DHOFAR UNIVERSITY

VISION FOR THE FUTURE

Catalogue
2016–2017

Salalah
Sultanate of Oman

Notice

I.   Information in this catalogue applies to the academic year 2016-2017 as of September 1, 2016. The University reserves the right to make changes without prior notice in programs, course offerings, academic requirements, and teaching staff as the need arises.

II. The catalog has been drafted to conform to related Omani laws and Ministry of Higher Education (MoHE) rules and regulations. In the event of a contradiction, related Omani laws and MoHE rules and regulations take precedence.

Student Responsibility for Catalogue Information

Students are responsible for reading the information in this catalogue. Failure to read and comply with college and university regulations will not exempt students from whatever penalties they may incur.

Dhofar University Contact Information

PO Box 2509
Postal Code 211
Salalah
Sultanate of Oman

Telephone   (968) 23 23 70 00
Fax   (968) 23 23 77 77
E-mail   info@du.edu.om

This catalogue can also be viewed at http:**//www.du.edu.om**

COLLEGES ACADEMIC CALENDAR 2016-17

First Semester (Fall) 2016-2017

Month	Date	Weeks	Day	Activity/Event
September	01		Thu	Faculty members report to work
September	01-08		Thu- Thu	On line- Registration for continuing students
September	11-13		Sun-Tue	Eid al Adha (Tentative)
September	18	1	Sun	First day of classes
September	21-22		Wed-Thu	Add / Drop
September	25-27	2	Sun-Tue	late registration
October	02		Sun	Islamic New Year (Tentative)
October	13	5	Thu	Last day for Incomplete work "I"
November	23-24	10	Wed-Thu	National Day (Tentative)
December	11		Sun	Birth of Prophet (Tentative)
December	15	13	Thu	Spring schedule announcement
December	29	15	Thu	Last day for course withdrawal with "W"
January	12	17	Thu	Last day of classes
January	13-14	18	Fri-Sat	Reading period
January	15-28	18-19	Sun-Sat	Final Exams

Second Semester (Spring) 2016-2017

Month	Date	Weeks	Day	Activity/Event
February	12		Sun	Faculty members report to work
February	13-16		Mon-Thu	Registration for continuing students
February	19	1	Sun	First day of classes
February	21-23		Tue-Thu	Add/Drop
February-March	26-02		Sun-Thu	late registration
March	23	4	Thu	Last day for Incomplete Work "I"
April	23-27		Sun-Thu	Spring Break
May	25	13	Thu	Final Exam announcement
June	01	14	Thu	Summer 2016-17 schedule announcement
June	01	14	Thu	Last day for withdrawal "W"
June	08	15	Thu	Fall 2017-18 schedule announcement
June	08	15	Thu	Last day of classes
June	11-13	16	Sun-Tue	Reading period
June	13-22	16-17	Tue-Thu	Final Exams
June	25		Sun	Eid al Fitr (Tentative)

Summer Semester 2016-2017

Month	Date	Weeks	Day	Activity/Event
July	04-06		Tue-Thu	Registration of students
July	09	1	Sun	First day of classes
July	09-10	1	Sun-Mon	Add/Drop + late registration
August	03	4	Thu	Last day for withdrawal "W"
August	17	6	Thu	Last day of classes
August	22-24	7	Tue-Thu	Final Exams

FP ACADEMIC CALENDAR 2016-17

First Semester (Term 1) 2016-2017

Month	Date	Week	Day	Activity/Event
September	1	1	Thu	Work resumption for staff
	4		Sun	First Placement Test
	5		Mon	Registration for continuing students(L2 & L3)
				Resit Exam & Makeup Test
	6		Tue	Second Placement Test
				Registration for new students (L1)
	7		Wed	Third Placement Test
				Registration for all students(L1, L2 & L3)
				First day of classes for all (L1, L2 & L3)
	7 & 8		Wed & Thu	Add and Drop for all (L1, L2 & L3)
	11 -13	2	Sun - Tue	Eid Al Adha - Tentative
October	24 - 27	8	Mon – Thu	Mid Term Test
November	23 & 24	12	Wed & Thu	National day- Tentative
December	2 & 3	13	Fri & Sat	Reading Days
	4	14	Sun	Last day of classes
	5 to 8		Mon – Thu	Final Exam/Exit Exam L3
	11	15	Sun	Birth of Prophet (Tentative)
	12 & 13		Mon & Tue	Marking, Finalizing grades and posting

Second Semester (Term 2) 2016-2017

Month	Date	Week	Day	Activity/Event
December	25	1	Sun	Work resumption for (Staff)
	26		Mon	First Placement Test & Make up test
				Registration for continuing students (L2 & L3)
	27		Tue	Second Placement Test
				Registration for new students (L1)
	28		Wed	First day of classes for all (L1, L2 & L3)
	28 & 29		Wed & Thu	Add and Drop for all (L1, L2 & L3)
February	6 to 9	7	Mon - Thu	Mid Term Test
March	10 &11	11	Fri - Sat	Reading Days
	10 &11	12	Sun	Last Day Of Classes
	13 - 16		Mon - Thu	Final Exam/Exit Exam L3
	19 to 21	13	Sun - Tue	Marking, Finalizing grades and posting

Summer Semester (Term 3) 2016-2017

Month	Date	Week	Day	Activity/Event
April	2	1	Sun	Work resumption for staff
	3		Mon	First Placement Test & Makeup test
				Registration for continuing students (L2 & L3)
	4		Tue	Second Placement Test
				Registration for new students (L1)
	5		Wed	First day of classes
	5 & 6		Wed & Thu	Add and Drop for all (L1,L2,L3)
May	17,18 & 20	7	Wed, Thu & Sat	Midterm Test
June	15	11	Thu	Last day of classes
	16		Fri	Reading days
	17 to 20	12	Sat - Mon	Final Exam/Exit Exam L3
	20 to 22		Tue - Thu	Marking, Finalizing grades and posting
	25 to 27	13	Sun - Tue	Eid al Fitr (Tentative)

BOARD OF TRUSTEES

DHOFAR UNIVERSITY
AN OVERVIEW

UNIVERSITY OFFICERS

Administrative Officers

Dr. Hassan Kashoob, Vice Chancellor
Prof. Mohamed Limam, Deputy Vice Chancellor
Dr. Sanjay Ramteke, Director of Department of Quality Assurance
Mr. Abdulqader Ba Omar, Director of the Department of Administrative Affairs
Mr. Mohammed Tabook, Director of the Department of Financial Affairs
Ms. Salama Al Mashani, Director of the Department of Admission and Registration
Mr. Hassan Said Kashoob, Director of the Department of Student Affairs
Ms. Fatima Qatan, Director of VC Office
Eng. Mohammad Dimachkieh, Director of the Computing and Networking Center
Mr. Musallem Kashoob, Director of the Department of Human Resources
Eng. Baskaran Ramadoss, Director of the Department of Technical Affairs
Mr. Abdullah Hussein Al Hafeedh, Director of the Department of Purchase
Mr. Abdulrahman Ba Omar, Director of the Department of Public Relations and External Cooperation
Mr. Ali Bakhit Al Awaid, Director of the Library

Academic Officers

Dr. Hassan Kashoob, Vice Chancellor
Prof. Mohamed Limam, Deputy Vice Chancellor
Prof. Ramzi Nasser, Dean of the College of Arts and Applied Sciences, (CAAS)
Prof. Aliasgar Contractor, Dean of the College of Engineering, (CE)
Dr. Syed Ahsan Jamil, Dean of the College of Commerce and Business Administration, (CCBA)
Mr. Faical Al Hamadi, Director of the Foundation program, (FP)
Dr. Lakshmi Narayanan, Assistant Dean, (CAAS)
Dr. Tareq Al Housary, Assistant Dean, (CCBA)
Dr. Israr Ul Hassan, Director of Department of Research, (DR)
Ms. Megan M. Putney, Deputy FP Director, (FP)
Dr. Vijay S. Thakur, Chairperson of the Department of Languages and Translation, (CAAS)
Dr. Khalid Al Mashikhi, Chairperson of the Department of Education, (CAAS)
Dr. Biju Sayed, Chairperson of the Department of Computer Science, (CAAS)
Dr. Reem Abuiyada, Chairperson of the Department of Social Sciences, (CAAS)
Dr. Khedr Abo Hassan, Chairperson of the Department of Math and Sciences, (CAAS)
Dr. Ahmed Sarairah, Acting Chairperson of Law, (CAAS)
Dr. Mazhar Ul-Islam, Chairperson of the Department of Chemical Engineering, (CE)
Dr. Asim Rauf, Acting Chairperson of the Department of Civil Engineering, (CE)

Dr. Manaf Zghaibeh, Chairperson of the Department of Electrical and Computer Engineering, (CE)

Dr. Fethi Abbasi, Chairperson of the Department of Mechanical and Mechatronics Engineering, (CE)

Mr. Hugo Bello, Chairperson of the Department of Graphic Design and Interior Architecture, (CE)

Dr. Mawih Kareem Al Ani, Chairperson of the Department of Accounting and Finance, (CCBA)

Dr. Moinuddin Ahmad, Chairperson of the Department of Management and Marketing, (CCBA)

Dr. Mohammed Aref Abdul Rasheed, Chairperson of the Department of Management Information Systems, (CCBA)

Dr. Samir Hammami, Chairperson of the Center for Entrepreneurship, (CCBA)

Ms. Rehana Hussain, Coordinator of the English Level 3, (FP)

Mr. Umamaheswara Bontha, Coordinator of the English Level 2, (FP)

Mr. Mohamed Achamsi, Coordinator of the English Level 1, (FP)

Mr. Syed Salman Mahmood, Math Coordinator, (FP)

Mr. Maruthapan Veeraiyan, IT Coordinator, (FP)

University Council

Dr. Hassan Kashoob, Vice Chancellor

Prof. Mohamed Limam, Deputy Vice Chancellor

Prof. Ramzi Nasser, Dean of the College of Arts and Applied Sciences

Prof. Aliasgar Contractor, Dean of the College of Engineering

Dr. Syed Ahsan Jamil, Dean of the College of Commerce and Business Administration

Mr. Faical Al Hamadi, Director of the Foundation program

Dr. Sanjay Deodutta Ramteke, Director of the Department of Quality Assurance

Dr. Israr Ul Hassan, Director of the DR

Dr. Francesco Bigagli, Representative of CAAS

Dr. Mazin Z. Othman, Representative of CE

Dr. Mawih Kareem Al Ani, Representative of CCBA

Dr. Shanker Menon, Reporter of the UC

Colleges, Units, and Boards

College of Arts and Applied Sciences

Prof. Ramzi Nasser

College of Commerce and Business Administration

Dr. Syed Jamil, Dean

College of Engineering

Prof. Aliasgar Contractor

Foundation Program

Mr. Faical Al Hamadi, Director

Department of Quality Assurance

Dr. Sanjay Deodutta Ramteke, Director

Risk Management Committee

Dr. Syed Ahsan Jamil - Chairperson

Center for Teaching and Learning

Dr. Syed Ahsan Jamil - Director

THE UNIVERSITY

THE UNIVERSITY

Background

Dhofar University (DU) is a private institution of higher education in Salalah, Sultanate of Oman, established by Ministerial Decree No. 5/2004 issued in January 2004. The University formally commenced its operations in September 2004. Dhofar University has a Board of Trustees that represents its highest policy making body, and was established with academic and technical support from the American University of Beirut (AUB).

