specifically those relevant to the development of the environmental policy of the State of Qatar
- Apply analytical skills to choose solutions to environmental concerns of relevant industries in the region using interdisciplinary approaches
- Apply research methodologies to analyze Environmental issues
- Demonstrate communication skills about environmental issues

Opportunities

Excellent opportunities are available for graduates of this program, both in the public and the private sectors. These include professional services (ex. legal consultations, urban planning); research & development services (on natural sciences, social sciences/humanities) and other business services. Furthermore, various ministries (e.g. Health, Environment, Agriculture) are among the potential employers of these M.Sc. holders. Teaching and research institutions are also potential workplaces for these degree holders.

DEGREE REQUIREMENTS

Master of Science in Environmental Sciences

A minimum of 34 credit hours are required to complete the Master of Science in Environmental Sciences, including the following:

- A minimum of 13 credit hours of core courses.
- A minimum of 21 credit hours in either the project option or the

thesis option as detailed below:

- **Project Option:** A minimum of 6 credit hours in Project Option Required Courses and 15 credit hours of Major Elective courses.
- **Thesis Option:** A minimum of 9 credit hours in Thesis Option Required Courses and 12 credit hours of Major Elective courses.

Core Requirements (21 credit hours)

- BIOL 501 Earth Systems
- BIOL 504 Environmental Chemistry
- BIOL 505 Graduate Seminar in Environmental Science
- BIOL 506 Microbiological Processes in Environmental Systems
- BIOL 507 Regulation, the Environment and Qatar Public Policy

Thesis Option Required Courses (9 credit hours)

- BIOL 503 Experimental Design and Statistical Analysis
- BIOL 530 Graduate Research and Thesis

Project Option Required Courses (6 credit hours)

- BIOL 502 Geographic Information Systems (GIS) and Databases
- BIOL 510 Internship/Technical Report

Major Electives (12 or 15 credit hours depending on the selected option)

Students must complete a minimum of 12 or 15 credit hours depending on the student selected option. The minimum required number of credit hours may be taken from courses listed in the major electives sub-packages including the Environmental Health sub-package, the Environmental Protection sub-package, or the Sustainable Development and Energy sub-package:

Environmental Health sub-package

- BIOL 511 Environmental Health and Safety
- BIOL 513 Epidemiology
- BIOL 515 Air Pollution
- BIOL 517 Environmental Biosafety and Biosecurity

Environmental Protection sub-package

- BIOL 512 Environmental Bioethics
- BIOL 514 International Environmental Law
- BIOL 516 Environmental Impact Assessment and Bioremediation
- BIOL 518 Water and Human Development
- BIOL 520 Environmental Toxicology and Pollution

Sustainable Development and Energy sub-package

- BIOL 521 Marine Environment and Human Development
- BIOL 522 Renewable Energy Resources and Global Change
- BIOL 523 Biological Conservation and Biodiversity in Qatar
- BIOL 524 Environmental Genomics and Bio-Engineering
- BIOL 525 Solid Waste Management

STUDY PLAN

Master of Science in Environmental Sciences
Thesis Option

FIRST YEAR (18 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	BIOL 501	Earth Systems	3
	BIOL 504	Environmental Chemistry	3
	BIOL 506	Microbiological Processes in Environmental Systems	3
	BIOL 505	Graduate Seminar	P/F 1
Total			10
Spring	BIOL 503	Experimental Design and Statistical Analysis	3
	BIOL 507	Regulation, Environment, Qatar Policy	3
		Elective	3
		Elective	3
Total			12

SECOND YEAR (18 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall		Elective	3
		Elective	3
	BIOL 530	Research	3
Total			9
Spring	BIOL 530	Research	3
Total			3

STUDY PLAN

Master of Science in Environmental Sciences Project Option

FIRST YEAR (18 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	BIOL 501	Earth Systems	3
	BIOL 504	Environmental Chemistry	3
	BIOL 506	Microbiological Processes in Environmental Systems	3
	BIOL 505	Graduate Seminar	P/F 1
Total			10
Spring	BIOL 502	GIS and Databases	3
	BIOL 507	Elective	3
		Elective	3
Total			12

SECOND YEAR (18 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall		Elective	3
		Elective	3
		Elective	3
Total			9
Spring	BIOL 510	Internship	3
Total			3

MASTER OF SCIENCE IN BIOMEDICAL SCIENCES

College of Sciences Building, Room 126 (Women's Section)
Phone: (974) 4403-4800
Email: health@qu.edu.qa
Website: www.qu.edu.qa/artsscience/health/biomedical

Program Director
Hassan Abdel-Aziz

ABOUT THE PROGRAM

The Master of Science in Biomedical Sciences provides students with skills and knowledge for professional enhancement. Graduates of the program may be candidates for positions as laboratory managers, education coordinators, hospital or university faculty members, researchers, departmental supervisors, etc. The degree is offered in two concentrations; Advanced Clinical Practice with thesis or project option, and Laboratory management with project option.

Objectives

The principle operational objective of the Biomedical Sciences Program is to address the need of the local workforce by providing excellent health services according to world-class standards. The Master's degree in Biomedical Sciences prepares students for research in clinical laboratory field, for technical and mid-management positions in universities, medical and research laboratories. The curriculum emphasizes advanced principles of medical laboratory sciences in areas such clinical chemistry, microbiology, hematology & immunohematology, molecular diagnostics and lab management. The degree provides formal training in clinical sciences through theoretical and practical coursework and the application of coursework to a research or applied project.

Graduates of this M.Sc. program will:

- Apply advanced knowledge to evaluate and solve problems related to biomedical laboratory testing, technical and administrative procedures
- Possess effective communication skills in a variety of professional settings
- Design, conduct and evaluate various types of research in their substantive area according to ethical standards

Admission Requirements

All applicants to the Master of Science in Biomedical Sciences program who meet the following minimum criteria will be considered for admission to Qatar University:

1. Completed a Bachelor degree in biomedical science, biology or related
2. fields with minimum cumulative GPA of 2.80 out of 4.00 or equivalent from a university or college accredited by an international accrediting association or by the Ministry of Higher Education or comparable in that country.
3. Achieved a minimum score of 520 on the paper-based TOEFL or
4. equivalent test taken within 2 years of the start of the intended

semester of admission.

5. A satisfactory performance in the personal interview with the
6. Admission committee.
7. Students with BS degrees in other than Biomedical Sciences are
8. required to successfully complete the bridge courses prior to entering the MSc program.

All applicants to the Master of Science in Biomedical Sciences program are required to submit the following documents to the Admissions Department:

- Complete Online Admissions Application
- Final, official and certified university transcripts
- Official TOEFL score report or equivalent score report
- Two confidential recommendation letters from undergraduate professors or employers
- Curriculum Vitae (C.V.)
- Health Certificate
- Photocopy of the applicant's Qatar ID card, If available (Non-Qatari applicants must provide a copy of their passport)
- Two recent passport sized photograph
- Application Fees: QR 350

Admission to the Master of Science in Biomedical Sciences program takes place in the fall semester only. For additional information on the program, please see our website at:
<http://www.qu.edu.qa/artsscience/Health/index.php>

Learning Outcomes

- Graduates of the Master of Science in Biomedical Sciences will be able to:
- Use statistical techniques, skills and tools to analyze problems, generate alternatives and evaluate their consequences.
- Demonstrate effective communication skills at the individual and group levels.
- Demonstrate ethical choices, values, safe and professional behavior in laboratory operation and management roles.
- Conduct experimental or theoretical study committed to ethical standards
- Apply knowledge in the specific specialty discipline to accurately interpret patients' results.
- Use laboratory techniques and equipment related to profession.
- Analyze laws and regulations that impact healthcare organizations, health services delivery and patient safety.
- Demonstrate critical thinking and effective decision-making through financial management, operations management, personnel management, marketing management and quality assessment and improvement.

Opportunities

Graduates of the Master of Science in Biomedical Sciences are offered employment opportunities to work in many aspects of the clinical laboratory. The major areas include Clinical Chemistry, Hematology, Immunohematology & Blood Banking, Microbiology, Cytogenetic, Molecular diagnostics and Laboratory Management and Administration.

Potential employers include but are not limited to:

- Laboratory Medicine & Pathology, Hamad Medical Corporation
- Biomedical Research Department, Supreme Council of Health
- Pathology & Laboratory Medicine, Al-Ahli Hospital
- Weill Cornell Medical College of Qatar
- Laboratory Al-Khor Hospital
- Medical Research Centre, Sidra
- Aspetar
- El -Shafalah

DEGREE REQUIREMENTS

Master of Science in Biomedical Sciences

A minimum of 36 credit hours are required to complete the Master of Science in Biomedical Sciences including the following:

- A minimum of 15 credit hours in Major Core Requirements
 - A minimum of 21 credit hours in Concentration Requirements
- For students holding a baccalaureate degree in a discipline other than Biomedical Sciences, the following additional requirement apply:
- Student must complete 6 credit hours in Bridge Course Requirements

Major Core Requirements (15 CH)

The following courses must be completed by all Master of Science in Biomedical Sciences students:

- BIOM 510 Pathophysiology
- BIOM 520 Principles of Laboratory Management
- BIOM 530 Current Issues in Clinical Laboratory Science
- BIOM 540 Research Methods in Biomedical Sciences
- BIOM 550 Medical Laboratory Laws and Ethics

Concentration in Advanced Clinical Practice (21 CH)

Students who choose the Advanced Clinical Practice Concentration must complete 21 CH in either the roject Option or the Thesis Option for the Advanced Clinical Practice Concentration as detailed below:

- Thesis Option for the Advanced Clinical Practice Concentration: Students must complete a minimum of 9 credit hours in the Thesis Option Required Courses and 12 credit hours from the Advanced Clinical Practice Elective courses.
- Project Option for the Advanced Clinical: Practice Concentration: Students must complete a minimum of 9 credit hours in Project Option Required Courses and 12 credit hours from the Advanced Clinical Practice Elective courses.

Thesis Option Required Courses (9 CH)

students who choose the Thesis Option must complete the following courses:

- BIOM 515 Molecular Diagnostics
- BIOM 698 Thesis I
- BIOM 699 Thesis II

Project Option Required Courses (9 CH)

students who choose the Project Option must complete the following courses:

- BIOM 515 Molecular Diagnostics

- BIOM 696 Clinical Internship
- BIOM 697 Capstone in Advanced Practice

Advanced Clinical Practice Electives Courses (12 CH)

Students must complete 12 credit hours from the following list of Advanced Clinical Practice Elective Courses:

- BIOM 650 Pathogenic Microbiology
- BIOM 651 Viral Pathogenesis and Diagnosis
- BIOM 660 Biochemistry
- BIOM 670 Principles of Immunochemistry
- BIOM 675 Immunology and Serology
- BIOM 680 Oncology
- BIOM 681 Advanced Hematology
- BIOM 682 Advanced Immunohematology

Concentration in Laboratory Management (21 CH)

Students who choose the Laboratory Management Concentration area must complete 21 CH in the Laboratory Management Concentration Core Requirements.

Laboratory Management Concentration Core Requirements (21 CH)

Students must complete the following courses:

- BIOM 610 Medical Lab Financial Operation
- BIOM 620 Health Informatics
- BIOM 630 Quality Assurance & Outcome Assessment
- MAGT 602 Human Resource Management
- MAGT 603 Operations Management
- MAKT 603 Marketing Management
- BIOM 695 Capstone in Laboratory Management

Bridge Course Requirements Package (6 CH)

Students holding a bachelor degree in disciplines other than Biomedical Sciences, must complete 6 credit hours in Bridge Courses Requirements consisting of the courses listed below. The credit hours allocated to the Bridge Course Requirements courses are not counted towards satisfying the 36 credit hours required by the program.

Students are required to pass the following bridge courses prior to taking the program courses.

- BIOM 501 Medical Laboratory Science I
- BIOM 502 Medical Laboratory Science II

STUDY PLAN

Master of Science in Biomedical Sciences Advanced Clinical Practice - Project Option

FIRST YEAR (18 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	BIOM 510	Pathophysiology	3
	BIOM 520	Principles of laboratory Management	3
	BIOM 550	Medical Lab Laws and Ethics	3
Total			9
Spring	BIOM 530	Current Issues in Clinical Laboratory Sciences	3
	BIOM 540	Research Methods in Bio-medical Sciences	3
	BIOM 515	Molecular Diagnostics	3
Total			9

SECOND YEAR (18 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall		Elective	3
		Elective	3
	BIOM 696	BIOM 696 Clinical Internship	3
Total			9
Spring		Elective	3
		Elective	3
	BIOM 697	Capstone in Advanced Clinical Practice	3
Total			9

Master of Science in Biomedical Sciences Advanced Clinical Practice - Thesis Option

FIRST YEAR (18 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	BIOM 510	Pathophysiology	3
	BIOM 520	Principles of laboratory Management	3
	BIOM 550	Medical Lab Laws and Ethics	3
Total			9
Spring	BIOM 530	Current Issues in Clinical Laboratory Sciences	3
	BIOM 540	Research Methods in Bio-medical Sciences	3
	BIOM 515	Molecular Diagnostics	3
Total			9

SECOND YEAR (18 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall		Elective	3
		Elective	3
	BIOM 698	Thesis I	3
	Total		
Spring		Elective	3
		Elective	3
	BIOM 699	Thesis II	3
Total			9

Master of Science in Biomedical Sciences Laboratory Management - Project Option

FIRST YEAR (18 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	BIOM 510	Pathophysiology	3
	BIOM 520	Principles of laboratory Management	3
	BIOM 550	Medical Lab Laws and Ethics	3
Total			9
Spring	BIOM 530	Current Issues in Clinical Laboratory Sciences	3
	BIOM 540	Research Methods in Bio-medical Sciences	3
	BIOM 620	Health Informatics	3
Total			9

SECOND YEAR (18 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	BIOM 610	Medical Lab Financial Operation	3
	MAKT 603	Marketing Management	3
	MAGT 602	Human Resource Management	3
Total			9
Spring	MAGT 603	Operations Management	3
	BIOM 630	Quality Assurance & Outcome Assessment	3
	BIOM 695	Capstone in Laboratory Management	3
Total			9

MASTER OF ARTS IN ARABIC LITERATURE AND LANGUAGE

Women's Main Building, Room 112 (Women's Section)
Phone: (974) 4403-4820
Email: headdeparabic@qu.edu.qa
Website: http://www.qu.edu.qa/artssciences/graduate_programs.php

ABOUT THE PROGRAM

The establishment of a Master's Program in Arabic Literature and Language resonates with the considerable focus the University is paying to scientific research, as is clearly referred to in the University Strategic Plan, and consistent with Qatar's vision to develop the field. In addition, there is a vested interest in Arabic Literature and Language, considering that QU is a national university and places the identity and needs of Qatari society at the top of its priorities.

Educational Objectives

The master's program at the Department of Arabic Language and Literature aims to achieve the following objectives:

1. Develop students' research skills in literature and criticism, and language.
2. Prepare researchers and scholars who are active socially and culturally in the fields of literature, language and criticism.
3. Consolidate the integration between the Arab and Islamic heritage.
4. Deepen knowledge of comparative culture & literature, to promote communication and dialogue with other cultures.

Admission Requirements

All applicants to the Master of Arts in Arabic Literature and Language program who meet the following minimum criteria will be considered for admission to Qatar University:

1. Completed a Bachelor Degree in Arts with a concentration in Arabic Language and Literature from Qatar University, with a minimum cumulative GPA of 2.80 out of 4.00 or equivalent from a university or college accredited by an international accrediting association, the Ministry of Higher Education, or another comparable institution in that country.
2. or applicants applying to the Comparative Cultural Studies concentration of the Master of Arabic Language program, they required to achieve a minimum score of 500 on the paper-based TOEFL or equivalent test taken within 2 years of the start of the intended semester of admission.
3. A satisfactory performance in the personal interview with the Admission Committee.

All applicants to the Master of Arts in Arabic Literature and Language program are required to submit the following documents to the Admissions Department:

- Online Admissions Application
- Final, official and certified university transcripts
- Official TOEFL score report or equivalent score report

- Health Certificate
 - Photocopy of the applicant's Qatar ID card (Non-Qatari applicants must provide a copy of their passport)
 - Two recent passport-size photographs with white background
 - Application Fees: QR 350
- Admission to the Master of Arts in Arabic Literature and Language program is offered in the Fall semester only. For additional information on the program, please contact us at headdeparabic@qu.edu.qa.

Learning Outcomes

After successfully completing the required courses and preparing a thesis, the graduate student will be able to:

1. Achieve a high level of specialized academic research.
2. Utilize his/her high intellectual capability in dealing with sources relevant to his/her specialization.
3. Invest his/her knowledge (present and future) in serving his/her local, Arab and Muslim community.
4. Master the skills of critical, linguistic and literary analysis in various arts.
5. Communicate effectively using the Arabic language (written and orally).

Opportunities

Upon obtaining a master degree in the Arabic Literature & Language, graduates may use their scientific and academic skills to strengthen the existing research atmosphere at the university, and apply to the following jobs:

- A researcher in specialized cultural centers, including:
 1. Center of Dialogue of Civilizations
 2. AlJazeera Center for Strategic Studies

- Arabic language lecturer

- University Teaching Assistant

- Any job that requires applicants who display mastery and a high level of knowledge about the Arabic language.

DEGREE REQUIREMENTS

Master of Arts in Arabic Language and Literature

A minimum of 33 credit hours are required to complete the Master of Arts in Arabic Language and Literature, which includes the following:

- A minimum of 9 credit hours in Major Core Requirements
- A minimum of 24 credit hours of in one of the three concentration areas offered by the program, including:
 - Concentration Area Core Requirements: A minimum of 18 credit hours in the concentration area core requirements package.
 - Concentration Area Electives: A minimum of 6 credit hours in the concentration area electives package.

For students holding a bachelor degree in a discipline other than Arabic, student may be required to complete additional bridge courses as specified at admission time.

Major Core Requirements (9 CH)

The following courses must be completed by all Master of Arts in Arabic Language and Literature students:

- ARAB 524 Practical Applications
- ARAB 548 Thesis I
- ARAB 549 Thesis II

Concentration in Linguistics (24 CH)

Students must complete a minimum of 18 credit hours in concentration core requirements and 6 credit hours in concentration electives.

Linguistics Concentration Core Requirements (18 CH)

Students must complete a minimum of 18 credit hours in the concentration core requirements package, including:

- ARAB 500 Theory and Research Methodologies -Linguistics
- ARAB 502 Seminar in Linguistics
- ARAB 505 Linguistic Thought Among Arabs
- ARAB 507 Phonetics
- ARAB 509 Linguistic and Lexical Terms
- ARAB 510 Syntax

Linguistics Concentration Electives (6 CH)

Students must complete a minimum of 6 credit hours in the concentration electives package, including:

- ARAB 513 Literary Discourse
- ARAB 518 Social Linguistics
- ARAB 519 The Arabic Language in the World
- ARAB 520 The Study of Arabic Dialects
- ARAB 521 Text Analysis and Discourses

Concentration in Literature and Literary Criticism (24 CH)

Students must complete a minimum of 18 credit hours in concentration core requirements and 6 credit hours in concentration electives.

Literature and Literary Criticism Concentration Core Requirements (18 CH)

Students must complete a minimum of 18 credit hours in the concentration core requirements package, including:

- ARAB 501 Theory and Research Methodologies
- ARAB 503 Seminar in Literature & Literary Criticism
- ARAB 506 Critical and Rhetoric Thought Among Arabs
- ARAB 508 Contemporary Literary Theory
- ARAB 511 Issues of Arab Poetry
- ARAB 522 Narrative of Modern Arabic Literature

Literature and Literary Criticism Concentration Electives (6 CH)

Students must complete a minimum of 6 credit hours in the concentration electives package, including:

- ARAB 513 Literary Discourse
- ARAB 517 Literature and Theories of Contemporary Psychoanalysis
- ARAB 521 Text Analysis and Discourses
- ARAB 523 Literature of the Arab Gulf
- ARAB 525 Cultural Criticism

Concentration in Comparative Cultural Studies (24 CH)

Students must complete a minimum of 18 credit hours in concentration core requirements and 6 credit hours in concentration electives.

Comparative Cultural Studies Concentration Core Requirements (18 CH)

Students must complete a minimum of 18 credit hours in the concentration core requirements package including:

- ARAB 501 Theory and Research Methodologies
- ARAB 504 Seminar in Comparative Cultural Studies
- ARAB 514 The History of Literary Criticism
- ARAB 515 Philosophy and Critical Thinking
- ARAB 516 Post-Colonial Literature
- ARAB 525 Cultural Criticism

Comparative Cultural Studies Concentration Electives (6 CH)

Students must complete a minimum of 6 credit hours in the concentration electives package, including:

- ARAB 512 Metaphorical Theory
- ARAB 521 Text Analysis and Discourses
- ARAB 526 Post Modernism
- ARAB 527 Global Literary Comparison
- ARAB 528 Comparative Literature

COLLEGE OF BUSINESS & ECONOMICS

College of Business & Economics Building
Phone: (974) 4403-5000 / 5004
Email: bus-econ@qu.edu.qa
Website: <http://www.qu.edu.qa/business>

Dean

Nitham Mohammed Hindi

Associate Dean for Academic Affairs

Adam Mohamedali Fadlalla

Associate Dean for Student Affairs

Khaled Abdelkarim Alshare

ABOUT THE COLLEGE

The College of Business & Economics at Qatar University 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.

DEGREE OFFERINGS

The College of Business & Economics offers the following graduate degree programs:

- Master of Accounting (MAC)
- Master in Business Administration (MBA)

MASTER OF ACCOUNTING

College of Business & Economics
Phone: (974) 4403-5051 / 5013
Email: MAC@qu.edu.qa
Website: www.qu.edu.qa/business/graduate_programs/mac

ABOUT THE PROGRAM

The Master of Accounting (MAC) is a highly specialized program in Accounting. It provides a state of the art applied education in managing accounting information with the scope to allow its holders to get access to upper managerial and financial positions in a wide variety of industries.

Objectives

MAC has the following two educational objectives:

- Prepare graduate students with technical (quantitative & qualitative) and analytical skills and competencies in accounting; and,
- Develop effective and responsible accounting professionals.

Admission Requirements

All applicants to the Master of Accounting program who meet the following minimum criteria will be considered for admission to Qatar University:

1. Completed a Bachelor's degree in Accounting or Business related field with minimum cumulative GPA of 2.80 out of 4.00 or equivalent from a university accredited by an international accrediting association, or by the Ministry of Higher Education or comparable authority in that country. Students with a minimum GPA of 2.65 can still apply but they have to earn a minimum score of 450 on the Graduate Management Admission Test (GMAT).
2. Achieved a minimum score of 520 on the paper-based TOEFL or equivalent test taken within 2 years of the start of the intended semester of admission.
3. A short essay stating the candidate objectives and interests in pursuing the MAC.
4. A satisfactory performance in the personal interview with the Admission committee.

All applicants to the Master of Accounting are required to submit the following documents to the Admission Department:

- Complete Online Admissions Application
- Final, official and certified university transcripts
- Official TOEFL score report or equivalent score report
- Official GMAT score report if submitting GMAT scores
- Two recommendation letters
- Curriculum Vitae (C.V.)
- Health Certificate
- Photocopy of the applicant's Qatar ID card (Non-Qatari applicants must provide a copy of their passport)
- Two recent identical passport-size photographs with white background
- Application Fee: QR 350

Admission to the Master of Accounting program takes place in the fall semester only. For additional information on the program, please see our website at:
http://www.qu.edu.qa/business/graduate_programs/mac/index.php

Learning Outcomes

Graduates of the Master of Accounting will be able to:

1. Incorporate advanced accounting knowledge (financial and non-financial reporting) in new and unfamiliar circumstances.
2. Assess the ethical and regulatory environment for accountants.
3. Communicate effectively in oral presentations and writing.
4. Collaborate effectively in teams to solve accounting and business-related problems.
5. Apply analytical and critical thinking skills to accounting-related problems.
6. Assess and apply information technology to financial and non-financial information.
7. Build appropriate research skills needed for accounting practice.
8. Appraise international accounting issues and practices, including roles and responsibilities played by accountants within a global context.

Opportunities

Accounting degree holders are in high demand both locally and internationally. Businesses, governmental agencies, and auditing companies are always looking for people with a strong background in accounting. Opportunities for graduates exist in roles such as:

- Chief Accountants
- Chief Financial Officers
- External Auditors
- Internal Auditors
- Financial Managers
- Business Risk Managers
- Accounting Information Systems Specialists
- Business Consultants

Also, graduates will have a strong background to start and run their own business.

DEGREE REQUIREMENTS

Master of Accounting

A minimum of 30 credit hours are required to complete the Master of Accounting, including the following :

- 21 credit hours of major core courses
- 9 credit hours of major electives

Students holding a Bachelor's degree in Business or related disciplines need to successfully complete the following courses:

Major Requirements (21 credit hours)

- ACCT603 International Accounting
- ACCT 613 Accounting Research Methods
- ACCT 623 Advanced Cost /Managerial Accounting

- ACCT 643 Fraud Detection & Prevention
- ACCT 653 Advanced Accounting Information Systems
- MIST 613 Information Security
- ACCT 663 Business Information Consulting

Major Electives (minimum of 9 credit hours)

- ACCT 606 Corporate Governance
- ACCT 608 Commercial Law
- MAGT 611 Business Ethics & Legal Environment
- MIST 616 Enterprise Resource Planning
- ACCT 633 Governmental and nonprofit Accounting
- ACCT 612 Special Studies in Accounting

ADDITIONAL REQUIREMENTS

Foundation Courses (15 credit hours)

Students who hold a Bachelor degree in disciplines other than Accounting are required to pass the following foundation courses prior to taking MBA core/elective courses:

- ACCT 521 Intermediate Accounting I
- ACCT 522 Intermediate Accounting II
- ACCT 531 Cost & Management Accounting
- ACCT 533 Auditing I
- ACCT 523 Accounting Information Systems

STUDY PLAN

Master of Accounting

FIRST SEMESTER (12 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	ACCT 603	International Accounting	3
	ACCT 613	Accounting Research Methods	3
	ACCT XXX	Accounting Elective Course	3
Total			9

THIRD SEMESTER (12 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	ACCT 653	Advanced AIS	3
	ACCT XXX	Accounting Elective Course	3
	ACCT XXX	Accounting Elective Course	3
Total			9

SECOND SEMESTER (12 credit hours)			
Term	Course #	Course Title	Cr Hrs
Spring	ACCT 623	Advanced Cost/Managerial Accounting	3
	ACCT 643	Fraud Detection and Prevention	3
	MIST 613	Information Security	3
Total			9

FOURTH SEMESTER (00 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	ACCT 663	Business Information Consulting	3
Total			3

MASTER OF BUSINESS ADMINISTRATION

College of Business & Economics

Phone: (974) 4403-5013/ 5004

Email: mba@qu.edu.qa

Website: www.qu.edu.qa/business/graduate_programs/mba

ABOUT THE PROGRAM

QATAR MBA Program develops leaders through a holistic approach that combines the academic foundation acquired in the business curriculum with a broad range of opportunities for personal maturation and professional growth. The MBA program is a general management degree. It is designed to provide a solid foundation for making business decisions, to develop skills in applying financial, marketing, management, information technology and statistical techniques to complex management problems, and to improve skills in effectively presenting and implementing solutions to business problems.

Educational Objectives

The Master of Business Administration aims to:

- Develop skills in integrating business knowledge necessary to perform as management professionals in a globalized business environment;
- Prepare ethically and socially responsible business leaders; and
- Provide the necessary technical and analytical skills for effective decision making.

Admission Requirements

All applicants to the Masters of Business Administration program who meet the following minimum criteria will be considered for admission to Qatar University:

1. Completed a Bachelor's degree with a minimum Grade Point Average (GPA) of 2.85 on a 4.00 scale OR minimum GPA of 2.65 out of 4.00 with a Graduate Management Admission Test (GMAT) score of 450 from a university or college accredited by an international accrediting association or by the Ministry of Higher Education or equivalent authority in that country.
2. Achieved a minimum score of 520 on the paper-based TOEFL or equivalent test, taken within 2 years of the start of the intended semester of admission.
3. A minimum of two-years' work experience is required. Additional experience will be recognized and may help with admission to the program.
4. A satisfactory performance in the personal interview.

All applicants to the Masters of Business Administration program are required to submit the following documents to the Admissions Department:

- Complete Online Admissions Application
- Final, official and certified university transcripts
- Official TOEFL score report or equivalent score report
- Official GMAT score report if submitting GMAT scores
- Evidence of work experience

- Two recommendation letters
- Supporting statements (Essays)
- Curriculum Vitae (C.V.)
- Health Certificate
- Photocopy of the applicant's Qatar ID card (Non-Qatari applicants must provide a copy of their passport)
- Two recent identical passport-size photographs with white background
- Application Fee

Admission to the Master of Administration program takes place in the fall semester only. For additional information on the program, please see our website at:

http://www.qu.edu.qa/business/graduate_programs/mba/index.php

Learning Outcomes

Upon successful completion of the MBA program, students will be able to:

1. Analyze the implications of making ethically responsible decisions.
2. Analyze the implications of making socially responsible decisions.
3. Apply IT effectively in making business decisions.
4. Demonstrate leadership skills.
5. Work effectively in teams.
6. Integrate the knowledge and skills of the business functional areas.
7. Apply critical thinking skills in making business decisions.
8. Identify and consider global issues in making Business decisions.

Opportunities

Graduates in Master of Business Administration are highly regarded business professionals and entrepreneurs. They find employment in public and private organizations and firms as executives, financial and management analysts, HR specialists, information technology officers, high-level government officers, among many other highly rewarding career opportunities. Our MBA alumni are very successful, many of whom are holding highest positions in their respective organizations are finding fulfillment in serving their ambitions and the State of Qatar.

DEGREE REQUIREMENTS

Master of Business Administration

All MBA students must successfully complete a minimum of 36 credit hours in the following:

- 27 credit hours of core courses.
- 9 credit hours of electives courses.

Students holding a Bachelor's degree in Business or related disciplines need to successfully complete the following courses:

Core Courses (27 credit hours)

- MAGT 607 International Business Management
- MAGT 603 Operations Management
- MAKT 604 Marketing Management
- MIST 606 Management Information Systems

- MAGT 610 Strategic Management
- MAGT 615 Applied Graduation Project
- ECON 602 Managerial Economics
- ACCT 602 Managerial Accounting for Decision Making
- FINA 605 Corporate Finance

Electives Courses (minimum of 9 credit hours)

Students must complete a minimum of 9 credit hours in courses selected from the following list:

- MAGT 602 Human Resources Management
- MAGT 608 Total Quality Management
- MAGT 609 Entrepreneurship & Small Business Management
- MAGT 611 Business Ethics and Legal Environment
- MAGT 613 E-Business
- MAKT 614 Marketing Research
- ECON 604 International Trade and Finance

STUDY PLAN

Master of Business Administration

Students who hold a Bachelor's degree in Business

FIRST SEMESTER (9 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	FINA 605	Corporate Finance1	3
	MIST 606	MIS	3
	MAKT 604	Marketing Management	3
Total			9
THIRD SEMESTER (9 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	MAGT 610	Strategic Management	3
		Elective	3
		Elective	3
Total			9

ADDITIONAL REQUIREMENTS

Foundation Courses (12 credit hours)

Students who hold a Bachelor's degree in disciplines other than Business are required to pass the following foundation courses prior to taking MBA core/elective courses:

- MAGT 501 Introduction to Management
- ECON 501 Introduction to Economics
- STAT 502 Business Statistics
- ACCT 501 Introduction to Accounting

SECOND SEMESTER (9 credit hours)			
Term	Course #	Course Title	Cr Hrs
Spring	ECON 602	Managerial Economics	3
	MAGT 603	Operations Management	3
	ACCT 602	Managerial Accounting for decision Making	3
Total			9
FOURTH SEMESTER (9 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	MAGT 615	Applied Graduation Project	3
	MAGT 607	International Business Management	3
		Elective	3
Total			9

STUDY PLAN

Master of Business Administration

Students who hold a Bachelor's degree in disciplines other than Business

FIRST SEMESTER (9 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	MAGT 501	Introduction to Management	3
	STAT 502	Introduction to Business Statistics	3
	ACCT 501	Introduction to Accounting	3
Total			9
THIRD SEMESTER (9 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	FINA 605	Corporate Finance	3
	MIST 606	MIS	3
	MAKT 604	Marketing Management	3
Total			9
FIFTH SEMESTER (6 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	MAGT 610	Strategic Management	3
		Elective	3
Total			6

SECOND SEMESTER (9 credit hours)			
Term	Course #	Course Title	Cr Hrs
Spring	ECON 501	Introduction to Economics	3
	ACCT 602	Managerial Accounting for Decision Making	3
	MAGT 607	International Business Management	3
Total			9
FOURTH SEMESTER (9 credit hours)			
Term	Course #	Course Title	Cr Hrs
Spring	ECON 602	Managerial Economics	3
	MAGT 603	Operations Management	3
		Elective	3
Total			9
SIXTH SEMESTER (6 credit hours)			
Term	Course #	Course Title	Cr Hrs
Spring	MAGT 615	Applied Graduation Project	3
		Elective	3
Total			6

COLLEGE OF EDUCATION

College of Education Building
Phone: (974) 4403-5100 / 5118
Email: Dean-Edu@qu.edu.qa
Website: <http://www.qu.edu.qa/Education>

Dean

Hissa Mohamed Sadiq

Associate Dean for Academic Affairs

Vacant

Associate Dean for Student Affairs

Fatima Al-Maadadi

ABOUT THE COLLEGE

The mission of the College of Education is to provide excellence in the initial and advanced preparation of education professionals by establishing a foundation that fosters life-long learning, teaching, research, and community partnerships. The College provides:

- An educational, motivational, and supportive environment for both learning and teaching in a climate characterized by responsible freedom.
- Highly qualified education professionals and on-going professional development by supporting scholarly activities, and by sharing the responsibility of educational reform through effective partnerships.

The members of the College are committed to its conceptual framework, "Together we shape the future through excellence in teaching, scholarship, and leadership". Our graduate programs are designed to prepare competent teachers and educational leaders to support the Education Reform in Qatar. The unit learning outcomes are aligned to the Qatar National Professional Standards for Teachers and School Leaders.

In January 2011, the College was awarded International Recognition for Teacher Education (IRTE) from the Center for Quality Assurance in International Education, which administers this process in collaboration with the National Council for Accreditation of Teacher Education. The College is one of only two institutions in the Gulf, the Middle East and North African region to be so recognized.

The college established an important unit in recent times – the National Center for Educator Development (NCED). NCED operates closely with the Supreme Education Council, independent schools and international partners to develop and implement a Qatar-based national comprehensive educator development program.

DEGREE OFFERINGS

The College of Education offers the following graduate degree programs:

- Master of Education in Educational Leadership
- Master of Education in Special Education
- Post-Baccalaureate Diploma Programs in:
 1. Early Childhood Education
 2. Primary Education
 - Arabic/Islamic Studies/Social Studies
 - English/Mathematics/Science
 3. Secondary Education
 - Arabic Studies
 - Islamic Studies
 - Social Studies
 - English
 - Mathematics
 - Biology
 - Chemistry
 - Physics
 4. Special Education

MASTER OF EDUCATION IN EDUCATIONAL LEADERSHIP

Educational Sciences Department
College of Education Building, Room 217
Phone: (974) 4403-5205 / 5206
Email: D.Bukshaisha@qu.edu.qa
Website: http://www.qu.edu.qa/education/leadership_master/

Coordinator

Michael Henry Romanowski

ABOUT THE PROGRAM

The Master of Education in Educational Leadership prepares graduates to be highly qualified school leaders for Qatar, the region, and beyond, who demonstrate knowledge and skills in developing excellence in teaching, scholarship, and leadership.

Objectives

The Master of Education in Educational Leadership aims to:

- Prepare graduates who meet or exceed national and international standards for leaders in education.
- Encourage the habits of scholarship among faculty, candidates, and graduates, so that the program reflects and contributes to a growing body of knowledge in education.
- Graduate leaders who are committed to providing exemplary educational environments and opportunities to learn for every student.
- Reflect a commitment to diversity, equity, and justice in education.
- Honor and support professionalism and ethical practices in education.

Admission Requirements

All applicants to the Master of Education in Educational Leadership program who meet the following minimum criteria will be considered for admission to Qatar University:

1. Completed a Bachelor's degree with a minimum cumulative GPA of 2.50 out of 4.00 from a university or college accredited by an international accrediting association or by the Ministry of Higher Education or equivalent authority in that country.
2. Achieved a minimum score of 520 on the paper-based TOEFL or equivalent test, taken within 2 years of the start of the intended semester of admission.

All applicants to the Master of Education in Educational Leadership program are required to submit the following documents to the Admissions Department:

- Complete Online Admissions Application
- Final, official and certified university transcripts
- Official TOEFL or equivalent score report
- Health Certificate
- Photocopy of the applicant's Qatar ID card (Non-Qatari applicants must provide a copy of their passport)
- Two recent identical passport-size photographs with white back ground
- Application fee: QR 350

Admission to the Master of Education in Educational Leadership program takes place in the Fall semester only. For additional information on the program, please see their website at: http://www.qu.edu.qa/education/leadership_master

Learning Outcomes

Graduates of the Master of Education in Educational Leadership will be able to:

- Content (Teaching): Demonstrate a deep and thorough understanding of the key theories and concepts of the subject matter.
- Pedagogy (Teaching): Use effective planning for instruction and the use of multiple learning and pedagogical content strategies to maximize student learning and promote critical thinking.
- Technology (Teaching): Evaluate and use current and emerging technologies in instructionally powerful ways and to assist in the management of educational environment.
- Diversity (Teaching): Respond to every student's uniqueness and foster successful learning experiences by meeting individual differences.
- Scholarly Inquiry (Scholarship): Actively engage in scholarship by learning from and contributing to the knowledge base in education.
- Problem Solving (Scholarship): Systematically examine a variety of factors and resources to arrive at sound, data-informed decisions.
- Ethical Values (Leadership): Apply professional ethics in all educational contexts.
- Initiative (Leadership): Demonstrate the qualities of effective leadership in a variety of educational contexts.

Opportunities

Graduates of the Master of Education in Educational Leadership will be suited for employment in various leadership positions such as principals, vice principals, subject coordinators, and professional development coordinators in schools, as well as other leadership positions within government agencies, non-governmental organizations and agencies, and centers providing educational services.

DEGREE REQUIREMENTS

Master of Education in Educational Leadership

33 credit hours are required to complete the Master of Education in Educational Leadership.

Major Requirements (33 credit hours)

- EDEL 601 Foundations in Educational Leadership
- EDEL 602 Management of School Information Systems
- EDEL 603 Educational Policy in Qatar
- EDEL 604 Curriculum Design and Development
- EDEL 605 Instructional Supervision
- EDUC 606 Educational Research Methodologies
- EDEL 607 School Finance and Resource Development
- EDEL 608 Seminar in Issues in Educational Leadership
- EDEL 609 Action Research
- EDEL 610 Internship

STUDY PLAN

Master of Education in Educational Leadership

FIRST SEMESTER (9 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	EDEL 601	Foundations in Educational Leadership	3
	EDEL 602	Management of School Information Systems	3
	EDEL 604	Curriculum Design and Development	3
Total			9
SECOND SEMESTER (9 credit hours)			
Term	Course #	Course Title	Cr Hrs
Spring	EDEL 605	Instructional Supervision	3
	EDEL 608	Seminar in Issues in Educational Leadership	3
	EDUC 606	Educational Research Methodologies	3
Total			9
THIRD SEMESTER (9 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	EDEL 603	Educational Policy in Qatar	3
	EDEL 607	School Finance and Resource Development	3
	EDEL 609	Action Research	3
Total			9
FOURTH SEMESTER (6 credit hours)			
Term	Course #	Course Title	Cr Hrs
Spring	EDEL 610	Internship	6
Total			6

MASTER OF EDUCATION IN SPECIAL EDUCATION

Psychological Sciences Department
 College of Education Building, Room 217
 Phone: (974) 4403-5205 / 5206
 Email: noura.alattiyah@qu.edu.qa
 Website: http://www.qu.edu.qa/education/special_master/

Coordinator
 Clayton Edward Keller

ABOUT THE PROGRAM

The mission of the Master of Education in Special Education is to prepare Qatar's leaders in special education, who will improve the education provided to students with additional educational support needs in the country's schools, support the country's educational reform efforts, and advance Qatari society.

Objectives

The Master of Education in Special Education aims to:

- Develop leaders for Qatar's schools, organizations, agencies, and other entities that serve students with additional educational support needs and their families.
- Contribute to the development and use of educational practices that are research-based and culturally and technically appropriate for Qatar's students with additional educational support needs and their families.
- Develop and advance the skills of special educators and other professionals who serve students with additional educational support needs and their families in Qatar.
- Contribute to the special education knowledge base for Qatar, the Arab world, and beyond.

Admission Requirements:

All applicants to the Master of Education in Special Education program who meet the following minimum criteria will be considered for admission to Qatar University:

1. Completed a Bachelor's degree with a minimum cumulative GPA of 2.50 out of 4.00 from a university or college accredited by an international accrediting association or by the Ministry of Higher Education or equivalent authority in that country.
2. Achieved a minimum score of 520 on the paper-based TOEFL or equivalent test, taken within 2 years of the start of the intended semester of admission.