Vision

Dhofar University aspires to occupy a recognized position among the institutions of quality higher education.

Mission

Dhofar University strives to achieve excellence in teaching, research, and community service, in an open learning environment conducive to creativity and innovation and to the acquisition of cutting-edge professional knowledge.

Core Values

The core values of Dhofar University are:
1. Academic excellence
2. Individual responsibility
3. Continuous improvement
4. Active citizenship
5. Life-long learning

Graduate Attributes

1. Master theoretical knowledge and practical skills in the students' chosen discipline commensurate with program level and objectives.
2. Demonstrate capacity for effective communication, critical thinking, creativity and innovation.
3. Exhibit honesty, discipline and accountability.
4. Practice tolerance, humility, respect for differences and commitment to service.
5. Practice life-long learning.

Location and Climate

DU is located in Salalah, the main city of the Dhofar governorate. Salalah is well-known for its beautiful and mild weather throughout the year but particularly in the summer (known as Khareef season). The temperature remains steady in the upper twenties, but occasionally rises to mid-thirties. The long and clean sandy shores of Salalah, one of the most beautiful in the world, are ideal for fishing and swimming. The nearby mountains are ideal for hiking.

Campus Facilities

The brand new campus was designed to conform to local needs and cultural context while meeting both international design standards and those of the Ministry of Higher Education. The campus includes: an administration building, three buildings for the three colleges and the Foundation Program, a common classroom building, a main library building, a student activities center, theatre, a mosque, female student dormitories, and housing for the senior administration. An engineering workshop building has recently become part of the campus. Students, faculty and staff have access to the city sports complex located next to the new campus.

Admission of University Employees

All degrees and diplomas awarded by Dhofar University are registered with the Ministry of Higher Education (MOHE) in the Sultanate of Oman. The University is a member of the Oman Quality Network (OQN), which is an independent, not-for-profit network of Omani Higher Education Providers focused on quality enhancement in higher education.

Dhofar University is one of the few Higher Educational Institutions (HEIs) in Sultanate of Oman that has established an independent Department of Quality Assurance (DQA) headed by full time QA Director to monitor the quality of teaching and services, and to ensure compliance with the requirements of the Ministry of Higher Education and the Oman Authority for Academic Accreditation (OAAA).

Admission Policies and Procedures

Admission Requirements

Students are admitted to the undergraduate programs at Dhofar University on the basis of their:

1. General Education Certificate or its equivalent; and
2. Results in the English, Math, and Information Technology placement tests.

Based on the results of placement tests, accepted students are divided into two groups as follows:

A. Students who need remedial work; these will join the Foundation Program, for one or more semesters, until they successfully complete the Program; and

B. Students who proceed directly to the first year of the diploma or bachelor program.

Students may be exempted from English, Math, or IT Foundation requirements and admitted directly to their chosen fields of specialization if they meet the following criteria:

- Exemption from English requires minimum scores of: 5.5 in International English Language Testing System (IELTS) (reading and writing minimum 5.0);
- Exemption from Math requires a minimum score of 500 on the SAT I math section or equivalent; and
- Exemption from IT requires an English (IC3) or ICDL certificates or equivalent.

Colleges may have additional requirements to join specific programs, details of which can be found under College Requirements in DU catalogue.

Please note that the validity of all these tests is limited to two years from the date of taking the exam. Applicants must submit original certificate of test results and the University reserves the right to verify the authenticity of the certificate. Holders of IELTS and TOEFL certificates issued by institutions outside Oman may be asked to sit for the placement test.

Application Procedure

Every applicant is required to submit the following documents:

- A completed application form
- A certified copy of the General Education Certificate or its equivalent
- Four recent photographs
- A photocopy of identity card or passport
- A non-refundable application fee of RO 30 for diploma / bachelor program and RO 50 for master Program.

Please note that any certificate originated from a foreign country must be authenticated by the Omani Ministry of Education before it is accepted.

Special and Audit Students

Dhofar University is part of the network of universities serving Oman and the region and is very keen on maintaining good relations with other institutions of higher learning. Furthermore, the University is located in Salalah which is world renowned for its mild climate in summer, or the rainy "Khareef" season when thousands of visitors come to enjoy the weather and the beautiful environment. Many students come with their families to Salalah and would like to continue their education while enjoying the Khareef. The University accepts Special students who would like to take a certain number of courses and transfer their credits to their universities. The University allows them to register for courses or merely attend classes as auditors. Special students and auditors are required to

present documents that show their credentials and preparedness to take courses in the University.

A student who has been dismissed from the University (See Dismissal section) may register as a special student not working for a degree contingent to the approval of the Administrative Committee of the corresponding College.

Academic Advisors

Each student is assigned an academic advisor from day one at DU. The academic advisor is a faculty member in the academic division in which the student is enrolled. The role of the advisor is to assist the advisee in preparing course schedule during registration, support and guide him/her during his/her university studies, monitors his/her academic progress, and offers him/her counseling on any academic difficulties or problems he/she may experience.

Fees and Expenses

Tuition Fees

Tuition fees are as follows:

- 900 Omani Riyals for each of three Terms semesters for the Foundation Program.
- 70 Omani Riyals for each credit hour taken in the fall, spring and summer semesters for all day programs.
- Year One students who take FP Math or IT, pay the equivalent of 3 credits for each.
- 125 to 150 Omani Riyals, depending on the program, for each credit hour taken in the fall, spring and summer semesters for Masters Programs.

The above fees do not include books, transportation, or housing expenses.

Tuition Refund

A student may withdraw from a semester after registration, but the refund rate of tuition depends on the timing of the withdrawal:

- Full tuition will be refunded only to students who withdraw from the semester before the end of the first week of classes.

- 50% of tuition fees will be refunded to students who withdraw before the end of the second week of classes.

- NO REFUND will be made to students who withdraw from the semester from the beginning of the third week of classes and onward.

Academic Programs and Degrees Offered

DU offers 51 academic programs, representing 18 diploma programs, 24 bachelor degree programs and 9 master programs in Engineering, Education, IT, Business, Law, Languages and Social Sciences. Further, DU also offers variety of courses and training programs for its staff, executives and employees of government agencies and commercial firms and for adult learners in local community through its continuing education center. Also, a feasibility study has been conducted to establish the first College of Medicine in Dhofar.

Academic programs follow the American model of higher education and use English as the medium of instruction except for the Master in Management, the Master of Education in Educational Administration programs, and the Master of Education in Counseling are in Arabic. The academic year is divided into two semesters of sixteen weeks of instruction each, and a summer session of six weeks of instruction.

A student will be awarded either a diploma or a bachelor degree, but not both, in accordance with the choice he/she had made when he/she joined DU. If a bachelor bound student decided, for a legitimate reason, to forgo his/her desire to finish the bachelor program in the middle of a semester and decided to receive a diploma instead then he/she will be required to drop all courses in progress. A diploma will then be awarded contingent to completing the requirements of the diploma program, subject to the approval of the College Administrative Committee and the DVC for Academic Affairs.

The University has three colleges: the College of Arts and Applied Sciences, the College of Commerce and Business Administration, and the College of Engineering. The programs offered in each college are summarized below.

College of Arts and Applied Sciences (CAAS)

CAAS offers the following programs:

- Diploma in Computer Science
- Diploma in Chemistry
- Diploma in English Language
- Diploma in Mathematics
- Diploma in Social Work

- Bachelor of Education in Teaching Mathematics
- Bachelor of Education in Teaching Science
- Bachelor of Education in Teaching English Language
- Bachelor of Education in Teaching Information Technology
- Bachelor of Science in Computer Science
- Bachelor of Science in Mathematics
- Bachelor of Arts in English Language
- Bachelor of Arts in Translation
- Bachelor of Arts in Arabic Language
- Bachelor of Arts in Social Work
- Bachelor of Law

- Master of Education in Educational Administration
- Master of Education in Counseling
- Master in Curriculum and Instruction: Teaching English Language
- Master of Science in Information Technology
- Master of Arts in English

CAAS also offers two minors: Arabic Language and Arabic Literature. For details on the Master programs, refer to the Graduate Studies section in this catalog.

College of Commerce and Business Administration (CCBA)

CCBA offers the following programs:

- Diploma in Accounting
- Diploma in Finance
- Diploma in Insurance
- Diploma in Management
- Diploma in Marketing
- Diploma in Management Information Systems

- Bachelor of Arts in Business Administration in Accounting
- Bachelor of Arts in Business Administration in Finance
- Bachelor of Arts in Business Administration in Insurance
- Bachelor of Arts in Business Administration in Management
- Bachelor of Arts in Business Administration in Marketing

- Bachelor of Arts in Business Administration in Management Information Systems

- Master of Business Administration (in English)
- Master in Management (in Arabic)

For details on the Master programs, refer to the Graduate Studies section in this catalog.

College of Engineering (CE)

CE offers the following programs:

- Diploma in Civil Engineering (CVE)
- Diploma in Chemical Engineering (CHE)
- Diploma in Electrical and Computer Engineering (ECE)
- Diploma in Mechanical Engineering (ME)
- Diploma in Mechatronics Engineering (MTE)
- Diploma in Interior Architecture Engineering (IAE)

- Bachelor of Science in Chemical Engineering (CHE)
- Bachelor of Science in Civil Engineering (CVE)
- Bachelor of Science in Computer and Communications Engineering (CCE)
- Bachelor of Science in Electrical and Electronics Engineering (EEE)
- Bachelor of Science in Mechanical Engineering (ME)
- Bachelor of Science in Mechatronics Engineering (MTE)- (on hold)
- Bachelor of Interior Architecture Engineering (IAE)

- Masters of Science in Electrical and Computer Engineering (In English)

CE also offers two minors: Information Technology and Petroleum Engineering. For details on the Master programs, refer to the Graduate Studies section in this catalogue.

Registration

Periods of registration are announced in the academic calendar which is published in the University catalogue and on DU's web site.

Graduation Requirements

Diploma

To receive a Diploma, students must satisfactorily complete at least 60 credit hours specified by the College with a cumulative average of 65 percent. Other graduation requirements for a particular diploma program are stated in the corresponding program section of this catalogue.

Bachelor Degree

To receive a Bachelor degree, a student must satisfactorily complete the number of credit hours required by the College he/she is enrolled in with:

- A cumulative average of 65 percent,
- A major cumulative average of 70 percent in the compulsory major courses,
- IELTS certification of band 5 (not including programs taught in Arabic).

Study Period

The study period that a student must spend in a diploma program ranges from a minimum period of two years or four semesters, up to a maximum period of four years or eight semesters.

The minimum study period for a student in a Bachelor program is eight semesters beginning with the freshman class. The maximum study period depends on the class he/she enrolled in at the beginning of his/her studies: eight calendar years is student begins with the freshman class (1st year), six calendar years if student begins with the sophomore class (2nd year), and four calendar years if student begins with the junior class (3rd year).

A student who fails to complete his/her degree program within these specified times must petition the College Administrative Committee for an extension of time.

Residence Requirements

Students transferring to DU must earn at least 60 credits (30 credits) required for graduation while in residence at DU for a bachelor degree (diploma). A DU student must spend his/her final year at DU.

A student who transfers from another college within DU must spend a minimum of three semesters (two semesters) in the new College during which he/she completes a minimum of 36 credits (30 credits), out of which 12 are credits in the major, before he/she receives a bachelor degree (diploma). For the purpose of this requirement, two summer sessions shall be considered equivalent to one semester.

Studying Abroad

A DU student in good academic standing who did not transfer to DU from another institution and wishes to study abroad must seek the approval of the College Academic Committee or the Dean to spend up to one year and earn up to 30 credits at another university; however, the student must spend his/her final year of study at DU.

Course Requirements for a Diploma Degree

University requirements

These include general educational requirements (English language, Arabic language, Omani society, mathematics, computer literacy, and entrepreneurship). University requirements (refer to the program of interest for details). University requirements are distributed as follows:

1. **Arabic**: The following three-credit hour course

   - ARAB 101 - Academic Writing in Arabic

2. **Social and Cultural Studies**: This component includes the following course:

   - SOCS 102: Omani Society

3. **English Communication Skills:** This component consists of the following four courses encompassing 15 credit hours:

   - ENGL 101: Basic Academic English
   - ENGL 102E: English for Engineering and Sciences I
     or ENGL 102B: English for Business I
     or ENGL 102C: English for Computer Sciences I
     or ENGL 102A: English for Arts, Humanities and Social Sciences
   - ENGL 203E: English for Engineering and Sciences II
     or ENGL 203B: English for Business II
     or ENGL 203C: English for Computer Sciences II
     or ENGL 203A: English for Arts, Humanities and Social Sciences II
   - ENGL 204: Advanced English for Academic Purposes and Research
   - ENGL 305: Advanced English Language and Communication Skills

   Students who are exempted from taking ENGL 101A or 101B on the basis of their results in a special placement test should take three credits in English or Humanities in order to complete their total 120 credits required to receive a Bachelor degree.

4. **Computer literacy:** This requirement consists of one of the following three-credit hours courses:

   - CMPS 100A: Introduction to Technical Computing for the Arts
   - or CMPS 100B: Introduction to Technical Computing for the Sciences

5. **Mathematics:** This requirement consists of one of the following three-credit hours courses:

- MATH 199: Calculus I (for computer science, chemistry, physics, mathematics, Education specializations except English language, and engineering majors except graphic design and interior architecture)

- MATH 103: Mathematics for Social Sciences (for arts and business majors, such as English Language, Social Work, Education: English language, graphic design and interior architecture, and Business Administration concentrations

6. **Entrepreneurship:** The following three-credit hours course:

- ENTR 200: Introduction to Entrepreneurship

Course Requirements for a Bachelor Degree

University requirements

These include general educational requirements (English language, Arabic language, Omani society, mathematics, computer literacy, and entrepreneurship). University requirements (refer to the program of interest for details). University requirements are distributed as follows:

1. **Arabic**: The following three-credit-hour course

- ARAB 101 - Academic Writing in Arabic

2. **Social and Cultural Studies**: This component includes the following two courses encompassing nine credit hours:

- SOCS 102: Omani Society

3. **English Communication Skills:** This component consists of the following four courses encompassing 15 credit hours:

- ENGL 101: Basic Academic English
- ENGL 102E: English for Engineering and Sciences I
  or ENGL 102B: English for Business I
  or ENGL 102C: English for Computer Sciences I
  or ENGL 102A: English for Arts, Humanities and Social Sciences
- ENGL 203E: English for Engineering and Sciences II
  or ENGL 203B: English for Business II
  or ENGL 203C: English for Computer Sciences II
  or ENGL 203A: English for Arts, Humanities and Social Sciences II
- ENGL 204: Advanced English for Academic Purposes and Research
- ENGL 305: Advanced English Language and Communication Skills

Students who are exempted from taking ENGL 101A or 101B on the basis of their results in a special placement test should take three credits in English

or Humanities in order to complete their total 120 credits required to receive a Bachelor degree.

4. **Computer literacy:** This requirement consists of one of the following three-credit hours courses:

   - CMPS 100A: Introduction to Technical Computing for the Arts
   - or CMPS 100B: Introduction to Technical Computing for the Sciences

5. **Mathematics:** This requirement consists of one of the following three-credit hours courses:

   - MATH 199: Calculus I (for computer science, chemistry, physics, mathematics, Education specializations except English language, and engineering majors except graphic design and interior architecture)

   - MATH 103: Mathematics for Social Sciences (for arts and business majors, such as English Language, Social Work, Education: English language, graphic design and interior architecture, and Business Administration concentrations

6. **Entrepreneurship:** The following three-credit hours course:

   - ENTR 200: Introduction to Entrepreneurship

College requirements

This component comprises courses that are offered by various departments within the College. For a list of the specific courses in this group, please refer to the college and particular program section of interest in this catalog.

Program requirements

This component consists of a set of core and elective courses that are offered by a particular program. For a list of the specific courses in this group, please refer to the particular program section of interest in this catalog.

General Electives

This set of required electives includes a wide range of courses from various majors across the university, as mandated by each program separately.

Seeking a second Bachelor Degree from DU

A student already who holds a bachelor degree and wishes to obtain a second bachelor degree in a different major of study must complete, after admission to the new college, all major credit hours as well as fulfill any other non-major graduation requirements for the new degree.

Academic Rules and Regulations

Grading System

The undergraduate grading system adopted at Dhofar University and its equivalence to the Letter Grade system and the Grade Points Average (GPA) system are shown below:

Numerical Grade	Grade Type	Equivalent Letter Grade	Equivalent Grade Points
95-100	Excellent	A	4.0
90-94	Excellent	A-	3.7
87-89	Very Good	B+	3.3
83-86	Very Good	B	3.0
80 -82	Very Good	B-	2.7
77-79	Good	C+	2.3
73-76	Good	C	2.0
70-72	Good	C-	1.7
65-69	Pass	D+	1.3
60-64	Pass	D	1.0
Below 60	Fail	F	0.0
	Incomplete	I	
	Pass	P	
	In progress	PR	
	Withdraw	W	
	Withdrawn for Excessive Absence	WA	
	No Grade Reported	X	
	Fail	F	
	No Grade Reported	-	
	Pass Transferred	PT	
	Exempted	EX	

Credit Load

- A full-time student should register for no less than 12 credits and no more than 16 (18 for engineering students) credits in any regular (fall and spring) semester.
- A student may register for up to 18 (19 for engineering students) credits after securing the approval of the Administrative Committee in the College, or if it is required by a Department in specific terms. Approval is normally granted by the Administrative Committee if the student has a cumulative average of at least 80.
- A student may register in a summer term for a maximum of 6 credit hours. All exceptional cases require the approval of the respective Administrative Committee.

- Courses/credits taken during a summer semester are counted towards the semester average of the next semester. If the number of credits taken in any one semester is less than 12 (for approved reasons), courses/credits taken during that semester are counted towards the semester average of the next semester.
- Credit for incomplete courses will be included in the semester in which the incomplete courses were taken. The evaluation for that semester will be carried out as soon as the grades for the incomplete courses have been finalized.

Assessment and Examinations

Performance Assessment

A student's academic performance is assessed throughout the semester using various instruments: homework, exams, research papers, projects, practical work, research, etc. The student has the right to receive continuous feedback about his/her performance. The instructor must complete a midterm performance assessment to give students a chance to withdraw from the course before the end of the withdrawal period and to help faculty advisors to better advise students during the pre-registration period (if implemented).

Course Grade Policy

Course components and associated assessment criteria must be clearly stated in course syllabus. Course grade distribution is expected to conform to the following recommendations:

- At least 60 percent of the total course grade should be allocated to examinations, with a minimum weight of 30 percent assigned to the final exam with emphasis on practical work and projects for the remaining percentage. Any grading scenario that does not meet this policy should be cleared with the Dean early in the semester.
- A certain portion of the final grade will be assigned for attendance and class participation among other possible course requirements (e.g., term paper, project, homework, etc.)

Examinations

All courses normally have final examinations that students must take. The instructor will announce at the beginning of the semester the policy that he/she intends to follow as indicated in the course syllabus in the matter of missed examinations and quizzes, so that the students are fully aware of this policy and its consequences.

Make-Up Examination

A student who misses an examination or a quiz shall receive a grade of zero for the exam or quiz he/she misses. If the student presents a legitimate excuse, the course instructor may then require the student to take a make-up exam or shift its weight to the final exam. Only documented and verifiable medical reports issued by qualified professionals will be accepted.

A student who was absent from the final exam shall receive a grade of zero for the missed exam. If the student petitions the Administrative Committee with a valid excuse for his/her absence and the petition is approved a grade of incomplete 'I' would be posted on the student's record. The student must take a make-up exam within one month from the start of the following semester to remove the "I" grade. For more details, refer to the 'Incomplete "I" Work' section in this catalog.