All applicants to the Master of Education in Special Education program are required to submit the following documents to the Admissions Department:

- Complete Online Admissions Application
- Final, official and certified university transcripts
- Official TOEFL or equivalent score report
- Health Certificate
- Photocopy of the applicant's Qatar ID card (Non-Qatari applicants must provide a copy of their passport)
- Two recent identical passport-size photographs with white background
- Application fee: QR 350

Admission to the Master of Education in Special Education program takes place in the Fall semester only. For additional information on the program, please see their website at: http://www.qu.edu.qa/education/special_master

Learning Outcomes

Graduates of the Master of Education in Special Education will be able to:

- Content (Teaching): Demonstrate a deep and thorough understanding of the key theories and concepts of the subject matter.
- Pedagogy (Teaching): Use effective planning for instruction and the use of multiple learning and pedagogical content strategies, to maximize student learning and promote critical thinking.
- Technology (Teaching): Evaluate and use current and emerging technologies in instructionally powerful ways and to assist in the management of educational environment.
- Diversity (Teaching): Respond to every student's uniqueness and foster successful learning experiences by meeting individual differences.
- Scholarly Inquiry (Scholarship): Actively engage in scholarship by learning from and contributing to the knowledge base in education.
- Problem Solving (Scholarship): Systematically examine a variety of factors and resources to arrive at sound, data-informed decisions.
- Ethical Values (Leadership): Apply professional ethics in all educational contexts.
- Initiative (Leadership): Demonstrate the qualities of effective leadership in a variety of educational contexts.

Opportunities

Graduates of the Master of Education in Special Education will be suited for employment as special education teachers and in leadership positions as advisors, specialists, and coordinators in the area of special education in schools, higher education, government agencies, non-governmental organizations and agencies, and centers providing services to students with additional educational support needs and their families.

DEGREE REQUIREMENTS

Master of Education in Special Education

33 credit hours are required to complete the Master of Education in Special Education, including the following:

- 18 credit hours of major requirements
- 15 credit hours of concentration requirements

Major Requirements (18 credit hours)

- SPED 601 Issues, Policy and Practice in Special Education
- SPED 602 Inclusive Education for Students with Disabilities
- SPED 603 Advanced Applied Behavior Analysis
- SPED 604 Assessment of Students with Disabilities
- SPED 605 Collaboration with Family of Children with Disabilities
- EDUC 606 Educational Research Methodologies

Concentration Requirements: Mild/Moderate Disabilities (15 credit hours)

Students must complete the following 15 credit hours:

- SPED 607 Characteristics of Mild/Moderate Disabilities
- SPED 609 Methods of Teaching Learners with Mild/Mod. Disabilities
- SPED 611 Literacy Assessment & Remediation
- SPED 621 Internship: Mild/Moderate Disabilities

Concentration Requirements: Severe/Profound Disabilities (15 credit hours)

Students must complete the following 15 credit hours:

- SPED 608 Characteristics of Severe/Profound Disabilities
- SPED 610 Methods of Teaching Learners with Severe/Profound Disabilities
- SPED 612 Motor Development & Learning
- SPED 622 Internship: Severe/Profound Disabilities

STUDY PLAN

Master of Education in Special Education

FIRST SEMESTER (9 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	SPED 601	Issues, Policy and Practice in Special Education	3
	SPED 602	Inclusive Education for Students with Disabilities	3
	SPED 603	Advanced Applied Behavior Analysis	3
Total			9
THIRD SEMESTER (9 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	SPED 605	Collaboration with Family of Children with Disabilities	3
		Concentration requirement	3
		Concentration requirement	3
Total			9
SECOND SEMESTER (9 credit hours)			
Term	Course #	Course Title	Cr Hrs
Spring	SPED 604	Assessment of Students with Disabilities	3
		Concentration requirement	3
	EDUC 606	Educational Research Methodologies	3
Total			9
FOURTH SEMESTER (6 credit hours)			
Term	Course #	Course Title	Cr Hrs
Spring		Internship	6
Total			6

POST-BACCALAUREATE DIPLOMA PROGRAMS IN EDUCATION

College of Education
 Phone: (974) 4403-5125/52045109
 Email: diplomaced@qu.edu.qa
 Website: http://www.qu.edu.qa/education/diploma_program.php

Coordinator
 Fatma Al-Mutawaa

ABOUT THE PROGRAM

The mission of the Diploma Programs in Education is to prepare well-qualified, motivated teachers who have the knowledge, skills, and dispositions for teaching in early childhood, primary, , or secondary schools or Special Education centers.. Such teachers will prepare their students to achieve educational goals at the highest international standards and represent the ideals of educational reform in Qatar and the region.

THE DEGREES AVAILABLE ARE

- Diploma in Early Childhood Education
- Diploma in Primary Education (with Concentrations in either Arabic/ Islamic Studies/Social Studies or English/Mathematics/Science)
- Diploma in Secondary Education (with Concentrations in Arabic Studies, Islamic Studies, Social Studies, English, Mathematics, Biology, Chemistry, or Physics)
- Diploma in Special Education

Objectives

The Diploma Programs in Education aim to:

- Support the vision of Qatar University by offering high quality, learning-centered education to candidates seeking teacher certification.
- Support the mission of Qatar University by preparing experts in the field of education who have the knowledge, skills, dispositions, and experiences to be successful teachers.
- Prepare graduates who understand the importance and have the skills to promote academic achievement for all students.
- Promote education reform in Qatar by preparing a body of teachers qualified to model student-centered, standards-based instruction.
- Promote ongoing research in education in Qatar by teaching and modeling inquiry methodologies and data-informed instruction.

Admission Requirements:

All applicants to any of the Diploma Programs who meet the following minimum criteria will be considered for admission to Qatar University:

1. Completed a Bachelor's degree with a minimum cumulative GPA of 2.00 out of 4.00 from a university or college accredited by an international accrediting association or by the Ministry of Higher Education or equivalent in that country.
2. Achieved a minimum score of 450 on the paper-based TOEFL or equivalent test taken within 2 years of the start of the intended semester of admission.
3. Hold an international computer driving License ICDL OR pass the computer efficiency test in the college. For more information on the ICDL, please contact the Qatar University's Office of Continuing Education at (00974) 4403-4023 / 4024 / 4026 / 4027.
4. Personal interview.

All applicants to any of the Diploma Programs are required to submit the following documents to the Admissions Department:

- QU Online Admissions Application and Signature Page
- Final, official and certified university transcripts
- Official TOEFL or equivalent score report
- Official International Computer Driving License (ICDL)
- Health Certificate
- Photocopy of the applicant's Qatar ID card (Non-Qatari applicants must provide a copy of their passport)
- Two recent passport sized photographs Two recent identical passport-size photographs (4x6 cm) with white background
- Application Fees: QR 350

For applicants who satisfy all admissions criteria listed above, admission to any of the Diploma Programs takes place in the Fall semester only. For additional information on any of the programs, please see their websites at:

Early Childhood Education: <http://www.qu.edu.qa/education/echildhoodip>

Primary Education: http://www.qu.edu.qa/education/primary_diploma

Secondary Education: http://www.qu.edu.qa/education/secondary_diploma

Special Education: http://www.qu.edu.qa/education/special_diploma

Learning Outcomes

Graduates of the Diploma Programs in Education will be able to:

- Content (Teaching): Demonstrate a deep and thorough understanding of the key theories and concepts of the subject matter.
- Pedagogy (Teaching): Use effective planning for instruction and the use of multiple learning and pedagogical content strategies to maximize student learning and promote critical thinking.
- Technology (Teaching): Evaluate and use current and emerging technologies in instructionally powerful ways and to assist in the management of educational environment.
- Diversity (Teaching): Respond to every student's uniqueness and foster successful learning experiences by meeting individual differences.
- Scholarly Inquiry (Scholarship): Actively engage in scholarship by learning from and contributing to the knowledge base in education.
- Problem Solving (Scholarship): Systematically examine a variety of factors and resources to arrive at sound, data-informed decisions.
- Ethical Values (Leadership): Apply professional ethics in all educational contexts.
- Initiative (Leadership): Demonstrate the qualities of effective leadership in a variety of educational contexts.

Opportunities

Graduates of the Diploma Programs in Education will be prepared to be teachers in schools as well as serve as trainers, advisors, and specialists in their fields of education for organizations, agencies, and centers.

DEGREE REQUIREMENTS

Post-Baccalaureate Diploma Programs in Education

30 credit hours are required to complete each of the Post-Baccalaureate Diploma Programs in Education, including the following:

- 12 credit hours of core curriculum requirements
- 18 credit hours of major requirements

Core Curriculum Requirements (12 credit hours)

- EDUC 500 Qatari School and Society
- EDUC 501 Human Development & Learning
- EDUC 502 Instructional Planning & Assessment
- EDUC 503 Introduction to Special Education
- EDUC 504 Management of Educational Environment

Major Requirements: Early Childhood Education (18 credit hours)

Students must complete the following 18 credit hours:

- EDEC 510 Preschoolers and Learning
- EDEC 511 Methods of Teaching in Early Childhood Education
- EDEC 512 Language & Literacy Development
- EDUC 520 Methods of Teaching ESL
- EDEC 580 Internship

Major Requirements: Primary Education with a Concentration in Arabic/Islamic Studies/Social Studies (18 credit hours)

Students must complete the following 18 credit hours:

- EDPR 543 Arabic Methods I
- EDPR 544 Arabic Methods II
- EDPR 545 Social Studies Methods
- EDPR 546 Islamic Studies Methods
- EDPR 580 Internship

Major Requirements: Primary Education with a Concentration in English/Mathematics/Science (18 credit hours)

Students must complete the following 18 credit hours:

- EDPR 540 Reading & Language Arts Methods
- EDPR 541 Mathematics Methods
- EDPR 542 Science Methods
- EDUC 520 Methods of Teaching ESL
- EDPR 580 Internship

Major Requirements: Secondary Education with a Concentration in Arabic Studies (18 credit hours)

Students must complete the following 18 credit hours:

- EDSE 502 Second Language Learners in the Secondary Classroom
- EDSE 503 Reading and Writing Across the Curriculum
- EDSE 558 Methods I: Instructional Strategies-Arabic
- EDSE 568 Methods II: Inquiry and ICT for Arabic Studies
- EDSE 580 Internship

Major Requirements: Secondary Education with a Concentration in Islamic Studies (18 credit hours)

Students must complete the following 18 credit hours:

- EDSE 502 Second Language Learners in the Secondary Classroom
- EDSE 503 Reading and Writing Across the Curriculum
- EDSE 553 Methods I: Instructional Strategies-Islamic Studies
- EDSE 563 Methods II: Inquiry and ICT for Islamic Studies
- EDSE 580 Internship

Major Requirements: Secondary Education with a Concentration in Social Studies (18 credit hours)

Students must complete the following 18 credit hours:

- EDSE 502 Second Language Learners in the Secondary Classroom
- EDSE 503 Reading and Writing Across the Curriculum
- EDSE 557 Methods I: Instructional Strategies-Social Studies
- EDSE 567 Methods II: Inquiry and ICT for Social Studies
- EDSE 580 Internship

Major Requirements: Secondary Education with a Concentration in English (18 credit hours)

Students must complete the following 18 credit hours:

- EDSE 502 Second Language Learners in the Secondary Classroom
- EDSE 503 Reading and Writing Across the Curriculum
- EDSE 559 Methods I: Instructional Strategies-English
- EDSE 569 Methods II: Inquiry and ICT for English
- EDSE 580 Internship

Major Requirements: Secondary Education with a Concentration in Mathematics (18 credit hours)

Students must complete the following 18 credit hours:

- EDSE 502 Second Language Learners in the Secondary Classroom
- EDSE 503 Reading and Writing Across the Curriculum
- EDSE 560 Methods I: Instructional Strategies-Mathematics
- EDSE 570 Methods II: Inquiry and ICT for Mathematics
- EDSE 580 Internship

Major Requirements: Secondary Education with a Concentration in Biology (18 credit hours)

Students must complete the following 18 credit hours:

- EDSE 502 Second Language Learners in the Secondary Classroom
- EDSE 503 Reading and Writing Across the Curriculum
- EDSE 554 Methods I: Instructional Strategies-Biology
- EDSE 564 Methods II: Inquiry and ICT for Biology
- EDSE 580 Internship

Major Requirements: Secondary Education with a Concentration in Chemistry (18 credit hours)

Students must complete the following 18 credit hours:

- EDSE 502 Second Language Learners in the Secondary Classroom
- EDSE 503 Reading and Writing Across the Curriculum
- EDSE 555 Methods I: Instructional Strategies-Chemistry
- EDSE 565 Methods II: Inquiry and ICT for Chemistry
- EDSE 580 Internship

Major Requirements: Secondary Education with a Concentration in Physics (18 credit hours)

Students must complete the following 18 credit hours:

- EDSE 502 Second Language Learners in the Secondary Classroom
- EDSE 503 Reading and Writing Across the Curriculum
- EDSE 556 Methods I: Instructional Strategies-Physics
- EDSE 566 Methods II: Inquiry and ICT for Physics
- EDSE 580 Internship

Major Requirements: Special Education (18 credit hours)

Students must complete the following 18 credit hours:

- SPED 520 Assessment of Students with Learning Difficulties
- SPED 521 Methods and Materials in Special Education
- SPED 522 Applied Behavior Analysis
- EDUC 520 Methods of Teaching ESL
- SPED 580 Internship

STUDY PLAN

Post-Baccalaureate Diploma Programs

FIRST SEMESTER (10 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	EDUC 500	Qatari School and Society	1
	EDUC 502	Instructional Planning & Assessment	3
	EDUC 503	Introduction to Special Education	3
		Major Requirement	3
Total			10
THIRD SEMESTER (9 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	EDUC 504	Management of Education Environment	3
		Internship	6
Total			9

SECOND SEMESTER (11 credit hours)			
Term	Course #	Course Title	Cr Hrs
Spring	EDUC 501	Human Development and Learning	2
		Major Requirement	3
		Major Requirement	3
		Major Requirement	3
Total			11

COLLEGE OF ENGINEERING

College of Engineering Building (Men's Section)
Phone: (974) 4403-4303
Email: graduate_studies@qu.edu.qa
Website: <http://www.qu.edu.qa/engineering/graduate.php>

Dean
Mazen Hasna

Associate Dean for Academic Affairs
Ramzi Taha

Associate Dean for Research and Graduate Studies
Abdelmagid Salem Hamouda

Assistant Dean for Student Affairs
Waled Abdulla Ahmad Mukahal

ABOUT THE COLLEGE

The mission of the College of Engineering is to prepare globally competent and socially responsible graduates by providing high-quality education. Through its quality programs and partnerships, the College fosters research and scholarly endeavors that advance knowledge and contribute to the welfare of the country. In today's highly competitive world, an important criterion for academic and research excellence is the fostering of graduate-level training that features interdisciplinary, cutting-edge research and high-quality programs. Graduate training in the College of Engineering is committed to building strong foundations in order to advance knowledge and attract high caliber students. The College has successfully developed world-class educational programs, outstanding research activities, and strong industrial supports. It offers research and graduate programs that will enhance advanced knowledge of students, promote growth of their values, and prepare them to meet future engineering challenges.

DEGREE OFFERINGS

The College of Engineering offers the following graduate degree programs:

- Master of Science in Civil Engineering
- Master of Science in Computing
- Master of Science in Electrical Engineering
- Master of Science in Engineering Management
- Master of Science in Environmental Engineering
- Master of Science in Mechanical Engineering
- Master in Planning and Design
- Doctor of Philosophy in Architecture, Urban Planning, Chemical Engineering, Civil Engineering, Computer Science, Computer Engineering, Electrical Engineering, Mechanical Engineering, Industrial and Systems Engineering, Engineering Management, Environmental Engineering, and Materials Science and Engineering.

DOCTOR OF PHILOSOPHY IN ENGINEERING

College of Engineering, Engineering Building
Phone: (974) 44034123 / 4303 / 4122
Email: graduate_studies@qu.edu.qa
Website: <http://www.qu.edu.qa/engineering/>

Program Coordinator
Prof. Abdelmagid Salem Hamouda

ABOUT THE PROGRAM

The Doctor of Philosophy in Engineering is now offered for the first time in 2011. The mission of the doctoral program in the College of Engineering is to provide students with intensive advanced training in research that leads to the highest level of scholarly achievement, and enables them to conduct research independently to address new challenges as innovators. In the emerging development context in Qatar, this program is designed to fulfill the growing needs for engineers and scientists with advanced education and research experience. The PhD program is highly research-intensive. The PhD program is designed to enhance students' competencies in contributing to the existing body of knowledge, innovation and creation of new knowledge and techniques. Students are expected to equip themselves with strong theoretical and methodological foundations and to develop their ability to conduct research independently. The College of Engineering has already established itself as a recognized leader in engineering and technologies. This leadership in research has further enhanced and complemented its capabilities with offering of a doctoral degree in engineering. This program is enriched and augmented with the extensive research activities of the College of Engineering, and its world-class faculty members with expertise in sustainable research and reputation. Students enrolled in the program are required to complete a minimum of 6 credit hours of coursework and 54 credit hours of research work. A typical duration of the program is six semesters (three years) and the maximum duration is twelve semesters (six years). The Program currently caters only to full-time students. The Program offers concentration on Architecture, Urban Planning, Chemical Engineering, Civil Engineering, Computer Science, Computer Engineering, Electrical Engineering, Mechanical Engineering, Industrial and Systems Engineering, Engineering Management, Environmental Engineering, and Materials Science and Engineering.

Objectives

Graduates of the doctoral program will be able to fulfill most of the following educational objectives:

1. Foster innovation of new ideas, methods and techniques in science and engineering.
2. Contribute to the advancement of the scientific body of knowledge in engineering and related fields.
3. Lead research and express the results in scientific forums.

Admission Requirements

All applicants to the Doctor of Philosophy program who meet the following minimum criteria will be considered for admission to Qatar University:

1. Completed a master's degree in a related field – minimum GPA of 3.00 out of 4.00 for Master's degree course work from a university or college accredited by an international accrediting association or by the Ministry of Higher Education or equivalent authority in that country.
2. Achieved a minimum score of 520 on the paper-based TOEFL or equivalent test, taken within 2 years of the start of the intended semester of admission.
3. Passed an interview with the College's admission panel.

All applicants to the Doctor of Philosophy program are required to submit the following documents to the Admissions Department:

- Complete Online Admissions Application
- Final and official university transcripts
- Official TOEFL or equivalent score report
- Health Certificate
- Three letters of recommendation (at least two from instructors or current supervisors) addressing the applicant academic achievement and professional accomplishments
- Proposed thesis topic or general area of research (approximately 1000 words)
- Photocopy of the applicant's Qatar ID card (Non-Qatari applicants must provide a copy of their passport)
- Two recent identical passport-size photographs with white background
- Application Fee

Admission to the Doctor of Philosophy program takes place in the fall and spring semesters. For additional information on the program, please see their website at:

http://www.qu.edu.qa/engineering/phd_brief/phdprogram.php

Learning Outcomes

By the time a student completes all requirements of the program, the student will have achieved the following learning outcomes:

1. Able to systematically review, analyze, assimilate and interpret the body of scientific literature and innovations in their area of discipline.
2. Apply and validate innovations and discoveries in the lab or real - world settings in more efficient and effective ways.
3. Produce high quality research.
4. Disseminate effectively the research output in reputable international journals, conferences, patents, research proposals and other scientific venues.

Opportunities

Graduates from this doctoral program will be in a better position to secure employment in Qatar and worldwide, especially in higher teaching and research institutions, NPRP projects, and in private and Government R & D sectors. The State of Qatar pledged 2.8% of its annual GDP to education and research, in support of building a knowledge-based

economy in the future. This expansion in knowledge will create new employment opportunities in research centers such as QSTP, QF, Ministries, National laboratories and it is expected that PhD holders would be one of the major recruits in these entities.

DEGREE REQUIREMENTS

Doctor of Philosophy in Engineering

A minimum of 60 credit hours are required to complete the Doctor of Philosophy in Engineering, including the following:

- A minimum of 15 credit hours in Core Required Courses
- A minimum of 12 credit hours in Concentration Elective Courses
- A minimum of 33 credit hours for the PhD Thesis

Core Required Courses (15 CH)

Students must complete 6 credit hours in the courses listed below in addition to 9 CH from the Core Supporting Requirements subpackage.

- DENG 602 Applied Research Methodology
- DENG 621 Graduate Seminar

Core Supporting Requirements subpackage (9 CH)

Students must complete 9 credit hours from the following courses:

- DENG 603 Advanced Numerical Analysis
- DENG 604 Applied Statistics Techniques
- DENG 624 Innovation and Technology Management
- DENG 625 Sustainable Development
- DENG 626 Modeling and Simulation

Thesis Requirement (33 CH)

Students must complete 33 CH in the Thesis Requirement Course:

- DENG 699 PhD Thesis

Concentration in Civil Engineering (12 CH)

Students who choose the Civil Engineering Concentration area must complete 12 CH in the Civil Engineering Electives package as detailed below.

Civil Engineering Electives package (12 CH)

students must complete 12 credit hours from the following courses:

- CVEN 550 Special Topic I
- CVEN 551 Special Topic II
- CVEN 505 Theory of Plates and Shells
- CVEN 506 Advanced Geomechanics
- CVEN 507 Traffic Engineering
- CVEN 509 Traffic Safety Analysis

Concentration in Electrical Engineering (12 CH)

Students who choose the Electrical Engineering Concentration area must complete 12 CH in the Electrical Engineering Electives package as detailed below.

Electrical Engineering Electives package (12 CH)

students must complete 12 credit hours from the following courses:

- ELEC 551 Advanced Topics in Electrical Engineering

- ELEC 552 Power Systems Dynamics & Control
- ELEC 563 Advanced Course in Digital Transmission
- ELEC 566 Communication Networks
- ELEC 568 TimeFrequency Signal Processing
- ELEC 569 Special Topics II

Concentration in Mechanical Engineering (12 CH)

Students who choose the Mechanical Engineering Concentration area must complete 12 CH in the Mechanical Engineering Electives package as detailed below.

Mechanical Engineering Electives package (12 CH)

students must complete 12 credit hours from the following courses:

- MECH 564 Finite Element Analysis
- MECH 565 Advanced Thermodynamics
- MECH 569 Solar Energy Utilization
- MECH 581 Special Topic I
- MECH 583 Special Topic II
- MECH 588 Energy Conversion

Concentration in Materials Science and Engineering (12 CH)

Students who choose the Materials Science and Engineering Concentration area must complete 12 CH in the Materials Science and Engineering Electives package as detailed below.

Materials Science and Engineering Electives package (12 CH)

students must complete 12 credit hours from the following courses:

- MSCE 551 Special Topics I
- MSCE 590 Special Topics II
- MSCE 591 Corrosion Engineering
- MSCE 592 Failure Analysis and Prevention
- MECH 595 Advanced Physical Metallurgy
- MECH 597 Coatings and Surface Engineering
- MECH 598 Nanotechnology

Concentration in Industrial and Systems Engineering (12 CH)

Students who choose the Industrial and Systems Engineering Concentration area must complete 12 CH in the Industrial and Systems Engineering Electives package as detailed below.

Industrial and Systems Engineering Electives package (12 CH)

students must complete 12 credit hours from the following courses:

- IENG 551 Special Topics I
- IENG 552 Special Topics II
- IENG 554 Decision Techniques and Data Analysis
- IENG 556 Supply Chain and Logistics
- IENG 557 Systems Analysis and Design
- IENG 558 Robotics and Automation Technology

Concentration in Engineering Management (12 CH)

Students who choose the Engineering Management Concentration area must complete 12 CH in the Engineering Management Electives package as detailed below.

Engineering Management Electives package (12 CH)

students must complete 12 credit hours from the following courses:

- EMP 504 Process Improvement Techniques
- EMP 506 Production and Operations Management
- EMP 507 Enterprise Information Analysis and Business Applications
- EMP 508 Decision Techniques and Data Analysis
- EMP 522 Service Operations Management
- EMP 551 Special Topics

Concentration in Environmental Engineering (12 CH)

Students who choose the Environmental Engineering Concentration area must complete 12 CH in the Environmental Engineering Electives package as detailed below.

Environmental Engineering Electives package (12 CH)

students must complete 12 credit hours from the following courses:

- EEMP 551 Special Topics
- EEMP 505 Environmental Transport and Water Resources
- EEMP 507 Environmental Systems and Modeling
- EEMP 509 PhysicoChemical Processes in Environmental Systems
- EEMP 521 Solid Waste Management
- EEMP 526 Clean Energy Resources

Concentration in Chemical Engineering (12 CH)

Students who choose the Chemical Engineering Concentration area must complete 12 CH in the Chemical Engineering Electives package as detailed below.

Chemical Engineering Electives package (12 CH)

students must complete 12 credit hours from the following courses:

- CHME 652 Transport Phenomena
- CHME 653 Advanced Process Dynamics and Control
- CHME 661 Principles of Bioprocess Engineering
- CHME 662 Advanced Chemical Engineering Thermodynamics
- CHME 650 Special Topics I
- CHME 651 Special Topics II

Concentration in Computer Science (12 CH)

Students who choose the Computer Science Concentration area must complete 12 CH in the Computer Science Electives package as detailed below.

Computer Science Electives package (12 CH)

students must complete 12 credit hours from the following courses:

- CMPT 507 Advanced Operating Systems
- CMPT 542 Computer Security
- CMPT 564 Storage Area Networks
- CMPT 571 Advanced Algorithm Design and Analysis

- CMPT 581 Special Topics in Computing
- CMPT 583 Special Topics in Network Systems

Concentration in Computer Engineering (12 CH)

Students who choose the Computer Engineering Concentration area must complete 12 CH in the Computer Engineering Electives package as detailed below.

Computer Engineering Electives package (12 CH)

students must complete 12 credit hours from the following courses:

- CMPT 541 Advanced Computer Networks
- CMPT 543 Wireless Communication
- CMPT 546 Telecommunications Policies and Regulations
- CMPT 567 Wide Area Digital Networking
- CMPE 590 Special Topics I
- CMPE 591 Special Topics II

Concentration in Architecture (12 CH)

Students who choose the Architecture Concentration area must complete 12 CH in the Architecture Electives package as detailed below.

Architecture Electives package (12 CH)

students must complete 12 credit hours from the following courses:

- PHAP 701 Participatory Design and Planning
- PHAP 702 Architecture and Urbanism of Globalized Cities
- PHAP 710 Building Performance Assessments and Measurements
- PHAP 711 History, Theory, and Criticism in Architecture
- PHAP 712 Energy and Buildings
- PHAP 715 Special Topics I
- PHAP 716 Special Topics II

Concentration in Urban Planning (12 CH)

Students who choose the Urban Planning Concentration area must complete 12 CH in the Urban Planning Electives package as detailed below.

Urban Planning Electives package (12 CH)

students must complete 12 credit hours from the following courses:

- MUPD 600 Planning Theory
- MUPD 652 Theory of Urban Form and Design
- PHAP 701 Participatory Design and Planning
- PHAP 702 Architecture and Urbanism of Globalized Cities
- PHUP 753 Sustainable Urbanism
- PHUP 751 Special Topics I
- PHUP 752 Special Topics II

FULL TIME STUDY PLAN

Doctor of Philosophy in Engineering

FIRST SEMESTER (12 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	DENG-699	PhD Thesis	9
	DENG-XXX	One prescribed course	3
Total			12

SECOND SEMESTER (12 credit hours)			
Term	Course #	Course Title	Cr Hrs
Spring	DENG-699	PhD Thesis	9
	DENG-XXX	One prescribed course	3
Total			12

THIRD SEMESTER (9 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	DENG-699	PhD Thesis	9
Total			9

FOURTH SEMESTER (9 credit hours)			
Term	Course #	Course Title	Cr Hrs
Spring	DENG-699	PhD Thesis	9
Total			9

FIFTH SEMESTER (9 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	DENG-699	PhD Thesis	9
Total			9

SIXTH SEMESTER (9 credit hours)			
Term	Course #	Course Title	Cr Hrs
Spring	DENG-699	PhD Thesis	9
Total			9

MASTER OF SCIENCE IN COMPUTING

College of Engineering, Engineering Building
Phone: (974) 4403-4123 / 4303 / 4122
Email: ms.computing@qu.edu.qa
Website: <http://www.qu.edu.qa/engineering/computer/ms/>

Program Coordinator

Khaled Khan

ABOUT THE PROGRAM

The Master of Science in Computing program offers students an opportunity to acquire knowledge and understanding of advanced computing topics that enable them to apply information and communication technologies to real world business opportunities and challenges. The program is aimed at professionals, as well as fresh graduates who would like to advance their knowledge in computing to gain competitive advantage which is essential in the current growing and dynamic environments of the computing profession. The program focuses on 'applied' rather than 'theoretical' aspects of computing, and stresses on applications of computing without neglecting research orientation. The research option provides students with the possibility to pursue further studies such as doctoral degree in computing in the future. The Program covers a wide range of courses, such as data mining, wireless networking, service-oriented computing, advanced databases, computer security, project management, semantic Web, and more. It also offers continuing education opportunities to bachelor degree holders from other disciplines with non-computing exposure, to redirect their career towards computing. In order to be more flexible for working professionals, the Program offers all classes during the evening (after 5 pm). In addition, the course attendance is compacted into 'one-day-one-course' per week, to fit around busy work and family schedules of the students. The Program requires the student to complete a total of 31 credit hours, either as full-time or part-time study. The normal duration of full-time study is two years.

Objectives

Graduates of this program will be able to fulfill some of the following objectives:

1. Establish successful computing careers in industry or government that will advance the economic development of the country and the region.
2. Serve industry or government by providing solutions to interdisciplinary, open-ended, and optimization problems.
3. Contribute effectively to the computing profession by fostering effective interaction with colleagues, by using ethical practices and communication skills, and by pursuing further education through lifelong learning.
4. Excel in careers due to the knowledge received as graduates of the Computing program.
5. Meet the changing needs of a knowledge-based economy by adapting and responding to changes in the constantly evolving computing field.

6. Prepare themselves for research, teaching and further graduate studies in computing.

Admission Requirements

All applicants to the Master of Science in Computing who meet the following minimum criteria will be considered for admission to Qatar University:

1. Completed a Bachelor's degree with a minimum cumulative GPA of 2.80 out of 4.00 from a university or college accredited by an international accrediting association or by the Ministry of Higher Education or equivalent in that country OR achieved a score of no less than 650 on the Quantitative portion of the GRE exam. While there is no specified minimum for the Analytical portion of the GRE exam, the score result will be considered as part of evaluation.
2. Achieved a minimum score of 520 on the paper-based TOEFL or equivalent test taken within 2 years of the start of the intended semester of admission.
3. Passing an interview with the College's admission panel. The panel may request additional bridging course(s).

All applicants to the Master of Science in Computing program are required to submit the following documents to the Admissions Department:

- Complete Online Admissions Application
- Final and official university transcripts
- Official GRE score report if submitting GRE scores
- Official TOEFL or equivalent score report
- Two letters of recommendation from undergraduate professors or employers
- Health Certificate
- Photocopy of the applicant's Qatar ID card (Non-Qatari applicants must provide a copy of their passport)
- Two recent identical passport-size photographs with white back ground
- Application Fee

Admission to the Master of Science in Computing program takes place in the fall semester only. For additional information on the program, please see their website at:

<http://www.qu.edu.qa/engineering/computer/ms/>.

Opportunities

Graduates of this program would be able to expand their knowledge with the latest advances in computing technologies. The program would also assist them to enhance and consolidate their existing computing knowledge. Currently, the Program offers two concentration areas: network systems and information sciences. The Program also offers flexibility in the choice of a thesis or a project. Graduates of the Master of Science in Computing program would find themselves suitable for a variety of job environments such as academia, research, industry, government and private organizations. The Program could help graduates to pursue a wide range of higher level jobs in computing related disciplines such as project manager, research associate, network systems designer, IT security officer, database administrator, IT manager etc.

DEGREE REQUIREMENTS

Master of Science in Computing

A minimum of 31 credit hours are required to complete the Master of Science in Computing, which includes the following:

- A total of 10 credit hours in Core Requirements.
- A minimum of 9 credit hours in one of the two focus area packages defines by the program: The Information Science Focus area package or the Network Systems Focus area package
- A minimum of 12 credit hours in either the project option or the thesis option as detailed below:
 - **Project option:** A minimum of 3 credit hours in the Project Option Requirements package and 9 credit hours in the Major Electives package or the focus area packages.
 - **Thesis option:** A minimum of 6 credit hours in Thesis Option Requirements package and 6 credit hours in the Major Electives package or the focus area packages.

Core Requirements (10 credit hours)

The following courses must be completed by all Master of Science in Computing students:

- CMPT 506 Advanced Database Systems.
- CMPT 507 Advanced Operating Systems
- CMPT 508 Advanced Architecture and Design of Computer Systems.
- CMPT 509 Seminar in Computing.

Information Sciences Focus Area Package (9 credit hours)

Students must complete 9 credit hours in courses selected from the following list:

- CMPT 521 Information Retrieval
- CMPT 522 Human Computer Interaction
- CMPT 523 Distributed Systems
- CMPT 524 Semantic Web
- CMPT 526 Systems Development
- CMPT 582: Special Topics in Information Science

Network Systems Focus Area package (9 credit hours)

Students must complete 9 credit hours in courses selected from the following list:

- CMPT 541: Advanced Computer Networks
- CMPT 542: Computer Security
- CMPT 543: Wireless Communication
- CMPT 544: Service Oriented Computing
- CMPT 546: Telecommunications Policies and Regulations
- CMPT 583: Special Topics in Network

Thesis or Project options

Project Option Requirements (3 credit hours)

- CMPT 591: Master Project

Thesis Option Requirements (6 credit hours)

- CMPT 595: Master Thesis

Major Elective (6 or 9 credit hours)

Students may select courses from the following list:

- CMPT 545: Simulation and Computer Network Analysis
- CMPT 561: Web Development
- CMPT 563: Data Mining
- CMPT 564: Storage Area Networks
- CMPT 567: Wide Area Digital Networking
- CMPT 568: Telecommunications Management
- CMPT 569: Project Management
- CMPT 570: Enterprise Resource Planning Systems
- CMPT 571: Advanced Algorithm Design and Analysis.
- CMPT 581: Special Topics in Computing

Bridge Courses (12 credit hours)

Students holding a bachelor degree in a discipline other than a computing related discipline are required to complete some or all of the following courses based on the decision of the program admission committee

- CMPT 501: Fundamentals of Computing I
- CMPT 502: Fundamentals of Computing II

STUDY PLAN

Master of Science in Computing

FIRST SEMESTER (9 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	CMPT 506	Advanced Database Systems	3
	CMPT 508	Advanced Architecture & Design of Computer Systems	3
	CMPT	One free elective	3
Total			9
THIRD SEMESTER (9 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	CMPT 595 Or CMPT	Master Thesis, Or One free elective for the project option	3
	CMPT	One concentration elective	3
	CMPT	One concentration elective	3
Total			9

SECOND SEMESTER (10 credit hours)			
Term	Course #	Course Title	Cr Hrs
Spring	CMPT 507	Advanced Operating Systems	3
	CMPT 509	Seminar in Computing	1
	CMPT	One concentration elective	3
	CMPT	One free elective	3
Total			10
FOURTH SEMESTER (3 credit hours)			
Term	Course #	Course Title	Cr Hrs
Spring	CMPT 595 Or CMPT 591	Master Thesis, Or Master Project	3
Total			3

MASTER OF SCIENCE IN ENGINEERING MANAGEMENT

College of Engineering, Engineering Building
Phone: (974) 44034123 / 4303 / 4122
Email: graduate_studies@qu.edu.qa
Website: http://www.qu.edu.qa/engineering/master_brief/master_meng.php

Program Coordinator
Prof. Abdelmagid Salem Hamouda

ABOUT THE PROGRAM

This Engineering Management (EM) program is designed to prepare professionals for the Qatari industrial world at levels higher than those requiring an undergraduate degree, while preparing them to pursue advanced research.

The program is fundamentally different from MBAs. MBA programs are designed to help prepare people for management roles while focusing on general business and managerial aspects rather than leveraging the technical background. However, in today's world, corporations also demand managers with strong technical backgrounds.

The structure of the Engineering Management program is unique, as it helps the engineers become more effective technical specialists, and strengthens their ability to lead people and projects. As a specialist, the engineer becomes more effective through understanding how his or her engineering skills can best support the goals of the organization and its customers. In addition, the trained engineering manager becomes uniquely qualified for two types of positions: management of technical functions, and the management of broader functions in the high-technology enterprise. The world trend in graduate education suggests that MBA and EM programs are not supplementary but complementary to each other. There are many universities in the Gulf Region and around the globe which offer both programs separately.

Objectives

Graduates of this program will be able to fulfill some of the following objectives:

1. Establish a successful engineering management careers in industry or government that will help in advancing the development of the state of Qatar and gulf region.
2. Establish in-depth proficiency in engineering management fields relevant to local and regional industry.
3. Develop competitive skills in problem solving techniques, interdisciplinary teamwork and critical analysis of engineering management problems.
4. Develop a profound understanding of environmental, societal, global economic and technological aspects to meet the changing needs of a knowledge-based economy, by adapting and responding to changes.

Admission Requirements

All applicants to the Master of Science in Engineering Management program who meet the following minimum criteria will be considered for admission to Qatar University:

1. Completed a Bachelor's degree with a minimum cumulative GPA of 2.80 out of 4.00 from a university or college accredited by an international accrediting association or by the Ministry of Higher Education or equivalent in that country OR achieved a score of no less than 650 on the Quantitative portion of the GRE exam. While there is no specified minimum for the Analytical portion of the GRE exam, the score result will be considered as part of evaluation.
2. Achieved a minimum score of 520 on the paper-based TOEFL or equivalent test taken within 2 years of the start of the intended semester of admission.
3. Passing an interview with the College's admission panel. The panel may request additional bridging course(s).

All applicants to the Master of Science in Engineering Management program are required to submit the following documents to the Admissions Department:

- Complete Online Admissions Application
- Final and official university transcripts
- Official GRE score report if submitting GRE scores
- Official TOEFL or equivalent score report
- Two letters of recommendation from undergraduate professors or employers
- Health Certificate
- Photocopy of the applicant's Qatar ID card (Non-Qatari applicants must provide a copy of their passport)
- Two recent identical passport-size photographs with white background
- Application Fee

Admission to the Master of Science in Engineering Management program takes place in the fall semester only. For additional information on the program, please see their website at: <http://www.qu.edu.qa/engineering/mechanical/academics/postgraduate>.

Outcomes

On completion of the master program, graduates will:

1. Be able to determine the engineering management variables of interest and processes to manage engineering alternatives.
2. Be able to assess the economic, social and environmental requirements, needs, and constraints of the system and its impact on the society.
3. Have the ability to manage and administer large technical engineering projects, budgets and existing setups effectively.
4. Be able to use computational tools and management software and theories for finding analytical solutions to problems necessary for the practice of engineering management.
5. Have the ability to apply behavioral principles connected with awareness, communication, productivity, organizational change, and leadership keeping in mind the changing nature of business strategy and economic analysis needs.

Opportunities

Qatar's growing economy requires capable managers with solid technical skills. Engineering Management program will help engineers

improve their managerial skills and equip them with the ability to scientifically oversee the managerial functions in various areas including infrastructure, construction, petrochemicals, utilities, power, and service industries.

DEGREE REQUIREMENTS

The M.S. in Engineering Management degree requires a minimum of 36 credit hours of graduate-level course work for the thesis or the project options. Students with the Project option should pass a comprehensive exam.

For the thesis option, the coursework must include:

- A total of 18 credit hours in core requirements.
- A minimum of 12 credit hours from the three Focus Area package.
- A minimum of 6 credit hours in either the project option or the thesis option as detailed below:
 - **Project option:** A minimum of 3 credit hours in the project option requirements package and 3 credit hours in the free electives package
 - **Thesis option:** A minimum of 6 credit hours in thesis option requirements package

Students who did not take Operations Research or an equivalent course in their prior studies should take EMP 501 -Operations Research as the bridge course to the Engineering Management Program. This course is a Pass/Fail course and has zero credit hours.

Core courses (18 credit hours)

EMP 503 Business Fundamentals for Engineering Managers
 EMP 504 Process Improvement Techniques
 EMP 505 Project Management
 EMP 506 Production and Operations Management
 EMP 507 Enterprise Information Analysis and Business Applications
 EMP 508 Decision Techniques and Data Analysis

Focus Area courses (12 credit hours)

Students must complete a minimum of 12 credit hours from the Focus Area packages, including the Logistics & Supply Chain Focus Area package; the Operations Focus Area package; and the Construction Focus Area package, by completing three courses from one of the focus area packages and a fourth course from one of the two remaining focus area packages.