Appeal of Exam grade

The course instructor is the authority that decides on the student's grade. However, if a student has strong evidence that a mistake has been committed he/she has the right to request the course instructor for a review. If the student is not satisfied with the instructor's decision, he/she has the right to submit a petition of grievance to the department chairperson within the first two weeks from the beginning of classes in the following semester at the latest. The Chairperson will give a final ruling on the issue after consulting with the faculty members of the department.

Incomplete "I" Work

"I" is an incomplete grade. Normally, no incomplete grade of "I" is given as a final grade in any course. In exceptional cases, and provided the guidelines stated below are met, a student may be allowed to make up incomplete work. The guidelines are:

- Incomplete course work will be reported as an "I" followed by a numerical grade reflecting the evaluation of the student's work available at the end of the semester; example "I 55". This evaluation is to be based on a grade of zero on all missed work.
- For securing permission to complete the work for a course, a student must submit a valid excuse to the instructor of the course and to the College Administrative Committee within two weeks from the date of the scheduled final exam for the course. For that purpose, Form "I" must be completed in advance for approval of the instructor, the head of the department and the College Administrative Committee. Students should be aware that approval is not automatically granted. Forms for "Incomplete" are available on the University's website and the Admission and Registration Department.
- Students permitted to complete work for a course must do so within four weeks of the start of the next semester. In exceptional circumstances, the

College Administrative Committee may decide to give the student additional time to complete a course.

- After the incomplete work is done and evaluated, the course instructor should complete a change of grade form and submit it to the College Administrative Committee for approval, as stated above.
- If no valid excuse is presented and the work, if permitted, is not completed within the time limits specified above, the "I" will be dropped and the numeric grade available will become the final grade in the course.
- For the purpose of averaging, the numeric grade will be used, until changed through the procedure described above.

Submission of Final Grades

All final grades must be submitted by the Dean's Office to the Admission and Registration Department by the predefined deadline using the "Grade List". The grades through grade rosters must be signed by the course instructor, the department chairperson, and Dean of the college.

Request for a Review of Final Course Grade

Any student, who feels that the grading was unfair, must promptly discuss the matter with the instructor of the course. If the student and the instructor are unable to arrive at a solution, the student must submit a "Review of Course Grade Petition Form" to the Chairperson of the concerned department within the first four weeks from the beginning of classes of the following Fall or Spring semesters. The department chairperson investigates the student's arguments and may request the Academic Committee to review the instructor's evaluation of the student based on the student's class work and final examination scores.

Change of Grade

Normally, grades cannot be changed after the submission of the final grades to the Admission and Registration Department (ARD). Under appropriate circumstances, the course instructor submits an approved "Change of Grade Form" to the ARD stating the reasons for the change and endorsed by the department chairperson and the Dean of the college. The Admission and Registration Department should receive the approved form within a month from the beginning of the semester that follows the semester in which the course was taken.

Dean's Honor List

To be placed on the Dean's Honor List at the end of a given fall or spring semester, a student must:

- Be carrying at least 12 credits
- Has not been placed on probation in the previous semesters

- Have passed all the courses of the semester and attained a semester average of 90 or more
- Have finished 24 credits
- Have not been subjected to any disciplinary action within the University during the semester, and
- Be deemed worthy by the Dean to be on the Honor List

Graduation with Distinction or High Distinction

Students who complete their programs of study with a cumulative average of 90% or above in all courses, including repeated courses, and who receive a recommendation from the College are awarded their-degrees with Excellent.

Failing Courses

If a student fails a course, no re-examination is permitted. A student who fails a required course must repeat the course at the earliest opportunity. A student who fails an elective course may not have to repeat it as long as he/she can achieve the minimum cumulative average and the minimum number of credits required for graduation. A student must pass all core courses to be eligible for graduation.

Repeating Courses

- A student may repeat any course for which he/she received a grade of less than 70.
- A student who fails a course four times will be dropped from the program/major. However, if the failed course is a University requirement, the student will be dismissed from the University.
- When a course is repeated, the highest grade will be considered in the calculation of the cumulative average for graduation purposes. All course grades will remain a part of the student's permanent record.
- A student who, at the end of his/her senior year, fails to attain the cumulative average of 70 in their major will be required to take additional major courses in the field or to repeat courses in which the student has scored low grades.
- A student may not repeat a course in which he/she has originally obtained a grade of 70 or above unless his/her major track requires a grade higher than the original score.

Substituting Courses

There are situations when a student may be allowed to substitute a course for another in the program of study provided that the substituted course is of the same level or higher than the one being substituted for and is not a core course. Approval of the college Administrative Committee is required.

Dropping and Adding of Courses

Dropping and Adding Rules

Dhofar University follows the credit system where students register for a certain number of credits per semester. A student is given the opportunity to choose his/her courses with the academic advisor during the registration period. However, after selecting a schedule, a student has the opportunity to make changes during the Drop and Add period by submitting an approved "Drop and Add Form" to the Office Admission and Registration. A student should take care not to change all the courses he/she has previously chosen, but only one or two courses, if change is a must.

Changing a Section

A student may change a section provided that the change will not create a time conflict with his/her current schedule. The student must submit an approved "Change of Section Form" to the Office Admission and Registration during the drop/add period.

Drop/Add Period

The drop/add period is usually the first week of the semester. Only the courses that remain in the schedule by the last day of the drop/add period will appear on the student's permanent academic record and transcripts. No changes in the schedule is allowed after the drop/add period without the permission of the academic advisor and the approval of the Administrative Committee of the college.

Tuition Adjustments for Drop and Add

When a student withdraws from courses within refundable period and his/her load drops below 12 credits, refund is pro-rated in accordance with the above mentioned rules.

Attendance and Withdrawal

Class Attendance and Absence Rules

Attendance of all classes and course-related activities is obligatory. A student is not allowed to miss more than 25 % of the course sessions. So that absenteeism warnings and procedures will be as follows:

The first warning 5 %: When the student absences reach 5 %, an initial warning will be sent systematically by the Students Affairs Department (SAD) to student's Emile, as the student will be informed orally by the teacher or academic advisor.

The second warning 15 %: When the student absences reach 15%, an initial warning will be sent by the system (SAD) to student's Emile, as the student will be informed orally by the teacher or academic advisor. The student will also be obliged to sign a pledge not to his absence in the future and will be responsible for it if his absence exceeds 20%.

The third warning 25%: When the student absences reach 25%, he/she will be withdrawn from the course and given a grade of 'WA'.

Withdrawal from Courses

A student may withdraw from courses after the Drop/Add period until the 14th week of a regular semester or the sixth week of the summer session subject to the following conditions:

- Students who are withdrawn for excessive absences will receive a grade of "WA."
- Student who withdraws from a course will receive a grade of "W" for the withdrawn course.
- A student cannot withdraw or be withdrawn from a course after the announced deadline unless approved by the College Administrative Committee.
- Students cannot withdraw or be forced to withdraw from a course if this results in the student being registered for less than 12 credits without the approval of the College Administrative Committee.
- A student can withdraw from only one required course per semester. Students who wish to withdraw from more than one required course must petition the College Administrative Committee for permission to do so.

Withdrawal from the University

A student may apply to withdraw from the University at any time, but he/she should fill a form for this purpose that he/she could secure from the Admission and Registration Department or download from the University's website. The student should note the University's refund policy mentioned elsewhere in this catalogue.

Withdrawal from a Semester

A student may apply to withdraw form a semester, but the period of absence from the University cannot exceed four semesters consecutively or in total. Application for dropping the semester after the deadline announced in the University Calendar for withdrawal from courses without a grade "F" requires the approval of the Dean of the College. The student must fill an application form for this purpose, which can be secured from the University's website or the Admission and Registration Department. When a student returns to the University after withdrawing one or semester, he/she should fill a Resumption of Studies form for this purpose. The absence from the University cannot exceed the total of six semesters, after which a student must reapply to be admitted to

the University as a new student and he/she would lose his grade record, unless decided otherwise by the College Administrative Committee.

Academic Standing

Classification of Students

An undergraduate student shall be considered to have completed a class when he/she has taken and passed 30 or more credits beyond the requirements of the previous class. The credit requirements are as follows:

- For completion of the freshman class: at least 30 credits
- For completion of the sophomore class: at least 60 credits
- For completion of the junior class: at least 90 credits
- For completion of the senior class: at least 120 credits

Academic Probation

- A diploma or a bachelor student is placed on Academic Probation if:
    - His/her semester average is less than 63 at the end of the second semester.
    - His/her semester average is less than 64 at the end of the third semester.
    - His/her semester average is less than 65 at the end of the forth semester or any subsequent semester, excluding the summer semester.
    - If a student fails to clear first probation in the following two semesters successively, he /she is given strict probation.
    - Strict probation is the final stage of academic probation and must be cleared in the following semester of its attainment.
    - A student can be placed on probation for a maximum of three times with the understanding that a third probation is a strict probation, which means that the student now has to clear his third probation or else he/she will be dismissed from the College.
- Strict probation is the final stage of academic probation and must be cleared in the following semester of its attainment.
- The total number of probations a student can get the dismissal from the college, including strict probation, is four. This is contingent to the student's ability to clear any regular (not strict) probation within the following two semesters of attaining it.

For evaluation purposes, the minimum number of credits at the end of the second semester should be 24, and 12 in each subsequent fall or spring semester.

A student may be placed on probation regardless of the number of credits he/she carries. Also students with a load less than 12 credits may clear probation.

Removal of Academic Probation

The probation condition of student is removed when he/she attains a semester average of 64 or more in the third semester or a semester average of 65 or more in the fourth semester or any subsequent semester.

Probation should be removed within two semesters, excluding summer, after placing a student on probation, or when the student completes his/her graduation requirements; otherwise the student shall be on strict probation for one final semester.

Academic Dismissal

A student is dismissed from the College for any of the following reasons:

- If he/she fails to clear his/her strict academic probation in the following semester, excluding the summer term.
- If he/she is placed on academic probation for a total of four times. A student can be dropped for this reason even if he/she is in the final year at DU.
- If a student fails a required course four times.
- If he/she is deemed unworthy by the college to continue for professional or ethical reasons.

A student who has been dismissed from the College (See Dismissal section) may register as a special student not working for a degree contingent to the College's approval.

Readmission

A student will normally be considered for readmission to the University and the same college only if, after spending a year at another recognized institution of higher education during which the student took at least 24 credit hours, the student is able to present a satisfactory record and recommendation. Exceptions may be made for students who leave the University for personal or health reasons.

Transfer credits will be considered after evaluation of a student's course work. The student must achieve a grade equivalent to the grade of 70 at DU in each of the courses for which transfer credits may be granted.

After dismissed from a DU College, a student may immediately apply for readmission to a different DU College. Readmission requires the approval of the Administrative Committee of the new College to which the student applies.

Student Records

Transcript Request

Transcripts will not be issued unless all obligations to the university are cleared. To request a transcript, the student needs to fill, sign, and return a "Transcript Request" Form to the Admission and Registration Department.

Disclosure Policy

The University may disclose general information without prior written consent from the student and this information may include only: student's name, degrees granted, major and minor fields of study, awards received and participation in official activities and sports. However, the University shall not release other information from academic records, unless it receives the written consent of the student, and this written consent must specify the information that is to be disclosed, the purpose of the disclosure, and the names and addresses of the individuals or institutions to whom disclosure is to be made. The University may disclose information, including information on academic records, without prior consent of the student in the following cases:

- Upon the request of officers of other educational institutions where the student seeks to enroll (in such cases the student will be given, upon his/her request, a copy of the information sent to the institution.);
- As necessary to academic officers, academic advisors, and faculty members within the University;
- To parents of dependent children;
- In compliance with a judicial order; and
- To financial aid services in connection with financial aid for which the student has applied or has received.

Transfer

Transfer from Another Recognized College/University

A student may be accepted at DU as transfer student from another college/university if he/she:

1. Is transferring from a university recognized by the Ministry of Higher Education accredited university,
2. Was not dismissed from that university for disciplinary reasons,
3. Meets DU's admission requirements, and
4. Satisfies the residency requirements.

If, at a later time, it is discovered that the transfer student had been dismissed from his/her former university for disciplinary reasons, his/her acceptance will be revoked retroactively.

The Admission Committee of the chosen College studies the applications of transferring students and forwards its recommendations to the Dean who in turn sends his decision to the University's Director of Admission and Registration.

Course Equivalency Criteria

A course taken for credit by a transfer student at another institution prior to joining DU may be transferred to DU credit subject to the following conditions:

a. The course is deemed equivalent to a course offered at DU, that is, it covers 70% of the topics, involves the same components (Lecture, Lab, Tutorial), and has the same number of credits or more
b. The number of transferrable core courses must not exceed 9 credits unless a prior agreement has been signed with the institution from which the student is transferring
c. The student had attained a grade of C, Good or 70 or above on the DU grading scale in the transfer course.
d. Transferred credits will appear on the student's record but will not be included in the calculation of his/her cumulative GPA.

Transfer from One Major to another within the Same College

A student may transfer from one major to another within the same College only after spending an entire semester in his/her current major and meeting the admission requirements of the new major. A transfer application signed by the student and approved by the head of the department from which the student is transferring should be completed and sent to the department to which the student is transferring at least one month before the beginning of the new semester. The department then studies the applications of the students transferring to that department and forwards its recommendations to the Dean. The Dean communicates his/her decision to the Director of Admission and Registration.

Transfer from One College to another at the University

A student may transfer from one College to another only after spending an entire semester in his/her current college and meeting the admission requirements of the new College. A transfer application signed by the student and approved by the Dean of the departed College should be filled in and sent to the Admission and Registration Department then to the Admissions Committee of the new College at least one month before the beginning of the new semester. The

Admission Committee of the College studies the applications of the students transferring to that College and forwards its recommendations to the Dean.

Academic Related Programs

In addition to its three colleges, DU has a number of academic related programs and centers, namely; Foundation Program (FP), Center for Teaching and Learning (CTL), and Community Service and Continuing Education Center (CSCEC).

Foundation Program (FP)

For detailed information on FP, Kindly refer to the FP part of the catalogue (Page 39).

Center for Teaching and Learning (CTL)

The CTL aspires to assist the University in supporting, promoting and achieving excellence and innovation in teaching and research through the following activities:

- Creating a unified campus culture of teaching through idea sharing and discussions.
- Facilitating networking among different colleges.
- Providing services to university teaching through workshops, seminars, conferences, orientation programs for new faculty, and publication of a newsletter on instructional practices.
- Offering individual confidential consultations on teaching, including class organization, pedagogical approaches, assessment and classroom observation.
- Identifying resources on teaching and learning.
- Updating faculty on the latest technology innovation to enhance teaching and learning.
- Serving, at a later phase, as a research center on teaching and learning.

Continuing Education Center (CEC)

The CEC offers quality programs to meet the ongoing professional and personal needs of Dhofar's adult community at large. It also provides services to applicants who aspire to enter the University but fail in the placement tests conducted by the Foundation program. CEC is dedicated to serving individuals in the private and public sectors in new and innovative ways. It offers solutions to training needs and provides the local community with the combined support of a professional staff and the diversity of resources at DU.

For students who fail to qualify for entry into the FP levels, CEC provides them with intensive studies for one or more semesters, particularly in the English Language, before they take the placement tests again.

CEC provides on-campus and off-campus offerings that include certificate programs, workshops, seminars, conferences, and customized training programs to meet the needs of individuals and organizations. All CEC's certificate programs, workshops, and other activities are taught by leading experts who bring their hands-on experience into the classroom. Programs and courses are offered in English or Arabic as reflected by the course outlines.

The programs of CEC are developed to create an opportunity for strengthening and updating skills and learning new techniques for achieving personal and organizational goals. CEC prepares participants for a world of change and their organizations for success by using an innovative approach and programs specifically developed by expert DU faculty members.

Academic Support Services

Department of Public Relations and External Cooperation (DPREC)

DPREC is the frontline for the University in regards to relations with the community and the public at large. As such, DPREC plays a dynamic role in fulfilling the University mission and vision in all of its activities by creating an atmosphere of understanding, trust and appreciation within and outside the University. Its work covers a wide range of activities including reaching to the community, producing newspaper articles about various DU activities, visual media coverage, University publications, Media and advertising.

Computing and Networking Center (CNC)

Computing and Networking Center (CNC) provides an integrated environment of information technology networks that support and enhance the academic activities of students, faculty, staff and administration.

Academic computing capability is provided by numerous laboratories, and campus-wide networked facilities. All laboratories are networked and include access to local and remote servers as well as the Internet. All University buildings and labs are connected with a FIBER Optics network. E-mail services are available to all faculty, students and staff.

CNC services include support and maintenance of central computing server systems, implementation, support and maintenance of campus networks, support for personal computing and personal computer applications, end user training, consulting, negotiation of software, hardware and maintenance contracts for campus-wide use, computer repair services, and the purchase of computer software and supplies.

Library

The University library is located in a three-floor Library Building in the new campus. It occupies over 4000 square meters of open space and can serve more than 4000 DU community users. The library is also open to members of the community outside the University by special arrangement.

The library includes study carrels, large open reading space, computer labs connected to the Internet and to the library databases, audiovisual facilities, rooms to hold meetings and classrooms, and the Center for Teaching and Learning (CTL). These resources serve both male and female DU cohorts.

The current print collection consists of over 28,000 volumes in books, references, and periodicals covering various disciplines: English Language and Literature, Business Administration, Computer Science, Education, Engineering, Graphic Design, etc. The Library provides many electronic databases resources including: Ebrary, JSTOR, AL-Manhal, Ibdaa, Dar Almandumah and Springer. E-library contains over 240,000 e-books and over 15.000 e-periodicals and journals in various fields of research.

Clinic Unit

The Clinic Unit serves the health needs of students. A nurse is available on campus for 8 hours daily during which students can visit and seek consultation. Urgent and emergency cases are transferred to the nearby Saadah Medical Complex or to city hospitals.

Department of Quality Assurance

The Department of Quality Assurance is responsible for maintaining a high level of quality teaching, research, and services to students, staff, and the Dhofar University community by suggesting and reviewing DU policies relating to academic, academic support and non-academic services. The QAB develops appropriate qualitative and quantitative measures of teaching and service performance, taking into account local, regional and international recommended practices, including standards set by Oman Quality Board and other international accreditation boards. The QAB consults with all stake-holders before making recommendations and reports directly to the Vice-Chancellor.

Risk Management

The risk management unit aims to create a risk management system and initiate, develop and implement risk management practices across DU. The task of RMU is to integrate risk discussion into strategic deliberations, identifying the inter-relations of risk factors across an organization's activities. The RMU is responsible to identify and assess risks in the case of DU in the following six areas:

- **Strategic Risk**: Risk that has an impact on DU's ability to achieve its mission, goals and objectives.

- **Compliance risk:** Risk created by failing to follow Oman's laws, regulations or university policies that safeguard DU or its members from legal exposures
- **Financial risk:** Risk which emanates from wrong policies of financial management and budgeting being pursued by DU resulting in possible financial losses to the university.
- **Operational risk**: Risk that affects day to day operations of the DU including the information security risks
- **Human resources risk:** Risks arising from wrong recruitment, training and retention of able human resources to run the DU efficiently.
- **Reputation risk:** The risk to the reputation of DU as a prestigious institution of higher learning of Oman.

Department of Student Affairs

Student Clubs

Students have the right to form, under the supervision of the Student Affairs Department, student clubs in line with the following objectives:

- Engage in academic, physical, scientific and social extra-curricular activities.
- Enhance the relationship among students, instructors, and administrators.
- Develop students' creativity.
- Expose students to work-related skills.
- Participate in activities that serve their communities.

Student Governance

Students elect annually their representatives to the University Student Council (USC) which represents students on university functions and transmits the student body's concerns to the Administration of the University.

The USC is chaired by the Manager of Student Affairs and is composed of eight members: a student representative and a faculty representative from each College in addition to the Foundation Program.

Identification Card (ID)

Student Affairs Department issues an ID card for each new DU student in accordance with the following procedure:
- The student brings 4 passport photos to the Registration Department and gets a temporary ID card.
- The Registration Department sends photos to the Student Affairs Department - Student Services Section.
- Three weeks later the student gets her/his new ID card.

Orientation

During the period of registration and placement exams, the Student Affairs Department arranges orientation sessions for new students. The sessions provide important academic and related information including location of various facilities and services. More than 10 students are usually on the welcoming committee, along with two staff members.