Logistics & Supply Chain Focus Area package (12 credit hours)

EMP 511 Physical Distribution Management
 EMP 512 Procurement Management
 EMP 513 Suppliers Management
 EMP 514 Supply Chain Management

EMP 515 Materials & Logistics Management
Operations Focus Area package (12 credit hours)
 EMP 521 Facility Planning and Layout
 EMP 522 Service Operations Management
 EMP 523 Six Sigma & Strategic Quality Management
 EMP 524 Systems Analysis and Design
 EMP 525 Manufacturing & Enterprise Resource Planning
 EMP 526 Innovation and Technology Management

Construction Focus Area package (12 credit hours)

EMP 531 Construction Engineering Management
 EMP 532 Estimating & Financial Analysis for Construction
 EMP 533 Construction Equipment Management
 EMP 534 Construction Contracts & Legal Concepts in Construction
 EMP 535 Concrete Formwork Design
 EMP 536 Project Planning, Scheduling and Control
 EMP 537 Engineering and Construction Materials and Methods

Free Elective Courses

For the project option, students concentrating in one focus area may take elective course in the other focus area, for the project option, students concentrating in one focus area may take an elective course in one of the two other focus areas (Only one elective course)

Thesis or Project

Project Option Requirements (3 credit hours)

EMP 591: Master Project

Thesis Option Requirements (6 credit hours)

EMP 595: Master Thesis I
 EMP 596: Master Thesis II

STUDY PLAN

Master of Science in Engineering Management Thesis Option

FIRST SEMESTER (9 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	EMP 504	Process Improvement Tech	3
	EMP 506	Cost Estimation, Analysis & Contracts Management	3
	EMP 508	Management of Information Systems	3
Total			9
THIRD SEMESTER (9 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall		Track Based Course	3
		Track Based Course	3
	EMP 595	Master Thesis I	3
Total			9

SECOND SEMESTER (9 credit hours)			
Term	Course #	Course Title	Cr Hrs
Spring	EMP 505	Project Management	3
	EMP 507	Production and Operations Management	3
	EMP 509	Decision Techniques and Data Analysis	3
Total			9
FOURTH SEMESTER (9 credit hours)			
Term	Course #	Course Title	Cr Hrs
Spring		Track Based Course	3
		Track Based Course	3
	EMP 596	Master Thesis II	3
Total			9

STUDY PLAN

Master of Science in Engineering Management Project Option

FIRST SEMESTER (9 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	EMP 504	Process Improvement Tech	3
	EMP 506	Cost Estimation, Analysis & Contracts Management	3
	EMP 508	Management of Information Systems	3
Total			9
THIRD SEMESTER (9 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall		Track Based Course	3
		Track Based Course	3
		Free Elective	3
Total			9

SECOND SEMESTER (9 credit hours)			
Term	Course #	Course Title	Cr Hrs
Spring	EMP 505	Project Management	3
	EMP 507	Production and Operations Management	3
	EMP 509	Decision Techniques and Data Analysis	3
Total			9
FOURTH SEMESTER (9 credit hours)			
Term	Course #	Course Title	Cr Hrs
Spring		Track Based Course	3
		Track Based Course	3
	EMP 591	Master Project	3
Total			9

MASTER OF ENVIRONMENTAL ENGINEERING

College of Engineering, Engineering Building
Phone: (974) 44034123 / 4303 / 4122
Email: graduate_studies@qu.edu.qa
Website: <http://www.qu.edu.qa/engineering/chemical/program/EEMP/index.php>

Program Coordinator
Abdelmagid Salem Hamouda

ABOUT THE PROGRAM

The program is designed to suit engineering and suitably qualified science graduates who are seeking a formal qualification that will equip them to work in and contribute to this fast developing field. A distinctive feature of this program is that it is highly topical. Therefore, students on this program will have challenging, real-world issues to study 'on the doorstep' of the University. The real-world input (arising from the pressing needs of local industry) ensures that the curriculum is relevant to sustainable development of Qatar, as well as the industry's needs and assist with future employment of the program's graduates. Environmental engineers develop sustainable solutions to environmental problems. They protect the environment, improve water quality, and are essential in planning, designing and constructing water and wastewater treatment plants, solid waste disposal systems, site remediation approaches and emission control measures. In addition, new environmental challenges provide new opportunities for environmental engineers to solve global problems. Successful response to the impacts of global climate change, fast-moving introduction of sustainable development practices in industry, and greener operations will require the skills of environmental engineers. Major corporations, government agencies, private consulting and construction firms, and universities are just some of the organizations that employ environmental engineers.

Objectives

Graduates of the Master of Environmental Engineering program will:

1. Contribute to sustainable development in their respective employment sectors such as industry and governmental agencies;
2. Take an active role in their continuous professional development to enable the state of Qatar to build the knowledge-based economy emphasized in QNV2030;
3. Promote ethical and professional standards in their careers with respect to the duty of care towards the environment and sustainable development.
4. Contribute to fulfilling the environmental, societal, economic and technological needs to address the challenges of the knowledge-based economy.

Admission requirements

All applicants to the Master of Science in Environmental Engineering who meet the following minimum criteria will be considered for admission to Qatar University:

1. Completed a Bachelor's degree with a minimum cumulative GPA of

- 2.80 out of 4.00 from a university or college accredited by an international accrediting association or by the Ministry of Higher Education or equivalent authority in that country, OR achieved a score of no less than 650 on the Quantitative portion of the GRE exam. While there is no specified minimum for the Analytical portion of the GRE exam, the score result will be considered as part of evaluation.
2. Achieved a minimum score of 520 on the paper-based TOEFL or equivalent test taken within 2 years of the start of the intended semester of admission.
3. Passing an interview with the College's admission panel. The panel may request additional bridging course(s).

All applicants to the Master of Science in Environmental Engineering program are required to submit the following documents to the Admissions Department:

- Complete Online Admissions Application
- Final and official university transcripts
- Official GRE score report if submitting a GRE scores
- Official TOEFL or equivalent score report
- Two letters of recommendation from undergraduate professors or employers
- Health Certificate
- Photocopy of the applicant's Qatar ID card (Non-Qatari applicants must provide a copy of their passport)
- Two recent identical passport-size photographs with white background
- Application Fee

Admission to the Master of Science in Environmental Engineering program takes place in the fall semester only. For additional information on the program, please see their website at: http://www.qu.edu.qa/engineering/master_brief/master_env_eng.php.

Outcomes

On completion of the master program, graduates will able to:

1. Apply knowledge of biological science, chemistry, physics, mathematics, statistics, mass, energy and mass conservation, and transport principles needed to understand and solve environmental engineering problems.
2. Design and conduct experiments necessary to gather data and create information for use in analysis and design.
3. Demonstrate advanced knowledge and skills essential for professional practice of environmental engineering.
4. Predict and determine fate and transport of substances in and among air, water and soil phases, as well as in engineered systems.
5. Gain knowledge on globalization and other contemporary issues necessary to understand the impact of environmental engineering solutions in a global, societal, and environmental context.

Opportunities

Environmental engineering training offers graduates the opportunities to work in several domains of environmental protection. Environmental engineering training offers graduates the opportunities to work in any aspect of environmental protection. The major areas

include air pollution control, industrial hygiene, hazardous waste management, toxic materials control, water supply, wastewater management, storm water management, solid waste disposal, public health, and land management. Within each of these major categories are many sub-specialties. The degree will enhance prospects for potential employment in Governmental bodies (Ministry of Environment, Ministry of Works), national and international industries located in and outside Qatar as well as service and utility providers among others. Also, potential employment opportunities exist in consulting companies as well as in research institutions.

DEGREE REQUIREMENTS

The M.S. Science in Environmental Engineering degree requires a minimum of 35 credit hours of graduate-level course work for the thesis or the project options. The students with the Project option should pass a comprehensive exam.

- A total of 19 credit hours in Core Requirements
- A minimum of 16 credit hours in either the project option or the thesis option as detailed below:
 - **Project option:** A minimum of 4 credit hours in the Project Option requirement package and 12 credit hours in the Major Electives package.
 - **Thesis Option:** A minimum of 7 credit hours in Thesis Option Requirements package and 9 credit hours in the Major Electives package.

Core Requirements (19 credit hours)

- EEMP 504 Environmental Chemistry
- EEMP 505 Environmental transport and water resources
- EEMP 506 Microbiological Processes in environmental systems
- EEMP 507 Environmental Systems and Modeling
- EEMP 508 Environmental Measurements and statistical labs
- EEMP 509 Physico-chemical Processes in environmental systems
- EEMP 510 Design project

Elective courses

- EEMP 521 Solid Waste Management
- EEMP 522 Hazardous Waste and Contaminated Sites Management
- EEMP 523 Marine Environment and Human Development
- EEMP 524 Environmental Sustainability
- EEMP 525 Industrial Waste Water Treatment
- EEMP 526 Clean Energy Resources
- EEMP 527 Research strategies and methods*
- EEMP 528 Special Topics in Environmental Engineering
- EEMP 529 Atmospheric pollution and air quality management
- EEMP 530 Environmental Assessment and Management**

* This is a required course for thesis option.

** This is a required course for project (non-thesis) option.

Project Option Requirements (4 credit hours)

- EEMP 591 Industrial Master Project
- EEMP 530 Environmental Assessment and Management

Thesis Option Requirements (7 credit hours)

- EEMP 595 Master Thesis I
- EEMP 596 Master Thesis II
- EEMP 527 Research strategies and methods

STUDY PLAN

Master of Science in Environmental Engineering Thesis Option

FIRST SEMESTER (9 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	EEMP 504	Environmental Chemistry	3
	EEMP 505	Environmental Transport and Water Resources	3
	EEMP 506	Microbiological Processes in Environmental Systems	3
Total			9
THIRD SEMESTER (10 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	EEMP XXX	Technical Elective	3
	EEMP 527	Research Strategies and methods	3
	EEMP 595	Thesis	1
	EEMP XXX	Technical Elective	3
Total			10

STUDY PLAN

Master of Science in Environmental Engineering Project Option

FIRST SEMESTER (9 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	EEMP 504	Environmental Chemistry	3
	EEMP 505	Environmental Transport and Water Resources	3
	EEMP 506	Microbiological Processes in Environmental Systems	3
Total			9
THIRD SEMESTER (8 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	EEMP XXX	Technical Elective	3
	EEMP XXX	Technical Elective	3
	EEMP 530	Environmental Assessment & Management	2
Total			8

SECOND SEMESTER (10 credit hours)			
Term	Course #	Course Title	Cr Hrs
Spring	EEMP 507	Environmental Systems and Modeling	3
	EEMP 508	Environmental Measurements and Statistical Lab	1
	EEMP 509	Physicochemical Processes in Environmental Systems	3
	EEMP 510	Design Project	3
Total			10
FOURTH SEMESTER (6 credit hours)			
Term	Course #	Course Title	Cr Hrs
Spring	EEMP XXX	Technical Elective	3
	EEMP 596	Thesis	3
Total			9

SECOND SEMESTER (10 credit hours)			
Term	Course #	Course Title	Cr Hrs
Spring	EEMP 507	Environmental Systems and Modeling	3
	EEMP 508	Environmental Measurements and Statistical Lab	1
	EEMP 509	Physicochemical Processes in Environmental Systems	3
	EEMP 510	Design Project	3
Total			10
FOURTH SEMESTER (8 credit hours)			
Term	Course #	Course Title	Cr Hrs
Spring	EEMP XXX	Technical Elective	3
	EEMP XXX	Technical Elective	3
	EEMP 591	Industrial Master Project	2
Total			8

MASTER OF URBAN PLANNING AND DESIGN

College of Engineering (Women's Section)
Phone: (974) 4403-4340 / 4344
Email: architecture-urban@qu.edu.qa
Website: <http://www.qu.edu.qa/engineering/architecture/programs/MsUp/index.php>

Program Coordinator
Abdelmagid Salem Hamouda

About the Program

The Master of Urban Planning and Design (MUPD) is tailored to address issues of importance to the urban environment in Qatar, the GCC region, and beyond. It aims to provide students with key knowledge on each and every aspect of urban planning and design, including urban sustainability, Geographic Information Systems (GIS), landscape planning in arid regions, integrated land use, transport planning, and more.

Objectives

The Master of Urban Planning and Design aims to promote:

- Development of an understanding of the nature, purpose, methods and practice of planning. This includes knowledge about the governance, planning laws, and politics, and their impact on individuals and communities -often in a multicultural environment- and the techniques of policy analysis and project-making.
- An understanding of processes of change in the built environment and the relationships between the social, economic and physical factors associated with the development of the built environment;
- Development of the ability to undertake a substantial outcome of specialist-based independent research.

Admission Requirements

All applicants to the Master of Science in Urban Planning and Design program who meet the following minimum criteria will be considered for admission to Qatar University:

1. Completed a Bachelor's degree in built environment-related disciplines, including architecture, urban design, urban planning, planning, landscape architecture, interior architecture, construction engineering, and civil engineering, with a minimum cumulative GPA of 2.80 out of 4.00 from a university or college accredited by an international accrediting association or by the Ministry of Higher Education or equivalent authority in that country, OR achieved a score of no less than 650 on the Quantitative portion of the GRE exam. While there is no specified minimum for the Analytical portion of the GRE exam, the score result will be considered as part of evaluation.
2. Achieved a minimum score of 520 on the paper-based TOEFL or equivalent test taken within 2 years of the start of the intended semester of admission.
3. Passing an interview with the College's admission panel.

All applicants to the Master of Science in Urban Planning and Design program are required to submit the following documents to the Admissions Department:

- Complete Online Admissions Application
- Final and official university transcripts
- Official GRE score report if submitting a GRE scores
- Official TOEFL or equivalent score report
- Two letters of recommendation from undergraduate professors or employers
- Health Certificate
- Photocopy of the applicant's Qatar ID card (Non-Qatari applicants must provide a copy of their passport)
- Two recent identical passport-size photographs with white back ground
- Application Fee

For additional information on the program, please see their website at: <http://www.qu.edu.qa/engineering/architecture/programs/MsUp>

Learning Outcomes

Graduates of the Master of Urban Planning and Design will be able to:

- Describe urban development in MENA countries and beyond.
- Apply urban analysis methodologies to explore developmental issues.
- Demonstrate skills in land use planning, strategic planning, participatory techniques.
- Practice sustainable urban development.
- Demonstrate proficiency in written communication by writing with clarity, conciseness, and coherence about relationships among biological concepts.
- Demonstrate proficiency in oral communication by giving concise, clear, and organized oral presentations, with responses and leadership for the audience.
- Engage effectively in groups on critical thinking, while participating weekly on problem-solving activities and reporting their results to the class.

Opportunities

Following the recent success of Qatar's national bid for the FIFA 2022 World Cup, as well as current trends in the real estate industry, major job opportunities are to be found within the Ministry of Municipalities and Urban Planning and its departments (viz. Centre for GIS, Qatar National Master Plan, Transportation Planning Department) and other key players in the area such as Mshereib Properties, Qatari Diar, and Barwa, as well as planning private firms currently involved in the expansion of Doha.

Additionally, graduates may have opportunities to work with some international organizations that address developmental and environmental issues, including UNESCO, UNDP, UN-HABITAT and other international NGOs.

DEGREE REQUIREMENTS

A minimum of 45 credit hours are required to complete the Master of Urban Planning and Design, including the following:

- A minimum of 18 credit hours in Core Requirements.
- A minimum of 9 credit hours in Focus Area Requirements.
- A minimum of 9 credit hours of Thesis Option Requirements.
- A minimum of 9 credit hours of Major Electives.

Core Requirements (27 credit hours)

- MUPD 600 Planning Theory
- MUPD 610 Urban Planning Legislation
- MUPD 620 Urban and Regional Land Use
- MUPD 611 Urban Economics
- MUPD 601 Research and Statistical Analysis in Planning
- MUPD 621 Computer Aided Planning

Urban Planning Focus Area (9 credit hours)

- MUPD 700 Local and Regional Sustainability
- MUPD 701 Urban Infrastructure Planning
- MUPD 702 Housing Policies and Planning

Urban Design Focus Area (9 credit hours)

- MUPD 710 Sustainable Urban and Landscape Design
- MUPD 711 Urban Design in Practice
- MUPD 712 Evolution of Built Form and Townscapes

Master Thesis Requirement (9 credit hours)

- MUPD 750 Thesis focuses on Urban Planning
- MUPD 760 Thesis focuses on Urban Design

Major Electives (minimum of 9 credit hours)

- MUPD 650 Cultural and Physical Aspects of the Islamic City
- MUPD 651 Urban Renewal Planning
- MUPD 652 Theory on Urban Form and Design
- MUPD 653 Design and Regeneration
- MUPD 654 Urban Transportation Systems
- MUPD 655 City and Regional Planning in Arid Zones
- MUPD 656 Environmental Planning and Management
- MUPD 657 Techniques of Environmental Impact Assessment

FULL TIME STUDY PLAN

Master of Urban Planning and Design

Track 1

FIRST SEMESTER (12 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	MUPD 600	Planning Theory	3
	MUPD 610	Urban Planning Legislation	3
	MUPD 620	Urban and Regional Land Use	3
		Elective	3
Total			12
THIRD SEMESTER (12 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	MUPD 700	Local and Regional Sustainability	3
	MUPD 701	Urban Infrastructure Planning	3
	MUPD 702	Housing Policies and Planning	3
		Elective	3
Total			12

SECOND SEMESTER (12 credit hours)			
Term	Course #	Course Title	Cr Hrs
Spring	MUPD 611	Urban Economics	3
	MUPD 601	Research and Statistical Analysis in Planning	3
	MUPD 621	Computer Aided Planning	3
		Elective	3
Total			12
FOURTH SEMESTER (9 credit hours)			
Term	Course #	Course Title	Cr Hrs
Spring	MUPD 750	Thesis focuses on Urban Planning	9
Total			9

FULL TIME STUDY PLAN

Master of Urban Planning and Design

Track 2

FIRST SEMESTER (12 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	MUPD 600	Planning Theory	3
	MUPD 610	Urban Planning Legislation	3
	MUPD 620	Urban and Regional Land Use	3
		Elective	3
Total			12
THIRD SEMESTER (12 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	MUPD 710	Sustainable Urban and Landscape Design	3
	MUPD 711	Urban Design in Practice	3
	MUPD 712	Evolutions of Built Form and Townscapes	3
		Elective	3
Total			12

SECOND SEMESTER (12 credit hours)			
Term	Course #	Course Title	Cr Hrs
Spring	MUPD 611	Urban Economics	3
	MUPD 601	Research and Statistical Analysis in Planning	3
	MUPD 621	Computer Aided Planning	3
		Elective	3
Total			12
FOURTH SEMESTER (9 credit hours)			
Term	Course #	Course Title	Cr Hrs
Spring	MUPD 750	Thesis focuses on Urban Planning	9
Total			9

MASTER OF SCIENCE IN CIVIL ENGINEERING

College of Engineering, Engineering Building
Phone: (974) 44034123 / 4303 / 4122
Email: graduate_studies@qu.edu.qa
Website: http://www.qu.edu.qa/engineering/master_brief/

Program Coordinator
Prof. Abdel Magid Hamouda

ABOUT THE PROGRAM

As Qatar enters next phase of large scale development, the economical use of construction resources and technologies and the development of sustainable designs and materials will be of prime importance to a sustainable management of civil engineering structures. Research opportunities for a Master of Science in Civil Engineering program will be generated by the current faculty research work in structural engineering, geotechnical engineering, transportation engineering, civil engineering materials, and water resources.

The mission of the Master of Science in Civil Engineering program in the College of Engineering is to prepare students for careers in private and public sectors and for advanced level in research that leads to high scholarly achievements, and advanced knowledge. The major emphasis of the program is to foster a deeper understanding of the engineering research process and learn the professional skills.

The structure of the Master of Science in Civil Engineering program is unique, as it helps the engineers become more effective technical specialists, and strengthens their ability to lead people and projects. Conducting original research is an important goal of a Master program study in the College of Engineering, Qatar University. Research provides a type of education not available through classroom teaching. The Master of Science in Civil Engineering program is designed to enhance students' competencies in contributing to the existing body of knowledge and to innovation and creation of new knowledge. Students are expected to equip themselves with strong theoretical and methodological foundations and to develop their ability to independently conduct research.

Program Objectives

The Master of Science in Civil Engineering program is a challenging and rewarding way of study for a higher degree. Graduates of the Master of Science in Civil Engineering program will be able to fulfill most of the following educational objectives (Obj):

1. Act professionally and ethically in a modern work environment through effective communication and leadership, and responsible teamwork.
2. Maintain the desire for innovation and engagement in lifelong learning in response to emerging technologies, social developments, and contemporary issues.
3. Conduct research and present results in scientific forums and contribute to the advancement of the scientific body of knowledge.

Student Learning Outcomes

By the time a student completes the requirements for the Master of Science in Civil Engineering program, the student will have achieved the following Learning Outcomes:

1. Able to apply knowledge of mathematics and science in a creative and innovative way to design, to develop and produce useful products and/or services for society; and be able to manage these activities.
2. Able to apply knowledge of specialized civil engineering concepts in engineering analysis, and design in a civil as well as understand the impact of their engineering solutions in global and societal context.
3. Able to effectively communicate analysis and design ideas to peers, clients and customers.
4. Able to review, analyze, and interpret the body of scientific literature, contemporary issues and innovations in civil engineering area,
5. Able to apply and validate innovations and discoveries in the lab or real world settings in efficient and effective ways utilizing modern engineering tools,
6. Able to conduct and produce quality research in civil engineering, and understand professional and ethical responsibility.
7. Able to effectively write and present the research output in international journals, conferences, patents, research proposals and other scientific venues.

Admission Requirements

All applicants to the Master of Science in Civil Engineering program who meet the following minimum criteria will be considered for admission to Qatar University:

1. Completed a Bachelor degree in engineering or related field with minimum cumulative GPA of 2.80 out of 4.00 from a university or college accredited by an international accrediting association or by the Ministry of Higher Education or equivalent in that country, OR achieved a score of no less than 650 on the Quantitative part of the GRE exam, while there is no specified minimum for the Analytical part but score will be part of evaluation.
2. Achieved a minimum score of 520 on the paper-based TOEFL or equivalent test taken within 2 years of the start of the intended semester of admission.
3. Passing an interview with the College's admission panel. The panel may request additional bridging course(s).

All applicants to the Master of Science in Civil Engineering program are required to submit the following documents to the Admissions Department:

- Complete Online Admissions Application
- Final and official university transcripts
- Official TOEFL or equivalent score report
- Official GRE score report if submitting GRE scores
- Two letters of recommendation from undergraduate professors or employers
- Health Certificate
- Photocopy of the applicant's Qatar ID card (Non-Qatari applicants must provide a copy of their passport)

must provide a copy of their passport)

- Two recent identical passport-size photographs with white background
- Application Fees: QR 350

Admission to the Master of Science in Civil Engineering program takes place in the fall semester only. For additional information on the program, please see their website at: <http://www.qu.edu.qa/engineering/graduate.php>

Opportunities

Qatar's growing economy requires capable managers with solid technical skills. College of Engineering, Qatar University has already established itself as a recognized leader in many research areas related to engineering and technologies as it has secured a good number of external research grants. The program is consistent with the recent emphasis of Qatar on research and development to build a modern knowledge-based society. The master of science in civil engineering program aims for excellence contributions to the engineering research that has regional, national, and international importance. Hence, College of Engineering Qatar University would further align itself with the vision of His Highness the Emir of Qatar, who stressed for more research by kindly allocating a considerable amount of the country's revenue to research.

Demand for professionals with intermediate level research skills is not new, but the current development activities and the expansion of the economy in Qatar certainly need individuals with this skill. The need to quickly enhance the research skills of the Qatar workforce is reflected in its sustainable development activities.

DEGREE REQUIREMENTS

A minimum of 36 credit hours are required to complete the Master of Science in Civil Engineering including the following:

- A minimum of 12 credit hours of Major Core Requirements
- A minimum of 12 credit hours of Major Electives
- A minimum of 12 credit hours in Thesis Requirements

Major Core Requirements (12 CH)

Students must complete the following courses:

- GENG 602 Applied Research Methodology
- GENG 603 Advanced Numerical Analysis
- GENG 604 Project Management
- GENG 605 Applied Statistics Analysis
- GENG 606 Graduate Seminar

Thesis Requirements (12 CH)

Students must complete the following course:

- GENG 699 Master Thesis

Major Electives (12 CH)

Students must complete 12 credit hours from the following courses:

- CVEN 500 Advanced Topics in Civil Engineering

- CVEN 501 Advanced Steel Structures Design
- CVEN 502 Structural Dynamics and Seismic Analysis and Design
- CVEN 503 Design of Bridges and Other Special Structures
- CVEN 504 Finite Element Method
- CVEN 505 Theory of Plates and Shells
- CVEN 506 Advanced Geo-mechanics
- CVEN 507 Traffic Engineering
- CVEN 508 Geometric Design of Highways
- CVEN 509 Traffic Safety Analysis
- CVEN 510 Pavement Management Systems
- CVEN 511 Hydrology
- CVEN 512 Ground Water Contamination
- CVEN 513 Hydraulic Analyses

First YEAR (18 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	GENG 602	Applied Research Methodology	3
	GENG 603	Advanced Numerical Analysis	3
	GENG 604	Project Management	3
Total			9

Term	Course #	Course Title	Cr Hrs
Spring	GENG 605	Applied Statistics Techniques	3
	GENG 606	Graduate Seminar	3
	CVEN XXX	Technical Elective I	3
Total			9

Second YEAR (18 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	CVEN XXX	Technical Elective II	3
	CVEN XXX	Technical Elective III	3
	MSE 699	Master Thesis	3
Total			9

Term	Course #	Course Title	Cr Hrs
Spring	CVEN XXX	Technical Elective IV	3
	MSE 699	Master Thesis	6
Total			9

MASTER OF SCIENCE IN ELECTRICAL ENGINEERING

College of Engineering, Engineering Building

Phone: (974) 44034123 / 4303 / 4122

Email: graduate_studies@qu.edu.qa

Website: http://www.qu.edu.qa/engineering/master_brief/

Program Coordinator

Prof. Abdel Magid Hamouda

ABOUT THE PROGRAM

The academic faculties in the Department of Electrical Engineering possess a high level of academic qualifications spanning the most important modern areas in Electrical Engineering. In addition to undertaking active scientific research, the faculties are continuing to investigate significant issues faced by the engineering industry in the country in both public and private sectors (e.g. Telecommunications, Systems, Gas Processing, Biomedical Engineering and Energy). This on-going activity has resulted in a strong partnership between the Department and the industry. Qatar National Vision 2030 commits the country and its institutions to a number of targets in order to ensure the readiness of the industrial sectors for the challenges of sustainable economic and social development. Consequently, Qatar will witness further significant growth in all sectors related to electrical engineering, including, but not limited to, power systems, industrial control systems, medical electronics and instrumentation and telecommunication industries. Such developments need to be accompanied by an unprecedented need for applied research activities that address the new challenges through, for example, developing advanced biomedical systems, improving telecommunications infrastructure, improving energy efficiency, establishing renewable energy projects, and building smart systems for industrial control and power generation. The Master of Science in Electrical Engineering comes at an appropriate time to foster the skills and approaches necessary for addressing the ever-increasing aforementioned challenges.

The mission of the Master of Science in Electrical Engineering program in the College of Engineering is to prepare students for careers in private and public sectors and for advanced level in research that leads to high scholarly achievements, and advanced knowledge. The major emphasis of the program is to foster a deeper understanding of the engineering research process and learn the professional skills.

The structure of the Master of Science in Electrical Engineering program is unique, as it helps the engineers become more effective technical specialists, and strengthens their ability to lead people and projects. Conducting original research is an important goal of a Master program study in the College of Engineering, Qatar University. Research provides a type of education not available through classroom teaching. The Master of Science in Electrical Engineering program is designed to enhance students' competencies in contributing to the existing body of knowledge and to innovation and creation of new knowledge. Students

are expected to equip themselves with strong theoretical and methodological foundations and to develop their ability to independently conduct research.

Program Objectives

The Master of Science in Electrical Engineering program is a challenging and rewarding way of study for a higher degree. Graduates of the Master of Science in Electrical Engineering program will be able to fulfill most of the following educational objectives:

1. Act professionally and ethically in a modern work environment through effective communication and leadership, and responsible teamwork.
2. Maintain the desire for innovation and engagement in lifelong learning in response to emerging technologies, social developments, and contemporary issues.
3. Conduct research and present results in scientific forums and contribute to the advancement of the scientific body of knowledge.

Student Learning Outcomes

By the time a student completes the requirements for the Master of Science in Electrical Engineering program, the student will have achieved the following Learning Outcomes:

1. Able to apply knowledge of mathematics and science in a creative and innovative way to design, to develop and produce useful products and/or services for society; and be able to manage these activities.
2. Able to apply knowledge of specialized Electrical engineering concepts in engineering analysis, and design in a Electrical as well as understand the impact of their engineering solutions in global and societal context.
3. Able to effectively communicate analysis and design ideas to peers, clients and customers.
4. Able to review, analyze, and interpret the body of scientific literature, contemporary issues and innovations in Electrical engineering area,
5. Able to apply and validate innovations and discoveries in the lab or real world settings in efficient and effective ways utilizing modern engineering tools,
6. Able to conduct and produce quality research in Electrical engineering, and understand professional and ethical responsibility.
7. Able to effectively write and present the research output in international journals, conferences, patents, research proposals and other scientific venues.

Admission Requirements

All applicants to the Master of Science in Electrical Engineering program who meet the following minimum criteria will be considered for admission to Qatar University:

1. Completed a Bachelor degree in engineering or related field with minimum cumulative GPA of 2.80 out of 4.00 from a university or college accredited by an international accrediting association or by the Ministry of Higher Education or equivalent in that country, OR achieved a score of no less than 650 on the Quantitative part of the GRE exam, while there is no specified minimum for the Analytical

part but score will be part of evaluation.

2. Achieved a minimum score of 520 on the paper-based TOEFL or equivalent test taken within 2 years of the start of the intended semester of admission.
3. Passing an interview with the College's admission panel. The panel may request additional bridging course(s).

All applicants to the Master of Science in Electrical Engineering program are required to submit the following documents to the Admissions Department:

- Complete Online Admissions Application
- Final and official university transcripts
- Official TOEFL or equivalent score report
- Official GRE score report if submitting GRE scores
- Two letters of recommendation from undergraduate professors or employers
- Health Certificate
- Photocopy of the applicant's Qatar ID card (Non-Qatari applicants must provide a copy of their passport)
- Two recent identical passport-size photographs with white background
- Application Fees: QR 350

Admission to the Master of Science in Electrical Engineering program takes place in the fall semester only. For additional information on the program, please see their website at: <http://www.qu.edu.qa/engineering/graduate.php>

Opportunities

Qatar's growing economy requires capable managers with solid technical skills. College of Engineering, Qatar University has already established itself as a recognized leader in many research areas related to engineering and technologies as it has secured a good number of external research grants. The program is consistent with the recent emphasis of Qatar on research and development to build a modern knowledge-based society. The master of science in electrical engineering program aims for excellence contributions to the engineering research that has regional, national, and international importance. Hence, College of Engineering Qatar University would further align itself with the vision of His Highness the Emir of Qatar, who stressed for more research by kindly allocating a considerable amount of the country's revenue to research.

Demand for professionals with intermediate level research skills is not new, but the current development activities and the expansion of the economy in Qatar certainly need individuals with this skill. The need to quickly enhance the research skills of the Qatar workforce is reflected in its sustainable development activities.

DEGREE REQUIREMENTS

Master of Science in Electrical Engineering

A minimum of 36 credit hours are required to complete the Master of Science in Electrical Engineering including the following:

- A minimum of 12 credit hours of Major Core Requirements
- A minimum of 12 credit hours of Major Electives
- A minimum of 12 credit hours in Thesis Requirements

Major Core Requirements (12 CH)

Students must complete the following courses:

- GENG 602 Applied Research Methodology
- GENG 603 Advanced Numerical Analysis
- GENG 604 Project Management
- GENG 605 Applied Statistics Analysis
- GENG 606 Graduate Seminar

Thesis Requirements (12 CH)

Students must complete the following course:

- GENG 699 Master Thesis

Major Electives (12 CH)

Students must complete 12 credit hours from the following courses:

- ELEC 551 Advanced Topics in Electrical Engineering
- ELEC 552 Power System Dynamics & Control
- ELEC 553 Advanced Energy Distribution Systems
- ELEC 554 Advanced Topics in Electric Power System Engineering
- ELEC 555 Statistical Signal Processing
- ELEC 556 Advanced Communication Engineering
- ELEC 557 Communication and Information Theory
- ELEC 558 Bioinstrumentation
- ELEC 559 Biomedical Signal Processing
- ELEC 560 Medical Imaging

STUDY PLAN

Master of Science in Electrical Engineering Program

First YEAR (18 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	GENG 602	Applied Research Methodology	3
	GENG 603	Advanced Numerical Analysis	3
	GENG 604	Project Management	3
Total			9

Term	Course #	Course Title	Cr Hrs
Spring	GENG 605	Applied Statistics Techniques	3
	GENG 606	Graduate Seminar	3
	ELEC XXX	Technical Elective I	3
Total			9

Second YEAR (18 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	ELEC XXX	Technical Elective II	3
	ELEC XXX	Technical Elective III	3
	MSE 699	Master Thesis	3
Total			9

Term	Course #	Course Title	Cr Hrs
Spring	ELEC XXX	Technical Elective IV	3
	MSE 699	Master Thesis	6
Total			9

MASTER OF SCIENCE IN MECHANICAL ENGINEERING

College of Engineering, Engineering Building
 Phone: (974) 44034123 / 4303 / 4122
 Email: graduate_studies@qu.edu.qa
 Website: http://www.qu.edu.qa/engineering/master_brief/

Program Coordinator

Prof. Abdel Magid Hamouda

ABOUT THE PROGRAM

The Master of Science degree program in Mechanical Engineering is a research intensive program, which offers a wide range of challenging and rewarding engineering experience. This includes research on energy, thermo-fluids, materials science and engineering, automotive, aerospace, design for sustainability, alternative-energy technologies, manufacturing processes, corrosion science and prevention, computational mechanics, combustion, mechatronics, robotics, computational science and engineering, process optimization, and biomedical engineering. Master degree in Mechanical engineering can be tailored to meet both broad and highly specialized interests (such as Materials Science and Engineering, Manufacturing Systems) can involve applied or fundamental research, and can prepare students for employment in industrial sectors. Students with the master's degree can be also prepared to continue his education toward a doctoral degree in Mechanical Engineering.

The mission of the Master of Science in Electrical Engineering program in the College of Engineering is to prepare students for careers in private and public sectors and for advanced level in research that leads to high scholarly achievements, and advanced knowledge. The major emphasis of the program is to foster a deeper understanding of the engineering research process and learn the professional skills.

The structure of the Master of Science in Mechanical Engineering program is unique, as it helps the engineers become more effective technical specialists, and strengthens their ability to lead people and projects. Conducting original research is an important goal of a Master program study in the College of Engineering, Qatar University. Research provides a type of education not available through classroom teaching. The Master of Science in Mechanical Engineering program is designed to enhance students' competencies in contributing to the existing body of knowledge and to innovation and creation of new knowledge. Students are expected to equip themselves with strong theoretical and methodological foundations and to develop their ability to independently conduct research.

Program Objectives

The Master of Science in Mechanical Engineering program is a challenging and rewarding way of study for a higher degree. Graduates of the Master of Science in Mechanical Engineering program will be able to fulfill most of the following educational objectives (Obj):

1. Act professionally and ethically in a modern work environment through effective communication and leadership, and responsible teamwork.
2. Maintain the desire for innovation and engagement in lifelong learning in response to emerging technologies, social developments, and contemporary issues.
3. Conduct research and present results in scientific forums and contribute to the advancement of the scientific body of knowledge.

Student Learning Outcomes

By the time a student completes the requirements for the Master of Science in Mechanical Engineering program, the student will have achieved the following Learning Outcomes:

1. Able to apply knowledge of mathematics and science in a creative and innovative way to design, to develop and produce useful products and/or services for society; and be able to manage these activities.
2. Able to apply knowledge of specialized Mechanical engineering concepts in engineering analysis, and design in a Mechanical as well as understand the impact of their engineering solutions in global and societal context.
3. Able to effectively communicate analysis and design ideas to peers, clients and customers.
4. Able to review, analyze, and interpret the body of scientific literature, contemporary issues and innovations in Mechanical engineering area,
5. Able to apply and validate innovations and discoveries in the lab or real world settings in efficient and effective ways utilizing modern engineering tools,
6. Able to conduct and produce quality research in Mechanical engineering, and understand professional and ethical responsibility.
7. Able to effectively write and present the research output in international journals, conferences, patents, research proposals and other scientific venues.

Admission Requirements

All applicants to the Master of Science in Mechanical Engineering program who meet the following minimum criteria will be considered for admission to Qatar University:

1. Completed a Bachelor degree in engineering or related field with minimum cumulative GPA of 2.80 out of 4.00 from a university or college accredited by an international accrediting association or by the Ministry of Higher Education or equivalent in that country, OR achieved a score of no less than 650 on the Quantitative part of the GRE exam, while there is no specified minimum for the Analytical part but score will be part of evaluation.
2. Achieved a minimum score of 520 on the paper-based TOEFL or equivalent test taken within 2 years of the start of the intended semester of admission.
3. Passing an interview with the College's admission panel. The panel may request additional bridging course(s).

All applicants to the Master of Science in Mechanical Engineering program are required to submit the following documents to the Admissions Department:

- Complete Online Admissions Application
- Final and official university transcripts
- Official TOEFL or equivalent score report
- Official GRE score report if submitting GRE scores
- Two letters of recommendation from undergraduate professors or employers
- Health Certificate
- Photocopy of the applicant's Qatar ID card (Non-Qatari applicants must provide a copy of their passport)
- Two recent identical passport-size photographs with white background
- Application Fees: QR 350

Admission to the Master of Science in Mechanical Engineering program takes place in the fall semester only. For additional information on the program, please see their website at: <http://www.qu.edu.qa/engineering/graduate.php>.

Opportunities

Qatar's growing economy requires capable managers with solid technical skills. College of Engineering, Qatar University has already established itself as a recognized leader in many research areas related to engineering and technologies as it has secured a good number of external research grants. The program is consistent with the recent emphasis of Qatar on research and development to build a modern knowledge-based society. The master of science in Mechanical engineering program aims for excellence contributions to the engineering research that has regional, national, and international importance. Hence, College of Engineering Qatar University would further align itself with the vision of His Highness the Emir of Qatar, who stressed for more research by kindly allocating a considerable amount of the country's revenue to research.

Demand for professionals with intermediate level research skills is not new, but the current development activities and the expansion of the economy in Qatar certainly need individuals with this skill. The need to quickly enhance the research skills of the Qatar workforce is reflected in its sustainable development activities.

DEGREE REQUIREMENTS

Master of Science in Mechanical Engineering

A minimum of 36 credit hours are required to complete the Master of Science in Mechanical Engineering including the following:

- A minimum of 12 credit hours of Major Core Requirements
- A minimum of 12 credit hours of Major Electives
- A minimum of 12 credit hours in Thesis Requirements

Major Core Requirements (12 CH)

Students must complete the following courses:

- GENG 602 Applied Research Methodology
- GENG 603 Advanced Numerical Analysis
- GENG 604 Project Management
- GENG 605 Applied Statistics Analysis
- GENG 606 Graduate Seminar

Thesis Requirements (12 CH)

Students must complete the following course:

- GENG 699 Master Thesis

Major Electives (12 CH)

Students must complete 12 credit hours from the following courses:

- MECH 581 Advanced Topics in Mechanical Engineering
- MECH 582 Mathematical Analysis of Mechanical Engineering Systems
- MECH 583 Robotics and Automation Technology
- MECH 584 Computational Fluid Dynamics
- MECH 585 Advanced Heat Transfer
- MECH 586 Advanced Fluid Mechanics
- MECH 587 Combustion and Emission
- MECH 588 Energy Conversion
- MECH 589 Renewable Energy Utilization
- MECH 590 Materials Selection
- MECH 591 Conservation and Recycling of Materials
- MECH 592 Product Design
- MECH 593 Advanced Corrosion Engineering
- MECH 594 Failure Analysis
- MECH 595 Advanced Physical Metallurgy
- MECH 596 Fatigue and Fracture of Engineering Materials
- MECH 597 Coatings and Surface Engineering
- MECH 598 Nanotechnology
- MECH 599 Mechanics of Composite
- MECH 600 Advanced Finite Element Analysis

First YEAR (18 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	GENG 602	Applied Research Methodology	3
	GENG 603	Advanced Numerical Analysis	3
	GENG 604	Project Management	3
Total			9

Term	Course #	Course Title	Cr Hrs
Spring	GENG 605	Applied Statistics Techniques	3
	GENG 606	Graduate Seminar	3
	MECH XXX	Technical Elective I	3
Total			9

Second YEAR (18 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	MECH XXX	Technical Elective II	3
	MECH XXX	Technical Elective III	3
	MSE 699	Master Thesis	3
Total			9

Term	Course #	Course Title	Cr Hrs
Spring	MECH XXX	Technical Elective IV	3
	MSE 699	Master Thesis	6
Total			9

COLLEGE OF PHARMACY

Women's College of Sciences Building
Phone: (974) 4403-5553 / 5554 Email: pharmacy@qu.edu.qa,
msscpharm@qu.edu.qa, pharmd@qu.edu.qa
Website: www.qu.edu.qa/pharmacy

Acting Dean

Sherief Khalifa

Associate Dean for Academic Affairs

Sherief Khalifa

Associate Dean for Research and Graduate Studies

Mohamed Izham

Assistant Dean for Faculty & Student Affairs

Banan Mukhalalati

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 students' general and professional abilities in a systematic ability-based curricula.
2. To integrate knowledge with practical experience to enhance the 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 graduate degree programs:

1. Master of Science in Pharmaceutical Sciences (Full-time program only)
 - a. Full-time program only
2. Doctor of Pharmacy programs
 - a. Full-time program
 - b. Part-time program

MASTER OF SCIENCE IN PHARMACY

Women's College of Sciences Building
Phone: (974) 4403-5553 / 5554
Email: msscpharm@qu.edu.qa
Website: www.qu.edu.qa/pharmacy/program/MSc_Program.php

Head

Mohamed Izham

ABOUT THE PROGRAM

The Master of Science in Pharmaceutical Sciences is a two-year, minimum 33 credit-hour, post-baccalaureate, thesis-based, research-oriented, graduate studies program, designed to build on the undergraduate degree experience and further enhance student critical thinking and research skills. The MSc (Pharm) program will also prepare students who wish to continue to pursue a subsequent Doctor of Philosophy (PhD) degree. Pharmacy graduate students will specialize in one of the pharmaceutical sciences research focus areas represented in our college, including pharmacognosy, medicinal chemistry, pharmacology, pharmacokinetics and pharmaceuticals. This list will expand in parallel with our faculty recruitment. The scope of the degree will include any aspect of the discovery, development and use of medicines to improve health care outcomes.

Objectives

The Master of Science in Pharmaceutical Sciences aims to:

- Provide an opportunity for students to advance their knowledge, skills and attitudes in special areas of interest within the pharmaceutical sciences.
- Prepare students for research and teaching positions requiring personnel with a strong background in these specialty areas.
- Develop students with the research skills needed to carry out basic and applied studies.

Admission Requirements

All national and international female and male applicants to the Master of Science in Pharmaceutical Sciences who meet the following minimum criteria will be considered for admission to Qatar University:

1. Completed Bachelor degree or equivalent degree in Pharmacy, Chemistry, Biology, Biomedical Sciences, Human Nutrition, Chemical Engineering or related field with a minimum cumulative grade point average (GPA) of at least 2.80/4.00 from a university or college accredited by an international accrediting association or by the Ministry of Higher Education or equivalent in that country.
2. Students holding a bachelor degree in a discipline other than pharmacy will be required to complete bridge course(s) based on the decision of the program admission committee.
3. The Graduate Record Examination (GRE) score while not required, is recommended as it will strengthen the student application. The GRE score will be considered, when available, in evaluating student application.

- Achieved a minimum score of 520 on the paper-based TOEFL or equivalent test taken within 2 years of the start of the intended semester of admission.
- Sufficient preparatory background to carry out graduate work in the chosen field.
- A satisfactory performance in the personal interview (by invitation).

The application process for this degree program is coordinated by the Qatar University Admissions Department. For more information, please see: http://www.qu.edu.qa/pharmacy/program/MSc_Program.php

All applicants to the Master of Science in Pharmaceutical Sciences are required to submit the following documents to the Admissions Department:

- Complete Online Admissions Application
- Official, final and authenticated academic transcripts from all post-secondary educational institutions;
- Official and final TOEFL or IELTS English proficiency results
- Curriculum vitae (C.V.)
- Official, final and authenticated GRE scores (within past 2 years) sent to Designated Institution Code 7574 (if provided)
- Personal statement describing why you wish to pursue this degree
- Three letters of recommendation from undergraduate professors or employers
- Health Certificate
- Photocopy of the applicant's Qatar ID card (Non-Qatari applicants should also provide a copy of their passport)
- Two recent identical passport-size photographs with white background
- Application fee

Learning Outcomes

Graduates of the Master of Science in Pharmaceutical Sciences will be able to:

- Apply advanced knowledge and critical thinking skills required to master, generate, interpret and disseminate pharmaceutical knowledge.
- Work collaboratively with others within and external to the profession for the purpose of dissemination and extension of knowledge in pharmaceutical sciences.
- Communicate with diverse audiences in written and spoken English, using a variety of strategies that take into account the situation, intended outcomes of the communication and the target audience.
- Honor their roles as future pharmaceutical scientists through the fulfillment of their obligations to the profession, the community, and the society at large, in accordance with the vision, mission and goals of the College of Pharmacy.
- Conduct themselves in a manner that demonstrates an understanding and adherence to the principles of scholarly integrity and ethical research.

Opportunities

Employment opportunities for graduates of the Master of Science in

Pharmaceutical Sciences are available in academic institutions, governmental regulatory authorities, quality assurance and research and development in the pharmaceutical industry and in research laboratories in government and non-government organizations.

DEGREE REQUIREMENTS

Master of Science in Pharmaceutical Sciences

A minimum of 33 credit hours are required to complete the Master of Science in Pharmaceutical Sciences, including the following:

- A minimum of 14 credit hours in Core Requirements.
- A minimum of 6 credit hours of discipline-specific package.
- A minimum of 10 credit hours in the Thesis Package.
- A minimum of 3 credit hours in Major Electives.

Core Requirements (14 credit hours)

- PHAR620 Research Design, Ethics and Statistical Methodology I
- PHAR621 Research Design, Ethics and Statistical Methodology II
- PHAR625 Life Cycle of Medication: From Discovery to Market Withdrawal
- PHAR640 Graduate Seminar I
- PHAR641 Graduate Seminar II
- PHAR642 Graduate Seminar III
- PHAR643 Graduate Seminar IV
- PHAR650 English-Based Communication Skills for Graduate Students
- PHAR660 Directed Studies in Pharmaceutical Sciences

Discipline-Specific package (6 credit hours)

Students must complete a minimum of 6 credit hours in courses that are discipline-specific:

- PHAR670 Advanced Topics in Pharmaceutical Sciences I
- PHAR671 Advanced Topics in Pharmaceutical Sciences II

Major Electives (3 credit hours)

Students must complete a minimum of 3 credit hours in Major Electives courses:

- PHAR680 Elective in Pharmaceutical Sciences

Thesis package (10 credit hours)

Students must complete a minimum of 10 thesis credit hours:

- PHAR690 MSc (Pharm) Thesis
- PHAR691 MSc (Pharm) Thesis

STUDY PLAN

Master of Science in Pharmaceutical Sciences

FIRST SEMESTER (10 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	PHAR620	Research Design, Ethics and Statistical methodology I	2
	PHAR625	Life Cycle of Medication: From Discovery to Market Withdrawal	2
	PHAR640	Graduate Seminar I	1
	PHAR650	English-Based Communication Skills for Graduate Students	2
	PHAR670	Advanced Topics in Pharmaceutical Sciences I	3
Total			10
THIRD SEMESTER (6 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	PHAR642	Graduate Seminar III	1
	PHAR690	MSc (Pharm) Thesis	5
Total			6

SECOND SEMESTER (11 credit hours)			
Term	Course #	Course Title	Cr Hrs
Spring	PHAR621	Research Design, Ethics and Statistical Methodology II	2
	PHAR642	Graduate Seminar II	1
	PHAR660	Directed Studies in Pharmaceutical Sciences	2
	PHAR671	Advanced Topics in Pharmaceutical Sciences II	3
	PHAR680	Elective in Pharmaceutical Sciences	3
Total			11
FOURTH SEMESTER (6 credit hours)			
Term	Course #	Course Title	Cr Hrs
Spring	PHAR643	Graduate Seminar IV	1
	PHAR691	MSc (Pharm) Thesis	5
Total			6

DOCTOR OF PHARMACY (PharmD) PROGRAM FULL TIME

Women's College of Sciences Building

Phone: (974) 4403-5553 / 5554

Email: pharmd@qu.edu.qa

Website: www.qu.edu.qa/pharmacy/program/PharmD_Program.php

Director

Dr. Kerry Wilbur

ABOUT THE PROGRAM

The PharmD program is designed to prepare promising BSc (Pharm) graduates for a fulfilling career in advanced clinical pharmacy practice, research and academia. The PharmD program was approved by the Qatar University Board of Regents in parallel with the BSc (Pharm) program in 2007.

Objectives

The PharmD program is designed to meet international standards for an advanced degree in the health sciences field. It involves post-baccalaureate study designed to build on the knowledge, skills, attitudes and values developed during the undergraduate degree experience.

The goal of the PharmD program is to educate pharmacy practitioners to become highly proficient in the delivery and evaluation of pharmaceutical care, and to further advance the practice of pharmacy.

Admission Requirements

The admission process for the PharmD degree program is designed to ensure that the best and brightest candidates are admitted to the program. Acceptance into the program is by a competitive application process. Only complete applications will be considered by the PharmD Degree Program Admissions Committee.

The full-time study plan for the PharmD degree program is open to select Qatar University students who have completed the 173 credit hour requirement for a BSc (Pharm) degree at Qatar University and wish to complete the remaining 36 credit hour requirement for the PharmD degree (209 credit hour total) on a full-time basis. This option is not open for non-Qatar University graduates at this time.

All applicants with a complete application to the full-time PharmD degree program who meet the following minimum criteria will be considered for admission to Qatar University:

1. Completed a minimum of a 5-year BSc (Pharm) degree with a minimum cumulative grade point average (GPA) of 2.80 out of 4.00 from Qatar University.
2. Achieved a minimum score of 520 on the paper-based TOEFL or equivalent test taken within 2 years of the start of the intended semester of admission.
3. Achieved a passing score on the Qatar Supreme Council for Health pharmacist licensure exam (Prometrics-based exam since April 2010).

4. Achieved a satisfactory score (no minimum set) on a college-based assessment of baseline knowledge, skills, attitudes and values examination.
5. A satisfactory performance in the personal interview (by invitation) as conducted by the Admission Committee.

The application process for this degree program is coordinated by the Qatar University Admissions Department. For more information, please see: http://www.qu.edu.qa/pharmacy/program/PharmD_Program.php

All applicants to the Doctor of Pharmacy program are required to submit the following documents to the Admissions Department:

- Complete Online Admissions Application
- Official, final and authenticated academic transcripts from all post-secondary educational institutions
- Official and final TOEFL or IELTS English results
- Curriculum Vitae (C.V.)
- Official, final and authenticated Qatar Supreme Council for Health pharmacist licensure exam results (Prometric-based exam taken after April 2010 only)
- Personal statement
- Three letters of recommendation from undergraduate professors or employers
- Health Certificate
- Photocopy of the applicant's Qatar ID card (Non-Qatari applicants should also provide a copy of their passport)
- Two recent identical passport-size photographs with white background
- Application fee

Learning Outcomes

The goal of the Qatar University Doctor of Pharmacy (PharmD) degree program is to graduate medication therapy experts. Graduates of the PharmD program will achieve the following general learning outcomes:

- Care Provider - The PharmD student will use their knowledge, skills and professional judgment to provide pharmaceutical care and to facilitate management of patient's medication and overall health needs.
- Communicator: The PharmD student will 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: The PharmD student will work collaboratively with teams to provide effective, quality health care and to fulfill their professional obligations to the community and society at large.
- Manager: The PharmD student will use their management skills in daily practice to optimize care of patients, to ensure the safe and effective distribution of medications, and to make efficient use of health resources.
- Advocate: The PharmD student will 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: The PharmD student will possess and apply core knowledge and skills required to be a medication therapy expert, and be able

to master, generate, interpret, and disseminate pharmaceutical and pharmacy practice knowledge.

- Professional: The PharmD student will 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.

These educational outcomes will be achieved at a level of performance that is higher than a BSc (Pharm) graduate.

Opportunities

The PharmD program is designed to prepare promising BSc (Pharm) graduates for a fulfilling career in advanced clinical pharmacy practice, research and academia.

DEGREE REQUIREMENTS

Doctor of Pharmacy (PharmD) Program – Full Time

A full-time study plan will be available for select students who have completed the 173 credit hour BSc (Pharm) degree program at Qatar University and are prepared to complete the remaining 36 credit-hours of full-time course requirements (209 credit-hours total) over a 12-month period.

- A minimum of 4 credit hours of didactic course work (on campus).
- A minimum of 32 credit hours of structured practice internships (off campus).

There are no elective courses for this degree program.

STUDY PLAN

Doctor of Pharmacy (PharmD) - Full Time

FIRST SEMESTER (18 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	PHAR605	Advanced Pharmacy Research, Evaluation and Presentation Skills I	2
	PHAR630	Advanced Professional Practice Internship I	4
	PHAR631	Advanced Professional Practice Internship II	4
	PHAR632	Advanced Professional Practice Internship III	4
	PHAR633	Advanced Professional Practice Internship IV	4
Total			18

Didactic Courses (4 credit hours)

- PHAR605 Advanced Pharmacy Research, Evaluation and Presentation Skills I
- PHAR606 Advanced Pharmacy Research, Evaluation and Presentation Skills II

Internship courses (32 credit hours)

- PHAR630 Advanced Professional Practice Internship I
- PHAR631 Advanced Professional Practice Internship II
- PHAR632 Advanced Professional Practice Internship III
- PHAR633 Advanced Professional Practice Internship IV
- PHAR634 Advanced Professional Practice Internship V
- PHAR635 Advanced Professional Practice Internship VI
- PHAR636 Advanced Professional Practice Internship VII
- PHAR637 Advanced Professional Practice Internship VIII

SECOND SEMESTER (18 credit hours)			
Term	Course #	Course Title	Cr Hrs
Spring	PHAR606	Advanced Pharmacy Research, Evaluation and Presentation Skills II	2
	PHAR634	Advanced Professional Practice Internship V	4
	PHAR635	Advanced Professional Practice Internship VI	4
	PHAR636	Advanced Professional Practice Internship VII	4
	PHAR637	Advanced Professional Practice Internship VIII	4
Total			18

DOCTOR OF PHARMACY (PHARMD) PROGRAM PART TIME

Women's College of Sciences Building
Phone: (974) 4403-5553 / 5554
Email: pharmd@qu.edu.qa
Website: www.qu.edu.qa/pharmacy/program/PharmD_Program.php

Director
Kerry Wilbur

ABOUT THE PROGRAM

The PharmD program is designed to prepare promising BSc (Pharm) graduates for a fulfilling career in advanced clinical pharmacy practice, research and academia. The PharmD program was approved by the Qatar University Board of Regents in parallel with the BSc (Pharm) program in 2007.

Objectives

The PharmD program is designed to meet international standards for an advanced degree in the health sciences field. It involves post-baccalaureate study designed to build on the knowledge, skills, attitudes and values developed during the undergraduate degree experience.

The goal of the PharmD program is to educate pharmacy practitioners to become highly proficient in the delivery and evaluation of pharmaceutical care, and to further advance the practice of pharmacy.

Admission Requirements

The admission process for the PharmD degree program is designed to ensure that the best and brightest candidates are admitted to the program. Acceptance into the program is by a competitive application process. Only complete applications will be considered by the PharmD Degree Program Admissions Committee.

The part-time study plan for the PharmD degree program is open to qualified international BSc (Pharm) graduates who reside in Qatar and are practicing pharmacy.

All applicants with a complete application to the part-time study plan PharmD degree program who meet the following minimum criteria will be considered for admission to Qatar University:

1. Completed a minimum of a 5-year BSc (Pharm) degree with a minimum cumulative grade point average (GPA) of 2.80 out of 4.00 from a faculty, school or college accredited by an international accrediting association or by the Ministry of Higher Education or equivalent in that country.
2. Achieved a minimum score of 520 on the paper-based TOEFL (or equivalent) test.
3. Achieved a passing score on the Qatar Supreme Council for Health pharmacist licensure exam (Prometrics-based exam since April 2010).
4. A satisfactory performance in the personal interview (by invitation) as conducted by the Admission Committee.

The application process for this degree program is coordinated by the Qatar University Admissions Department. For more information, please see: http://www.qu.edu.qa/pharmacy/program/PharmD_Program.php

All applicants to the Doctor of Pharmacy program are required to submit the following documents to the Admissions Department:

- Complete Online Admissions Application
- Official, final and authenticated academic transcripts from all post-secondary educational institutions
- Official and final TOEFL or IELTS English results
- Curriculum Vitae (C.V.)
- Official, final and authenticated Qatar Supreme Council for Health pharmacist licensure exam results (Prometric-based exam taken after April 2010 only)
- Personal statement
- Three letters of recommendation from undergraduate professors or employers
- Health Certificate
- Photocopy of the applicant's Qatar ID card (Non-Qatari applicants should also provide a copy of their passport)
- Two recent identical passport-size photographs with white background
- Application fee

Learning Outcomes

The goal of the Qatar University Doctor of Pharmacy (PharmD) degree program is to graduate medication therapy experts. Graduates of the PharmD program will achieve the following general learning outcomes:

- Care Provider - The PharmD student will use their knowledge, skills and professional judgment to provide pharmaceutical care and to facilitate management of patient's medication and overall health needs.
- Communicator: The PharmD student will 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: The PharmD student will work collaboratively with teams to provide effective, quality health care and to fulfill their professional obligations to the community and society at large.
- Manager: The PharmD student will use their management skills in daily practice to optimize care of patients, to ensure the safe and effective distribution of medications, and to make efficient use of health resources.
- Advocate: The PharmD student will 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: The PharmD student will possess and apply core knowledge and skills required to be a medication therapy expert, and be able to master, generate, interpret, and disseminate pharmaceutical and pharmacy practice knowledge.
- Professional: The PharmD student will 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.

These educational outcomes will be achieved at a level of performance that is higher than a BSc (Pharm) graduate.

Opportunities

The PharmD program is designed to prepare promising BSc (Pharm) graduates for a fulfilling career in advanced clinical pharmacy practice, research and academia.

DEGREE REQUIREMENTS

Doctor of Pharmacy (PharmD) Program Part Time

A 3-phase (qualifying, didactic, internship) part-time study plan will be available for select Qatar pharmacy practitioners with an approved BSc (Pharm) degree from another university who wish to continue their post-baccalaureate training while practicing in Qatar. This part-time study plan emulates similar programs offered by North American universities.

A minimum of 59 credit-hours of didactic course work, weekend and/or evening workshops and full-time internships will be required. Successful applicants will be required to complete a series of qualifying courses to progress to the balance of the study plan.

A minimum of 59 credit hours are required to complete the degree program including:

- A minimum of 27 credit hours of didactic course work (on campus).
- A minimum of 32 credit hours of structured practice internships (off campus).

There are no elective courses for this degree program.

Qualifying Courses (7 credit hours)

- PHAR306 Pharmacy Research Evaluation and Presentation Skills II
- PHAR341 Professional Skills IV
- PHAR371 Pathophysiology II
- PHAR381 Pharmacotherapy II

Didactic Courses (20 credit hours)

- PHAR359 Interpretation of Laboratory Data I
- PHAR360 Interpretation of Laboratory Data II
- PHAR361 Patient Assessment Laboratory I
- PHAR362 Patient Assessment Laboratory II
- PHAR405 Pharmacy Research Evaluation and Presentation Skills III
- PHAR406 Pharmacy Research Evaluation and Presentation Skills IV
- PHAR440 Professional Skills V
- PHAR441 Professional Skills VI
- PHAR480 Pharmacotherapy III
- PHAR481 Pharmacotherapy IV
- PHAR605 Advanced Pharmacy Research, Evaluation and Presentation Skills I
- PHAR606 Advanced Pharmacy Research, Evaluation and Presentation Skills II

Internship courses (32 credit hours)

- PHAR630 Advanced Professional Practice Internship I
- PHAR631 Advanced Professional Practice Internship II
- PHAR632 Advanced Professional Practice Internship III
- PHAR633 Advanced Professional Practice Internship IV
- PHAR634 Advanced Professional Practice Internship V
- PHAR635 Advanced Professional Practice Internship VI
- PHAR636 Advanced Professional Practice Internship VII
- PHAR637 Advanced Professional Practice Internship

STUDY PLAN

Doctor of Pharmacy (PharmD) - Part Time

FIRST SEMESTER (4 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	PHAR371	Pathophysiology II	1
	PHAR381	Pharmacotherapy II	3
Total			4
THIRD SEMESTER (8 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	PHAR359	Interpretation of Laboratory Data I	1
	PHAR361	Patient Assessment Laboratory I	1
	PHAR480	Pharmacotherapy III	3
	PHAR440	Professional Skills V	2
	PHAR405	Pharmacy Research Evaluation and Presentation Skills III	1
Total			8
FIFTH SEMESTER (18 credit hours)			
Term	Course #	Course Title	Cr Hrs
Fall	PHAR605	Advanced Pharmacy Research, Evaluation and Presentation Skills I	2
	PHAR630	Advanced Professional Practice Internship I	4
	PHAR631	Advanced Professional Practice Internship II	4
	PHAR632	Advanced Professional Practice Internship III	4
	PHAR633	Advanced Professional Practice Internship IV	4
Total			18

SECOND SEMESTER (3 credit hours)			
Term	Course #	Course Title	Cr Hrs
Spring	PHAR306	Pharmacy Research Evaluation and Presentation Skills II	1
	PHAR341	Professional Skills IV	2
Total			3
FOURTH SEMESTER (8 credit hours)			
Term	Course #	Course Title	Cr Hrs
Spring	PHAR360	Interpretation of Laboratory Data II	1
	PHAR362	Patient Assessment Laboratory II	1
	PHAR481	Pharmacotherapy IV	3
	PHAR441	Professional Skills VI	2
	PHAR406	Pharmacy Research Evaluation and Presentation Skills IV	1
Total			8
SIXTH SEMESTER (18 credit hours)			
Term	Course #	Course Title	Cr Hrs
Spring	PHAR606	Advanced Pharmacy Research, Evaluation and Presentation Skills II	2
	PHAR634	Advanced Professional Practice Internship V	4
	PHAR635	Advanced Professional Practice Internship VI	4
	PHAR636	Advanced Professional Practice Internship VII	4
	PHAR637	Advanced Professional Practice Internship VII	4
Total			18

COLLEGE OF SHARIA AND ISLAMIC STUDIES

College of Sharia and Islamic Studies Building
Phone: (974) 4403-4404
Email: fiqhmaster@qu.edu.qa
Website: <http://www.qu.edu.qa/ar/sharia/>

Dean

Prof. Aisha Yousuf al-Mannai

Associate Dean for Academic Affairs

Prof. Dheen Mohamed

Assistant Dean for Student Affairs

Muhammad Modassir Ali

Head of the Department of Islamic Studies

Dr. Yousuf Mahmoud Muhammad Sidekey

DEGREE OFFERINGS

The college of Sharia and Islamic Studies offers the following graduate degree programs:

- Master's of Fiqh and Usul Al-Fiqh
- Master of Quranic Sciences and Exegesis

MASTER'S OF FIQH AND USUL AL-FIQH

About the Program

This program seeks to prepare graduates carrying a bachelor's degree in Islamic law and Islamic studies to become highly proficient and intelligent experts with the requisite skills of research in the field of Islamic Jurisprudence and its principles and also equipped with the characteristic spaciousness of Islamic law. This would be achieved through an interactive, systematically progressive and stimulating learning environment, based on active learning and the integration of technology which would link theoretical issues to their practical applications and would allow the students to deal with the issues of contemporary life objectively depicting the tolerance of the Islam and its comprehensiveness, diversity, openness and culturally interactive nature.

Objectives

The Master's in Fiqh and Usul al-Fiqh programme aims to assist the student to:

- relate the classic juristic heritage to the contemporary one thereby enabling them to interact with the original sources of Islamic law and utilize it in dealing with the emerging developments and problems,
- develop a juristic mind that has the ability to analyse, criticize and deduce arguments as well as the skills of comparison and judicious preference,
- contribute to research in order to provide practical solutions to contemporary issues related to sharia and juristic disciplines,
- provide the society with those in possession of expertise and competencies in myriad spheres of life for the service of Islam and Muslims.

Admission Requirements

Eligible applicants must have:

1. Completed a Bachelor degree from the College of Sharia and Islamic Studies at Qatar University with a minimum cumulative GPA of 2.80 out of 4.00 or equivalent from a university or college accredited by an international accrediting association or by the Ministry of Higher Education or equivalent in that country.
2. Passing the personal interview with the College Admission Committee with a minimum grade of 75%.
3. Applicants with Bachelor degrees other than in Fiqh and Usul Al-Fiqh must successfully complete bridge courses as required by the college admission committee prior to entering the program. Students must successfully complete all required bridge courses with a minimum grade of (C+) before registering in the master program courses..
4. Admission into the program is competitive and considers the English competencies of applicants.

All applicants to the Master's of Fiqh and Usul al Fiqh programme are required to submit the following documents to the Admissions Department:

- Complete Online Admissions Application
- Final, official and certified university transcripts
- Health Certificate
- Photocopy of the applicant's Qatar ID card (Non-Qatari applicants must provide a copy of their passport)
- Two recent identical passport-size photographs with white back ground
- Application Fees: QR 350

Admission to the Master's in Fiqh and Usul al-Fiqh programme is offered in the Fall semester only. For additional information on the programme, please see their website at: <http://www.qu.edu.qa/ar/sharia>

Learning Outcomes

1. Offer possible verdicts combining the classic juristic tradition and modernity and be able to comprehend the situation at hand in its general and specific context.
2. Produce sound academic papers in the areas of Jurisprudence and its Principles and the purposes of law.
3. Utilize his/her knowledge of jurisprudence, its principles and purposes in setting modern contemporary issues in their correct legal framework.
4. Compare between the Islamic legal system and contemporary legal systems in various areas.
5. Propose appropriate solutions to family issues as well as judicial, economic and financial ones; in addition, be capable of addressing Islamic politics and international relations.

Opportunities

Graduates of the Masters of Fiqh and Usul al-Fiqh programme will be suitable for employment in various positions such as:

- Lecturers and Teaching Assistants in universities.

- Researchers in Specialized cultural centers, including the al-Jazeera Centre for Strategic Studies.
- Teachers in government and independent schools.
- Media centers.
- Employees or Consultants in the following Institutions :

1. Ministry of Awqaf.
2. The Supreme Council for Family Affairs.
3. The Supreme Council of Magistracy.
4. Islamic banks.
5. Zakat Fund.

It will also provide a solid foundation to those who would like to pursue doctoral studies.

DEGREE REQUIREMENTS

A minimum of 36 credit hours are required to complete the Master of Fiqh and Usul al-Fiqh including the following:

- A minimum of 21 credit hours of Major Core Requirements
- A minimum of 9 credit hours of Major Electives
- A minimum of 6 credit hours in Thesis Requirements

For students holding a baccalaureate degree in a discipline other than Fiqh and Usul al-Fiqh, they may be required to complete additional bridge courses as specified by the program admission committee at admission time.

Major Core Requirements (21 CH)

Students must complete the following courses:

- FIQH 610 Textual Study of Usul Al Fiqh
- FIQH 620 Analogy and Reasoning
- FIQH 630 Themes of Implications
- FIQH 640 Research Methodology of Fiqh and Usul Al Fiqh
- FIQH 650 Islamic Law of Judiciary and Evidence
- FIQH 660 Contemporary Issues of Islamic Family Law
- FIQH 670 Fiqh of Money and Economics

Thesis Requirements (6 CH)

Students must complete the following course:

- FIQH 680 Thesis

Major Electives (9 CH)

Students must complete 9 credit hours from the following courses:

- FIQH 605 The Purposes of Islamic Law
- FIQH 615 Methodology of Derivation of Legal Opinion and Judgment
- FIQH 625 Islamic Political System
- FIQH 635 Islamic Law of International Relations
- FIQH 645 New Issues of Islamic Worship
- FIQH 655 Islamic Penal Code and Contemporary Issues
- FIQH 665 Islamic Banking Operations
- FIQH 675 Textual Study of Fiqh

Bridge Course Requirements Package (3-9 CH)

Students holding a bachelor degree in disciplines other than Fiqh and Usul al-Fiqh, may be required to complete a maximum of three additional bridge courses as specified by the program admission committee at admission time. The credit hours allocated to bridge courses are not counted towards satisfying the 36 credit hours required by the program.

STUDY PLAN

Master of Fiqh and Usul al Fiqh

FIRST YEAR (18 credit hours)			
Term	Course No.	Course Title	Credit Hours
Fall	FIQH610	Textual Study of Usul al-Fiqh	3
	FIQH 640	Research Methodology of Fiqh and Usul al Fiqh	3
		Elective	3
Total			9
Spring	FIQH 630	Themes of Implications (al-Dalalaat) Implications (al-Dalalaat)	3
	FIQH 670	Fiqh of Money and Economics (Fiqh al-Maal wa alqtisad)	3
		Elective	3
Total			9
SECOND YEAR (18 credit hours)			
Term	Course No.	Course Title	Credit Hours
Fall	FIQH 660	Islamic Law of Judiciary and Evidence (Fiqh al-Qada wa al-Ithbaat)	3
	FIQH 650	Contemporary Issues of Islamic Family Law	3
	FIQH 620	Analogy and Reasoning (al-Qiyas wa al-Ta'leel)	3
		Elective	3
Total			12
Spring	FIQH 680	Dissertation (al-Dalalaat)	6
Total			6

MASTER OF QURANIC SCIENCES AND EXEGESIS

College of Sharia and Islamic Studies Building (Women's Section)
 Website: http://www.qu.edu.qa/sharia/graduate_programs.php
 Phone: (974) 4403-4423

ABOUT THE PROGRAM

This program is a unique religious program in the college of Sharia and Islamic Studies. It seeks to prepare graduates carrying Master's degree in Quranic Sciences and Exegesis to become highly proficient, well equipped, deeply rooted and intelligent experts with required skills of understanding and research in the field of Qur'anic Sciences and Exegesis This goal would be achieved through an interactive, stimulating, cooperative, systematic learning environment, based on active learning, utilizing recent technology. This program would enable Master students in Quranic Sciences and Exegesis and to interpret and defend the Noble Qur'an against western classical and contemporary skepticism and deviated doctrines.

Objectives.

The Master of Quranic Sciences and Exegesis aims at achieving the following:

- Deepening skills of research in the field of Qur'anic Sciences (Tafseer) and Exegesis ('Ulum al-Qur'an).
- Shaping and building active, efficient researchers and scholars to face different social, cultural and scientific challenges in the field of Qur'anic Sciences (Tafseer) and Exegesis ('Ulum al Qur'an).
- Integrating and consolidating between classical Arabic and Islamic heritage.
- Advancing and strengthening comparative studies in the field of Qur'anic Sciences (Tafseer) and Exegesis ('Ulum al Qur'an)
- Promoting the dialogue and intercommunication with other human sciences.

Learning Outcomes.

After the completion of the Master level program, the students will be able:

- Preparing, writing and publishing high quality scholarly works.
- Practicing obtained cognitive skills in serving the Noble Qur'an.
- Mastering the skills of the interpretation of the Noble Qur'an with its variety doctrines; analytical, thematic and jurisprudential comparative methodologies.
- Exercising his thinking skills in dealing and utilizing related sources to his majoring-specialty.

Opportunities

Graduates of the Master of Quranic Sciences and Exegesis will be qualified to be employed in the following positions:

- Ministry of Endowment (al-Awqaf).
- Supreme Education Council.
- Lecturers of religious courses.
- International Centre for Interfaith Dialogue.

- Assistant lecturers in the universities.
- Scientific and research centers.
- Any job vacancy needed for highly qualified candidate in the field of Qur'anic Studies.
- It will also provide a solid foundation to those who like to pursue their doctoral studies.

Admission Requirements

All applicants to the Master of Quranic Sciences and Exegesis program who meet the following minimum criteria will be considered for admission to Qatar University:

1. Completed a Bachelor degree from the College of Sharia and Islamic Studies at Qatar University with a minimum cumulative GPA of 2.80 out of 4.00 or equivalent from a university or college accredited by an international accrediting association or by the Ministry of Higher Education or equivalent in that country.
2. Passing the personal interview with the College Admission Committee with a minimum grade of 75%.
3. Applicants with Bachelor degrees other than in Fiqh and Usul Al-Fiqh must successfully complete bridge courses as required by the college admission committee prior to entering the program. Students must successfully complete all required bridge courses with a minimum grade of (C+) before registering in the master program courses..
4. Admission into the program is competitive and considers the English competencies of applicants.

All applicants to Master of Quranic Sciences and Exegesis are required to submit the following documents to the Admission Department:

- Complete Online Admissions Application
- Final, official and certified university transcripts.
- Health Certificate
- Photocopy of the applicant's Qatar ID card (Non-Qatari applicants must provide a copy of their passport).
- Two recent identical passport-size photographs with white back ground
- Application Fees: QR350

Admission to the Master of Quranic Sciences and Exegesis is offered in the Fall Semester only. For additional information about the program, please see their website at: <http://www.qu.edu.qa/ar/sharia>

DEGREE REQUIREMENTS

Master in Quranic Sciences and Exegesis

A minimum of 33 credit hours are required to complete the Master of Quranic Sciences and Exegesis including the following:

- A minimum of 18 credit hours of Major Core Requirements
- A minimum of 9 credit hours of Major Electives
- A minimum of 6 credit hours in Thesis Requirements

For students holding a baccalaureate degree in Arabic, in Dawaa and

Mass communication, or in a related discipline other than Islamic Studies, the following additional requirement apply:

- Student must complete 12 credit hour in Bridge Course Requirements

Major Core Requirements (18 CH)

Students must complete the following courses:

- ISLA 600 Analytical
- ISLA 601 Qur'anic Sciences
- ISLA 602 Inimitability of al Qur'an
- ISLA 603 The Qur'an and Contemporary Hermeneutics
- ISLA 604 Principles of Qur'anic
- ISLA 605 Research Methodology in Qur'anic Studies

Thesis Requirements (6 CH)

Students must complete the following course:

- ISLA 690 Thesis

Major Electives (9 CH)

Students must complete 9 credit hours from the following courses:

- ISLA 606 Textual Studies in the Books of Tafseer
- ISLA 607 Qur'anic Rhetorics
- ISLA 608 Modern Trends of Qur'anic
- ISLA 609 Ranks of Qur'anic Exegetes
- ISLA 610 Science of Divine Laws in Nature
- ISLA 611 Introduction to the Objectives of al Qur'an
- ISLA 612 Scholarly Responses to Skepticisms about the Noble Qur'an

Bridge Course Requirements package (12 CH)

Students holding a bachelor degree in Arabic, in Dawaa and Mass communication, or in a related discipline other than Islamic Studies, must complete 12 credit hours in Bridge Course Requirements consisting of four courses as specified by the program admission committee at admission time.

STUDY PLAN

Master of Quranic Sciences and Exegesis

FIRST YEAR (18 Credit Hours)			
Term	Course No.	Course Title	Credit Hours
Fall	ISLA604	Principles of Qur'anic (Usul al Tafseer)	3
	ISLA605	Research Methodology in Qur'anic Studies (Usul al Bahth wa al Tahqiq fi al Dirasat al Qur'aniyah)	3
		Elective	3
Total			9
Spring	ISLA606	Textual Studies in the Books of Tafseer (Dirasat Nassiyyah fi Kutub al Tafseer)	3
	ISLA600	Analytical Advanced (Tafseer Tahlili Mutaqaddim)	3
		Elective	3
Total			9

SECOND YEAR (18 Credit Hours)			
Term	Course No.	Course Title	Credit Hours
Fall	ISLA603	The Qur'an and Contemporary Hermeneutics (Naqd al Qiraat al Mu'asarah lil Qur'an)	3
	ISLA602	Inimitability of al Qur'an (I'jaz al Qur'an)	3
	ISLA601	Qur'anic Sciences Advanced ('Ulum al Qur'an Mutaqaddim)	3
		Elective	3
Total			12
Spring	ISLA613	Thesis	6
Total			6





CHAPTER 10 COURSE LISTINGS

ACCT 501 Introduction to Accounting Credit Hours: 3

Presentation of theoretical and practical aspects of accounting information relevant to businesses. Examines basic accounting concepts, preparation and usages of financial statements (including income statement), balance sheet, statement of stockholders' equity, and statement of cash flow.

ACCT 521 Intermediate Accounting I Credit Hours: 3

This course introduces essential financial accounting concepts and standards related to corporate reporting, with special emphasis on preparation of financial statements. Areas studied include cash, receivables, inventory, investment, plant and equipment, and revenue recognition.

ACCT 522 Intermediate Accounting II Credit Hours: 3

This course provides a continuation of financial accounting concepts and standards related to corporate reporting. Areas to be studied include current and long-term liabilities, owners' equity, leases, statement of cash flow, and accounting changes and error analysis.

ACCT 523 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, the relationship between accounting information systems and other information systems within the organization, flowcharts, and computer applications and tools.

ACCT 531 Cost and Management Acct. 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 are covered.

ACCT 533 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.

ACCT 601
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 is placed on analyzing, recording, classifying, and communicating information including the preparation of financial statements.

ACCT 602
Managerial Acct for Dec Making
Credit Hours: 3

Preparation, analysis, interpretation and use of accounting information in the guidance and control of a business enterprise are discussed. The course concentrates on the decision-making process in measuring and reporting. Sophisticated approaches in budget preparation, performance evaluation, profit centers and transfer pricing are covered.

ACCT 603
International Accounting
Credit Hours: 3

This course focuses on accounting from a global perspective. The International Financial Reporting Standards are becoming the wide spread set of accounting standards adopted by several countries. Students study the impact of culture on the design of national accounting systems, national vs. international accounting standards setters, financial reporting and disclosure in the global era.

ACCT 606
Corporate Governance
Credit Hours: 3

This course considers current academic thinking about corporate governance and ownership. Topics include business structure of the firm, the role of institutional investors in the public corporation, major differences in large firm corporate governance around the world, and shareholder primacy.

ACCT 608
Commercial Law
Credit Hours: 3

This course provides a survey of important legal issues in commercial law. Emphasis is placed on the contracting process, payment for contracts (particularly through the use of negotiable instruments), and security for payments (particularly suretyship and secured transactions). The course also briefly deals with bills of lading and warehouse receipts (with emphasis on the negotiability of these documents) and letters of credit.

ACCT 611
Business Ethics & Legal Envi.
Credit Hours: 3

This course covers legal and case analysis of court systems and dispute resolution, contracts, employment, and professional obligations that influence the decision making process of managers. Discussions take place about the relationship between personal values, business conditions and the legal environment. Business law of other countries and international agreements that govern the business environment in the world are also examined.

ACCT 612
Special Studies in Accounting
Credit Hours: 3

This includes directed study and research on selected accounting topics, including the development of accounting thought and research in international accounting, professional ethics and managerial and financial accounting.

ACCT 613
Accounting Research Methods
Credit Hours: 3

This course introduces research methods used in accounting. It is intended to help Master's students to scientifically approach accounting related problems through a clear structure of ideas, using scientific methods to collect and analyze data. This is a "hands-on" course, covering topics such as developing the research idea, theory and hypothesis development, survey research, experimental research, case studies research, archival research, and tips on how to write the research report.

ACCT 623
Adv.Cost-Managerial Accounting
Credit Hours: 3

This course offers a study of contemporary developments and cover topics in the area of cost and managerial accounting. Topics include a discussion of quantitative techniques and their applicability to accounting problems.

ACCT 633
Gov. & Non-profit Accounting
Credit Hours: 3

A study of the objectives and standards underlying accounting and auditing practices in non-profit organizations, including governmental entities, colleges and universities, hospitals, and other non-profit organizations. Topical coverage includes the system of fund accounting, financial report preparation and analysis, and related audit and ethical considerations.

ACCT 643
Fraud Detection and Prevention
Credit Hours: 3

This course offers in-depth study of how and why fraud is committed, how fraudulent conduct can be deterred, and how allegations of fraud should be investigated and resolved.

ACCT 653
Adv. Acct. Information Systems
Credit Hours: 3

A Survey of advanced accounting information systems technologies used to enhance business process operations and management of risks and controls. Topics relevant to information technology as it pertains to the accounting profession and the changing nature of accounting information systems are examined.

ACCT 663
Business Info. Consulting
Credit Hours: 3

This is the capstone course for the Master of Accounting program. The student will experience an integrative course that is intended to address the knowledge base needed by accounting professionals in serving as consultants. Principles and concepts are applied through the analysis and presentation of case studies dealing with current issues or emerging trends in the fields of accounting.

ARAB 500
Theo. & Res. Method. Ling.
Credit Hours: 3

The aim of this course is to enable students to master the principles of research in linguistics. The main focus will be on the knowhow of dealing with cognitive problems and issues that occupy the science of language. The course will further address and define the methods of linguistics theory. Students will be expected to study a selection of reputable research and take part in presentations and discussions that will articulate their research and debating skills. The learning environment of the class will be student-oriented, utilizing a variety of assessment tools, such as: papers, presentations, research projects and assignments.

ARAB 501
Theo. & Res. Methodologies
Credit Hours: 3

The aims of this course is to provide students with the theoretical tools necessary in grasping theories emerging from the Arts and Social Sciences and utilizing them in research, analytical studies and debates. This course will distinguish between scientific provisions and criticisms. Students will gain knowledge through scientific theory, principles and their procedures in the humanities, especially with how they relate in terms of philosophy and scientific reason. The learning environment of the class will be student-oriented, utilizing a variety of assessment tools, such as: papers, presentations, research projects and assignments.

ARAB 502
Seminar in Linguistics
Credit Hours: 3

This seminar aims to equip students with necessary research skills in the Arabic language, dealing with concepts and approaches of linguistics and language development. It aims to teach students the mechanisms of interpreting linguistic research in the context of different language curriculum with applied studies. Students will be assessed through the following tools: papers, presentations, research projects and assignments.