Student Employment Program

DU offers students the opportunity to gain work experience and earn some income as well. Students who wish to join the student employment program may apply through the Student Affairs Department. According to this program, a student can work for a maximum of 10 hours per week and earn money on an hourly basis.

Counseling Services

The student counseling office provides a comprehensive program of support services to assist Dhofar university student s in their adjustment to the demands of university environment.

The services are designed to enhance students educational experience by supporting their development. Its goal is to help students grow in self – understanding and awareness, so they are able to better meet the demands of college life, and enjoy college experience.

The counseling office has a membership in International Association for University and College Counseling. Counselors at the office practice counseling under international Guidelines and counseling code of ethics.

Career Guidance Services

The Student Affairs Department provides career guidance services to students through various activities, lectures, and reading materials. Students are assisted with writing resumes, preparing for job interviews, and searching for suitable employment.

Student Housing

The University has 3 buildings in the campus for female students who come from distant places to study at DU. It provides them with subsidized furnished accommodation and local transportation. The University also provides security service and supervision of students where there are 11 of female supervisors and female security guards work 24 hours. Male students who come from distant places are also assisted in finding appropriate accommodation.

Cafeterias and Coffee Shops

DU has two newly built cafeterias, each with two large halls serving the male and female students separately. There is also a coffee shop which is located in the courtyard of the University; it serves snacks, light sandwiches and beverages.

Athletics and Recreation

DU has an agreement with the Nasr club to use their facilities particularly the Football field and the gymnasium which was equipped with University funds.

Counselors of Student Affairs Department organize sporting events such as football, volleyball, swimming, camps, Athletics, trips, and Tennis.

Student Exchange

The University is currently looking into signing agreements with universities in other countries that would permit students from Dhofar University to study abroad for one year (or during the summer), through an exchange program. It is also looking into arranging for students from other universities to come and study for a year or during the summer/fall at Dhofar University.

Currently DU has signed agreement with New-Ulm University in Germany.

Student Disciplinary System

Whereas Dhofar University aims to develop a student's social character, knowledge, and professional skills, it is also committed to graduate law-abiding, responsible citizens who deserve to carry the DU name. To that end, the University reserves the right to implement a range of disciplinary measures that are commensurate with violations of Omani laws or the rules and regulations of the University.

Disciplinary measures range from warning to expulsion from the University based on the nature of the offence. Each instructor is authorized to apply some disciplinary measures, while suspension or expulsion shall only be administered by the Dean of the College. The harshest action, final expulsion from the University, requires the consent of the University Council. Furthermore, each university employee who observes an assault or offence by any student is required to report the offensive action to the Dean of the College.

Smoking Policy

Smoking inside all buildings on campus is prohibited. Any student, faculty of staff member who violates this policy shall be subjected to the appropriate disciplinary action in accordance with University rules and regulations.

FOUNDATION PROGRAM (FP)

FOUNDATION PROGRAM

Officers of the Program

Director	Al Hamadi, Faical
Deputy Director	Putney, Megan

Administrative Staff:

Secretary I	Barham, Fatima
Secretary II	Al-Shahri, Nasser
QA Coordinator	Al-Mashikhi, Amina
IT Technical Support II	Hankins, Michael

Organizational Structure

The Foundation program is headed by a Director and is comprised of the English Language Unit (ELU) and the Mathematics and Information Technology Unit.

Vision

DU Foundation Program aspires to occupy a position of distinction amongst general foundation programs in the Sultanate by imparting quality education.

Mission

DU Foundation Program strives to equip students with quality outcome-based education in a rich teacher-learner environment conducive to academic excellence and life-long learning.

English Language Unit

Coordinators: Bontha, Umamaheswara; Achamsi, Mohamed; Pearce, Paul

Lecturers: Al Ani, Ahmed; Al Hamadi, Faical; AlHawamdeh, Samira; Bashir, Shahid; Bhargavi, Chowlur; Bontha, Umamaheswara; Charuvila, Merin; Gopalan, Sucharitha; Hankins, Carmel; Holloway, Sophie; Hussain, Rehana; Menon, Hridhya; Sakhamuri, Ramadevi; Shah, Ali, Syed; Steaphen, Francis; Veetil, Mahija; Yedidi, Sadananda

Instructors: Abdelhafez, Amal; Al Mughrabi, Hyder; Alder, Philip; Eteiwi, Adnann; Heavin, David; Iqbal, Rashida; Jackson, James; Janjua, Sabiha; Kashoob, Fatima; Khan, Farida; Lotze, Nathaniel; Marks, Theodora; Momani, Ebaa; Moore, Anne; Nascimento, Joaquim; Paulose, Millie; Pearce, Paul; Putney, Megan; Sasidharan, Shanta; Thangadurai, Kadarkarai; Waziry, Ashry

Mathematics and Information Technology Unit

Coordinators: Mahmood, Syed Salman (Math), Maruthappan, Veeraiyan (IT)
Lecturers: Mahmood, Syed Salman; Ali, Ashraf; Al Karadsheh, Wesam; Chinta, BhagyaLatha; Khan, Ahmad, Waqar; Mustafa, Mohammad; Shareef, Zahid
Instructors: Bait Mabrook, Adnan; Khan, Javed, Waqas; Mufleh, Tariq; Venugopal, Anita

Program Overview

The General Foundation Program is a one-year bridge course intended to equip high school graduates to pursue university majors and is undertaken by most university students in Oman. The program focuses on four areas: English, Mathematics, IT, and general study skills.

Dhofar University's Foundation Program follows the general standards and learning outcomes as outlined by the Oman Academic Accreditation Authority (OAAA). It aims to impart quality education to students and prepare them for their various majors. With courses ranging from Beginner to Intermediate, it caters to the curricular and co-curricular needs of students to actively bridge the gap between secondary and tertiary education.

Since its inception, the Foundation Program has successfully met both these needs and the academic expectations of Dhofar University. There are presently more than 60 faculty members of various nationalities in the Foundation Program. The richness of their professional expertise and experience, their enthusiasm, and their involvement in the community constitute the backbone of the Foundation Program as it equips a steadily increasing student body.

Study Plan

The following tables summarize the FP study plan:

Regular Courses

Level 1		
Code	**Course Title**	**Hours/week**
FPE 101A	English Level 1	20-25
FPM 100	Math Level 0	2
Level 2		
Code	**Course Title**	**Hours/week**
FPE 102B	English Level 2	20
FPM 101A	Math Level 1	5
FPT 101A	IT Level 1	3
Level 3		
Code	**Course Title**	**Hours/week**
FPE 103C	English Level 3	20
FPM 102B	Math Level 2	5
FPT 102B	IT Level 2	3

Evening Courses

Level 1		
Code	**Course Title**	**Hours/week**
FPE 101A	English Level 1	20
FPM 100	Math Level 0	2
Level 2		
Code	**Course Title**	**Hours/week**
FPE 102B	English Level 2	20
FPM 101A	Math Level 1	4
FPT 101A	IT Level 1	3
Level 3		
Code	**Course Title**	**Hours/week**
FPE 103C	English Level 3	20
FPM 102B	Math Level 2	4
FPT 102B	IT Level 2	3

Law courses

Level 1		
Code	Course Title	Hours/week
FPEL 100	English-Law level 1	20
FPML 100	Math Level 1	4
FPTL 100	IT Level 1	3

Arabic Courses

Level 1		
Code	Course Title	Hours/week
FPEA 100	English-Arabic level 1	20
FPTA 100	IT Level 1	3
FPAA 100	Foundation Program for Aarabic	5

Structure of the Program

The Foundation Program is designed to bridge the gap between secondary education and university undergraduate studies. The program's focus is to ensure the students' readiness to embark on their university studies. The curriculum is aligned with the learning outcomes stated in the Oman Academic Standards for General Foundation Programs. The emphasis of the English program is on the general communication and academic skills. The Math program is divided into Basic, Applied and Pure sessions, while the IT program focuses on the skills required to use technology effectively in routine studies.

Tests and alternative assessment schemes are used to evaluate the students' performance throughout the semester.

The FP Student Support unit offers personal and academic support to FP students.

English Language Unit

As English is the medium of instruction at Dhofar University, there is a clear need to approach English education in a systematic, meaningful, and purposeful manner. The English Unit offers incoming students with low proficiency in English an intensive program to help them pursue their studies in the major of their choice through the medium of English with the aim of immersing them in the language.

Twelve to fifteen hours a week are dedicated to Reading & Writing, with eight to ten hours a week dedicated to Listening & Speaking. Students take a midterm and a final exam. Grades are determined by exam results, as well as continuous assessment, portfolios, progress tests, and quizzes. The weighting for each skill area is as follows:

Skill	Weight
Reading	30%
Writing	30%
Listening	20%
Speaking	20%

Learning Outcome Standards for English

- Actively participate in a discussion on a topic relevant to their studies by asking questions, agreeing/disagreeing, asking for clarification, sharing information, expressing and asking for opinions.
- Paraphrase information (orally or in writing) from a written or spoken text or from graphically presented data.
- Prepare and deliver a talk of at least 5 minutes. Use library resources in preparing the talk, speak clearly and confidently, make eye contact and use body language to support the delivery of ideas. Respond confidently to questions.
- Write texts of a minimum of 250 words, showing control of layout, organization, punctuation, spelling, sentence structure, grammar and vocabulary.
- Produce a written report of a minimum of 500 words showing evidence of research, note taking, review and revision of work, paraphrasing, summarizing, use of quotations and use of references.
- Take notes and respond to questions about the topic, main ideas, details and opinions or arguments from an extended listening text (e.g. lecture, news broadcast).
- Follow spoken instructions in order to carry out a task with a number of stages.
- Listen to a conversation between two or more speakers and be able to answer questions in relation to context, relationship between speakers, register (e.g. formal or informal).
- Read a one to two-page text and identify the main idea(s) and extract specific information in a given period of time.
- Read an extensive text broadly relevant to the student's area of study (minimum three pages) and respond to questions that require analytical skills, e.g. prediction, deduction, inference.

Course Description

Level 1

FPE 101A   **Foundation program English Level 1**   **(25hrs)**

FP 101A is an intensive elementary-level English course designed to develop both English skills and good study habits. kills taught include Reading & Writing and Listening & Speaking. Learning outcomes are aligned with Oman Academic Standards. Upon completion, students transition to FPE 102B (Level 2).