ARAB 503
Seminar in Lit.&Literary Crit.
Credit Hours: 3

This seminar aims to equip students with extensive research skills in methodology and critique in the study of Arabic literature as manifested in a variety of literary works. Students will be actively taking part in a multitude of workshops and open discussions analyzing the different perspectives and mechanisms used in Arabic literature (i.e. stories, novels, drama, etc.). Students will be assessed through the following tools: papers, presentations, research projects and assignments.

ARAB 504
Seminar in Comp.Cult. Stud.
Credit Hours: 3

This seminar aims to equip students with the research skills necessary for comparative studies, specifically those related to Arabic literature as to foreign language literature. Students will focus on literary subjects that are widely debatable in the Arts realm through ongoing applied workshops.

ARAB 505
Linguistic Thought Among Arabs
Credit Hours: 3

This course prepare students to identify the efforts of advent Arab linguists with their foundation work on contemporary linguistics studies. It introduces and links between the old and new linguistic studies through introducing students with the methodological foundations originating from early research on acoustics, morphology and lexicon. Topics to be covered in the course include: Historical and Cultural framework on the origin of linguistics research to the Arabs.; Arab Scholars' description of Arab vocals; Exploring ways to study issues and structure of the Arabic word; Grammatical research methodologies used by Arab linguist; Significance of lexical and research methods; and Evaluating language research methods of the Arabs. Students registering in this course will be assessed through the following tools: papers, presentations, research projects and assignments.

ARAB 506
Critical&Rhet.Thou.Among Arab.
Credit Hours: 3

This course aims to make student delve deeper into critical and rhetorical thought that has been developed in past Arab literature. For this reason, study will be in the form of applied research studying concepts of rhetorical theories developed by Arab veterans with a focus on simulation, concepts of pronunciation, and literary functions. Furthermore students will be expected to study the theoretical relationship between the past Arab literature and the theories presented by Aristotle in his books concerning the art of poetry and rhetoric. Students will thus be able to distinguish between acculturation and intentional conscious that took place between Arab and Greek culture. Students will be assessed through the following tools: papers, presentations, research projects and assignments.

ARAB 507**Phonetics****Credit Hours: 3**

This course aims to deepen students' understanding of the physiological properties of sound and principles of phonology as applied to the Arabic language and spoken dialects. Students will compare spoken acoustic phenomena and deterministic over the Arab voice as to other languages. It also deals with the decision to test several theories of phonology through applied field research and laboratory data collection and audio from multiple sources, with a focus on Optimality Phonology. This course will provide students to take part in field research and laboratory data collection and audio from multiple sources. Students will be subject to the latest means of testing and analysis in both a self-learning and collaborative environment. A variety of assessment tools will be used to assess students, including: research papers, and projects.

ARAB 508**Contemporary Literary Theory****Credit Hours: 3**

This course seeks to guide student researchers at the Masters level to review various developments in the field of critical studies of modern and contemporary literature. This course will further introduce students to different theories such as: theory of reading and receiving, the theoretical structural and post-structuralism (the death of the author), the theoretical semiotics and stylistics theory, Freudian theory, the theory of reflection, the theory of displacement and feminist theory in literary criticism. Students will gain the ability to represent theories and analyze the literary discourse, and identify the leading figures in critical theory on, such as: Roland Barthes, Bakhtin, Lucien Goldman and Edward Said. A variety of assessment tools will be used to assess students, including: research papers, and projects.

ARAB 509**Linguistic and Lexical Terms****Credit Hours: 3**

This course aims to deepen students' understanding on theories in the development of modern lexicon, and their applications in lexicography Arabic. There will also be a focus on the insight of Arabic language academies in Cairo and Damascus, Baghdad and Amman in the work and development of educational, historical scientific and contemporary dictionaries, and the drafting of great lexicon, and the lexicon of history, and dictionaries. In addition students will be introduced to the efforts of the Office of Arabization in Rabat, connecting them to theoretical and analytical studies to systematically address the achievements lexical modern Arabic. The course will offer a learning environment that allows students to develop research skills, and therefore instructors will use the following assessment tools: research paper, offers research and projects, and some assignments.

ARAB 510**Syntax****Credit Hours: 3**

The aim of this course is to enable students to master the conventional system of works by studying their rules in forming grammatical sen-

tences in linguistics. Students will also study the patterns of formation of sentences and phrases found in the Arabic language. The course will focus on the principles of structural analysis and application of the Arabic language and dialects spoken while also comparing it to other languages such as English, French, Chinese and Russian. The course will allow students to collect linguistic data from multiple sources for the purpose of analysis. The course will offer a learning environment that allows students to develop research skills, and therefore instructors will use the following assessment tools: research paper, offers research and projects, and some assignments.

ARAB 511**Issues of Arab Poetry****Credit Hours: 3**

The aim of this course is for students to master the most important technical issues in classical and modern Arabic poetry through the study of historical and social contexts. The course will focus on the issues that represent distinctive achievements and that brought about an increase in awareness and understanding of Arabic poetry. Furthermore, the course will discuss the manifestation of Arabic poetry in Arab culture and its linkages to popular world culture. Some of the topics that will be discussed include: Awareness and structure of the Arabic poem; Reality or artificiality in the creation of a poem; Manifestation of modernity in Arabic poetry; The structures of meaning and functions of text; Poetry and Islam; Prose; Components of Arabic speed in poetry; and Poetic exchange between Arabic and western criticism. A variety of assessment tools will be used to assess students, including: research papers, and projects.

ARAB 512**Metaphorical Theory****Credit Hours: 3**

This course aims to introduce students to extensive metaphorical theories and how they differ in Arabic and Western poetry. From this perspective, the course will focus on metaphorical theories such as; theory of knowledge, replacement theory and contextual theory. Furthermore, the course will delve into metaphorical approaches such as; Gestalt's approach, Anthropological approach, philosophical approach, grammatical approach, while concentrating on psychological metaphorical approaches and the importance in analyzing Arabic poetry and criticism. A variety of assessment tools will be used to assess students, including: research papers, presentations, projects and assignments.

ARAB 513**Literary Discourse****Credit Hours: 3**

This course aims to provide students with the skill necessary to analyze cultural texts in order to identify discourses through a scientific method. The course will address several procedural issues related to the art of composition from manuscripts collections while applying elements of investigative procedures. A variety of assessment tools will be used to assess students, including: research papers, presentations, projects and assignments.

ARAB 514**The Hist.of Literary Criticism****Credit Hours: 3**

This course aims to equip graduate students with the background on the history of Arab and Western literary criticism, including their various schools of thought. The course will enable students to become familiar with the different stages of literary criticism, ranging from Aristotle, the role Arabic literary criticism and its contribution to 19th century and up to modern American literary criticism. A variety of assessment tools will be used to assess students, including: research papers, presentations, projects and assignments.

ARAB 515**Philosophy & Critical Thinking****Credit Hours: 3**

This course aims to introduce graduate students to different methods of philosophical critic through critical thought. This course is intended for students who will follow the 'Literacy Criticism' concentration of the MA in Arabic program, since it will equip them with cultural contexts and knowledge on the roots of philosophical theories. The objective of the course is to raise understanding through analyzing philosophical and intellectual problems that arise from critical criticism. A variety of assessment tools will be used to assess students, including: research papers, presentations, projects and assignments.

ARAB 516**Post-Colonial Literature****Credit Hours: 3**

This course aims to introduce students with insight on post-colonial cultural theory, which is considered one of the main components of the 'Post theories' that include, post structuralism and post modernism. 'Post theories' that have dominated the cultural scene in terms of literary criticism in Cultural Studies have been considered to be very much part of the post-colonial literature of the 80's and 90's, studying the literature written by Edward Said and Frantz Fanon. The course will also address literary texts that discuss concepts of post-colonial literature in the Arab world through analyzing the literary work of; Mohammad Deeb, Taher Bin Jalloun, Assia Jaban, Yousif Idris, Tayb Saleh and Yehia Al Tahir Abdallah. A variety of assessment tools will be used to assess students,

ARAB 517**Lite. & Theo.of Cont. Psyc.****Credit Hours: 3**

This course aims to make students delve deeper into the study of literature based on achievements in psychology and its influence on the analysis of literary discourse. The course will particularly focus on the decisions of Sigmund Freud, Alfred Adler, Carl Gustav Jung, Mircea Eliade, Gaston Bachelard and Gilbert, particularly their work concerning the structure of language and structure of the human imaginary (imaginary) and archetypes. The course will also focus on the achievements and applied studies done by Arab scholars and critics, such as; Taha Hussein, and Azzedine Ismail and Yusuf Sami Alyousuf. Student will thus

be able to realize the failure and limitations of prominent psychological literary figures through a thorough study of their essays. A variety of assessment tools will be used to assess students, including: research papers, presentations, projects and assignments.

ARAB 518**Social Linguistics****Credit Hours: 3**

This course aims to address the relationship between language and the social environment in which they interact with all aspects of economic, political, religious and historical significance. The course focuses on bilingualism in the Arab world and the issue of localization and the problem of language planning especially in the fields of education and economic development and the relationship between Arabic and other languages, tradition and modernity and development, and globalization. Also this course will address the particularities of language in the Arab world and compares the linguistic status in other states. Students will practice the principles of research and methods in this field through collecting field data, and analysis. A variety of assessment tools will be used to assess students, including: research papers, presentations, projects and assignments.

ARAB 519**The Arab Language in the World****Credit Hours: 3**

This course deals with the Arabic language and its impact outside the borders of the Arab world, through exploring its history and phases of the its spread outside the Arabian Peninsula into Asia, Africa and Europe. The course will also focus on the factors that aided the spread of the Arabic language in particular religious, cultural and scientific. Furthermore, an in-depth examination of Arabic's different stages and multiple levels of acoustic and morphological and lexical, and at the level of the letters in alphabetical order: such as language Farsi, Turkish, Swahili, Berber, Spanish, German, French, English and many other languages in Asia and sub-Saharan Africa, and the effect that impact of these languages in the Arabic language. The course will also expose students to the problem of globalization and its repercussions on the Arabic language. A variety of assessment tools will be used to assess students, including: research papers, presentations, projects and assignments.

ARAB 520**The Study of Arabic Dialects****Credit Hours: 3**

This course is intended to introduce students to the multiple Arabic dialects, as it is an important component of the study of linguistics. The course will aim to introduce students with the principles of linguistics, comparative and processed to the similarities the difference between the different Arabic dialects used in the Arab world and some countries Africa and Asian. The main focus will be on the development of dialects and conditions of their formation and evolution, referring to the characteristics of acoustic and morphological, structural and lexical and its interaction with the classical Arabic language. It will also address the

different theories of Arabic Linguists and how they were influenced by the heritage of Arabic dialects and the readings and their relevance to other dialects. Students will have the opportunity to test these theories through practical applications.

ARAB 521
Text Analysis and Discourses
Credit Hours: 3

This course aims to introduce the concept of discourses in different texts, and the relationship between them through an in?depth study of text and linguistics. The course will also deal with the concept of analysis and deconstruction, the theory of grammatical patterns and consistency, and the theory of grammatical text spaces grammatical, and the impact of context in implicit text, approaches to linguistics. It also addresses the A variety of assessment tools will be used to assess students, including: research papers, presentations, projects and assignments.

ARAB 522
Narrative of Mode. Arab. Lite.
Credit Hours: 3

This course aims to familiarize students with modern Arabic narrative through research, analysis and critical thinking. The course will focus on 20th century modern Arabic narrative along with structuralism and post structuralism in the West. An in?depth analysis on narrative texts, and accurate classification of the components of narrative texts, in order to raise awareness of the societal contrasts apparent in Arab culture in contexts of the narrative texts of Arabic. A variety of assessment tools will be used to assess students, including: research papers, presentations, projects and assignments.

ARAB 523
Literature of the Arab Gulf
Credit Hours: 3

This course aims to enable students with the knowledge of literary works originating in the Arab Gulf, and to what extent it has been influenced by Gulf culture and regional issues. Students will study the characteristics of contemporary literature in the Gulf and the concept of identity in Arab Gulf literary context. Furthermore, Gulf literature will be analyzed through its relationship with Arab and Western literature. A variety of assessment tools will be used to assess students, including: research papers, presentations, projects and assignments.

ARAB 524
Practical Applications
Credit Hours: 3

This course aims to equip students with methods of scientific and ethical research in preparation of a Master's degree. The course will include activities centered on how to select a topic, scope, and method of data collection. Students will be familiarized with different types of research and techniques of research writing, presentation and dissemination. It also will give students the opportunity to present their research projects to their classmates, to benefit from their peers' experience.

ARAB 525
Cultural Criticism
Credit Hours: 3

This course will provide graduate students enrolled in either the Comparative Cultural Studies or Literary Criticism concentrations with knowledge on the rhetorical dimensions and contextual review that are implicit to cultural patterns and cultural discourses of Arabic Literature. A variety of assessment tools will be used to assess students, including: research papers, presentations, projects and assignments.

ARAB 526
Post Modernism
Credit Hours: 3

This course is intended to transmit to students the stages of postmodern critical thought in three stages: (1) The terminological and historical referencing to post?modernism theory. Students will research the background of political and social culture that emitted from European literature and its manifestation in contemporary philosophical Arab literature; (2) Study the relationship between the cognitive thought and philosophy of postmodern theory; (3) Study the relationship between the theory and principles of postmodern literary criticism. A variety of assessment tools will be used to assess students, including: research papers, presentations, projects and assignments.

ARAB 527
Global Literary Comparison
Credit Hours: 3

This course examines the theoretical and practical efforts that deal with literary creativity, in Muslim communities with different languages, including in Arab, Persian, Indian, French and English. A variety of assessment tools will be used to assess students, including: research papers, presentations, projects and assignments.

ARAB 528
Comparative Literature
Credit Hours: 3

This course gives students the opportunity to observe the acculturation taking place between Arabic literature and classical and modern literature, especially in regards to the use of religious symbols and historical figures, symbols, mythical and the way all the literature in employing them. A variety of assessment tools will be used to assess students, including: research papers, presentations, projects and assignments.

ARAB 548
Thesis I
Credit Hours: 3

ARAB 549
Thesis II
Credit Hours: 3

Prerequisite
ARAB 548

BIOL 501
Earth Systems
Credit Hours: 3

The core course provides a basic foundation of understanding of the processes in environmental systems that link biogenic and abiogenic components. Topics covered include the complex couplings and feedback mechanisms linking the geosphere, biosphere, hydrosphere, and atmosphere, and the cycling of components (including nutrients) from microbial systems to "higher-order" systems, including human. In this regard, the dependence of Earth Systems on the different kingdoms of life, especially microbial and photosynthetic systems, emphasizing for example "atypical communities" found in thermal deep-oceansea vents, is an especially important concept for the students to garner from the course. Of particular emphasis is the cycling of C, N, P, and S through natural and man-made systems with relevance to freshwater and marine aquatic environments and of especial relevance to environmental processes. The course focuses intensively on the basic principles of complex systems, through theoretical and practical considerations, as well as consideration of those case studies which illustrate them. The review and discussion of these topics, in addition to: energy resources and the environment; natural hazards: prediction and risk: society, the environment and public policy; steps from environmental science to effective policy; agriculture and global change provides the necessary basic understanding that the students carry with them through the curriculum.

BIOL 502
Geog. Info. Syst (GIS) & Data.
Credit Hours: 3

Through this course, students gain an advanced knowledge of information systems and how they are linked (with particular reference to the ministries of Qatar), computer science, and the analytical tools and approaches used in GIS. Students are taught how to implement the knowledge, tools and techniques of database management, application development, and analytical assessment, to address geographic information requirements, issues of importance to the environment, and to answer questions with a spatial/global perspective. Resources for this course include the Environmental Studies Center of Qatar University, where GIS is used effectively in a range of environmental issues, as well as ongoing research in the Department of Geography.

BIOL 503
Expe. Design & Stat. Analysis
Credit Hours: 3

To have a successful career in environmental science, it is essential for graduates to acquire an understanding of the principles of experimental design and statistics, including the ability to both obtain a critical appraisal of current knowledge, as well as develop a statistically valid framework and design for research. The primary purpose of this course is to provide a firm basis in experimental design, as well as an understanding of the reasoning of statistics, which allows students to design, complete, and critique their own research. The course gives students the opportunity to apply these principles through analysis of data, and allows them to review critically, literature of relevance to their area of

research. Students study these concepts in a practical sense through analysis of data from case studies.

BIOL 504
Environmental Chemistry
Credit Hours: 3

This course covers current analytical techniques, and the scientific background and skills needed for research in environmental chemistry. Topic areas include the development of advanced technologies and materials for air and water purification and for the saving and storage of energy, water and air pollution control, soil and sediment remediation, environmental technology, chemical limnology, and groundwater chemistry. Students design mass and energy flows and quantify matter transformations, in particular those of pollutants; analyze scientific literature; describe and evaluate the role of compounds and processes in soil, water and air at the molecular-mechanistic level; identify effects and toxicity of pollutants on living organisms; and evaluate methods for studying of eco-toxicology and risk assessment.

BIOL 505
Graduate Seminar in Envi Sc.
Credit Hours: 1

The graduate seminar is graded P/F and is compulsory for all students in the M.Sc. program. The seminar is presented once per week, and is designed so that during the progress of the semester, different speakers present information on a range of topics, which provides a comprehensive survey of Environmental Science. Grading is based upon attendance, short on-line quizzes and preparedness. The important feature of the seminar is that it not only provides a critical appraisal of salient environmental issues, it also serves to help students make informed choices when they select elective courses. For example, students may select an elective based upon interest generated in a talk in the seminar. Also, by declining to take some electives, students should not compromise their holistic appreciation of environmental issues, since they are exposed to a spectrum of topics in the seminar. All reading materials, case studies, and instructional content are available online. Students read the material for each topic, and take a self-paced quiz to test their comprehension of the material before the presentation in which the material is discussed. In-depth debate of the seminar topic and materials is encouraged. The responsibility for organizing the seminar is on a rotating basis within the faculty of DBES.

BIOL 506
Micr. Proc. in Envi Syst.
Credit Hours: 3

This course focuses on microbiological processes that may be applied to a broad range of environmental concerns. Wastewater Characteristics, Chemical and Biochemical Oxygen Demand, Kinetics of Suspended Growth Biological Processes, Kinetics of Attached Growth Biological Processes, Nitrification, Denitrification, Biotransformation of Hazardous Compounds are some of the topics covered in this course.

BIOL 507
Regu. the Envi.&Qtr Publ. Poli
Credit Hours: 3

The Qatar National Vision 2030 (QNV 2030), launched in October 2008 by His Highness Sheikh Tamim bin Hamad Al Thani, Heir Apparent, defines long- term development outcomes for Qatar, and provides a framework within which national development strategies and implementation plans can be prepared. QNV2030 is taken as the basis for this course, upon which the regulatory framework of the State of Qatar is based. In large part, the consideration of the latter, and relevant laws, is considered from the content of Decree of Law No. (30) in the year 2002: Issuance Law of Environment Protection. This includes due consideration of the law and regulations that pertains to topics such as: conservation of petroleum resources, agricultural quarantine, exploitation and protection of live sea resources, animal's health, public and private real estates, organization of excavation of groundwater wells.

BIOL 508
Reg. ,the Envi. & qtr pub. pol
Credit Hours: 3

The Qatar National Vision 2030 (QNV 2030), launched in October 2008 by His Highness Sheikh Tamim bin Hamad Al Thani, Heir Apparent, defines long-term development outcomes for Qatar, and provides a framework within which national development strategies and implementation plans can be prepared. QNV2030 is taken as the basis for this course upon which the regulatory framework of the State of Qatar is based. In large part the consideration of the latter, and relevant laws, is considered from the content of Decree of Law No. (30) in the year 2002: Issuance Law of Environment Protection. This includes due consideration of the law and regulations that pertains to topics such as: conservation of petroleum resources, agricultural quarantine, exploitation and protection of live sea resources, animal's health public and private real estates, organization of excavation of groundwater wells.

BIOL 509
Grad. Seminar in Envi. Scie.
Credit Hours: 3

The graduate seminar is graded P/F and is compulsory for all students in the M.Sc. program. The seminar is presented once per week, and is designed so that during the progress of the semester, different speakers present information on a range of topics, which provides a comprehensive survey of Environmental Science. Grading is based upon attendance, short on-line quizzes, and preparedness. The important feature of the seminar is that it not only provides a critical appraisal of salient environmental issues, it also serves to help students make informed choices when they select elective courses. For example, students may select an elective based upon interest generated in a talk in the seminar. Also, by declining to take some electives, students should not compromise their holistic appreciation of environmental issues, since they are exposed to a spectrum of topics in the seminar. All reading materials, case studies, and instructional content are available online. Students read the material for each topic, and take a self-paced quiz to test their comprehension of the material before the presentation in which the material is discussed. In-depth debate of the seminar

topic and materials is encouraged. The responsibility for organizing the seminar is on a rotating basis within the faculty of DBES.

BIOL 510
Internship-Technical Report
Credit Hours: 3

This internship course should be conducted in industry, governmental or a non-governmental organization (NGO). It refers to a research project that the student undertakes to generate results. Upon conclusion of the project, the student shall prepare, present and defend a final report on the project.

BIOL 511
Environmental Health & Safety
Credit Hours: 3

The course gives a comprehensive overview of modern health and safety practices in a wide range of work environments. A major objective of the course is to consider the legislative and practical basis that underpins practices in the work environment and to allow students to examine critically workplace conditions and risk management policies. As in other courses of the program, special emphasis is placed upon ISO certification guidelines, as well as case histories and relevant examples in Qatar; this is particularly relevant for those students who complete an internship.

BIOL 512
Environmental Bioethics
Credit Hours: 3

The approach taken in this course is from a philosophical perspective. Current literature, debate and discussion is used extensively in this course to focus on many issues in the bioethics of the environment, such as the theory of general ethics, human relationships, nature, the built environment, global change, ecological risks associated with bio-engineered crops and livestock, reproductive health and the environment, infectious disease, environmental change, and effects on national security and development, environmental concerns, moral and political reasoning in environmental practice. Students are encouraged to consider the question: How can one implement philosophy to achieve progress in solving environmental problems?

BIOL 513
Epidemiology
Credit Hours: 3

The objective of this course is to develop a comprehensive understanding of basic concepts and methods in contemporary epidemiology. The essential part of the course deals with methodology and basic concepts, including the methods used to measure disease occurrence and association; design of epidemiological studies; the role of bias and confounding; working with data, statistical analysis of data-sets and application of these by computer; epidemiological theory and practice. The course focuses on communicable and non-communicable diseases in developed and developing countries. The use of statistical software is an important skill for the epidemiologist and students complete a number of exercises with available computer programs.

BIOL 514
Inte. Environmental Law
Credit Hours: 3

Students are introduced to international environmental law by considering the events that can lead to environmental protection. An emphasis is on international legal issues. The role of the United Nations in international law is also considered. An important aspect of the course is the use of case studies (oil spills, biohazards, deforestation, etc.). Other topics considered include the use of nuclear energy, laws for the protection of the environment, conservation and consequences of war and armed conflict.

BIOL 515
Air Pollution
Credit Hours: 3

The course considers the basic science of the atmosphere, both its physics and its chemistry, and how this is applied to understanding air pollution and its dispersal. Of fundamental importance in the course is, understanding the consequences of air pollution for living systems; including life in aquatic environments, as well as the effects of air pollution on human and animal physiology. The course explains the causes and the effects of air pollution, its management at the local (Doha), national (Qatar) and international levels, and those controls that are used to reduce emissions from industry and transport.

BIOL 516
Envl. Impact Asse.& Bior.
Credit Hours: 3

The course considers the processes and procedures required to perform an Environmental Impact Assessment (EIA) or Strategic Environmental Assessment (SEA), and provides a practical introduction to students regarding the methods available for assessing, predicting and mitigating a wide range of ecological and socio-economic environmental issues. The course emphasizes fieldwork in Qatar and case studies. Important features of the course include the consideration of the International Organization for Standardization's Environmental Management System standard, ISO 14001, as well as the pursuit of employment with environmental consultancies, government agencies and a wide range of other public and private organizations to further develop skills in the areas of Environmental Impact Assessment, Strategic Environmental Assessment and Sustainability Appraisal. Topics that are considered include: the principles of sustainability, national and international policy, approaches to valuing the environment, attitudes to conservation, and the role of the public in environmental decision making; key aspects of sampling techniques with the goal of acquiring representative samples of air, soil and water for environmental monitoring. Students learn the key analytical techniques that are available, develop the practical skills in the monitoring of environmental pollution, and study the practical methods and their implementation for the analysis of air, soil and water quality. Practical experience is gained in: Sampling techniques; analytical techniques for environmental monitoring; practical experiments and case studies of relevance to Qatar; emphasis on knowledge already acquired in foundation courses on statistical methods, data handling and retrieval; site visits to ministries and corporations in Qatar, as well as

local sites such as Abu Nakhla; report compositions for potential clients.

BIOL 517
Envr. Biosafety % Biosecurity
Credit Hours: 3

The course focuses on key aspects of biosafety and biosecurity, including the biological risk factors affecting the environment and biodiversity, and the strategies available for improving biosafety and biosecurity. Principal topics covered include the different types of biological risk factors associated with the environment; how to enhance knowledge and to understand biological safety issues in the environment; and risk assessment. Students study the best practices for studying biosafety and biosecurity issues; how to influence and support emerging legislation and standards in the areas of biological safety, biosecurity, biotechnology, transport and associated activities. The course covers topics as diverse as the storage of nuclear waste and nuclear weapons, food security, and biological weapons.

BIOL 518
Water & Human Development
Credit Hours: 3

On completion of this course, students are expected to be able to: 1) Explain the principles, concepts and methods pertaining to national and international water and environmental laws, and common and needed institutional management practices. 2) Pursue - either independently or in a multidisciplinary team - relevant research in the area of water quality management, including the design of research questions, hypotheses and experimental approaches, selection and application of appropriate research methods and techniques, and summation of sound conclusions and recommendations. 3) Identify the consequences (relating to water resources) of human activities as well as available options for remediation, under different levels of environmental perturbation and in different socio-economic contexts.4) Successfully design and optimize water quality monitoring and assessment schemes in the watershed, and interpret the consequences, for example, by using statistical and modeling tools acquired through different courses of the program. Examples are drawn from around the world.

BIOL 520
Envi. Toxicology & Pollution
Credit Hours: 3

The course provides advanced training in environmental toxicology, monitoring techniques. The course should be taken with courses on international law and environmental legislation in Qatar. The course aims to fulfill the demand for trained personnel in the environmental regulatory agencies in Qatar, in companies subject to such regulation, and those involved in providing support services such as monitoring and consultancy with regard to environmental matters. Topics covered in the course include: mechanisms of toxicity in humans, the setting environmental quality standards, the fate of contaminants in water, air and desert soils, toxicity contaminants in the environment, and legislative controls on contaminants.

BIOL 521
Mari. Envi. & Human Deve
Credit Hours: 3

The course focuses on key aspects of the interface between human development and environmental sustainability of the marine environment, including the influence of economic growth, social development and environmental management; sustainable use and access to water; management and conservation of the marine environment; and the influence of climate change on human development. The major environmental challenges that Qatar faces and that need to be resolved effectively are considered, particularly achieving water security, reducing carbon emissions, increasing energy efficiency, and reducing risks that threaten the safety of the marine environment. Cross-reference to other courses dealing with regulatory and policy issues is emphasized.

BIOL 522
Rene.Energy Reso.&Global Chan.
Credit Hours: 3

The course focuses on worldwide concerns about climate change, renewable energy supply, the carbon economy, sustainable management of water and solid resources, and hydrogen and biofuels for the future. Students study the generation and provision of renewable energy, hydrogen, water, wastewater treatment and solid wastes management, solar energy, wind power, bioconversion of biomass and pollutants, valorization of environmental resources, production of bioenergy, and the different generations of biofuels. Emphasis is also placed on regulation, policy and legislation, such as the Kyoto protocol, and special needs and problems such as those of the aviation industry and the effects of global warming on human activities.

BIOL 523
Biol. Cons.& Biod. in Qatar
Credit Hours: 3

Conservation and the study of biological diversity are key aspects of the 2030 sustainability vision for Qatar; a theme that is considered in many courses of the M.Sc. program. This course on biological conservation in Qatar examines the principles of human interactions with the environment. We take advantage of Qatar University being situated in Qatar's capital city, Doha, and promote contributions from leading experts from a range of government ministries, research and not-for-profit organizations located here. The world's human population exerts a profound influence on the environment, its flora, fauna, and their habitats, no more so than here in the Gulf. This is reflected in a decrease in those areas unexploited by man and industry. Furthermore, social and governmental pressures promote use of land for agriculture, ecotourism, sports, meat production and conservation. These diverse requirements can only be managed through an appreciation of population biology, habitat and species management, fisheries, genetics and landscape ecology. A solid understanding of the theoretical side of an issue must be coupled with equally important practical considerations. Future conservation managers in Qatar have a critical role to play in the country.

BIOL 524
Envi. Geno & Bio-Eng
Credit Hours: 3

It is becoming clear, from the application of the techniques of metagenomics, that biological diversity on Earth is vast and far greater than previously anticipated. Environmental Genomics and Engineering consider the use and improvement of engineering methods and skills that are needed to understand genomic complexity in different environments, including extreme ones; how to exploit such genomic complexity for human benefit; the contents of the genomes of all living systems existing in the environment, as well as their continuous plasticity driven by environmental stresses. The elucidation of many genomes and particularly those existing in particular environments is widely believed to be the basis for one of the most important expansions of human knowledge and activity in the 21st century. All such expansions require engineering activity, genomic engineering and capacity building. Further topics include: Functional genomics is the major approach to understanding how genomes of organisms influence their activities, depending on the environmental conditions. Proteomics and metabolomics study the functions of proteins and metabolites, and this information, in turn, shows how and why the function and morphology of cells come to be.

BIOL 525
Solid Waste Management
Credit Hours: 3

This course deals with solid waste handling worldwide, and specifically in the Gulf region, through lectures, case studies, assignments and field visits. The course covers the different types of waste with a primary focus on treatment and disposal techniques and the underlying principles of management options, environmental impact, and problems associated with activities such as open dumping, landfill, composting, incineration, and non-incineration thermal techniques. Specific topics include problems associated with household hazardous wastes, demolition waste, domestic waste, sewage sludge and municipal waste, agricultural waste, and construction site waste. Students are taught how to evaluate ground water pollution and options for protection at disposal sites; susceptibility of aquifers to contamination; computer modeling of how pollutants reach groundwater; designs of ground water protection systems at hazardous waste disposal sites and facilities; biological warfare.

BIOL 530
Graduate Research and Thesis
Credit Hours: 6

This course requires student to undertake research to generate results sufficient to warrant the production and defense of a formal thesis. The intensive research necessary for the research thesis will normally be completed over two semesters.

BIOL 540
Environmental Bioethics
Credit Hours: 3

The approach taken in this course is from a philosophical perspective. Current literature, debate and discussion is used extensively in this

course to focus on many issues in the bioethics of the environment such as the theory of general ethics, human relationships, nature, the built environment, global change, ecological risks associated with bio-engineered crops and livestock, reproductive health and the environment, infectious disease, environmental change, and effects on national security and development, environmental concerns, moral and political reasoning in environmental practice. Students are encouraged to consider the question: How can one implement philosophy to achieve progress in solving environmental problems?

BIOL 541
International Env. Law
Credit Hours: 3

Students are introduced to international environmental law by considering the events that can lead to environmental protection. An emphasis is on international legal issues. The role of the United Nations in international law is also considered. An important aspect of the course is the use of case studies (oil spills, biohazards, deforestation etc.). Other topics considered include the use of nuclear energy, laws for the protection of the environment, conservation and consequences of war and armed conflict.

BIOL 542
Env. Impact Asse. & Bior.
Credit Hours: 3

The course considers the processes and procedures required to perform an Environmental Impact Assessment (EIA) or Strategic Environmental Assessment (SEA), and provides a practical introduction to students regarding the methods available for assessing, predicting and mitigating a wide range of ecological and socio-economic environmental issues. The course emphasizes fieldwork in Qatar and case studies. Important features of the course include the consideration of the International Organization for Standardization's Environmental Management System standard, ISO 14001, as well as the pursuit of employment with environmental consultancies, government agencies and a wide range of other public and private organizations to further develop skills in the areas of Environmental Impact Assessment, Strategic Environmental Assessment and Sustainability Appraisal. Topics that are considered include: the principles of sustainability, international and national policy, approaches to valuing the environment, attitudes to conservation, and the role of the public in environmental decision making; key aspects of sampling techniques with the goal of acquiring representative samples of air, soil and water for environmental monitoring. Students learn the key analytical techniques that are available, develop the practical skills in the monitoring of environmental pollution, and study the practical methods and their implementation for the analysis of air, soil and water quality. Practical experience is gained in: Sampling techniques; analytical techniques for environmental monitoring; practical experiments and case studies of relevance to Qatar; emphasis on knowledge already acquired in foundation courses on statistical methods, data handling and retrieval; site visits to ministries and corporations in Qatar, as well as local sites such as Abu Nakhla; report compositions for potential clients.

BIOL 543
Water and Human Development
Credit Hours: 3

At the completion of this course, students are expected to be able to: 1) Explain the principles, concepts and methods pertaining to national and international water and environmental laws, and common and needed institutional management practices. 2) Pursue - either independently or in a multidisciplinary team - relevant research in the area of water quality management, including the design of research questions, hypotheses and experimental approaches, selection and application of appropriate research methods and techniques, and summation of sound conclusions and recommendations. 3) Identify the consequences (relating to water resources) of human activities as well as available options for remediation, under different levels of environmental perturbation and in different socio-economic contexts. 4) Successfully design and optimize water quality monitoring and assessment schemes in the watershed, and interpret the consequences, for example, by using statistical and modeling tools acquired through different courses of the program. Examples are drawn from around the world.

BIOL 544
Env. Toxicology and Pollution
Credit Hours: 3

The course provides advanced training in environmental toxicology, monitoring techniques. The course should be taken with courses on international law and environmental legislation in Qatar. The course aims to fulfill the demand for trained personnel in the environmental regulatory agencies in Qatar, in companies subject to such regulation, and those involved in providing support services such as monitoring and consultancy with regard to environmental matters. Topics covered in the course include: mechanisms of toxicity in humans, the setting environmental quality standards, the fate of contaminants in water, air and desert soils, toxicity contaminants in the environment, legislative controls on contaminants.

BIOL 560
Mar. Env. & Hum. Dev
Credit Hours: 3

The course focuses on key aspects of the interface between human development and environmental sustainability of the marine environment, including the influence of economic growth, social development and environmental management; sustainable use and access to water; management and conservation of the marine environment; and the influence of climate change on human development. The major environmental challenges that Qatar faces and that need to be resolved effectively are considered, particularly achieving water security, reducing carbon emissions, increasing energy efficiency, and reducing risks that threaten the safety of the marine environment. Cross-reference to other courses dealing with regulatory and policy issues is emphasized.

BIOL 561
Rene. Energy Reso.& Glob.Chan.
Credit Hours: 3

The course focuses on worldwide concerns about climate change, re-

newable energy supply, the carbon economy, sustainable management of water and solid resources, and hydrogen and biofuels for the future. Students study the generation and provision of renewable energy, hydrogen, water, wastewater treatment and solid wastes management, solar energy, wind power, bioconversion of biomass and pollutants, valorization of environmental resources, production of bioenergy, and the different generations of biofuels. Emphasis is also placed on regulation, policy and legislation, such as the Kyoto protocol, and special needs and problems such as those of the aviation industry and the effects of global warming on human activities.

BIOL 562
Biological Cons.& Biod. in Qtr
Credit Hours: 3

Conservation and the study of biological diversity are key aspects of the 2030 sustainability vision for Qatar; a theme that is considered in many courses of the M.Sc. program. This course on biological conservation in Qatar examines the principles of human interactions with the environment. We take advantage of Qatar University being situated in Qatar's capital city, Doha, and promote contributions from leading experts in a range of government ministries, research and not-for-profit organizations located here. The world's human population exerts a profound influence on the environment, its flora, fauna, and their habitats, no more so than here in the Gulf. This is reflected in a decrease in those areas unexploited by man and industry. Furthermore, social and governmental pressures promote use of land for agriculture, ecotourism, sport, meat production and conservation. These diverse requirements can only be managed through an appreciation of population biology, habitat and species management, fisheries, genetics and landscape ecology. A solid understanding of the theoretical side of an issue must be coupled with equally important practical considerations. Future conservation managers in Qatar have a critical role to play in the country.

BIOL 563
Env. Geno.& Bio-Eng.
Credit Hours: 3

It is becoming clear, from the application of the techniques of metagenomics, that biological diversity on Earth is vast, and far greater than previously anticipated. Environmental Genomics and Engineering considers the use and improvement of engineering methods and skills that are needed to understand genomic complexity in different environments, including extreme ones; how to exploit such genomic complexity for human benefit; the contents of the genomes of all living systems existing in the environment, as well as their continuous plasticity driven by environmental stresses. The elucidation of many genomes and particularly those existing in particular environments is widely believed to be the basis for one of the most important expansions of human knowledge and activity in the 21st century. All such expansions require engineering activity and genomic engineering and capacity building. Further topics include: Functional genomics that is the major approach to understanding how genomes of organisms influence their activities, depending on the environmental conditions. Proteomics and metabolomics study the functions of proteins and metabolites, and this information, in turn, shows how and why the function and morphology of cells comes to be.

BIOL 564
Solid Waste Management
Credit Hours: 3

This course deals with solid waste handling world-wide, and specifically in the Gulf region, through lectures, case studies, assignments and field visits. The course covers the different types of waste with a primary focus in treatment and disposal techniques and the underlying principles of management options, environmental impacts, and problems associated with activities such as open dumping, landfill, composting, incineration, and non-incineration thermal techniques. Specific topics include problems associated with household hazardous wastes, demolition waste, domestic waste, sewage sludge and municipal waste, agricultural waste, and construction site waste. Students are taught how to evaluate ground water pollution and options for protection at disposal sites; susceptibility of aquifers to contamination; computer modeling of how pollutants reach groundwater; designs of ground water protection systems at hazardous waste disposal sites and facilities; biological warfare.

BIOL 580
Graph. Info. sys. (GIS) & DB
Credit Hours: 3

Through this course students gain an advanced knowledge of the information systems and how they are linked (with particular reference to the ministries of Qatar), computer science, and the analytical tools and approaches used in GIS. Students are taught how to implement the knowledge, tools and techniques of database management, application development, and analytical assessment, to address geographic information requirements, issues of importance to the environment, and to answer questions with a spatial/global perspective. Resources for this course include the Environmental Studies Center of Qatar University where GIS is used effectively in a range of environmental issues, as well as ongoing research in the Department of Geography.

BIOL 590
Exp. Design & Stat. Analysis
Credit Hours: 3

To have a successful career in environmental science, it is essential for graduates to acquire an understanding of the principles of experimental design and statistics, including the ability to both obtain a critical appraisal of current knowledge, as well as develop a statistically valid framework and design for research. The primary purpose of this course is to provide a firm basis in experimental design, as well as an understanding of the reasoning of statistics, which will allow students to design, complete, and critique their own research. The course gives students the opportunity to apply these principles through analysis of data, and allows them to review critically literature of relevance to their area of research. Students study these concepts in a practical sense through analysis of data from case studies.

BIOM 501
Medical Laboratory Science I
Credit Hours: 3

An intensive, didactic and clinical curriculum in the field of Biomedical Sciences. Areas covered include: Hematology/Coagulation/Urinalysis

and Body Fluids (includes Special Hematology/Coagulation); Chemistry (includes Special Chemistry/Immunology/Serology); and Phlebotomy & Lab Safety.

BIOM 502
Medical Laboratory Science II
Credit Hours: 3

An intensive, didactic and clinical curriculum in the field of Biomedical Sciences. Areas covered include: Immunohematology [Blood Bank]; and Microbiology, Virology, Mycology, Parasitology, and Molecular Pathology.

BIOM 510
Pathophysiology
Credit Hours: 3

This course provides an in-depth study of human pathological processes and their effects on homeostasis. Emphasis is on interrelationships among organ systems in deviations from homeostasis. Upon completion, students should be able to demonstrate a detailed knowledge of pathophysiology. Course topics include the etiology, physical signs and symptoms, prognosis, and complications of commonly occurring diseases and their management

BIOM 515
Molecular Diagnostics
Credit Hours: 3

This course covers the principles of molecular technology and techniques used in clinical and research laboratories. Topics include: nucleic acid chemistry, nucleic acid extraction and hybridization; target, signal and probe amplification; microarrays and in-situ hybridization. Quality assurance and control issues used to monitor molecular tests are addressed.

Prerequisite
BIOM 510

BIOM 520
Principles of Laboratory Mang.
Credit Hours: 3

This course provides a foundation in the technical and non-technical aspects of supervising and managing clinical laboratory testing services within the current health care delivery system.

BIOM 530
Currt. Issues in Clin. Lab. Sc
Credit Hours: 3

The course covers current topics in the field such as clinical laboratory testing within the context of the current health care delivery system, the influence of other aspects of society, accreditation of laboratories, financial management, information systems management, management of the quality of clinical laboratory testing, leadership and communication skills, and ethics in the clinical laboratory testing environment. The emphasis of the course is on the knowledge, skill, and attitudes needed to work successfully in a health care setting at the entry-level and beyond.

Prerequisite
BIOM 520

BIOM 540
Res. Methods in Biom. Sciences
Credit Hours: 3

This course provides the student with a working knowledge of research methods for collecting, analyzing, and interpreting healthcare data and an appreciation of the value and application of these methods in healthcare organizations. Students will learn to distinguish between types of research (quantitative and qualitative) with an emphasis on the use of quantitative analysis in healthcare organizations. Basic research methods are described, including surveys, observational studies, experimental and quasi-experimental design; and the use of primary and secondary data sets. Statistical techniques for analyzing and interpreting data will include descriptive statistics, hypothesis testing, probability, sampling, t-tests, ANOVA, chi-square analysis, correlation, linear regression, and multiple regression.

Prerequisite
BIOM 520

BIOM 550
Medical Lab. Laws & Ethics
Credit Hours: 3

This advanced level courses covers licensure and accreditation, compliance and risk management concepts and practices as applied to medical laboratory operations. Accreditation standards as required by international agencies is included. The course also provides the student with an understanding of law, regulation, and court decisions that affect healthcare organizations as well as the ethical underpinnings and principles that healthcare organizations follow in the delivery of services.

BIOM 610
Medical Lab Fina Operation
Credit Hours: 3

This advanced level course covers the entirety of financial management as practiced in the medical laboratory or biomedical research laboratory setting. It includes capital equipment acquisition, cash flow analysis, contract negotiations, cost analysis, inventory control, revenue and cost-accounting practices, salary and wage management, and material management in the context of the laboratory budget.

Prerequisite
BIOM 520

BIOM 620
Health Informatics
Credit Hours: 3

This course addresses the importance of information systems and information technology in improving decision-making in healthcare organizations. The student will be exposed to the need for and uses of information technology in healthcare organizations, and how inte-

grated, computer-based information systems can lead to decisions that improve and better coordinate care, allow for better management of medical records and orders, increase the timeliness of care, improve cost controls, enhance supply inventory and management, and improve vendor contracting and management.

Prerequisite

BIOM 510 AND BIOM 520

BIOM 630

Quality Assu. & Outcome Asses.

Credit Hours: 3

This advanced level course covers the breadth and depth of various quality management, performance improvement and assurance theory, principles and practices (CQI, TQM, ISO, etc.) as specifically applied to medical and research laboratories.

BIOM 650

Pathogenic Microbiology

Credit Hours: 3

The fundamentals of microbial physiology, genetics and immunology are presented with important bacterial, viral, parasitic and mycotic infections discussed from the standpoint of etiology, epidemiology, and pathogenesis and laboratory diagnosis.

Prerequisite

BIOM 510

BIOM 651

Viral Pathogenesis & Diagnosis

Credit Hours: 3

This course covers the advanced study of viruses with regard to the basic, biochemical, molecular, epidemiological, clinical, and biotechnological aspects of animal viruses primarily and bacteriophage, plant viruses, viroids, prions, and unconventional agents secondarily. Specific areas of virology, including viral structure and assembly, viral replication, viral recombination and evolution, virus-host interactions, viral transformation, gene therapy, antiviral drugs, and vaccines, are presented. The major animal virus families are discussed individually with respect to classification, genomic structure, virion structure, virus cycle, pathogenesis, clinical features, epidemiology, immunity, and control. The viral vectors and their applications in biotechnology are discussed.

Prerequisite

BIOM 510

BIOM 660

Biochemistry

Credit Hours: 3

Clinical aspects of biochemistry, including overview of principles and instrumentation with emphasis on practical laboratory application of analytical procedures, specimen collection and handling, significance of results, and quality assurance. Includes analysis of blood and other body fluids for blood gas content, electrolytes, enzymes, hormones,

therapeutic drugs, toxicology, and other constituents of clinical interest, utilizing both automated and manual techniques

Prerequisite

BIOM 510

BIOM 670

Principles of Immunochemistry

Credit Hours: 3

This course is based on theoretical and experimental applications of immunochemistry and immunobiology.

Prerequisite

BIOM 660

BIOM 675

Immunology & Serology

Credit Hours: 3

Performance and interpretation of a broad range of clinical serological and immunological procedures with emphasis on principles and clinical correlation. Formal lecture series included.

Prerequisite

BIOM 510

BIOM 680

Oncology

Credit Hours: 3

The course provides an overview of cancer biology, including tumor/host interactions, metastasis and invasion, tumor cell biochemistry, tumor heterogeneity, tumor cell surfaces and developmental aspects.

Prerequisite

BIOM 510

BIOM 681

Advanced Hematology

Credit Hours: 3

Principles, theories, and instrumentation related to qualitative and quantitative evaluation of cellular elements of blood and other body fluids; factors of hemostasis; quantitative chemical analysis of urine; and renal function studies. Emphasis is placed on microscopic identification of cells and the significance and correlation of laboratory data.

Prerequisite

BIOM 680

BIOM 682

Advanced Immunohematology

Credit Hours: 3

Theory and practice in blood bank operation, including identification of erythrocyte antigens and antibodies and their normal and abnormal immunology. Standard technical practices are used in evaluating blood typing, cross-matching, antibody detection, and preparation of blood

components for transfusion. Safety control methods standard to efficient blood banking.

Prerequisite

BIOM 680

BIOM 695

Capstone in Lab. Mang.

Credit Hours: 3

The Capstone seminar serves as the culminating educational experience in the program. Students use the knowledge they have gained in the courses to complete a project. This process requires an in-depth knowledge of laboratory management.

BIOM 696

Clinical Internship

Credit Hours: 3

This course is supervised rotation in a clinical laboratory. The student will perform assays, apply quality control, interpret results and correlate results with the clinical condition. The rotation will include preventive and corrective maintenance on instruments and equipment used in the laboratory.

BIOM 697

Capstone in Advanced Practice

Credit Hours: 3

The Capstone seminar serves as the culminating educational experience in the program. Students use the knowledge they have gained in the courses to complete a project. This process requires an in-depth knowledge of laboratory science.

Prerequisite

BIOM 696

BIOM 698

Thesis I

Credit Hours: 3

Basic research in a field of interest under faculty direction

BIOM 699

Thesis II

Credit Hours: 3

In this course, students will use the knowledge and clinical skills they have acquired in their courses to prepare a written manuscript that is suitable for publication. The paper will include relevant literature review and include the following: abstract, introduction, methods and materials, statistics, results, discussion, conclusion and references. Students will present the study to students and faculty at the conclusion of the program.

Prerequisite

BIOM 698

CMPT 501

Fundamentals of Computing I

Credit Hours: 6

Overview of discrete mathematical structures, introduction of computer programming; elements of procedural and object-oriented paradigms; assignments, relational expressions, decisions, repetition, pointers, and functions; classes, objects, inheritance and polymorphisms; programming applications in a variety of computer related areas such as software engineering; elements of algorithms and data structures; introduction to databases with their programming and applications are covered. Credits are not applicable towards the M.S. degree.

CMPT 502

Fundamentals of Computing II

Credit Hours: 6

This course covers logic gates and circuits, Boolean algebra, circuit simplification; elements of computer organization and architecture such as computer systems, CPU components, memory considerations, I/O considerations; elements of computer operating systems such as real and virtual storage, deadlocks, performance, and distributed systems. Also covered are principles of data communication, layered reference models, network topologies, Transmission Media, Local Area Networks, switching and routing, Backbone Networks and Virtual LANs, Wide Area Networks.

Prerequisite:

Baccalaureate degree. Credits are not applicable toward the M.S degree.

CMPT 506

Advanced Database Systems

Credit Hours: 3

The course covers elements of data modeling; relational models and mapping; system architectures; security, transactions, concurrency control, recovery, query, optimization, and database tuning; hands-on applications on the design and use of database systems.

CMPT 507

Advanced Operating Systems

Credit Hours: 3

The course covers process concepts, management, and asynchronous concurrency; storage management related to real and virtual storage as well as disk performance optimization; multiprogramming operating systems including process distributed memory, multiprocessors and distributed systems; network communication issues and special purpose systems; network operating systems.

CMPT 508

Adv Archt & Design of Comp Sys

Credit Hours: 3

Description of computer systems at the system and register transfer levels; computer system models; CPU components such as the control unit, the ALU, integer and floating point processors; memory considerations such as hierarchy, associative memory, virtual memory, memory

contention resolution; I/O processors considerations; comparison of well-known architectures are covered.

CMPT 509
Seminar in Computing
Credit Hours: 1

The course covers the art of writing research proposals and finding related materials as with libraries, web access, and other resources; discussion of delivery and presentation styles; techniques for writing scientific papers and technical reports.

CMPT 521
Information Retrieval
Credit Hours: 3

This course includes Introduction, modeling, retrieval evaluation, query languages, query operations, text and multimedia languages and properties, text operations, indexing and searching, user interfaces and visualization, multimedia information retrieval, searching the web, digital libraries.

CMPT 522
Human Computer Interaction
Credit Hours: 3

Interface design theories, principles and practices for computer-based systems; methods and tools for developing effective user interfaces; evaluation methods; design of appropriate interface elements including the design of menus and other interaction styles. Psychological and cultural issues in making an interface more appealing to the user are also covered.

CMPT 523
Distributed Systems
Credit Hours: 3

Clients, servers, application servers, database servers, clusters of servers; distributed architectures such as single-tier, two-tier, multi-tier; implementation issues such as performance, security, transactions; enterprise application server capabilities coding, access, and software development tools.

CMPT 524
Semantic Web
Credit Hours: 3

Introduction to semantic web technologies; semantic web objectives; ontology construction and evolution, mediation, merging, aligning, and engineering methodologies; semantic annotation, human language technology, information access, and web services.

CMPT 526
Systems Development
Credit Hours: 3

Study of structured systems development methods and techniques as applied to information systems development; use of principal project management elements such as planning, organizing and controlling applied to systems development processes; use of software engineering

elements such as planning, estimating, requirements, modeling, documenting, implementation, testing, maintenance, as applied to product and systems development.

CMPT 541
Advanced Computer Networks
Credit Hours: 3

Network technologies; packet/circuit switching, switching and routing: packet switch architectures, Interior and Exterior internet routing protocols and their performance; protocol processing. Network control: traffic management, congestion (flow and rate) control, admission control. Applications demanding high-speed communication are included.

CMPT 542
Computer Security
Credit Hours: 3

This course deals with the advanced issues of computer security and information assurance. It provides students with a deeper understanding of the security topics such as threats, vulnerabilities, intrusion detection, cyber security, security strategic policy, legal and ethical factors in security, security management technologies, tools and practices. It also focuses on several emerging threats including, drive-by-pharming, online extortion, next-generation phishing, multi-application botnets, crimeware, mobile worms, and VoIP security. Emphasis is on secure software models and design, including discovery and prevention of computing systems security vulnerabilities.

CMPT 543
Wireless Communication
Credit Hours: 3

This course covers transmission fundamentals; communication networks, protocols, TCP/IP suite; antennas and propagation; signal encoding techniques; spectrum, coding and error control, satellite communications, cellular wireless networks, cordless systems and wireless local loop, mobile IP and wireless access protocol, wireless LAN technology, IEEE 802.11; wireless LAN standard; Bluetooth. Wideband CDMA, Wideband OFDM, and MIMO techniques.

CMPT 544
Service Oriented Computing
Credit Hours: 3

Service-oriented computing is the new emerging paradigm for distributed computing that is increasingly changing the way software applications are architected and used. This course investigates some of the latest developments in the field of web-based applications such as Web services, an insight into the latest developments in service discovery, dynamic service composition, services adaptation, and QoS, compliances among services. The major topics covered in this course include identifying remote services, assigning appropriate service types, allocating ownership of data to services, and composing quality features. Emphasis is given to the design of a functional infrastructure for business processes and how to achieve process integrity, systems heterogeneity, and initiate the technical infrastructure. This course examines architectures for Web based systems on the classical publish,

discover, and compose triangle of services.

CMPT 545
Simul & Comp Network Analysis
Credit Hours: 3

Introduction to the probability models, queuing theory, and simulation techniques; event probability, standard discrete and continuous probability distributions; Poisson processes, random number generation; discrete-event system modeling and simulation techniques, statistical estimation, and basic queuing models.

CMPT 546
Telecom Policies & Regulations
Credit Hours: 3

Principles of organizational policy; review of historical events and current trends of regulatory agencies; technology and structure of telecommunications industry; strategic considerations in the planning of major telecommunications systems are covered.

CMPT 561
Web Development
Credit Hours: 3

Comprehensive introduction to web development with scripting languages currently used in industry; client side and server side development; overview of JavaScript language, embedding JavaScript code in a HTML page; events, multimedia, client side form data validation; dynamic HTML; data transmission between a client and a web server; processing data forms and database connectivity (ODBC or JDBC).

CMPT 563
Data Mining
Credit Hours: 3

Principles of data mining; classification (decision tree induction, Bayesian, Rule based, k-nearest neighbors, etc.), clustering (hierarchical methods, density based methods, grid based methods, outlier analysis, etc.), association rules (frequent itemset mining methods, mining multi-level association rules, mining multi-dimensional association rules), text, spatial, and temporal mining.

CMPT 564
Storage Area Networks
Credit Hours: 3

Network storage landscape; data flood and fluid data; data storage on open systems servers; SCSI systems servers and their limitations, volume managers and device drivers, software mirroring over LAN and WAN, caches in storage networks are covered; boosting availability and performance with RAID and disk subsystems; laboratories include usage of SAN protocols at hardware and software levels.

CMPT 567
Wide Area Digital Networking
Credit Hours: 3

Introduction to access, transmission, and switching technologies used in high-speed, wide-area digital networks, including the public telephone

network, enterprise networks and the internet; topics include integrated services digital network (ISDN) and as required, frame delays, ATM, SONET, and emerging technologies are covered.

CMPT 568
Telecommunications Management
Credit Hours: 3

Principles of managerial accounting; financial analysis and project management as applied to the planning, implementation and operation of telecommunications systems.

CMPT 569
Project Management
Credit Hours: 3

Introduction to projects and project management as applied to software systems; project selection, research methods, managing progress and change, project planning (activities, schedules and cost management), leadership and team work, project quality management, project risk management, project review and reflection.

CMPT 570
Enterprise Resource Plng Syst
Credit Hours: 3

Business functions, processes and data requirements; development of enterprise resource planning systems, marketing information systems, production and supply chain management information systems, accounting in ERP systems; human resources and processes with ERP, process modeling, process improvement; ERP implementation including ERP and electronic commerce.

CMPT 571
Adv Algrthm Design & Analysis
Credit Hours: 3

Design and analysis of problems involving sorting, searching, scheduling, graph theory, and geometry; design techniques such as approximation, branch-and-bound, divide-and-conquer, dynamic programming, greed, and randomization applied to polynomial and NP-hard problems; analysis and space utilization; implementation of algorithms based on advanced data representation techniques and object oriented modeling.

CMPT 581
Special Topics in Computing
Credit Hours: 3

The content of this course varies to cover emerging theoretical and practical issues in computing. The department must approve the contents of this course as offered per semester.

CMPT 582
Specia Topics in Info. Science
Credit Hours: 3

The content of this course varies to cover emerging theoretical and practical issues in information science. The department must approve the contents of this course prior to the offering each semester.

CMPT 583
Special Topics in Network Sys.
Credit Hours: 3

The content of this course varies to cover emerging theoretical and practical issues in network. The department must approve the contents of this course prior to the offering each semester.

CMPT 591
Master Project
Credit Hours: 3

Students may choose and pursue an intensive computing project based on a practical computing application derived from industry or other related area. The work culminates in a project report that is evaluated by three committee members including the student project advisor.

CMPT 595
Master Thesis
Credit Hours: 3

Students may choose and pursue a research topic with their respective advisors. The work culminates in a thesis report that is evaluated by three committee members, including the student thesis advisor.

CVEN 500
Advanced Topics in Civil Eng.
Credit Hours: 3

A selection of state-of-the-art topics in civil engineering.

CVEN 501
Adv. Steel Structures Design
Credit Hours: 3

Design of steel structures according to LRFD and ASD techniques, Tension members, axially loaded compression members, Beam design, Design of members subjected to combined flexure and axial compression (beam/columns), Design of Plate girders, Composite concrete steel members, steel connections (bolted and welded).

CVEN 502
Stru. Dyn.& Seis.& Anal. Desi.
Credit Hours: 3

Numerical analysis of simple systems; rigorous analysis of one-degree systems; lumped mass multi-degree systems and structures with distributed mass and load; approximate analysis and design methods; earthquakes, blast-resistant design, beams subjected to moving loads; calculation of results by analog and digital computer. Introduction to seismology, ground movements, typical accelograms. Response spectra for linear and non-linear responses, role of damping and inelastic behaviour. Equivalent lateral load for design, code requirements. Structural design concepts to mitigate seismic effects. Design of steel structures for earthquake motions. Design of concrete frames and walls for earthquake motions.

CVEN 503
Des. of Beid.&Other Spec. Stru
Credit Hours: 3

Forces due to prestressing in statically indeterminate structures, such as continuous beams, frames, slabs, using load balancing method, force method and prestressing influence coefficients. Limit analysis of continuous prestressed concrete structures. Initial and time-dependent deflections. Effect of creep and shrinkage in statically indeterminate structures; effect of differential settlement; creep behaviour of structures made continuous by cast-in situ concrete. Discussion of various types of prestressed concrete bridges; selection of cross-section, pier arrangement, abutments, approach slab, bearings. Loads. Design of skew and curved bridges. Cable layout in skew and curved bridges, methods of bridge construction. Aesthetic considerations in bridge design.

CVEN 504
Finite Element Method
Credit Hours: 3

Finite Element Discretization and the Direct Stiffness Method, Basic concepts of structural modeling. Finite element discretization: interpretations. Review of the direct stiffness method (DSM) of structural analysis. Modeling, stiffness, loads, boundary conditions and constraints. sub-structuring. Formulation of Finite Elements: Mathematical interpretation of finite elements: variational formulation. Shape functions. Structural and continuum elements. Isoparametric elements. Numerical integration. Computer Implementation of the Finite Element Method Model definition: Element level calculations. Equation assembly. Equation solver. Strain/stress recovery and post-processing. Constitutive models for geotechnical materials; application of the finite element method to static analysis of earth structures.

CVEN 505
Theory of Plates and Sh
Credit Hours: 3

Two-dimensional elasticity theory, Analysis and design of rectangular and circular plates, Analysis of plates including shear deformations, Numerical methods for shells, Analysis and design of thin shells; cylindrical vaults, domes, circular/cylindrical tanks, intersection shells and folded plates.

CVEN 506
Advanced Geo-mechanics
Credit Hours: 3

Advanced treatment of topics in soil mechanics, including consolidation and settlement analysis; shear strength of soils; soil improvement; soil reinforcement; and slope stability analysis.

CVEN 507
Traffic Engineering
Credit Hours: 3

Study of operator and vehicle characteristics, and design for street capacity, signals, signs, and markings.

CVEN 508
Geometric Design of Highways
Credit Hours: 3

Study of highway geometric design in the engineering of transportation system.

CVEN 509
Traffic Safety Analysis
Credit Hours: 3

Understanding crash research concepts, and identifying factors contributing to traffic crash occurrence.

CVEN 510
Pavement Management Systems
Credit Hours: 3

Role of pavement in today's transport system, basic components of pavement management systems (PMS). Planning pavement investments and pavement research management. Evaluation of pavement structural capacity performance, distress and safety. Analysis and economic evaluation of alternative design strategies. Construction, rehabilitation and maintenance as related to other phases of PMS. Data management requirements.

CVEN 511
Hydrology
Credit Hours: 3

Analysis and synthesis of the hydrograph. Stream-flow routing. The hydrograph as a function drainage characteristics; estimation of runoff from meteorological data. Infiltration theory. Sea water intrusion in coastal aquifers. Application of hydrologic techniques including statistical methods.

CVEN 512
Ground Water Contamination
Credit Hours: 3

Introduction of Darcy's equation and governing equation; construction of flow-nets, flow quantifications, and ground water resource evaluation; contaminant hydrogeology, mass transport equations, reaction, and adsorption; introduction to biodegradation and natural attenuation; simulation of ground water flow and transport.

CVEN 513
Hydraulic Analyses
Credit Hours: 3

This course deals with advanced methods of analyzing hydraulics and water resources. Exact and approximate methods are reviewed. The formulation and solution of problems by finite difference and finite element methods is a major part of the course. Typical examples from open channel and ground water flows are included. The method of characteristics is applied to transient flow in open channels and closed conduits.

DENG 602
Applied Research Methodology
Credit Hours: 3

This course will develop the research abilities of PhD students in Engineering. The goal of the course is to equip students with both qualitative and quantitative tools to conduct research. This is a practical course, designed to help graduate students arrive at a workable thesis plan, and a comprehensive knowledge of the resources available to them to pursue it. It covers the thesis as a type of writing, project

planning, time management, research ethics, information retrieval, and professional skills.

DENG 603
Advanced Numerical Methods
Credit Hours: 3

This course aims at understanding the construction and appropriate use of numerical algorithms that provide solutions to science and engineering problems. The following algorithms are studied; root finding, interpolation and approximation of functions, numerical differentiation and integration, numerical solutions of ordinary differential equations and boundary value problems. An emphasis will be given to understanding the accuracy, convergence, divergence, limit analysis, efficiency, and stability of various algorithms. The course will use some commercially available software such as MATLAB.

DENG 604
Applied Statistics Techniques
Credit Hours: 3

This applied course is designed for graduate students. The goals of the course are to develop the skills necessary to identify an appropriate technique, estimate models, and interpret results for independent research and to critically evaluate contemporary research using advanced quantitative methods. The focus of the course is on estimating models and interpreting the results, rather than understanding in detail the mathematics behind the techniques. The course will provide students with a solid foundation in advanced quantitative methods, which is in high demand in many fields. The course will include random distributions, error analysis, confidence levels, statistical analysis of reduced sample size and other important topics to help the students understand the importance of applying statistical techniques to their research findings.

DENG 605
Special Topics
Credit Hours: 3

This course covers selected topics that meet student interests and reflect trends in the field.

DENG 699
PhD Thesis
Credit Hours: 9 OR 54

A distinct and original contribution to basic knowledge of the subject. The student will be required to show initiative and resourcefulness in overcoming both theoretical and practical difficulties by devising novel ways and means of achieving objectives that elude the more conventional approaches to them. The course is a test of initiative and of the student's ability to accept responsibility and bring a task to a satisfactory conclusion. Straightforward development work, coupled with a critical survey of the previous work although important, is not sufficient for a PhD degree.

ECON 501
Introduction to Economics
Credit Hours: 3

The course provides the students with the essential tools of economic analysis, to allow them to utilize these tools in their work, and to make sense of the economic events occurring around them. This might include the following issues: Economic problems, supply and demand, consumer theory, producer theory, circular flow of income, measurement of GDP, fiscal and monetary policies, business cycle, inflation and unemployment.

ECON 602
Managerial Economics
Credit Hours: 3

An overview of the fundamental concepts in microeconomics as they apply to managers in a global environment, this course covers the use of quantitative and computer applications to determine optimal levels of output, resource usage and capacity planning, application of appropriate decision-making models, and mathematical tools for optimal business decisions.

ECON 604
Intl Trade & Finance
Credit Hours: 3

The course aims to provide the participants with essential information about the most important issues in the fields of international trade and finance. It allows the participants to understand the importance of international trade recent related theories, and how they affect the performance of the domestic economy. On the international finance front, the course aims to acquaint participants with the main tools of the role and functions of the international capital market, foreign exchange markets, and international financial systems (including the various tools used).

EDEC 510
Preschoolers and Learning
Credit Hours: 3

This course introduces students to the historical, philosophical, and sociological foundations of programs for young children. The course further focuses on an understanding of children's physical, cognitive, linguistic, emotional and social growth and development. Child development history, theory, and research strategies are discussed, as well as the effect of family, peers, media, and schooling on processes of learning.

EDEC 511
Method of Teach.in Early Child
Credit Hours: 3

This course focuses on instructional strategies appropriate to educating young children. Curriculum development principles and practices are reviewed, with a particular emphasis on the need for flexibility and the construction of appropriate learning environments. Students are also taught how to select and evaluate prepared materials and how to create new materials for young children that are consistent with program goals and objectives; how to create learning environments that foster

creativity and intellectual inquiry; how to support play in the early childhood classrooms across domains, how to incorporate families and communities into the teaching process and the importance of supporting young children's literacy.

Prerequisite
EDUC 500 AND EDUC 502 AND EDUC 503

EDEC 512
Lang&Lity. Dev. in Early Chid.
Credit Hours: 3

This course provides students with an overview of current knowledge on children's literacy and language development, with an emphasis on planning an appropriate curriculum to promote literacy in early childhood classrooms. Other areas of emphasis include language acquisition theories, core components of comprehensive early literacy programs such as print awareness and supporting children's writing, the importance of children's literature and second language learning issues.

Prerequisite
EDUC 500 AND EDUC 502 AND EDUC 503

EDEC 580
Internship
Credit Hours: 6

This field based course provides an opportunity for students to assume the role of a preschool teacher, while being jointly supervised by a mentor teacher and a university faculty member. Students spend four weeks working with their university instructors, preparing for their internships, and 10 weeks in the field, in a preschool classroom, under the joint supervision of the university instructor and a mentor teacher. Students are also required to participate in a seminar with their university instructor; topics for the seminar include student concerns as well as instructor and mentor teacher suggestions for teaching improvements. This course requires a minimum of 400 hours in the field

EDEL 601
FN in Educational Leadership
Credit Hours: 3

This course is designed as a survey course in educational leadership. Topics of study include creating and sustaining a school vision; promoting a positive school culture, providing an effective instructional program for all students; supporting staff development; managing the organization, and providing ethical leadership.

EDEL 602
Management of Information Sys
Credit Hours: 3

This course is designed to provide candidates with the knowledge and ability to use school information systems, which include collecting, analyzing, and interpreting data, to assess and monitor the development, implementation, and stewardship of a vision; to assess and monitor the school culture, the curriculum and instruction, and the instructional practices; to assess and monitor the safety, effectiveness, efficiency, and

equity of the organization, operations, and resources; and to assess and monitor issues and trends related to community conditions and dynamics.

EDEL 603
Educational Policy in Qatar
Credit Hours: 3

This course is designed to provide candidates with knowledge related to the historical development of the education system in Qatar and the development of its educational policies. In addition, the candidates will acquire the knowledge and ability to promote the success of all students by collaborating with families and other community members, responding to diverse community interests and needs, and mobilizing community resources. Moreover, this course will provide candidates with the knowledge and ability to promote the success of all students by understanding, responding to, and influencing the larger political, social, economic, legal, and cultural context.

EDEL 604
Curriculum Design &Development
Credit Hours: 3

This course provides candidates with the knowledge and abilities needed to promote the success of all students by providing an effective instructional program, applying best practice to student learning, collaborating with families and other community members, and responding to diverse community interests and needs. It engages candidates in examining and applying State of Qatar requirements for a well balanced curriculum.

EDEL 605
Instructional Supervision
Credit Hours: 3

This course includes the examination of theories and practices in curriculum development, evaluation, and alignment and the application of these concepts to create an effective instructional program to support effective learning for all students. It engages candidates in examining and applying the requirements of the State of Qatar for a well balanced curriculum.

Prerequisite
EDEL 604 AND EDEL 601

EDEL 607
School Finance & Resource Mgmt
Credit Hours: 3

This course provides candidates with basic concepts in school finance. Additionally, it prepares candidates to recognize investment in education as an important human resource; to identify, analyze, and manage major sources of fiscal and non-fiscal resources for schools. This course helps in developing human resources and practices in school systems and in identifying responsibilities for attracting, selecting, developing, evaluating and retaining competent faculty and staff.

EDEL 608
Seminar Issues in Educ Leader
Credit Hours: 3

This course provides an opportunity for the learner to explore current issues in educational leadership, to become involved in the life of a school, and to identify and reflect on the daily work and duties of those individuals who hold leadership positions.

Prerequisite
EDEL 604 AND EDEL 601

EDEL 609
Action Research
Credit Hours: 3

The focus of this course is to apply action research in authentic contexts to improve teaching and learning. Candidates are expected to use action research as a vehicle for addressing individual or organizational problems. This cyclic method consists of describing a problem, gathering data to understand the problem, planning action to solve the problem, implementing the actions, monitoring and reviewing the effects of these actions, and then determining next steps based on the evidences. Students will also investigate the role of the administrator as an educational leader who supports the teaching and learning processes at the school. During this course, the learner will formulate a professional development plan for a teacher and implement the plan, with the approval of the school academic coordinator and faculty teaching staff. This course includes 50 field-based hours

EDEL 610
Internship
Credit Hours: 6

In this course, the learner will integrate, synthesize, and apply knowledge acquired during all program courses in relation to educational leadership. The course allows the learner to practice and develop skills required of an educational leader (school principal or vice principal) during a period of ten weeks for a total of 250 field hours. The internship is supervised by a college staff member and a school educational leader (principal or vice principal). Leadership responsibilities in regard to students, employees, parents, and the community increase gradually in number and complexity over the course of the internship.

EDPR 540
Reading and Language
Credit Hours: 3

This course deals with the methods and strategies essential for the effective teaching of literacy skills (word knowledge, reading and writing) in English as a second language to primary schoolchildren. Course topics include: components of reading identified by the "National Reading Panel" report (NICHD, 2000): phonemic awareness, phonics (decoding), fluency, vocabulary, and comprehension, besides teaching spelling, and writing.

EDPR 541
Mathematics Methods
Credit Hours: 3

This course assists a student teacher (Prospective teacher) in knowing the Primary mathematics structure, nature, different components, methods, and techniques of the teaching process. Moreover, it helps a student teacher to acquire fundamental and appropriate teaching skills by using microteaching technique for peers. As it is known in practical education this leads to acquiring different aspects of experience.

Prerequisite
EDUC 500 AND EDUC 501 Concurrent AND EDUC 502 AND EDUC 503

EDPR 542
Science Methods
Credit Hours: 3

This course analyses curricula, laboratory equipment, and various resources for teaching science, examines methods relevant for active, authentic learning and appropriate teaching of science to young learners and helps children acquire knowledge, attitudes and skills essential to science literacy. The focus is on science for understanding and inquiry skills. Qatar standards for science in elementary schools is presented and analysed.

Prerequisite
EDUC 500 AND EDUC 501 Concurrent AND EDUC 502 AND EDUC 503

EDPR 543
Arabic Methods I
Credit Hours: 3

This course covers the nature of the structure of Arabic language and its characteristics and objectives, and the characteristics of the language development for primary school children and how to satisfy it and develop it through the Arabic language curriculum. It also equips students with basic general teaching skills that prepare them to teach various Arabic language arts successfully as it is needed for the next methods course (methods of teaching Arabic language 2), with a focus on the national curriculum standards for the Arabic language and what these developed standards require in terms of changes in course content and the method of implementing it.

EDPR 544
Arabic Methods II
Credit Hours: 3

This course covers the different teaching methods and effective strategies used in teaching various Arabic language arts in primary grades. It gives the candidates the opportunity to practice these skills and strategies using the peer method of teaching, Micro teaching, improved modern methods, and the use of modern technologies in line with national standards for primary school. It also paves the way for the acquisition of educational field experiences in its various aspects in internship schools.

Prerequisite
EDPR 543

EDPR 545
Social Studies Methods
Credit Hours: 3

This course is designed to provide methods and content of teaching social studies to primary school students. It includes theoretical topics, lesson planning, visual teaching, evaluation, and a general overview of the content and standards included in the social studies curriculum and many other topics. It also includes a preliminary focus on the development of your educational philosophy in the teaching of social studies in the primary school, as well as the use and application of innovative teaching methods to be an excellent social studies teacher and effective for the primary grades.

EDPR 546
Islamic Studies Methods
Credit Hours: 3

This course covers the concept of Islamic education and its characteristics, objectives of teaching it, and the teaching skills that the teacher should know, as well as the modern teaching methods and strategies which focus on the positive involvement of the learner such as active learning, cooperative learning, and brainstorming and more. The learner also studies the teaching of the different branches of Islamic education which include recitation, interpretation, the authentic sayings of prophet Mohammad and his tradition, Islamic beliefs, worship, discipline in line of the objectives of teaching, the principles to consider in teaching, and steps of teaching. It also covers how to use technology in the teaching of Islamic education. Likewise, it covers the role of the Islamic calendar in the Islamic Education, and the attributes and characteristics of the teacher of Islamic education. Finally, it covers how to conduct research in Islamic education.

EDPR 580
Internship
Credit Hours: 6

Describe, week-by-week, a frame work for your progress from supportive activities in the classroom towards full responsibility for all teaching, and then scaling back your involvement with the class until the mentor teacher is again the main instructor.

EDSE 502
Scnd Lang Lnrs Scnd Classroom
Credit Hours: 3

This course is designed for preservice teachers to enable them to teach in multi-lingual settings by selecting and modifying curriculum and instruction for English language learners (ELLs). During this course, current and past methodologies for teaching limited English-proficient students at the secondary level are thoroughly introduced and analyzed. Students determine which strategies are best for their particular teaching situations. As the course progresses, participants reference the varying methodologies and make their own instructional plans and units. Emphasis is placed on incorporating a variety of teaching strategies and standards while stressing both content skills and language skills.

EDSE 503
Read and Writ Across 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. The focus is on providing a critical perspective for teaching reading and writing across the curriculum. The emphasis of the class is on developing conceptual tools that enable the candidate to use reading and writing as instructional tools in the classroom. The course focuses on the nature of the literacy processes and instructions that facilitate learning, particularly as it applies to secondary students. The course uses a social-constructivist theoretical perspective and involves a field-based experience.

EDSE 553
Mthds I:Instr Strt Islmc Studs
Credit Hours: 3

This course covers the concept of Islamic education and its characteristics, objectives of teaching it, content analysis of its different topics, and the teaching skills that the teacher should know, as well as the modern teaching methods and strategies which focus on the positive involvement of the learner such as active learning, cooperative learning, and brainstorming and more. The learner also studies the teaching of recitation and the interpretation in line of the objectives of teaching it, the principles to consider in teaching it, the steps to teach each of them, as well as studying some of the rules of recitation and tajwid.

EDSE 554
Methods I:Instr Strat-Bio
Credit Hours: 3

This course covers goals, methods, and materials appropriate for teaching secondary levels courses in biology, with special emphasis on the Science Curriculum Standards for the State of Qatar. Topics 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 are required are explored. This course has a field-based component.

EDSE 555
Methods I:Instr Strat-Chem
Credit Hours: 3

This course covers goals, methods, and materials appropriate for teaching secondary levels courses in chemistry, with special emphasis on the Science Curriculum Standards for the State of Qatar. Topics 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 are required are explored. This course has a field-based component.

EDSE 556
Methods I:Instr Strat-Phys
Credit Hours: 3

This course covers goals, methods, and materials appropriate for teaching secondary levels courses in physics, with special emphasis on the Science Curriculum Standards for the State of Qatar. Topics 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 are required are explored. This course has a field-based component.

EDSE 557
Methods I:Instr Strat-Soc Stdy
Credit Hours: 3

This course covers goals, methods, and materials appropriate for teaching secondary level courses in social studies. Students learn research-based methods of effective instruction in the knowledge and skills related to the discipline. This course has a significant field-based component.

EDSE 558
Mthds I:Instr Strat Arab
Credit Hours: 3

This course covers goals, methods, and materials appropriate for teaching secondary levels courses in the Arabic language, with special emphasis on the Arabic Curriculum Standards for the State of Qatar. The differences between the Advanced and Foundation Curriculums for the State of Qatar National Curriculum Standards and the changes in strategies that are required are explored. This course has a field-based component.

EDSE 559
Methods I:Instr Strat-Engl
Credit Hours: 3

This course covers goals, methods, and materials appropriate for teaching secondary levels courses in English (ESL, EFL), with special emphasis on the English Curriculum Standards for the State of Qatar. The differences between the Advanced and Foundation Curriculums for the State of Qatar National Curriculum Standards and the changes in strategies that are required are explored. This course includes an extensive content-specific ICT component and includes field-based experience in a preparatory or secondary school setting.

EDSE 560
Methods I:Instr Strat-Math
Credit Hours: 3

A study of teaching strategies designed to put into practice the major ideas of mathematics learning and teaching, including the theories of Piaget, Vygotsky and others, as applied to such topics as scaffolding, formal thinking, and problem solving. Strategies are studied for teaching learners of different ages, developmental stages, cognitive styles, and other individual differences. The differences between the Advanced

and Foundation Curriculums for the State of Qatar National Curriculum Standards and the changes in strategies that are required are explored. This course has a field-based component.

EDSE 563
Mthd II:Inquiry&ICT Islmc Stud
Credit Hours: 3

This course covers the teaching of the different branches of Islamic education which include the authentic sayings of prophet Mohammad and his tradition, Islamic beliefs, worship, and discipline in line of the objectives of teaching, and the principles to consider in teaching, and steps of teaching. It also covers how to use technology in the teaching of Islamic education, the role of the Islamic calendar in the Islamic Education, the attributes and characteristics of the teacher of Islamic education and finally, how to conduct research in Islamic education.

Prerequisite
EDSE 553

EDSE 564
Mthds II Inquir & ICT in Biol
Credit Hours: 3

This course covers goals, methods, and materials appropriate for teaching secondary levels courses in science, with special emphasis on the Science Curriculum Standards for the State of Qatar. Topics 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 555

EDSE 565
Mthds II Inquir & ICT in Chem
Credit Hours: 3

This course covers goals, methods, and materials appropriate for teaching secondary levels courses in science, with special emphasis on the Science Curriculum Standards for the State of Qatar. Topics include the use of ICT in chemistry; use of action research to inform instruction; and strategies to encourage, design, mentor and assess student research.

EDSE 566
Mthds II Inquir & ICT in Phys
Credit Hours: 3

This course covers goals, methods, and materials appropriate for teaching secondary levels courses in science, with special emphasis on the Science Curriculum Standards for the State of Qatar. Topics include the use of ICT in physics; use of action research to inform instruction; and strategies to encourage, design, mentor and assess student research. This course has a field-based component.

Prerequisite
EDSE 556

EDSE 567
Meth.II:Inqu.&ICT for Soci.Stu
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 557

EDSE 568
Mthds II: Inquiry&ICT for Arab
Credit Hours: 3

This course covers goals, methods, and materials appropriate for teaching secondary levels courses in Islamic Studies. The differences between the Advanced and Foundation Curriculums for the State of Qatar National Curriculum Standards and the changes in strategies that are required are explored. This course has a field-based component.

Prerequisite
EDSE 558

EDSE 569
Mthds II Inquiry & ICT in Engl
Credit Hours: 3

This course covers goals, methods, and materials appropriate for teaching secondary levels 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 are explored. Candidates 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.

Prerequisite
EDSE 559

EDSE 570
Mthds II Inquir & ICT in Math
Credit Hours: 3

The course introduces student-centered methods in teaching mathematics. Special attention is devoted to technological aids to instruction and hands-on mathematics equipment such as computer-aided instruction and mathematics explorations to stimulate discovery learning. The course also includes the use of action research to assess and inform instruction and strategies to teach, encourage, mentor, and assess student research. This course has a field-based component.

Prerequisite
EDSE 560

EDSE 580
Internship
Credit Hours: 6

This course provides ongoing mentoring and reflection during a 10-week internship experience and the four weeks preparation for that internship. Topics for study emerge from the interns' authentic concerns and interests, from the university supervisor's classroom observations, and from mentor teacher suggestions. Candidates enrolled in this course assume the responsibilities of a classroom teacher in a preparatory or secondary school setting. This course requires a minimum of 400 field hours.

EDUC 500
Qatari Schools and Society
Credit Hours: 1

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 become acquainted with the roles that they may be expected to play within the initiative of educational progress in Qatar through examining some of the issues related to the initiative and the responsibilities of teachers.

EDUC 501
Human Development & Learning
Credit Hours: 2

Human Development and Learning is an applied field of psychology that relies on a number of psychological principles and theories in order to offer a scientific explanation to the process of the teaching and learning. Among the topics that this course covers are cognitive development, language development, personal development theories, intelligence, individual differences, learning theories, motivation, classroom management, and measurement and evaluation in the school. The focus of this course is on how learning occurs and strategies that support learning (pedagogy). This course has a field-based component.

EDUC 502
Instructional Planning& Assess
Credit Hours: 3

This course engages class participants in examining curriculum theory and models and provides experience in designing individual lessons, units, and assessments that promote the learning of all preparatory or secondary students. Participants in the class 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 National Curriculum Standards and explore the differences and policies related to the Advanced-Foundation division of these standards. This course has a field-based component.

EDUC 503
Introduction to Special Edu
Credit Hours: 3

This course provides broad knowledge and skills in special education for candidates in all teacher education programs. It mainly covers: models,

theories, etiology, philosophies, legal provisions, ethical and professional commitment, assessment and identification procedures and instructional strategies for students with exceptional learning needs. It also provides knowledge of different characteristics of learners with special needs and their educational implications. This course stresses on adapting teaching strategies and differentiating instructions to meet the needs of individuals with exceptional learning needs. This course has a field-based component.

EDUC 504
Magt of the Educational Envir
Credit Hours: 3

This course focuses on principles and strategies for developing and maintaining an effective classroom environment. A variety of models conducive to maintaining a positive environment are explored. Students are introduced to classroom management practices, instructional strategies, and collaborative consultation that facilitate a positive and effective educational climate. The reflective teaching model is integrated through the internship learning activities.