FPEL 100   **Foundation Program English for Law**   **(20hrs)**

FPEL 100 is an intensive elementary-level English course for intended law-degree students designed to develop both English skills and good study habits. Skills taught include Reading & Writing and Listening & Speaking. Upon completion, students are expected to have attained an elementary level of English.

FPEA 100   **Foundation Program English for Arabic**   **(20hrs)**

FPEA 100 is an intensive elementary-level English course for intended Arabic-degree students designed to develop both English skills and good study habits. Skills taught include Reading & Writing and Listening & Speaking. Upon completion, students are expected to have attained an elementary level of English.

Level 2

FPE 102B   **Foundation program English Level 2**   **(20hrs)**

FPE 102B is an intensive pre-intermediate English course designed to develop both English skills and good study habits. Skills taught include Reading & Writing and Listening & Speaking. Learning outcomes are aligned with Oman Academic Standards. Upon completion, students transition to FPE 103C (Level 3).

Level 3

FPE 103C   **Foundation program English Level 3**   **(20hrs)**

FPE 103C is an intensive intermediate English course designed to develop both English skills and good study habits. Skills taught include Reading & Writing and Listening & Speaking. Learning outcomes are aligned with Oman Academic Standards. Upon completion, students transition to their respective majors.

Mathematics and Information Technology Unit

Mathematics

This three-semester course aims at bridging the gaps in students' knowledge in mathematics. If a student places into English Level 1, they take Pre Foundation Math. If they place into English Level 2 or 3, then basic Mathematics is taken in the first semester (Level 1) while Applied OR Pure Mathematics is taken in the second semester (Level 2) based on the student's major in the University.

Learning Outcomes

- Define a function graphically and by set, finding the domain of certain type of functions, and evaluating functions.
- Graph linear and quadratic functions.
- Apply the Concept of Combining and Composite functions by adding, subtracting and multiplying functions.
- Apply the concept of Inverse and one to one functions.
- Identify exponential functions, draw their graphs, and solve their equations.
- Define the Logarithmic functions, draw their graphs, and solve their equations.
- Define and apply the rules, identities, and proof of trigonometric functions.
- Define and solve different trigonometric functions, and express them graphically.
- Know the difference between a sequence and a series.
- Know the basic equations of a parabola and an ellipse.
- Measure central tendency, mean, median, mode, variance, standard deviation, sample space and probability.

Course Description

FPM 100   Pre Foundation Math Program   (2 hrs.)
The main aim of this course is to help the students entering the Foundation Program in assimilation of the basic concepts of Mathematics. This two-hour course reinforces basic concepts and terminologies learnt in the Arabic language in schools through the use of English language. The course deals with the following concepts namely Real Number System, Basic Rules of Addition, Subtraction, Multiplication and Division, BODMAS, Prime Factors, Concept of Polynomials and Simplifying Polynomials.

FPM 101A   Foundation Program Math Level-1 (Basic)   (5 hrs.)

The aim of this course is to teach conceptual understanding and problem solving. The program covers Basic Algebraic Operations, Polynomials, Exponents, Radicals, Rational Expressions First Degree Equations and Inequalities, Quadratic Equations, Equation of a Circle, Straight Lines, and Basic Trigonometry.

FPM 102B   Foundation Program Math Level 2 (Pure & Applied)   (5 hrs.)

The aim of this course is to prepare students for further study of higher-level mathematics at higher and other non-mathematics-related subjects. The program covers Graphs & Functions, Exponential & Logarithmic Functions, System of Linear Equations, Matrices, Basic Statistics, and Introduction to Probability.

FPML 100   Foundational Mathematics for Law   (4 hrs.)

The aim of this course is to provide students who intend to major in Law with a basic understanding of mathematical concepts, including Algebra, Equations, and Fundamentals of Trigonometry. Students are also familiarized with the language of basic mathematics and how to solve real-life problems.

Information Technology

This two-semester course aims to bridge the gap for students who wish to join Dhofar University and lack pre-college Information Technology (IT) fluency and competency skills. It emphasizes the essential parts of a standard curriculum in IT as required by Oman Academic Standards for GFP. The curriculum gives the students a basic understanding of computers, the use of word-processing software, and essential IT skills. It uses a practical approach by investigating a variety of situations from across the spectrum of technology. Furthermore, it provides students with knowledge of graphics and the use of the Internet. The details of the IT courses are as below:

Course Code	Course Name	Contact hrs/week
FPT 101A	Foundation Program IT Level 1	3
FPT 102B	Foundation Program IT Level 1	3

Course Description

FPT 101A   Foundation program IT Level 1   (3 hrs.)

The aim of this course is to equip students with the knowledge and skills of IT necessary to source, communicate, and process information related to higher education. Students experience hands-on training with various day-to-day software packages, including MS Windows, Word, and Excel. Students are also exposed to basic IT-related concepts, computer operation, and file management.

FPT 102B   Foundation program IT Level 2   (3 hrs.)

The aim of this course is to further equip students with the knowledge and skills of IT necessary to source, communicate, and process information related to higher education. Students experience hands-on training with various day-to-day software packages, including MS Excel, PowerPoint, and Animation Software.

Students are also exposed to concepts, practices, and usage of the Internet in day-to-day life.

FPTL 100   Foundation IT for Law   (3 hrs.)

The aim of this course is to equip Law students with the knowledge and skills of IT necessary to source, communicate, and process information related to higher education in the field of Law. Students experience hands-on training with various day-to-day software packages, including MS Windows, Word, and Excel. Students are also exposed to basic IT-related concepts, computer operation, and file management.

Study Skills

Study Skills are integrated in the English, Math and IT programs and aim to help students develop the range of useful study skills that they need to succeed in college. They learn how to use and organize their time, read faster with comprehension, expand their vocabulary, take good notes in class, keep track of assignments, interpret and analyze graphic information, and adopt the most effective communication strategies.

Placement in and Exemption from the Foundation Program

Students are placed in the appropriate level or exempt from the Foundation Program based on their results in the placement tests for English, Math and IT.

Placement criterion for different levels (English)

Criterion	Level	Remarks about Exemption
0 – 24	Level-1	Students who produce an IELTS certificate with a band of 5.5+ (reading and writing 5+) are exempted from doing the Foundation Program. Such students directly join their Majors.
25 – 39	Level-2	
40 – 59	Level-3	
60 and above	Major	

Placement criterion for different levels (Math)

Criterion	Level	Remarks about Exemption
0 – 49	Level-1	Students who score 60+ in Math Test are exempted from doing the Foundation Program. Such students join their Majors.
50 – 59	Level-2	
60 – 100	Exempted	

Placement criterion for different levels (IT)

Criterion	Level	Remarks about Exemption
0 – 59	Level-1	Students are exempted from taking IT and can join the majors if: 1) score 70+ in the Moodle-based IT Placement test or 2) provide an International (English) IC3 or ICDL certificate or 3) provide a Domestic (Arabic) IC3, ICDL certificate or any other equivalent certificate AND 60% score in an IT Challenge test.
59 – 69	Level-2	
70 – 100	Exempted	

Promotion policy and Exit from FP

Students in FP are evaluated regularly to help determine their progress and attainment of the set goals. They are provided with every opportunity to be promoted to upper levels based on the promotion policy requirements stated in each syllabus. Students who fulfill the promotion requirements of English Level three exit the FP and join the university programs. All English Level three students are required to take the EXIT Test as part of the promotion requirements to the university.

COLLEGE OF ARTS AND APPLIED SCIENCES (CAAS)

COLLEGE OF ARTS AND APPLIED SCIENCES

Officers of the College

Dean	Nasser, Ramzi Naim
Assistant Dean	Al Mashikhi, Khalid
Senior Executive Secretary	Amer Jeed, Noor Al-Qamar
Secretary	Akak, Salim

Organizational Structure

The College of Arts and Applied Sciences is composed of six departments: the Department of Computer Science, the Department of Education, the Department of Languages and Translation, the Mathematics and Sciences Unit, the Department of Law and the Department of Social Sciences. These departments report to the Dean of the College of Arts and Applied Sciences.

Vision

The College of Arts and Applied Sciences aspires to offer high quality programs in the humanities, basic, natural and social sciences that are recognized nationally and internationally and prepare highly motivated students to be successfully engaged citizens in an increasingly technological and global society.

Mission

The College of Arts and Applied Sciences (CAAS) provides the core of liberal arts education at Dhofar University. It aims at enabling all University students to benefit from sustained independent learning through the general University Requirement courses and the CAAS majors. The College focuses on reaching excellence in learning through interdisciplinary knowledge and skills in arts and sciences, the development of critical thinking skills, and engagement in the society with focus on preserving the cultural values of the Omani society.

Functions of the College

The College of Arts and Applied Sciences has four main functions:

- Offering the required and elective courses and necessary academic advising to the students in the diploma programs, the BA/BS programs, and graduate programs that are listed below;
- Offering General University Requirement and elective courses (about 30 credits for each academic program) to the students of the College of Commerce and Business Administration and the College of Engineering;
- Supporting faculty members to conduct research, publish, and participate in professional activities; and
- Offering services to the community in the form of professional consultation, public lectures, and general academic and cultural activities.

Academic Programs

The College of Arts and Applied Sciences offers 16 academic undergraduate programs, five graduate programs and two minors, all of which are designed according to the National Qualifications Framework for Higher Education in the Sultanate of Oman. Those programs are:

- Diploma in Computer Science
- Diploma in Chemistry
- Diploma in English Language
- Diploma in Mathematics
- Diploma in Social Work

- Bachelor of Education in Teaching Mathematics
- Bachelor of Education in Teaching Science
- Bachelor of Science in Computer Science
- Bachelor of Education in Teaching English Language
- Bachelor of Education in Teaching Information Technology
- Bachelor of Science in Mathematics
- Bachelor of Arts in English Language
- Bachelor of Arts in Translation
- Bachelor of Arts in Arabic Language
- Bachelor of Arts in Social Work
- Bachelor of Law

- Master of Education in Educational Administration
- Master of Education in Counseling
- Master in Curriculum and Instruction: Teaching English Language
- Master of Science in Information Technology
- Master of Arts in English

- Minor in Arabic Language
- Minor Arabic Literature

Admission Criteria

To be admitted to any undergraduate program offered in the CAAS, a student is required to:
- Have a General Education Certificate or equivalent
- Take placement tests to determine their levels in English, Mathematics and Information Technology skills.

Any other specific program requirements are indicated in the related section.

Graduation Requirements

To receive a diploma in any of the majors in the College of Arts and Applied Sciences, students must satisfactorily complete the required credit hours for his/her major, with a cumulative average of 65 percent.