EDUC 520
Methods of Teaching ESL
Credit Hours: 3

This course deals with the techniques, methods and strategies for the instruction of English as a second language. The following main topics are discussed: theories of first and second language acquisition, variables affecting second language acquisition, language transfer and inter language, techniques and methods of English instruction for Limited English Proficient students, teaching ESL in content areas and instructional modification, use of instructional strategies and appropriate assessment practices for ESL students, the ESL/Bilingual teacher and learner; strategies for developing listening, speaking, reading and writing skills of ESL/Bilingual learners (more emphasis will be given to oral skills), sociocultural issues related to education of ESL/Bilingual students, English as a world language and its teaching implications and issues related to nonnative English speaking teachers. Students have to cover 36 hours field practice and reinforcement of skills

EDUC 606
Educational Research Meth
Credit Hours: 3

This course provides an overview of research methods, designs, and techniques. Course content includes applying public information and research-based knowledge of issues and trends and the use of appropriate assessment strategies and research methodologies to address authentic issues in education. Students also explore the use of action research as a means to improve teaching and learning.

EDUC 607
School Fin & Resour Mgmt
Credit Hours: 3

This course provides candidates with basic concepts in school finance. Additionally, it prepares candidates to recognize investment in education as an important human resource; to identify, analyze, and manage

major sources of fiscal and non-fiscal resources for schools. This course helps in developing human resources and practices in school systems and in identifying responsibilities for attracting, selecting, developing, evaluating and retaining competent faculty and staff.

EEMP 504
Environmental Chemistry
Credit Hours: 3

This course covers current analytical techniques, and provides the scientific background and skills needed for research in environmental chemistry. Topic areas include the development of advanced technologies and materials for air and water purification and for the saving and storage of energy, water and air pollution control, soil and sediment remediation, environmental technology, chemical limnology, and groundwater chemistry. Students design mass and energy flows and quantify matter transformations, in particular those of pollutants; analyze scientific literature; describe and evaluate the role of compounds and processes in soil, water and air at the molecular-mechanistic level; identify effects and toxicity of pollutants on living organisms; and evaluate methods for the study of eco-toxicology and risk assessment.

EEMP 505
Env. trans. & water resources
Credit Hours: 3

The course covers the integration of two modern fields of study, environmental hydraulics and water quality modelling. It deals with the development and application of models that integrate our current understanding of the transport and transformation of materials to predict the fate of those materials in the natural environment. The course includes the engineering applications of the hydrodynamic principles to predict the fate and transportation of pollutants in the environment. Emphasis is divided between groundwater, coastal engineering and atmospheric transport.

EEMP 506
Micro. process in env. systems
Credit Hours: 3

This course focuses on microbiological processes that may be applied to a broad range of environmental concerns. Wastewater Characteristics, Chemical and Biochemical Oxygen Demand, Kinetics of Suspended-Growth Biological Processes, Kinetics of Attached-Growth Biological Processes, Nitrification, Denitrification, Biotransformation of Hazardous Compounds are some of the topics covered in this course.

EEMP 507
Env. systems and modelling
Credit Hours: 3

Systems analysis is at the heart of engineering and this is what allows both quantitative analysis of both environmental problems and technologies. This course covers mathematical modelling that includes mass and energy balances, kinetics, transport, reactor theory, and modelling approaches for air, surface and groundwater and treatment systems. In this course, students learn to use the MatLab software package for modelling. Topics discussed in Environmental Systems and Processes:

Principles, Modelling, and Design include: fluid flow and mass transport; passive and reactive interphase mass transfer; elementary and complex process rates; ideal, hybrid, and non-ideal system modelling and design; and multiphase and interfacial process dynamics and design.

Prerequisite
EEMP 505

EEMP 508
Env. Measurements & stat. lab
Credit Hours: 1

This practical course consist of a series of laboratory experiments that enable the students to plan/hypothesize, design, and execute laboratory experiments of various complexity, collect and analyze data, write technical reports, and make presentations of their research outcome. Experiments include: Reactor operations, Physio-chemical processes such as Water Softening and Colour Removal by Coagulation/Flocculation, Membrane Filtration, Biological Processes such as: Biofilms Development Kinetics.

EEMP 509
Phy.-chem. Proce. in env. sys
Credit Hours: 3

This is an advanced graduate course in water treatment, with a broadened focus on physical-chemical processes. The course retains a strong emphasis on water treatment, however, because of its process-based nature; the same concepts can be applied to waste treatment, site remediation and pollutant transport. This course focuses on regulatory and control trends, and environmental impact determinations as well as Government and municipal regulations.

Prerequisite
EEMP 504

EEMP 510
Design Project
Credit Hours: 3

This is a project-based course on the design of environmental systems such as waste water treatment units, air pollution abatement units, contaminated soil remediation units, etc... It is anticipated that specialist software such as Superpro Designer, and AspenPlus will be utilized in the design projects.

Prerequisite
EEMP 506

EEMP 521
Solid Waste Management
Credit Hours: 3

This course deals with solid waste handling world-wide, and specifically in the Gulf region, through lectures, case studies, assignments and field visits. The course covers the different types of waste with a primary focus on treatment and disposal techniques and the underlying principles of management options, environmental impacts, and problems associated

with activities such as open dumping, landfill, composting, incineration, and non-incineration thermal techniques. Specific topics include problems associated with household hazardous wastes, demolition waste, domestic waste, sewage sludge and municipal waste, agricultural waste, and construction-site waste. Students are taught how to evaluate ground water pollution and options for protection at disposal sites; susceptibility of aquifers to contamination; computer modelling of how pollutants reach groundwater; designs of ground water protection systems at hazardous waste disposal sites and facilities; biological warfare.

Prerequisite
EEMP 504

EEMP 522
Hazard. Waste & Con. Sit. Mana
Credit Hours: 3

This course covers integrated waste management, functional and fundamental properties of hazardous waste, toxicological properties of contaminants, contaminant release mechanisms, fate and transport of contaminants in the environment, contaminated site assessment principles, Quantitative Human Health Risk Assessment (QHRA) as applied to contaminated sites, hazard identification, exposure pathway analysis, risk characterization, risk management and site remediation, methods of hazardous waste treatment and contaminated site remediation, secure land disposal of hazardous waste and contaminated soils and sludges.

Prerequisite
EEMP 504

EEMP 523
Marine Env. & Human Develop.
Credit Hours: 3

The course focuses on key aspects of the interface between human development and environmental sustainability of the marine environment including the influence of economic growth, social development and environmental management; sustainable use and access to water; management and conservation of the marine environment; and the influence of climate change on human development. The major environmental challenges that Qatar faces and that need to be resolved effectively are considered, particularly achieving water security, reducing carbon emissions, increasing energy efficiency, and reducing risks that threaten the safety of the marine environment. Emphasis is placed on cross-reference to other courses dealing with regulatory and policy issues.

Prerequisite
EEMP 504

EEMP 524
Environmental Sustainability
Credit Hours: 3

This course covers products, contexts and capacities; life cycle design; minimizing resource consumption; product lifetime optimization; extending the lifespan of materials; system design for eco-efficiency;

methods and support tools for environmental sustainability analysis and design; and evolution of sustainability in design.

EEMP 525
Industrial Waste Water Treat.
Credit Hours: 3

This course covers treatment of industrial water from refining, petrochemical and gas processing industries; Oil separation, flocculation, sedimentation, flotation, treatment of spent caustic, cooling water systems, protection against scale and corrosion.

Prerequisite
EEMP 506 AND EEMP 509

EEMP 526
Clean Energy Resources
Credit Hours: 3

This course covers the emissions from industrial activities, energy systems, power plants, renewable energy; solar and wind, photovoltaic power generation, geothermal energy, energetic use of biomass.

EEMP 527
Research Strateg. & Methods
Credit Hours: 3

This course is an introduction to research methodologies including literature review techniques, record keeping, technical report and scientific paper writing, experimental design, statistical analysis, usage of specialist software in research.

EEMP 528
Special Topics in Envi. Eng.
Credit Hours: 3

This is a course on specialized topics relevant to environmental engineering. It may also be offered to specific students to enable them to pursue advanced studies in particular areas under the direction of a faculty member, which must be arranged and approved prior to registration.

EEMP 529
Atmo. Pollu. & Air Qua. Manag.
Credit Hours: 3

This course covers Clean Air Act quality, emission standards, sources and effects of air pollution, air pollution from fuel combustion, fuel pre-cleaning, control of particulate matter (gravity settlers, cyclones, electrostatic devices, scrubbers and filtration), control of VOCs, SO_x, and NO_x, adsorption and absorption of air pollutants, and Air Pollution Control.

Prerequisite
EEMP 504

EEMP 530
Envi. Assess. & Manag.
Credit Hours: 2

This course includes review of EIA basics: definitions, cause-effect mechanisms, description of engineered activities and baselines, envi-

ronmental impact predictions, testing and monitoring of effects, project evaluation and decision making for engineering design, and impact management of engineered facilities, environmental management plans and audits, communication with stakeholders, and review of projects.

EEMP 591
Industrial Master Project
Credit Hours: 2

This is a one-term project which offers students the opportunity to work on a comprehensive research or design project under the supervision of one or more faculty members, which must be arranged and approved prior to registration. A written proposal, progress reports, and a final report are required.

Prerequisite
EEMP 530

EEMP 595
Master Thesis I
Credit Hours: 1

This course is the first of a two-term thesis which offers students the opportunity to work on a comprehensive research or design project under the supervision of one or more faculty members, which must be arranged and approved prior to registration. A written proposal, progress reports, and a final thesis are required.

Prerequisite
EEMP 508

EEMP 596
Master Thesis II
Credit Hours: 3

This course is the second in the sequence of a two-term thesis which offers students the opportunity to work on a comprehensive research or design project under the supervision of one or more faculty members, which must be arranged and approved prior to registration. A written proposal, progress reports, and a final thesis are required.

Prerequisite
EEMP 595 AND EEMP 527

EMP 500
Probability and Statistics
Credit Hours: 3

This course covers the 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.

EMP 501
Engineering Management
Credit Hours: 3

This course covers the nature of management, leadership, organizations, motivation, organization structures, planning, network analysis, critical path method, resources allocation, application in critical path method, personnel management, communication.

EMP 502
Operations Research
Credit Hours: 3

Introduction to fundamental operations research concepts covering modeling and solution methodologies, modeling of industrial decision making problems, linear, non-linear, and mixed integer programming formulations, linear programming solution techniques network models, decision making under uncertainty; decision trees, multi-criteria decision making.

EMP 503
Bus Fundmntls for Eng Managers
Credit Hours: 3

Introduction to business fundamentals in the areas of cost accounting, cost analysis, financial accounting, marketing, and human resources management.

EMP 504
Process Improvement Techniques
Credit Hours: 3

Concepts of work, role of product & process design in improvements, techniques for work analysis, principles of method improvement at operator, process, line, and organizational levels, Concepts of process mapping & charting at various levels, understanding various types of wastes and their removal, concepts of lean operations and management, lean sigma and case studies.

EMP 505
Project Management
Credit Hours: 3

Role of projects in organization's competitive strategy; standard methodologies for managing projects; project life cycle; design-implementation interface; estimating: preliminary and detailed; contractual risk allocation; scheduling: PBS; WBS; integration of scope, time, resource and cost dimensions of a project; evaluation of labor, material, equipment, and subcontract resources; scheduling techniques including CPM/PERT, GERT, critical chain; solving real world project schedules; Monte Carlo simulation; cost budgeting; cost baseline; cash flow analysis; earned value analysis; cost control; proposal presentation; application of software for project management.

EMP 506
Production and Ops Management
Credit Hours: 3

This course offers a comprehensive overview of Production and Operations Management to enable the students to understand Production

and Operations Management tasks related to product development and design and production planning and production. Uses general principles and selected models and methods to work on Production and Operations Management problems.

EMP 507
Entrp Info Anlysis and Bus App
Credit Hours: 3

This course includes types of information and fundamentals of information systems, business processes, organizations and systems, the relational data bases, architecture and logical data base design, Information & decision making, understanding the information requirements of an enterprise—understanding user interface, design and implementation of forms and reports based working for varied user requirements, introduction to E-commerce and fundamentals of enterprise applications.

EMP 508
Decsn Techn and Data Analysis
Credit Hours: 3

Quantitative methods for interpreting and understanding data; the use of partial information derived from random samples; and techniques summarizing applications, quantitative and qualitative aspects of problem solving and decision-making, includes: structuring and basics of decision-making, application of probability, functional relationships, marginal analysis and linear programming.

EMP 511
Physical Distrib Management
Credit Hours: 3

This course includes scope, functions, strategy and planning for physical distribution, order processing, selecting warehouse location, inventory storage, calculating cost, freight and storage fee, transportation management and organization, packaging, methods and techniques for physical distribution management.

EMP 512
Procurement Management
Credit Hours: 3

This course provides students with a detailed view of the integration for project and procurement life cycles, defining roles and responsibilities for the project procurement and contracting function, integrating procurement and contracting (P-C) planning with up-front project planning, and managing the procurement and contracting scope as a project. In addition, it includes discussion on topics such as performance-based contracting, economic analysis tools and quality programs.

EMP 513
Suppliers Management
Credit Hours: 3

This course covers strategies for creating value through supply alliances. Topics include the scope, structure and dynamics of strategic relationships; how to work with different external and internal organizational structures; how to evaluate a relationship for alliance potential, includ-

ing a real-world opportunity to work on a relationship of your choice; how to incorporate a purchasing/ supplier alliance into your organization; how to plan, negotiate, implement and monitor/ manage alliance relationship in your organization's supply strategy and operations; and to recognize and address cultural and organizational barriers to forming positive relationships.

EMP 514
Supply Chain Management
Credit Hours: 3

The course covers supply chain operating practices and principles (i.e., the fundamentals of materials and logistics management). Topics include analyzing the dynamic nature of supply chain management for products and services, the impact of the global economy on the supply chain management process, strategies for customer service, quality, logistics management, inventory management, forecasting, postponement, sourcing (in particular, global sourcing), network design, and virtual integration (web-centric) and integrated supply chain management, practices and performance measures to diagnose supply chain performance and to develop supply chain strategies. Topics include the formulation of supply chain management strategies that would integrate with companies' e-business strategies and practices and develop action plans for upgrading the supply chain practices and supporting ICT systems to deliver improved supply chain performance.

EMP 515
Materials and Logistics Mang
Credit Hours: 3

Includes Material Classification, Codification, Standardization and Variety Reduction, Operating Cycle: Working Capital Turn-Over Ratio; Role And Functions Of Purchasing; Vendor Development And Rating Systems; Material Requirement Planning For Dependent Demand Items, Logistics System Design, Demand Planning, Multiple Channel Distribution, Concept of Warehousing, Warehousing Locations, Method Of Storage, Primary and Secondary Transportation, Logistic Costing, Logistic Information Systems, Integrating all activities for effective supply chain performance.

EMP 521
Facility Planning & Layout
Credit Hours: 3

Covers 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.

EMP 522
Service Operations Management
Credit Hours: 3

Provides an understanding of Services, how the operations and management of services is different from manufacturing, role of services

in the 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 nonprofit organizations, global performance aspects of services.

EMP 523
Six Sigma and Stratg Qual Mang
Credit Hours: 3

This course covers the concepts of Six Sigma methodology and how to improve the quality of manufacturing and business process improvement. Topics include measuring, evaluating and improving performance in conjunction with Six Sigma methodology and Quality Function Deployment (QFD), loss function; system, parameter and tolerance design using statistically designed experiments.

EMP 524
Systems Analysis and Design
Credit Hours: 3

This course introduces systems analysis and design methods, techniques and tools that organizations use to assess how computer based technologies can most effectively add value to the enterprise. The course covers a systematic methodology for analyzing an organizational problem or opportunity, determining what role, if any, computer-based technologies can play in addressing the needs, articulating organizational requirements for the technology solution, specifying alternative approaches to acquiring the technology capabilities needed to address the organizational requirements, and articulating the specifications for the information systems solution.

EMP 526
Innovation and Tech Management
Credit Hours: 3

This course covers the process and dynamics of innovation and characteristics of different types of innovations, relations between innovations, technology and product development, dynamics of technological evolution and technological shifts, social and human side of innovations, technology development incremental and radical, and product development, impact of creativity in fostering innovations and motivating professional people in technologically oriented corporations, organizational and managerial aspects of organizing product development in concurrent engineering way in cross-functional teams and exploring barriers to integration, principles of new approaches in managing complex systems, exploring Information Driven Management (IDM) approach and Self-Organizing principles, exploring the principles of Dependence Structure Matrix (DSM) and Domain Mapping Matrix (DMM) in managing complexity and uncertainty.

EMP 531
Construction Engineering Mang
Credit Hours: 3

Includes macro-level principles and practice of construction engineering and project management, introduction to Project planning, development of cost estimates and project schedules, construction methods

and fundamental terminology used in the engineering and construction industry, introduction to project management processes, the owner's study & project evaluation methods, formation of project teams, project coordination in construction, and project closeout.

EMP 532
Est and Fin Anlys for Cnstruct
Credit Hours: 3

This course covers the construction industry, its makeup, operation, estimating and bidding procedures, theory and practice of estimating materials, labor, equipment and overhead costs for various types of construction. Emphasis is on preliminary cost estimates during the conceptual design phase of a construction project.

EMP 533
Construction Equipment Managmt
Credit Hours: 3

Includes analysis of construction equipment, performance under various operating conditions, application of engineering fundamentals to construction methods, selection of equipment production rates, and unit costs of work in place.

EMP 534
Cnstr Ctrct & Lgl Cncpt Cnstr
Credit Hours: 3

Includes the nature of contracts, contract documents, master format, principles of specification writing, contract types, bonds and insurance, bidding, subcontracting, methods and techniques of tracking and control of construction projects, contract administration, evaluation of current research findings top contract implementation, managing the pre-award and the post award phases of construction projects, legal concepts in construction projects, and claim analysis.

EMP 535
Concrete Formwork Design
Credit Hours: 3

Includes design of formwork for concrete structures, analysis of loads, deflections, and stresses of forming systems, evaluation of economics of formwork design.

EMP 536
Project Plang Sched and Cntrl
Credit Hours: 3

This is a project planning course in the principles and practice of scheduling and control management, pre-project planning, development of critical path methods, and project schedules, fundamental cost and schedule analysis, and earned value concepts used in the engineering and construction industry, linear scheduling techniques and scheduling techniques based on artificial neural networks, Building Information Modeling (BIM) technique for construction projects, integration of project planning & modeling techniques, 5D planning & scheduling of construction projects.

EMP 537
Eng and Cnstr Mtrials and Meth
Credit Hours: 3

Covers the analysis of engineered materials for construction and project operations, examination and analysis of construction methods for civil engineering projects, management of engineered materials development of site operations and analysis of construction methods and materials.

EMP 591
Master Project
Credit Hours: 3

Students may choose and pursue an intensive practical project base derived from industry or other related areas. The work culminates in a project report that is evaluated and approved by the student advisory.

EMP 595
Master Thesis I
Credit Hours: 0 OR 3

Students may choose and pursue a major research topic with their respective supervisor(s). The work culminates in a thesis report that is approved by the thesis supervisor before submission to the thesis examination committee. The course is considered pass/fail.

EMP 596
Master Thesis II
Credit Hours: 0 OR 3

This course is the continuation of EMP 595; it represents the completion of the thesis started in EMP 595.

Prerequisite
EMP 595

FEDU 504
Educ Assessment & Instr Mgmt
Credit Hours: 3

Educational Assessment familiarizes students with a broad range of assessment approaches ranging from traditional standardized testing to the new generation of authentic assessment systems. Main topics include standardized tests within norm- and criterion-referenced approaches, authentic assessment approaches, classroom-based assessment, and backward design of student assessment approaches.

FEDU 515
Educational Foundations I
Credit Hours: 2

Educational Foundations I introduces prospective teachers in Qatar to the education profession, including historical and current contexts. These contexts include family, community, and school settings that influence teaching and learning in Qatari schools. In addition, the course familiarizes participants with the TAMU-QU partnership for teacher education, the requirements and activities of the program, current Qatari educational reform, and the vision for future education in Qatar that participants help enact. Specific content includes format and content of the electronic portfolio required throughout the program.

FEDU 516
Methods of Teaching Arabic
Credit Hours: 3

This course focuses on familiarizing the student-teacher with the different methods, and the effective strategies used in the teaching of Arabic at the primary stage. It also aims at improving the student-teacher listening, speaking, reading and writing skills. The course also deals with the means of communicating that develops the language skills, relates the language to the communities' culture and prepares the students for the different aspects of practice teaching.

FEDU 517
Teaching English as a 2nd Lang
Credit Hours: 3

This course deals with the techniques, methods and strategies for the instruction of students with limited English proficiency. The following main topics are discussed: theories of first and second language acquisition, variables affecting second language acquisition, language transfer and interlanguage, techniques and methods of English instruction for Limited English Proficient students, teaching ESL in content areas and instructional modification, use of instructional strategies and appropriate assessment practices, the ESL/Bilingual teacher and learner; strategies for developing listening, speaking, reading and writing skills of ESL/Bilingual learners (more emphasis is given to oral skills), socio-cultural issues related to education of ESL/Bilingual students, English as a world language and its teaching implications and issues related to non-native English speaking teachers.

FEDU 518
English Arts
Credit Hours: 3

This course deals with the methods and strategies essential for the effective teaching of literacy skills (word knowledge, reading and writing) to primary schoolchildren. Course topics include phonological awareness, decoding, fluency, vocabulary, comprehension, spelling, and writing.

FEDU 519
Methods of Teaching Math
Credit Hours: 3

This course covers Methods of Teaching Mathematics, analyzes contemporary curricula, manipulatives, and various resources for teaching mathematics; examines methods relevant for active, authentic learning, and age appropriate teaching of mathematics to young learners. Course instruction provides practice in teaching methods essential to successful mathematics learning; focuses on content and criteria central to teaching mathematics for understanding, skill development, reasoning and problem solving. Assignments include readings, discussions, analyses, and modeling and practicing mathematics teaching and learning.

FEDU 520
Methods of Teaching Science
Credit Hours: 3

This course includes Methods of Teaching Science, analyzes contemporary curricula, laboratory equipment, and various resources for teaching

science; examines methods relevant for active, authentic learning, and age appropriate teaching of science to young learners. Course instruction provides practice in teaching methods essential to successful science learning; focuses on content and criteria central to teaching science for understanding, skill development, and inquiry. Assignments include readings, discussions, analyses, and modeling and practicing science teaching and learning.

FEDU 521

Internship

Credit Hours: 6

Includes ten weeks of observation and participation in classroom activity; supervised teaching in accredited schools. Students are assigned a mentor teacher at the school and a University supervisor. Information conveyed is based upon NCATE standards and the INTASC principles. Instructional activities are designed using the Qatar Core Curriculum Standards.

FEDU 602

Management of School Info

Credit Hours: 3

This course is designed to provide candidates with the knowledge and ability to use school information systems, which include collecting, analyzing, interpreting data and using data-based decision making to increase the safety, effectiveness, efficiency, and equity of the organization.

FEDU 603

Educational Policy in Qatar

Credit Hours: 3

This course explores the historical development of the education system in Qatar and the development of its educational policies. It provides candidates with the knowledge and ability to promote the success of all students by understanding, responding to, and influencing the larger political, social, economic, legal, and cultural context.

FEDU 604

Curriculum Design-Development

Credit Hours: 3

This course explores the attributes of exemplary teaching and examines strategies for supporting the ongoing professional development of school staff. Learners acquire the skills to become instructional leaders that guide institutions to provide effective learning for all students.

FEDU 605

Instructional Supervision

Credit Hours: 3

This course examines theories and practices in curriculum development, evaluation, and alignment and the application of these concepts to create an effective instructional program to support effective learning for all students. It engages candidates in examining and applying the State of Qatar requirements for a well-balanced curriculum.

Prerequisite

FEDU 604

FEDU 606

Educational Res Methodology

Credit Hours: 3

This course provides an overview of research methods, designs, and techniques, with an emphasis on action research. Candidates are expected to use action research as a vehicle for addressing individual or organizational problems.

Prerequisite

FEDU 605 AND FEDU 609 Concurrent

FEDU 607

School Finance & Management

Credit Hours: 3

The course provides candidates with basic concepts in school finance, prepares them to recognize investment in education as an important human resource and equips them to identify, analyze, and manage major sources of fiscal and non-fiscal resources for schools.

FEDU 608

Seminar in Education

Credit Hours: 3

This course provides opportunity for the learner to become involved in the life of a school by shadowing a school principal or someone who holds a leadership position in teaching or administration. Course requirements include weekly school visits (50 hours during the semester), attendance at a weekly seminar (1.5 hours per week), and self-reflection activities.

Prerequisite

FEDU 604

FEDU 609

Action Research

Credit Hours: 3

Internship II investigates the role of the administrator as an educational leader who supports the teaching and learning processes at the school. Course activities include creating and supporting a professional development plan for a teacher, field visits to a school two days per week (100 hours during the semester), and participating in a weekly seminar.

Prerequisite

FEDU 605 AND FEDU 608 AND FEDU 606 Concurrent

FEDU 610

Internship

Credit Hours: 6

In this course, the learner integrates, synthesizes, and applies knowledge acquired during all program courses in relation to educational leadership. The course allows the candidate to practice and develop skills required of an educational leader, during a period of ten weeks for a total of 250 field hours.

Prerequisite

FEDU 601 AND FEDU 602 AND FEDU 603 AND FEDU 605 AND FEDU 607 AND FEDU 609 AND FEDU 608 AND FEDU 606 AND FEDU 604

FINA 605

Corporate Finance

Credit Hours: 3

The objective of the course is to provide an understanding of the nature of business finance, financial planning and analysis tools and help students acquire the necessary skills to be able to take important financial decisions which add and provide value to the corporation such as, the decision of financing investments and efficient resource allocation.

The course also deals with the different types of risks that the financial manager faces, and how to incorporate these risks in financial decision making.

GENG 602

Applied Research Methodology

Credit Hours: 3

This course will develop the research abilities of graduate students in Engineering. The goal of the course is to equip students with both qualitative and quantitative tools to conduct research. This is practical course designed to help graduate students arrive at a workable thesis plan, & a comprehensive knowledge of the resources available to them to pursue it. It covers the thesis as a type of writing, project planning, time management, research ethics, information retrieval, and professional skills.

GENG 603

Advanced Numerical Analysis

Credit Hours: 3

This course aims at understanding the construction and appropriate use of numerical algorithms that provide solutions to science and engineering problems. The following algorithms are studied; root finding, interpolation and approximation of functions, numerical differentiation and integration, numerical solutions of ordinary differential equations and boundary value problems. An emphasis will be given to understanding the accuracy, convergence, divergence, limit analysis, efficiency, and stability of various algorithms. The course will use some commercially available software such as MATLAB.

GENG 604

Project Management

Credit Hours: 3

Role of projects in organization's competitive strategy; standard methodologies for managing projects; project life cycle; design?implementation interface; estimating: preliminary and detailed; contractual risk allocation; scheduling: PBS; WBS; integration of scope, time, resource and cost dimensions of a project; evaluation of labor, material, equipment, and subcontract resources; scheduling techniques including CPM/ PERT, GERT, critical chain; solving real world project schedules; Monte Carlo simulation; cost budgeting; cost baseline; cash flow analysis; earned value analysis; cost control; proposal presentation; application of software for project management.

GENG 605

Applied Statistics Analysis

Credit Hours: 3

This applied course is designed for graduate students. The goals of the course are to develop the skills necessary to identify an appropriate technique, estimate models, and interpret results for independent research and to critically evaluate contemporary research using advanced quantitative methods. The focus of the course is on estimating models and interpreting the results, rather than understanding in detail the mathematics behind the techniques. The course will provide students with a solid foundation in advanced quantitative methods, which is in high demand in many fields. The course will include random distributions, error analysis, confidence levels, statistical analysis of reduced sample size and other important topics to help the students understand the importance of applying statistical techniques to their research findings.

GENG 606

Graduate Seminar

Credit Hours: 0

The course covers the art of writing research proposals and finding related materials as with libraries, web access, and other resources; discussion of delivery and presentation styles; techniques for writing scientific papers and technical reports. Graduate students are required to attend the seminars given by faculty, visiting scholars, and fellow graduate students. Additionally each student must present at least two seminar on a timely research topic. Among other things, this course is designed to give the student an overview of research in the department and professional societies in their discipline. Graded on a Pass or Fail basis.

GENG 699

Master Thesis

Credit Hours: 12

A distinct and original contribution to basic knowledge of the subject. The student will be required to show initiative and resourcefulness in overcoming both theoretical and practical difficulties by devising novel ways and means of achieving objectives that elude the more conventional approaches to them. The course is a test of initiative and of the student's ability to accept responsibility and bring a task to a satisfactory conclusion.

GULF 500

Advanced Research Methodology

Credit Hours: 3

This course provides advanced knowledge about conducting high-quality research. This includes providing a theoretical framework about the latest in research methods in social sciences and humanities. By providing an advanced knowledge for both quantitative and qualitative methods, the course will encourage and train students to develop their own research in accordance with the interdisciplinary demands of the degree. The course will focus on developing research skills in term of dealing with sources (books, journals, electronic sources).

GULF 510
Cont. Hist & Pol. in the Gulf
Credit Hours: 3

This course provides comprehensive knowledge about the contemporary history of the Gulf, starting at the end of the First World War, through to the emergence of the Modern State in the Gulf region. The course will focus on how political developments shaped the history of the region. It will focus on the history of Iran under the Pahlavi dynasty and the history under the Islamic Republic, the history of Iraq after the first world war, and the histories of each of the GCC states. The course will look at the dynamic of politics in each country, and at the relations within the region. In addition, the role of oil and external players will be an important part of the themes that this course will focus on.

GULF 511
Politics of the Gulf
Credit Hours: 3

The Gulf states political systems can be understood as having a unique character within the international system. This course seeks to examine the cotemporary political structures and drivers of change. Key issues such as the role and nature of civil society; elections; sociopolitical movements; and the impact of the rentier economy on the politics in the Gulf are examined. Students will be equipped with a theoretical understanding of these core issues, which will be grounded from a historical perspective.

Prerequisite
GULF 510

GULF 520
State and Society in the Gulf
Credit Hours: 3

This gateway course to the program provides students with an introduction to the scholarly work concerning society, social change, and the state in Arabia. While the course includes substantial historical material, the focus remains fixed on the contemporary era. The survey of the literature will move beyond the generalities of globalization theory to examine and explore rentier state theory, tribalism and post?tribalism, nationalism and citizenship, the shifting gender dynamics of contemporary Arabia, and the identity politics often subsumed in the tradition/modernity dichotomy. Students should expect to prepare a substantial paper based on original research.

GULF 521
City and Society in the Gulf
Credit Hours: 3

In the span of a few decades, the states of the Arabian Peninsula have emerged as some of the most urbanized in the world. This course presents an interdisciplinary approach to the study of city and society in the Gulf States. The course begins with selections from the substantial classic literature concerned with the Middle Eastern City, a literature which provides a starting point from which the development of the Gulf City can be compared and contrasted. From that starting point, students will examine the political, economic, and social forces that have driven

the rapid growth of the Gulf City; the social problems, both those of a universal nature and those unique to Arabia, that accompany that rapid urbanization; the role of master?planning and the state in this urban growth; the architectural literature concerned with supermodernism and the urban form; and the analyses of the role of migrant populations in establishing a basic spatial discourse for the Gulf City. Students should expect to conduct original research and prepare a substantial term paper for this course.

GULF 523
Human Rights & the Gulf State
Credit Hours: 3

This course provides students with a comprehensive understanding of the current discourse on human rights and the role it plays in shaping the relationship between states and citizens. The course begins by examining the religious and philosophical texts that predated the articulation of human rights in the modern era, including texts of both western European and Middle Eastern pedigree. Students then explore the historical articulation and ongoing extrapolation of a set of universal human rights through a set of overarching topical areas of inquiry, including one focused on labor, migration and human trafficking in the Gulf States; another on political rights and civil society in the GCC; a third area of inquiry focused on gender and human rights in Arabia; and a final area of inquiry examining media, freedom of expression, and censorship. Students will also explore the arguments of scholars who counter the individualistic and western notion of human rights by highlighting cultural rights in the increasingly globalized era. Students will conduct original research and prepare a substantial term paper for this course.

Prerequisite
GULF 520

GULF 524
The Arab. Peni. Lite. & Cult.
Credit Hours: 3

This course is primarily a comprehensive introduction to literature and culture of the Arabian Peninsula and the Gulf countries and will survey key texts, focusing on modern literature and contemporary technology writing. The course will address how authors have rewritten and overturned, through resistance or ambivalence, the classical Arabic tradition. It will examine the different types of opposition, conflict and limits reproduced in the articulation of modernity, demonstrating how cultural politics regulates and/or suppresses the construction of identity and self?expression. Special attention will be given to the rise of the novel in the Arabian Peninsula and will show how modern narratives have been influenced and marked by questions of canon formation, globalization and social change. The readings will include modern novels, short stories, poems, electronic writing and critical texts.

GULF 530
Inte. Relations of the Gulf
Credit Hours: 3

This course provides an advanced and comprehensive understanding

of the contemporary international relations of the Gulf region since 1971 when Britain ended its protectorate relationship with the smaller states of the lower Gulf. The course begins with key contextual events being analyzed which include the oil embargo of 1973?74; the Iranian Revolution; the Iran?Iraq War; the emergence and functioning of the GCC; the Gulf War of 1990?91; and the American?led invasion of Iraq in 2003. The nature of the Arab Gulf states foreign policies is also encompassed in addition to the broader contextual issues that shape its development which includes a range of issues such as interstate cultural identity, security challenges, the political economy of the global oil market, and also an analysis of the nature and drivers of U.S. foreign policy towards the Gulf region since 1971 with particular regard to Gulf security. The course concludes by examining emerging security challenges to the immediate and broader Gulf region.

GULF 531
Political Economy of the Gulf
Credit Hours: 3

This course focuses on the study of international political economy by examining its conceptual foundations and empirical applications within the Gulf region. The course first provides a comprehensive approach to the study of political economy by introducing the main theoretical perspectives in the field. The course pays attention to the traditional political economies of the Gulf and the impact of the discovery of oil and the transformation of their economies to rentier states. The impact of the rentier economic system is examined in detail by looking at the economic structure in addition to its effect on political participation and the labour market. Case studies will then be adopted whereby the political economies of Saudi Arabia, Dubai, Qatar and in addition to the other Gulf States are examined. Issues of direct relevance such as the political economy of regional integration in the Gulf will be examined, in addition to the role of Gulf sovereign wealth funds. This will be built on through an examination of the how the GCC states are impacting the global economy in terms of oil, gas, Finance and Trade. The course will conclude with an examination of the challenges of economic reform in the GCC states.

GULF 532
Security of the Gulf States
Credit Hours: 3

The study of international security has evolved since the end of the Cold War as the concept of war, the threat to use force and defence is no longer considered exclusively part of the security equation. This course addresses the range of global dangers that threaten the modern state in the Gulf, which range from pandemics and environmental degradation to the more traditional security concerns of nuclear proliferation and direct violence, such as terrorism and inter?state armed conflict. This course provides an advanced theoretical approach to the field of security studies and examines multifaceted aspects in addition to applying this to the traditional and non?traditional issues that have emerged on the security policy agenda such as threats of piracy in the Horn of Africa. This course seeks to use various case studies on a global basis to underline the various challenges which exist in the contemporary system and how there are relevant to the Gulf region.

Prerequisite
GULF 530

GULF 533
Global Energy Geopolitics
Credit Hours: 3

This course examines the political economy of the global energy industry and its economic relationship to international markets. The key themes that this course seeks to address include the multifaceted interaction between economics and the politics of energy markets; the challenges of managing energy policy and security; in addition to questions of sustainable energy development. The course offers a global perspective of energy geopolitics and begins with an introduction to the fundamentals of energy production, transportation, consumption, and the functioning of the global energy markets and its industry. Emphasis will be initially given to the oil industry but the role of natural gas is also addressed. An additional feature of this course will be to offer students an in?depth understanding of the major countries, regions, institutions, political, and economic character of the contemporary world energy market.

GULF 540
Envi. & Climate Ecology
Credit Hours: 3

This course focuses the impact of climate change on the Arabian Gulf States. The themes include environmental challenges and developments that are newly emergent, such as desertification, biodiversity loss, urbanization, marine and coastal pollution, carbon dioxide pollution, limited water resources, and rising sea levels. Therefore, the course presents themes for inquiry that support an interdisciplinary study from social science dimensions. Study will be within environmental studies and climate ecology, and informed by analysis around energy, security, political economy and development. The course investigates not only the impact but inter-relationship between these sources of environmental change and development. It guides students to consider means for human responsabilization and enables students to conceptualize solutions and various policy recommendations from a grounded and broad study of the various dynamics affecting climate in the Gulf.

GULF 550
Med.& Inf.Comm.Tech.in the GCC
Credit Hours: 3

The information technology revolution is considered one of the major events in the twentieth century. This is due to the fact that media is indeed influencing every society in today's world. It also shapes images and dynamics in those societies. This course will provide a comprehensive background about the history of this media revolution, with particular focus on media and Information Communication Technology in the GCC in the Gulf reign. The course will look at the emerging impact of media and Information Communication Technology in the GCC, especially with the increasing use of media sources such as TV satellites, Internet, mobile phone, and radios. The social, economical and political impact of the media and Information Communication Technology in the GCC sources will be covered in this course.

GULF 560
Special Topics
Credit Hours: 3

The course on special areas in the social sciences and humanities will be offered depending on student interest and faculty specializations. This course offers the opportunity to explore in more depth topics within politics, the economy and society as relate to geographical areas in the Gulf region, Iran or Iraq and/or thematic areas. Thematic areas may, for example, include gender studies, educational and economic reform, human development, civil society, socio-economic participation, public policy, regional and international relations, labour migration, identity and globalization.

GULF 570
Thesis
Credit Hours: 6

The thesis is a required piece of work that demonstrates students' own research interests. The length of the thesis will be between 60-70 pages, not counting the endnotes and bibliography. Students can develop their thesis topic based on seminar work and in consultation with the academic advisor or with faculty member. Students are encouraged to begin thinking of the thesis around the end of the second semester (preferably after completing 18 credit hours of course work). At the beginning of the third semester, students should start writing a proposal, choose an advisor, and form a committee. The committee consists of the advisor and two faculty members who will read and evaluate the thesis. There will be an oral defence scheduled after the submission of the thesis.

Prerequisite
GULF 500

HECO 550
English Language I
Credit Hours: 0

This course is designed to provide students with specialized vocabulary, some speaking skills, reading comprehension skills, grammar and controlled writing in English related to the field of early childhood. It is designed to familiarize the students with enough English to begin to read research literature and be familiar with technical terms in special Education.

HECO 561
Child Development & Learning
Credit Hours: 3

This course is designed to help students achieve a comprehensive understanding of pre-school childrens' physical, cognitive, social, emotional, language and aesthetic development. It includes an examination of various theories and models of how childrens development and learning is best supported.

HECO 562
Early Childhood Assessment
Credit Hours: 2

This course focuses on the concepts and techniques of E.C Assessment,

extends knowledge and ability to use both formal and informal assessment procedures for evaluation of child development and learning.

HECO 563
School, Family Partnership
Credit Hours: 2

This course is designed to introduce students to the international and local organizations related to children and examine ways of establishing and maintaining positive collaborative relationships with families and communities. It examine the effects of parents involvement on childrens' learning and development.

HECO 564
Dev Child Skills & Abilities
Credit Hours: 3

This course focuses on ways and methods of helping young children acquire language, interpersonal or social, motor, and academic skills, concepts, through music, play, and drama etc.

HECO 565
Found of Child Curriculum
Credit Hours: 3

This course deals with the Concept of Kindergarten, its basis and international philosophies related to it. This course presents the curriculum elements in preschools with its characteristics. An emphasis is also placed on the educational environment and its components to help learners acquire the program planning skills as well as teaching strategies, using educational media in addition to evaluation methods and approaches.

HECO 566
Language Development Literacy
Credit Hours: 2

This course aims at introducing learners to the concepts and linguistic skills of children, language development theories and characteristics, preparation for reading and writing, speech difficulties, modification and intervention programs for verbal ability and planning for the activities and linguistic experience.

HECO 567
EC Field Experiences I
Credit Hours: 3

This course offers supervised field experiences that are focused on learning to interact with individual children in ways that challenge them to solve their own problems and take control of their own learning. It's an excellent opportunity for videotaping followed by self-reflection and feedback from professional colleagues.

HECO 568
EC Field Experiences II
Credit Hours: 3

Students gradually assume responsibility for planning and implementing programs for pre-schoolers. This course is accompanied by a weekly seminar which examines and analyses critical issues in early childhood

education. Presentation of individual field reports to seminar group for discussion serve as the capstone experience.

HECO 569
Practicum
Credit Hours: 6

This course provides an opportunity for students to perform all duties and responsibilities of the pre-school teacher. It allows students to establish a reflective approach to practice that promotes a professional approach to E.C. practices. Discussions during weekly seminars help students engage in a comparative analysis of their internship experiences and through this analysis develop a clear understanding of the importance of high quality learning environments, carefully constructed learning materials, and sensitive interactions in which highly trained professionals facilitate childrens learning.

HECO 570
Pre-Schools Special Needs
Credit Hours: 2

This course is designed to introduce students to teaching methods, materials, and curriculum for children with special needs, gifted and talented, including ways of teaching and helping children in crisis, applications are made to curricular activities and materials to help young children affected by crisis situations.

MAGT 501
Introduction to Management
Credit Hours: 3

This course covers the definition of management, its characteristics, evolution and importance, as well as the functions performed by managers-planning, organizing, directing and controlling. The course also intends to show students the applications of the management functions in various enterprises such as marketing, finance, personnel, production, etc.

MAGT 602
Human Resources Mgmt
Credit Hours: 3

This course aims at exploring key issues related to the management, performance, and development of human resources in the workplace. It places special emphasis on making decisions and developing plans that enable managers to make the best possible use of their human resources, and covers areas such as: manpower planning, analysis and evaluation, recruitment and selection, wages and salaries, training and management development, performance appraisal, and industrial relations

MAGT 603
Operations Management
Credit Hours: 3

This course helps students to understand how to manage the conversion process, whether with goods, services or systems. It is also intended to broaden the scope of students' knowledge relating to the application of decision-making techniques to production problems with special emphasis on production control, operation system design, quality, operational strategy, relationship of production to other functions

within the organization, and characteristics of the effective production/operations manager.

MAGT 607
International Business Mgmt
Credit Hours: 3

This course examines the theories that explain the need for international business in both international trade and direct investment. It also covers the complex environmental factors (political/legal, cultural, social, economic/ financial) that affect the activities of multinational companies and international management practices in the areas of marketing, operations, finance, and human resources.

MAGT 608
Total Quality Management
Credit Hours: 3

This course discusses how firms can improve the effectiveness and flexibility of their business by managing across functions and throughout all areas of the business in an integrated and coherent fashion. It covers areas such as: quality policies and strategies, quality improvement programs, quality planning, quality systems and manuals, process control, quality costing, communication and team-building, measurement, benchmarking and self-assessment.

MAGT 609
Entrep-Small Bus Mgmt
Credit Hours: 3

This course deals with the problems and challenges facing the management of small businesses in raising funds, marketing products and services, improving effectiveness and flexibility, and achieving growth.

MAGT 610
Strategic Management
Credit Hours: 3

This integrative course relies heavily on other business disciplines previously studied, and aims to promote students' business analysis skills. It places special emphasis on tools and techniques of strategic planning, decision-making and implementation. It covers areas such as: setting corporate missions and objectives, analysis of external environment and internal resource positions, evaluation of strategic options, implementation, and control.

Prerequisite
MAGT 603 AND FINA 605

MAGT 611
Bus Ethics & Legal Envir
Credit Hours: 3

This course covers legal and case analysis of court systems and dispute resolution, contracts, employment, and professional obligations that influence the decision-making process of managers. The relationship between personal values and business conditions and legal environment takes place. Other countries' business law and international agreements that govern the business environment in the world are also examined.

MAGT 613**E-Business****Credit Hours: 3**

This course examines database management, application of the concepts and theories of management to e-commerce, trading over the web, the challenges facing marketing in business-to-business contexts, and strategic applications of marketing mix in e-business environments.

MAGT 615**Applied Graduation Project****Credit Hours: 3**

This is the final part of the program. This project provides students with the necessary skills to carry out research. Students are expected to submit a written project about a specific topic under the guidance of a member of academic staff. Students present a dissertation of not more than 20,000 words.

Prerequisite

MAGT 603 AND FINA 605

MAKT 604**Marketing Management****Credit Hours: 3**

This course develops students understanding of how organizations match the requirements of consumers in competitive environments, and develop strategies to create a competitive edge. It covers areas such as analysis, planning, implementation, and control, as well as the market mix, exportation, and the social aspects of marketing.

MAKT 614**Marketing Research****Credit Hours: 3**

The course deals with scientific research methods and used is by marketing managers. It focuses on issues such data collection, use of analytical techniques, and presentation of results. Special emphasis is placed on market research results in solving real life marketing issues.

MIST 606**Mgmt Information Systems****Credit Hours: 3**

This course provides an introductory theoretical and managerial overview of the area of information systems. Students are exposed to various information technologies, the methods and tools for developing and managing information systems, and the impact of information systems on organizations and on society at large. Case-studies, in-class discussions, or projects are used to also steer the student's ability to communicate effectively to information systems professionals.

MIST 613**Information Security****Credit Hours: 3**

This course covers the analysis, design, development, implementation, and maintenance of information security systems. Topics include: legal, ethical, professional, personnel issues; risk management; technology;

and physical security.

MIST 616**Enterprise Resource Planning****Credit Hours: 3**

This course introduces the use of technology in all aspects of a business. It explores the use of technology in customer relations management, accounting and financial applications, purchasing and production tools, sales and marketing functions, and human resources management. Students gain a heightened awareness of emerging technologies and trends in e-business.

MTHL 501**Educ Foundation II-Child****Credit Hours: 2**

Educational Foundations II provides students with knowledge and experiences to foster understanding of child development and growth in relation to learning. Four areas are emphasized in relation to implications for teaching and learning: biological foundations, cognitive development, socioemotional development, and contexts for development.

MTHL 502**Educational Psychology****Credit Hours: 2**

This course examines theory and research that has direct implications for educational practice, and some of the educational applications that have been developed from this theory and research. Topics to be covered can be separated into four general areas: 1) Theories of Learning, which include (a) Learning from a Behavioral Perspective, (b) Learning from a Cognitive Perspective (with emphasis on Information Processing Theory) and (c) Learning from a Sociocultural Perspective; 2) Individual and Group Differences in Learning; 3) Linking Learning and Instruction through Planning; and 4) Motivation and Management.

MTHL 570**Reading in English I****Credit Hours: 0**

This course is designed to provide students with specialized vocabulary, some speaking skills, reading comprehension skills, grammar and controlled writing in English related to the field of special Education. It is designed to familiarize the students with enough English to begin to read research literature and be familiar with technical terms in special Education.

MTHL 571**Reading in English II****Credit Hours: 0**

This course is designed to provide students with specialized vocabulary, reading comprehension skills, some speaking skills, grammar and guided writing in English related to the field of special Education. It is designed to familiarize the students with enough English to read research literature and be familiar with technical terms in special Education.

MTHL 572**Reading in English III****Credit Hours: 0**

This course is designed to provide students with specialized vocabulary, some speaking skills, reading comprehension skills, grammar and free writing in English related to the field of special Education. It is designed to familiarize the students with enough English to read research literature and be familiar with technical terms in special Education in preparation for their graduation projects.

MTHL 590**Found of Special Educ****Credit Hours: 3**

This course provides the student with introductory knowledge and skills about persons with disabilities, their characteristics, prevalence, and services provided to them. The course covers intellectual, learning, physical, sensory, and psychological handicaps, outlining their causes and effective educational practices.

MTHL 591**Speech & Language Problems****Credit Hours: 3**

This course is an introduction to the linguistic component of human cognition. Topics include the properties of speech, the organization of language in the mind/brain, child language acquisition, and aspects of adult language processing. Students study problems associated with speech and language development and the techniques employed by classroom teachers to lessen these problems for students.

MTHL 592**Classroom Org & Management****Credit Hours: 3**

This course is intended to provide the student with the skills necessary to organize classroom learning in terms of physical structure, daily schedule, and methods of assessing and dealing with behavior problems. Furthermore, the course is designed to provide the student with the competencies and skills that aid her/him in promoting a positive learning environment within the classroom.

MTHL 593**Field Study I****Credit Hours: 1**

This course is intended to develop the student's abilities to recognize the most important problems and issues related to special education in general and the fields of mental retardation, learning disabilities, and behavior disorders in particular. It is field based and is accompanied by a weekly seminar. Students spend approximately 60 hours observing in classrooms and programs for children with disabilities. Students reflect upon their observations and integrate what they are learning in their classes.

MTHL 594**Educational Assessment****Credit Hours: 3**

This course is designed to allow students to explore assessment instru-

ments and procedures for diagnosing students who are experiencing learning and behavioral problems. Participants study, develop, and administer norm-referenced measures of adaptive behavior functioning, criterion-referenced, and curriculum-based instruments that assess pre-academic skills, academic achievement and social behavior.

MTHL 595**Instructional Approaches****Credit Hours: 3**

This course focuses on the instructional skills necessary for teaching students with high incidence disabilities (LD, E/BD, and MMR) who receive special education services. Topics of primary emphasis include: developing effective individualized education plans; preparing and delivering exemplary lesson plans; and identifying instructional strategies that promote effective classroom learning. Research-based methodology is emphasized.

MTHL 596**Collab-School, Family & Comm****Credit Hours: 3**

This course focuses on methods for collaborating with educational professionals, families, and the community in the education of children with disabilities. The course focuses on issues such as; family-centered approaches to the design of educational plans and procedures, family life and expectations for children, and community responsibility towards individuals with disabilities.

MTHL 597**Field Study II****Credit Hours: 2**

This course allows students to identify alternate assessment strategies and procedures (e.g. observations, performance-based assessments, interviews, and portfolios) and their appropriate use. It is field based and is accompanied by a weekly seminar. Students spend approximately 120 hours in selected classrooms. Students begin to apply the concepts and strategies from their courses working with individuals or small groups under supervision.

MTHL 598**Internship & Sem in Sp Educ****Credit Hours: 6**

This culminating field study experience consists of 12 weeks of supervised internship in a special education setting. Students are expected to perform all duties and responsibilities of the classroom teacher to demonstrate their competence by the end of this experience. Students attend weekly seminars conducted by their university supervisors. This advanced seminar stresses on cross-categorical relationships and the integration of theory and practice. Topics include service delivery models, legal mandates, early identification and other current issues in special education. Students complete a culminating portfolio/exhibition that is representative of their growth and best practice.

MUPD 600
Planning Theory
Credit Hours: 3

This course introduces issues that pertain to history and definition of planning, determinants, goals and objectives of spatial planning, role, legitimacy and authority of planning, general and specific theories, such as Descriptive, Prescriptive and Normative theories also in the context of developing countries.

MUPD 601
Resrch & Stat Analysis in Plng
Credit Hours: 3

The course offers an overview of research methods in planning and management, probability, statistics, and decision theory and their applications in city planning, basic probability concepts, data classification and summarization, statistical sampling, hypothesis testing, goodness of fit, regression analysis, analysis of variance, contingency tables, and elementary Bayesian decision making. Computer statistical packages are utilized in different assignments delivered and practiced throughout the semester.

Prerequisite
MUPD 620

MUPD 610
Urban Planning Legislation
Credit Hours: 3

This course is an overview of planning legislations and a short history of planning process in Qatar and the Gulf Region. It covers methods, techniques and instruments for implementing plans through decrees and administrative acts, the basis for urban and regional planning and its relation to Shariah Law as well as the structure and organization of Qatari public planning administration, discussion of zoning procedures, subdivision review practices and budget preparation and execution.

MUPD 611
Urban Economics
Credit Hours: 3

This course covers issues of distribution of population and economic activities in urban areas, microeconomic principles to understand the economic nature of the urban system. The economic aspects and models of urban growth and city size, land-use pattern, housing, transportation, environmental problems, unemployment, and public policy are discussed.

MUPD 620
Urban and Regional Land Use
Credit Hours: 3

This course introduces aspects that pertain to history and definition of land use planning, the concept of policy, programming and planning, determinants and systems guiding land use development, socio-economic development and Land use, space requirements, spatial distribution and localization concepts, land use planning models, procedures for formal land use plans.

MUPD 621
Computer Aided Planning
Credit Hours: 3

Information and experience with the rapidly growing field of Computer-Aided Planning. Management Information Systems (MIS), Geographic Information Systems (GIS), Decision Support Systems (DSS), Knowledge Based Expert Systems and Automated Mapping and Graphing are introduced. Basic principles are emphasized that are common to the design and use of software in this area.

Prerequisite
MUPD 620

MUPD 650
Ctrl & Phscl Aspct of Isl Cty
Credit Hours: 3

This course involves aspects related to historical development of the traditional Muslim towns, determinants of "Islamic" urban spatial structure, the physical aspects of the urban form and the role of the socio-cultural factors and legal system in the structure of Muslim towns, urban design principles of traditional Arab and Muslim towns, discussion of the problems of contemporary Islamic cities and the relevance of the traditional design principles to build future cities in the Islamic world.

MUPD 651
Urban Renewal Planning
Credit Hours: 3

This course discusses the changes in urban land use and the socio-economic structures of urban settings. Emphasis is on historical districts revitalization and regeneration. Goals, plans and operations of adaptive re-use and regeneration of local traditional as well as modern districts are discussed and presented. Case studies from historic Middle Eastern and European cities are discussed and analyzed.

MUPD 652
Theory on Urban Form & Design
Credit Hours: 3

This course is a review of architecture and urban design history, theories and concepts of urban spatial design, elements and analysis of the concept of urban space, major theoretical and critical responses to the crises of the modern urban environment, discussion of urban design concepts through analysis of urban settings in the region.

MUPD 653
Design and Regeneration
Credit Hours: 3

This course provides a theoretical basis for the understanding of design in the built environment, and an appreciation of the evolving integration of aspects of design and regeneration in both urban and rural environments. The theoretical material includes consideration of aesthetics, urban morphology, rural settlement, design method and sustainable development, and encourages multi-disciplinary and critical perspectives on these aspects of the subject. The multi-disciplinary approach and the critical perspectives also embraces the components of integrated regeneration.

MUPD 654
Urban Transportation Systems
Credit Hours: 3

This course involves discussion and analysis of planning and management of urban transportation systems, functional description, planning, and analysis of transportation systems, characteristics of major transportation modes in Qatar and neighboring countries. Current research, technology, and policy issues are stressed.

MUPD 655
City&Regional Plan.in Arid Zon
Credit Hours: 3

This course involves discussion of problems and planning aspects specific to arid zones; different factors influencing the built environment in the arid regions including climate, water, vegetation, and soil; emphasis on basic considerations on problems of urban sites; economically related aspects of urbanized regions; specific problems of construction and site selection; the design of specific urban physical city-scape and landscape in arid zones forms; physical planning for sustainable resources.

MUPD 656
Environmental Planning & Magt
Credit Hours: 3

This course provides discussion of major aspects of environmental analysis, planning and management; problems and principles of site analysis, land use methods, and geologic hazard planning; natural resource, pollution and residuals management; economics of renewable and non-renewable resources, and the economic cost of environmental controls; environmental impact assessment and local case studies of environmental management.

MUPD 657
Techniques of Envir.Impact.Ass
Credit Hours: 3

This course introduces concepts, legal frameworks, public policies, approaches, and methodologies utilized in determining environmental impacts of proposed urban and costal projects. Processes of environmental impact assessment and implementation are emphasized. A focus on the nature and consequences of the impact from different perspectives is undertaken including economic development, social equity, and the environment.

MUPD 700
Local& Regional Sustainability
Credit Hours: 3

This course covers the relationship between local and regional regeneration within a context of integrated sustainable development. The first section examines policy issues such as compact development; smart growth; local development frameworks, polycentric development, and the new urbanism. This is undertaken in a comparative perspective, addressing particularly the experience in Europe and the US with highlights on some regional practices. The second section considers planning responses to this policy agenda in terms of building sustainable communities, and the links within a planning hierarchy between

local and regional dimensions.

Prerequisite
MUPD 600 AND MUPD 610 AND MUPD 620

MUPD 701
Urban Infrastructure Planning
Credit Hours: 3

This course covers planning for and management of urban infrastructure projects. Identification of physical infrastructure systems such as water and sewage systems, urban transportation networks, .etc.; management, finance and budgeting, and operation and maintenance of infrastructure projects. Case studies of local and regional urban infrastructure systems are discussed.

Prerequisite
MUPD 600 AND MUPD 610 AND MUPD 620

MUPD 702
Housing Policies and Planning
Credit Hours: 3

This course in an overview of the housing stocks and its function as a commodity, the private housing development process versus the public one, the user and housing design, housing rehabilitation and conservation as a community development strategy, adaptive reuse and urban revitalization and manufactured housing, the overall evaluation of housing supply and demand versus housing need based on local demographic developments and general housing strategies at the local, regional, and national levels.

Prerequisite
MUPD 600 AND MUPD 610 AND MUPD 620

MUPD 710
Sustainable Urban &Land Design
Credit Hours: 3

This course provides a theoretical basis for the understanding of design in the built environment, and an appreciation of the evolving integration of aspects of design and regeneration in urban, rural, and desert environments. The theoretical material includes consideration of aesthetics, urban morphology, rural and desert settlement, design method and sustainable development, and encourages multi-disciplinary and critical perspectives on these aspects.

Prerequisite
MUPD 600 AND MUPD 610 AND MUPD 620

MUPD 711
Urban Design in Practice
Credit Hours: 3

The focus of this project-based course is the integration of theories and principles of urban design with practice applications in a real-world context. Lectures and workshops build on the theoretical foundations and background knowledge students already have. The course is designed

to equip students with relevant skills in topics such as site appraisal, urban design analysis, the design of urban infill and physical aspects of the public realm. Students are expected to think creatively and rationally in working with a 'live' design challenge. The project component of the course is introduced early and runs parallel with and complementary to the lectures/workshops. It focuses on the theme of sensitive change and innovative intervention in dynamic urban environments.

Prerequisite

MUPD 600 AND MUPD 610 AND MUPD 620

MUPD 712

Evol of Built Form & Townscapes

Credit Hours: 3

The course focuses on the settlement evolution, the townscape qualities and the distinctive architectural features of the Middle Eastern towns. The first section covers the history of settlement desert environments, the second section locates the Arab and Islamic city in a wider regional context, the third section considers the development of built form and architectural style with particular reference to the middle east and north Africa, and the fourth and final section relates settlement and architectural development to their policy context, with particular focus on sustainability and conservation policies.

Prerequisite

MUPD 600 AND MUPD 610 AND MUPD 620

MUPD 750

Thesis focuses on Urban Plan.

Credit Hours: 9

Thesis students are asked to consider potential topics for either a thesis or a work-based project, preferably related to the core research themes in the department. If students decide to complete a thesis, it is to be a substantial research thesis, and meet the normal standards for this level of academic study.

MUPD 760

Thesis focuses on Urban Design

Credit Hours: 9

Thesis students are asked to consider potential topics for either a thesis or a work-based project, preferably related to the core research themes in the department. If students decide to complete a thesis, it is to be a substantial research thesis, and meet the normal standards for this level of academic study.

PHAR 306

Research Eval & Pres 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 strate-

gies 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 341

Professional Skills IV

Credit Hours: 0 OR 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 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 be covered include the nervous system, head and neck systems, respiratory system, gastrointestinal system, genitourinary system, cardiovascular system, peripheral vascular system, musculoskeletal and the dermatologic systems.

PHAR 361

Patient Assessment Lab I

Credit Hours: 1

Patient Assessment Laboratory I (PHAR361) is designed to introduce the pharmacy students to the various techniques and tools necessary to conduct physical examinations and to monitor changes caused by common disease states and drug therapy. In addition this course helps the students in interpreting physical findings and evaluating patient information in order to make appropriate decisions regarding the health of the patient, and his or her drug therapy needs and problems and to intervene in order to resolve the identified drug related problems and to ensure outcomes of drug therapy are met. This course will be delivered in an anatomical system-based approach to health management. The systems that will be covered include the nervous system, head and neck systems, respiratory system, gastrointestinal system, genitourinary system, cardiovascular system, peripheral vascular system, musculoskeletal and the dermatologic systems.

PHAR 362

Patient Assessment Lab II

Credit Hours: 1

Patient Assessment Laboratory II (PHAR362) is designed to introduce the pharmacy students to the various techniques and tools necessary to conduct physical examinations and to monitor changes caused by common disease states and drug therapy. In addition, this course helps the students in interpreting physical findings and evaluating patient information in order to make appropriate decisions regarding the health of the patient, and his or her drug therapy needs and problems and to intervene in order to resolve the identified drug-related problems and to ensure outcomes of drug therapy are met. This course will be delivered in an anatomical system-based approach to health management. The systems that will be covered include the nervous system, head and neck systems, respiratory system, gastrointestinal system, genitourinary system, cardiovascular system, peripheral vascular system, musculoskeletal and the dermatologic systems.

PHAR 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 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 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 405

Research Eval-Pres Skills II

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 305

PHAR 406

Research Eval-Pres Skills III

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 440

Professional Skills V

Credit Hours: 0 OR 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: 0 OR 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 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 500

Medicinal Chemistry

Credit Hours: 2

Medicinal Chemistry (PHAR500) is a bridging course designed for graduate students from a non-pharmacy background. The course is serves to introduce students to concepts required to understand drugs as organic molecules whose biological activities are derived from their chemical structures and physicochemical properties. This will be achieved by reviewing fundamental principles of organic chemistry, which will allow students to make clear connections between physical, organic and biological chemistry, and ultimately the general principles of medicinal chemistry such as absorption, distribution, metabolism, elimination and structure-activity relationships. The course also covers examples of drug classes used to treat different diseases, including sedatives, hypnotics, NSAIDs, antimicrobial agents and other drug classes.

PHAR 520

Pharmacology & Pharmacotherapy

Credit Hours: 2

Pharmacology & Pharmacotherapy (PHAR520) is a bridging course designed to provide graduate students from a non-pharmacy background, with an overview of the basic pharmacologic and pharmacotherapeutic principles and concepts. A discussion of the pharmacologic properties of selected common drug classes is also included. This course will provide students with the fundamental concepts and theoretical background in pharmacology and pharmacotherapy and help them move smoothly to advanced concepts in other relevant graduate level courses in the MSc. program.

PHAR 605

Adv Phar Res Eval&Pre Skills I

Credit Hours: 2

PHAR605 is the first of a series of two courses designed to advance the PharmD student's knowledge, comprehension, application, analysis, synthesis, evaluation and communication skills pertaining to health care research. This course builds on knowledge, skills, attitudes and values previously developed in a BSc (Pharm) program, and is designed to comply with CCAPP accreditation standards and guidelines for an advanced degree program in pharmacy.

PHAR 606

Adv Phar Res Eval&Pre Skil. II

Credit Hours: 2

PHAR606 is the second of a series of two courses designed to advance the PharmD student's knowledge, comprehension, application, analysis, synthesis, evaluation and communication skills pertaining to health care research. This course builds on knowledge, skills, attitudes and values previously developed in a BSc (Pharm) program, and is designed

to comply with CCAPP accreditation standards and guidelines for an advanced degree program in pharmacy.

PHAR 620

Res.Des.Ethics & Stat. Meth. I

Credit Hours: 2

This graduate course aims to expand upon principles, application and controversies pertaining to bench and clinical research design and statistical methodology delivered at the undergraduate level. Topics also include issues such as grantsmanship, research ethics, data management, coauthorship, intellectual property and associated topics. This is a team taught course involving faculty within the college and invited faculty from other departments and/or institutions.

PHAR 621

Res.Des.Ethics & Stat. Meth.II

Credit Hours: 2

This graduate course aims to expand upon principles, application and controversies pertaining to bench and clinical research design and statistical methodology delivered at the undergraduate level. Topics also include issues such as grantsmanship, research ethics, data management, coauthorship, intellectual property and associated topics. This is a team taught course involving faculty within the college and invited faculty from other departments and/or institutions.

PHAR 625

Life Cycle of a Medication

Credit Hours: 2

This graduate course aims to provide students with an understanding of the process of drug discovery and development from the identification of novel drug targets to the introduction of new drugs into clinical practice and eventual withdrawal. To promote an interdisciplinary approach to the topics, this is a team taught course involving faculty within the college and invited faculty from other departments and/or institutions.

PHAR 630

Adv Prof Prac Internships I

Credit Hours: 4

PHAR630 is the first of a series of eight advanced professional practice internships designed to provide PharmD students with a variety of practice-based opportunities to integrate, reinforce and advance the knowledge, skills, attitudes and values developed in a BSc (Pharm) program. These internships are undertaken in select health care delivery (e.g. hospital, clinic, community) and related sites and are structured to include a set of formalized activities which are designed to achieve specific learning objectives. Select pharmacy practitioners serve as mentors, role models, trainers and assessors of student learning. This course is designed to comply with CCAPP accreditation standards and guidelines for an advanced degree program in pharmacy.

PHAR 631

Adv Prof Prac Internships II

Credit Hours: 4

PHAR631 is the second of a series of eight advanced professional

practice internships designed to provide PharmD students with a variety of practice-based opportunities to integrate, reinforce and advance the knowledge, skills, attitudes and values developed in a BSc (Pharm) program and previous PharmD internships. These internships are undertaken in select health care delivery (e.g. hospital, clinic, community) and related sites and are structured to include a set of formalized activities which are designed to achieve specific learning objectives. Select pharmacy practitioners serve as mentors, role models, trainers and assessors of student learning. This course is designed to comply with CCAPP accreditation standards and guidelines for an advanced degree in pharmacy.

PHAR 632

Adv Prof Prac Internships III

Credit Hours: 4

PHAR632 is the third of a series of eight advanced professional practice internships designed to provide PharmD students with a variety of practice-based opportunities to integrate, reinforce and advance the knowledge, skills, attitudes and values developed in a BSc (Pharm) program and previous PharmD internships. These internships are undertaken in select health care delivery (e.g. hospital, clinic, community) and related sites and are structured to include a set of formalized activities which are designed to achieve specific learning objectives. Select pharmacy practitioners serve as mentors, role models, trainers and assessors of student learning. This course is designed to comply with CCAPP accreditation standards and guidelines for an advanced degree program in pharmacy.

PHAR 633

Adv Prof Prac Internships IV

Credit Hours: 4

PHAR633 is the fourth of a series of eight advanced professional practice internships designed to provide PharmD students with a variety of practice-based opportunities to integrate, reinforce and advance the knowledge, skills, attitudes and values developed in a BSc (Pharm) program and previous PharmD internships. These internships are undertaken in select health care delivery (e.g. hospital, clinic, community) and related sites and are structured to include a set of formalized activities which are designed to achieve specific learning objectives. Select pharmacy practitioners serve as mentors, role models, trainers and assessors of student learning. This course is designed to comply with CCAPP accreditation standards and guidelines for an advanced degree program in pharmacy.

PHAR 634

Adv Prof Prac Internships V

Credit Hours: 4

PHAR634 is the fifth of a series of eight advanced professional practice internships designed to provide PharmD students with a variety of practice-based opportunities to integrate, reinforce and advance the knowledge, skills, attitudes and values developed in a BSc (Pharm) program. These internships are undertaken in select health care delivery (e.g. hospital, clinic, community) and related sites and are structured to include a set of formalized activities which are designed to achieve spe-

cific learning objectives. Select pharmacy practitioners serve as mentors, role models, trainers and assessors of student learning. This course is designed to comply with CCAPP accreditation standards and guidelines for an advanced degree program in pharmacy.

PHAR 635
Adv Prof Prac Internships VI
Credit Hours: 4

PHAR635 is the sixth of a series of eight advanced professional practice internships designed to provide PharmD students with a variety of practice-based opportunities to integrate, reinforce and advance the knowledge, skills, attitudes and values developed in a BSc (Pharm) program and previous PharmD internships. These internships are undertaken in select health care delivery (e.g. hospital, clinic, community) and related sites and are structured to include a set of formalized activities which are designed to achieve specific learning objectives. Select pharmacy practitioners serve as mentors, role models, trainers and assessors of student learning. This course is designed to comply with CCAPP accreditation standards and guidelines for an advanced degree program in pharmacy.

PHAR 636
Adv Prof Prac Internships VII
Credit Hours: 4

PHAR636 is the seventh of a series of eight advanced professional practice internships designed to provide PharmD students with a variety of practice-based opportunities to integrate, reinforce and advance the knowledge, skills, attitudes and values developed in a BSc (Pharm) program and previous PharmD internships. These internships are undertaken in select health care delivery (e.g. hospital, clinic, community) and related sites and are structured to include a set of formalized activities which are designed to achieve specific learning objectives. Select pharmacy practitioners serve as mentors, role models, trainers and assessors of student learning. This course is designed to comply with CCAPP accreditation standards and guidelines for an advanced degree program in pharmacy.

PHAR 637
Adv Prof Prac Internships VIII
Credit Hours: 4

PHAR637 is the eighth of a series of eight advanced professional practice internships designed to provide PharmD students with a variety of practice-based opportunities to integrate, reinforce and advance the knowledge, skills, attitudes and values developed in a BSc (Pharm) program and previous PharmD internships. These internships are undertaken in select health care delivery (e.g. hospital, clinic, community) and related sites and are structured to include a set of formalized activities which are designed to achieve specific learning objectives. Select pharmacy practitioners serve as mentors, role models, trainers and assessors of student learning. This course is designed to comply with CCAPP accreditation standards and guidelines for an advanced degree program in pharmacy.

PHAR 640
Graduate Seminar I
Credit Hours: 1

This graduate course aims to provide students with the opportunity to participate in the formal discussion of research topics in an interdisciplinary, formal presentation environment involving other students, faculty and guests external to the college and campus. The existing biweekly faculty research seminars are expanded to include graduate student involvement as presenters and attendees. Graduate students are expected to deliver a minimum of one formal presentation each academic year.

PHAR 641
Graduate Seminar II
Credit Hours: 1

This graduate course aims to provide students with the opportunity to participate in the formal discussion of research topics in an interdisciplinary, formal presentation environment involving other students, faculty and guests external to the college and campus. The existing biweekly faculty research seminars are expanded to include graduate student involvement as presenters and attendees. Graduate students are expected to deliver a minimum of one formal presentation each academic year.

Prerequisite
PHAR 640

PHAR 642
Graduate Seminar III
Credit Hours: 1

This graduate course aims to provide students with the opportunity to participate in the formal discussion of research topics in an interdisciplinary, formal presentation environment involving other students, faculty and guests external to the college and campus. The existing biweekly faculty research seminars are expanded to include graduate student involvement as presenters and attendees. Graduate students are expected to deliver a minimum of one formal presentation each academic year.

Prerequisite
PHAR 641

PHAR 643
Graduate Seminar IV
Credit Hours: 1

This graduate course aims to provide students with the opportunity to participate in the formal discussion of research topics in an interdisciplinary, formal presentation environment involving other students, faculty and guests external to the college and campus. The existing biweekly faculty research seminars are expanded to include graduate student involvement as presenters and attendees. Graduate students are expected to deliver a minimum of one formal presentation each academic year.

Prerequisite
PHAR 642

PHAR 650
Eng-based Comm. for Grad. Stu.
Credit Hours: 2

This graduate course aims to provide students with the opportunity to further enhance their oral and written English communication skills to prepare these students for employment in an academic and/or research environment. This includes the writing skills for a research paper and a thesis/dissertation, responding to journal reviewers, grant writing and related topics. In addition to theory, students are given opportunities to practice their communication skills and they receive extensive feedback from both the instructors and colleagues.

PHAR 660
Directed Studies in Pharm. Sci
Credit Hours: 2

This graduate course aims to provide students with a closely supervised research experience and involves the completion of a project under the supervision of the primary faculty supervisor or a designated faculty member. Projects could include experiences in an external laboratory for the purpose of gaining knowledge and skills pertaining to experimental techniques not available on the QU campus.

PHAR 670
Adv. Top. in Pharm. Sci I
Credit Hours: 3

This graduate course aims to provide intensive individualized instruction in the intended area of specialization (pharmacognosy, medicinal chemistry, pharmacology, pharmacokinetics, pharmaceuticals, pharmacogenomics) across two semesters. The specific topics are determined by the Primary Faculty Supervisor with approval by the Graduate Student Supervisory Committee. Whenever applicable, graduate students in two or more specialties (e.g. medicinal chemistry and pharmacognosy) undertake combined course work.

PHAR 671
Adv. Top. in Pharm. Sci II
Credit Hours: 3

This graduate course aims to provide intensive individualized instruction in the intended area of specialization (pharmacognosy, medicinal chemistry, pharmacology, pharmacokinetics, pharmaceuticals, pharmacogenomics) across two semesters. The specific topics are determined by the Primary Faculty Supervisor with approval by the Graduate Student Supervisory Committee. Whenever applicable, graduate students in two or more specialties (e.g. medicinal chemistry and pharmacognosy) undertake combined course work.

PHAR 680
Electives in Pharm. Sci.
Credit Hours: 3

These graduate elective courses focus on either of the following areas: Principles of Drug Design, Biotransformation of Drugs, Pharmaceutical Biotechnology, or another area within pharmaceutical sciences. Other electives are added according to demand and availability.

PHAR 690
MSc (Pharm) Thesis
Credit Hours: 5

This course consists of a major research project which has been approved by the graduate student supervisory committee, the creation of a formal structured document to describe background, hypothesis, methods, results, conclusions, limitations, future research requirements and bibliography associated with the research project, and finally the thesis defense. The thesis is defended by the student in a formal oral examination process in the final semester.

PHAR 691
MSc (Pharm) Thesis
Credit Hours: 5

This course consists of a major research project which has been approved by the graduate student supervisory committee, the creation of a formal structured document to describe background, hypothesis, methods, results, conclusions, limitations, future research requirements and bibliography associated with the research project, and finally the thesis defense. The thesis is defended by the student in a formal oral examination process in the final semester.

PSYC 501
Human Development and Learning
Credit Hours: 2

Human Development and Learning is an applied field of psychology that relies on a number of psychological principles and theories in order to offer a scientific explanation to the process of the teaching and learning. Among the topics that this course covers are cognitive development, language development, personal development theories, intelligence, individual differences, learning theories, motivation, classroom management, and measurement and evaluation in the school. The focus of this course is on how learning occurs and strategies that support learning (pedagogy). This course has a field-based component.

PSYC 606
Educational Res Meth
Credit Hours: 3

This course provides an overview of research methods, designs, and techniques. Course content includes applying public information and research-based knowledge of issues and trends and the use of appropriate assessment strategies and research methodologies to address authentic issues in education. Students also explore the use of action research as a means to improve teaching and learning.

SPED 503
Introduction to Special Edu
Credit Hours: 2

This course provides broad knowledge and skills in special education for candidates in all teacher education programs. It mainly covers: models, theories, etiology, philosophies, legal provisions, ethical and professional commitment, assessment and identification procedures and instructional strategies for students with exceptional learning needs.

It also provides knowledge of different characteristics of learners with special needs and their educational implications. This course stresses on adapting teaching strategies and differentiating instructions to meet the needs of individuals with exceptional learning needs. This course has a field-based component.

SPED 520
Assess Stu Learning Difficult
Credit Hours: 3

Formal and informal assessment strategies used in the identification and service of students with disabilities are described in this course. Technical and operational aspects of standardized testing, curriculum based assessment, and informal strategies are also described.

SPED 521
Mthds & Matrl in Spec Edu
Credit Hours: 3

This course focuses on the instructional skills necessary for teaching students with high incidence disabilities (LD, E/BD, and ID) who receive special education services. Topics of primary emphasis include: developing effective individualized education plans; preparing and delivering exemplary lesson plans; and identifying instructional strategies that promote effective classroom learning. Research-based methodology is emphasized.

SPED 522
Applied Behavior Analysis
Credit Hours: 3

This course focuses on the basic principles and procedures of applied behavior analysis; on identification of factors that contribute to behavioral problems and improved performance; and on procedures that can be used to minimize behavioral problems, improve performance, teach new behaviors, and increase probability of behaviors occurring under appropriate circumstances.

SPED 580
Internship
Credit Hours: 6

This field based course provides an opportunity for students to assume the role of a Special Education teacher, while being jointly supervised by a mentor teacher and a university faculty member. Students spend four weeks working with their university instructors, preparing for their internships, and 10 weeks in the field, in a center for students with disability or a school that includes students with disabilities under the joint supervision of the university instructor and a mentor teacher. Students are also required to participate in a seminar with their university instructor; topics for the seminar include student concerns as well as instructor and mentor teacher suggestions for teaching improvements. This course requires a minimum of 400 hours in the field.

SPED 601
Issues, Policy and Practice **
Credit Hours: 3

This course aims at examining current trends and issues related to mild/moderate disabilities. It covers philosophies, theories, legislation, and

perspectives from other fields of knowledge that influence the practice in the field of special education. It emphasizes educational programs and behavioral management issues in mild/moderate disabilities.

SPED 602
Inclus Edu for Stud with Disab
Credit Hours: 3

This course is designed to prepare the educator to effectively teach a range of students found in the typical general education classroom. Various disabilities are addressed in terms of their characteristics, assessment procedures, and intervention techniques that are research proven. The course prepares candidates to serve in a pre-referral process as well as during the child's eligibility for special education. Practical strategies, accommodations and modifications for students with disabilities in the general education classroom are also explored.

SPED 603
Adv Applied Behavior Analysis
Credit Hours: 3

An overview of applied behavior analysis, which is based on the discipline devoted to the understanding and improvement of human behavior, is presented. Emphasis is placed on designing procedures to systematically change socially important behaviors using single-subject research designs. This course provides the student with procedures for selecting, defining, and measuring applied behavior. Behavioral and cognitive-behavioral intervention procedures are reviewed and discussed using graphic displays and detailed descriptions of experimental procedures from published articles and the textbook. Replicating and evaluating analyses of behavior using single-subject research designs are also addressed.

SPED 604
Assess of Stu with Disabil
Credit Hours: 3

This course aims at providing the candidates with essential procedures of assessment for individuals with exceptional learning needs. It covers topics such as types of educational assessment, issues in assessing children with special needs, and skills needed to undertake assessment. Emphasis is placed on analysis of evaluation of learners work in order to prepare and apply individualized programs and activities.

SPED 605
Collab with Fam with Disabil
Credit Hours: 3

This course provides candidates with knowledge of legal, social and educational aspects and their effects on children with disabilities and their families. Among topics covered are historical and current roles of parents, family characteristics, communication and consultations skills, and resources in special education. The course emphasizes school visitation, family interview, and developing skills necessary to pinpoint problems facing special needs persons and families when interacting with schools and community resources

SPED 607
Char of Mild-Mod. Disabilities
Credit Hours: 3

This course focuses on the characteristics of learners with high-incident disabilities including learning disabilities, emotional behavioral disorders, mild and moderate intellectual disabilities. The purpose of this course is to study the nature of these learners including the traditional categorical perspective and then move to the perspective of alternative, non-categorical frameworks. Topics include definition/ eligibility, assessment, causal factors, characteristics of various disorders, and current issues facing the field.

SPED 608
Char of Sever-Profound Disabil
Credit Hours: 3

This course aims at helping prospective teachers in special education to understand definitions, identification, etiology, characteristics and impact of severe disabilities on developmental skills. It also covers legislations, rules, regulations and ethical responsibilities for teachers of those students. Major emphasis is placed on characteristics, education and medical complications as well as effective collaboration activities with other professionals and community resources.

SPED 609
Mthds Teach Mild-Mod Disabil
Credit Hours: 3

This course focuses on methods and materials for teaching learners with mild and moderate disabilities including behavior disorders, learning disabilities, and mild intellectual disabilities. Students learn how to plan lessons, accommodate their academic needs, and make decisions based on assessment. Students also learn how to choose service delivery models, use related services, and work effectively with families and other professionals.

SPED 610
Mthds Teach Sev-Pro Disabil
Credit Hours: 3

This course helps candidates to gain knowledge and skills related to teaching children with severe disabilities. It covers the use of assistive devices and technological equipment appropriate for individuals with severe disabilities among other topics. It stresses coordination efforts with professionals and parents to design and implement instructional as well as behavioral management strategies to improve developmental and social skills of these students.

SPED 611
Literacy Assess & Remediation
Credit Hours: 3

This course explores the nature and causes of reading disabilities, and investigates general and specific principles and approaches to diagnosis and correctional intervention. The student conducts assessment and intervention and submit actual case studies using both group and individual tests in diagnosis and correction

SPED 612
Motor Development & Learning
Credit Hours: 3

This course focuses on motoric, educational, and vocational supports during the lifespan of individuals with learning differences practiced in the field by professionals. Typical and atypical patterns of development influence the acquisition of skills and the mastery of necessary tasks throughout one's lifespan. Atypical patterns of motor development impact on the functional and independent skills necessary to achieve educational, vocational, and adaptive goals for students with disabilities. This course reviews fine and gross motor development of children with known or suspected disabilities and relates the differences to the acquisition and mastery of skills throughout the lifespan. Special emphasis is placed on children of school-going ages with known or suspected motor disabilities.

SPED 621
Intern:Mild-Moderate Disabil
Credit Hours: 6

The Internship in Special Education is designed to provide the opportunity for graduate students to practice and demonstrate those planning, teaching, assessment, management, and collaboration skills that have been identified by the program as essential components of being an effective special educator. It is during this internship that candidates confirm that they have mastered those skills needed to work with learners who are in special education programs.

SPED 622
Internship:Sever-Prof Disabil
Credit Hours: 6

The Internship in Special Education is designed to provide the opportunity for graduate students to practice and demonstrate those planning, teaching, assessment, management, and collaboration skills that have been identified by the program as essential components of being an effective special educator. It is during this internship that candidates confirm that they have mastered those skills needed to work with learners who are in special education programs.

STAT 502
Business Statistics
Credit Hours: 3

In this course, the students focus on the tools and methods for effective use of data in problem solving and making management decision. It emphasizes data management and proper ways to communicate the findings in an executive manner. This course covers probability, decision analysis, continuous distributions, hypothesis testing, forecasting, and regression. Exercises and examples are drawn from marketing, finance, and operations management. In addition, computer software is used to demonstrate the use of the concepts and presentation techniques.