To receive a Bachelor Degree in any of the majors in the College of Arts and Applied Sciences, the student must satisfactorily complete the required credit hours for his/her major with an overall minimum average of 65 percent, and a cumulative average of 70 percent in the major courses. The total number of required credits varies by major and by placement level in English. The following table summarizes the number of credits normally required for each undergraduate program in the College of Arts and Applied Sciences.

University Requirements

A student working for a bachelor degree must complete a total of 30 credit hours of general educational (university) requirements distributed as follows:

- 3 credits of Arabic: ARAB 101 (Academic Writing in Arabic)
- 3 credits of Social and Cultural Studies: SOCS 102 (Omani Society)
- 15 credits of English Communication Skills: ENGL 101 (Basic Academic English), ENGL 102E (English for Engineering and Sciences I) or ENGL 102B (English for Business I) or ENGL 102C (English for Computer Sciences I) or ENGL 102A (English for Arts, Humanities and Social Sciences I), ENGL 203E (English for Engineering and Sciences II) or ENGL 203B (English for Business II) or ENGL 203C (English for Computer Sciences II) or ENGL 203A (English for Arts, Humanities and Social Sciences II), ENGL 204 (Advanced English for Academic Purposes and Research), and ENGL 305 (Advanced English Language and Communication Skills).
- 3 credits of computer literacy: either CMPS 100A (Introduction to Technical Computing for the Arts) or CMPS 100B (Introduction to Technical Computing for the Sciences).
- 3 credits of mathematics: either MATH 199 (Calculus I) or MATH 103 (Mathematics for Social Sciences I).
- 3 credits of Entrepreneurship: ENTR 200 (Introduction to Entrepreneurship)

College Requirements

The college requirements include (12) credits of which undergraduate students who are enrolled in any of the academic programs in the College of Arts and Applied Sciences are required to take a minimum of twelve credits in mathematics, natural sciences, social sciences, and elective courses.

Program Requirements

Program requirements for a program varies depending on the chosen major from 78 to 115 credit hours from inside and outside the department in which

the student is enrolled, including major-specific electives, with variation by major. Program course requirements are listed in the department section.

| Program | Requirements | | | | Total Credit Hours |
| | University | College | Major | | |
			Core	Elective	
Diploma in Computer Science	24	3	27	6	60
BS in Computer Science	30	12-13	57	21	120-121
Diploma in English Language	27	6	24	3	60
BA in English Language	30	12	42	36	120
BA in Translation	30	12	48	30	120
B. Ed. in English Language	30	6	69	15	120
B. Ed. in Information Technology	30	6	72	12	120
B. Ed. In Mathematics	30	6	77	9	122
Diploma in Mathematics	27	3	32	0	62
BS in Mathematics	30	12-13	58	21	121-122
Diploma in Social Works	24	6	30	0	60
BA in Social Works	30	12	66	12	120
Bachelor of Law	15	0	101	14	130
Diploma in Chemistry	27	3	32	0	62
BA in Arabic Language	15	0	96	9	120
B. Ed. In Teaching Science	30	6	70	15	121
M. Ed in Curriculum & Instruction: Teaching English Language (Thesis Option/ Comprehensive Exam)	0	0	27 (Core+ thesis)	6	33
M. Ed. in Educational Administration (Thesis Option/ Comprehensive Exam)	0	0	27 (Core+ thesis)	6	33

M. Ed. in Counseling (Thesis Option/ Comprehensive Exam)	0	0	30 (Core+ thesis)	3	33
M. A. in English (Thesis Option/ Comprehensive Exam or Research paper)	0	0	24 (Core+ thesis/ Research)	12 (thesis)/ 15 (Exam/ Paper)	36
Master of Science in Information Technology					
Thesis Option	0	0	21	15*	36
Course Work Option				18**	
* Master Thesis ** Research Project					

DEPARTMENT OF COMPUTER SCIENCE

Personnel

Department Chairperson	Sayed, Biju.
Associate Professors	Dekdouk, Abdulkader.
Assistant Professors	Chaudhry, Shafique, Hussain, Norlaila; Haddad, Hedi; Bouyahia, Zied; Sayed, Biju.
Lecturers	Madanan, Mukesh
Secretary	Zabanoot, Muna Suhail

Mission

The computer science department aims at providing students with balanced theoretical and practical background in a variety of computer science topics. Through the fulfillment of coursework, practical projects, and community service activities, students are endowed with the necessary skills and experiences to develop successful careers in computer science and information technology. The program also prepares students to pursue higher education and research in computer science by promoting life-long independent learning.

Objectives

The objectives of the Computer Science programs are to:

- Promote effective learning by exposing students to balanced theoretical and practical experiences that demand thinking and practice;
- Provide excellent teaching by adopting advanced knowledge in computing and other information and communication technologies and effective teaching practices;
- Offer the students opportunities to develop careers in computer science and information technology;
- Prepare students to assume positions in public and private sectors, computer industry, or educational institutions;
- Offer the graduates opportunities to pursue higher education in computer science;
- Provide students with solid liberal education, training and appropriate learning skills and values; and
- Promote life-long independent learning.

Learning Outcomes

Based on the objectives mentioned above, the specific educational outcomes for the Computer Science undergraduate programs are by the time of graduation:

- Mastering knowledge of basic and advanced computer science topics
- Exhibiting an ability to analyze a problem, and identify and define the computing requirements appropriate to its solution
- Demonstrating an ability to design, implement and evaluate a computer-based system, process, component, or program to meet desired needs

- Having an understanding of mathematics appropriate for computer science
- Demonstrating an ability to locate and use technical information from multiple sources
- Having an ability to use current techniques, skills, and tools necessary for computing practices
- Exhibiting an understanding of the links between technology and society
- Having an ability to participate effectively in a class or project team
- Having an ability to undertake independent learning
- Demonstrating an ability to communicate effectively in speech and writing
- Be prepared to enter a graduate program in Computer Science
- Having an understanding of professional, ethical and social responsibilities

Degrees Offered

The Computer Science Department offers a Diploma, a Bachelor of Science Degree in Computer Science and Master of Science in Information Technology.

Career Opportunities

Graduates of the Computer Science program will have many career choices spanning a wide range of fields. Most notable are: computing and communication industries, investment banks and financial institutions, global defence and aerospace, management and computing consultancies, research laboratories and media industries. Graduates will have employment opportunities in almost any enterprises as system analysts and designers, trainers, instructors, system engineers, programmers, database developers and managers, network managers, and computer science consultants, but the continuing expansion of the use of computers in commercial and financial operations means employment opportunity in diverse industries. Innovative fields include gaming industry, virtual reality, multimedia applications, computer animations, internet support and development, as well as many other related industries.

Diploma Program

The diploma degree is a 60-credit-hour program distributed over two years of study. It is competency oriented as required by the IT industry standards with emphasis on the following concepts:

- Computer Platforms
- System Analysis
- Programming
- Database Design
- Personal Skills Development.

The program strikes a balance between theory and practice. Although it emphasizes practical work, it also covers the theoretical foundations in order to establish adequate links with education at a higher level and keep the students abreast of current knowledge in the field. Students will have hands-on experience with computer hardware, software, and methodologies of software evaluation and development of computer applications with strong emphasis on developing

programming skills, including programming for the World Wide Web. In addition, the program follows a modern liberal arts approach by exposing the students to a sound knowledge of general sciences, the arts, study of the Omani culture, mastery of general computing skills, and efficient usage of Arabic and English languages.

Although the Diploma holders may exit the university education with this degree, they will also have opportunities to continue their education to complete a Bachelor of Science in Computer Science if they satisfy the requirements for admission to that program, then all the credits that are successfully completed in the Diploma program are transferable to the B.S. program.

Graduation Requirements

To receive a Diploma in Computer Science, students must satisfactorily complete 60 credit hours that are described in the Program of Study with an overall minimum average of 65 percent.

Program of Study

The courses for the Diploma in Computer Science should be selected from the following groups of courses.

University Requirements

Student working for a Diploma in Computer Science program must complete a total of 24 credit hours of general educational (university) requirements distributed as follows:

- 3 credits of Arabic: ARAB 101 (Academic Writing in Arabic)
- 3 credits of Social and Cultural Studies: SOCS 102(Omani Society 9 credits of English communication skills: ENGL 101 (Basic Academic English I), ENGL 102C (English for Computer Science I), ENGL 203CEnglish for Computer Science II
- 3 credits of computer literacy: CMPS 100B (Introduction to Technical Computing for the Sciences)
- 3 credits of Entrepreneurship: ENTR 200 (Entrepreneurship: Innovation and Creativity)
- 3 credits of mathematics: MATH 199 (Calculus I).

College Requirements

A one, 3-Credit Hours course is chosen from any other major.

Program Requirements

The Program Requirements consists of eleven course encompassing 33 credit hours distributed as follows.

Major Core Courses: The following nine core course encompassing 27 Credit hours are required:

- CMPS 110: Introduction to Programming
- CMPS 160: Data Structures
- CMPS 180: Digital System Design
- CMPS 215: Computer Organization with Assembly Language
- CMPS 240: Analysis of Algorithms
- CMPS 250: Computer Networks
- CMPS 260: Operating Systems
- CMPS 270: Database Systems
MATH 370: Discrete Mathematics

Major Elective Courses: Two courses encompassing 6 credit hours are chosen from the following set:

- CMPS 200: Analysis and Design of Information Systems
- CMPS 205: Introduction to Multimedia Concepts
- CMPS 210: Digital Image and Video Processing
- CMPS 225: Introduction to Data Communications
- CMPS 230: Introduction to System Programming
- CMPS 235: Numerical Computing
- CMPS 255: Graphical User Interface
- CMPS 265: Introduction to Microprocessors
- CMPS 280: Introduction to Internet Programming & Web Design
- CMPS 290: Introduction to Database Management
- CMPS 315: Advanced Programming in C++
- CMPS 320: Introduction to Computer Security
- CMPS 340: Advanced Programming in Java

Study Plan

Year I		
Semester 1 (Fall)	**15 Credits**	
Code	**Course Title**	**Credit Hours**
ARAB 101	Academic Writing in Arabic	3
CMPS 100B	Introduction to Technical Computing for the Sciences	3
CMPS 110	Introduction to Programming	3
ENGL 101	Basic Academic English	3
MATH 199	Calculus I	3
Semester 2 (Spring)	**15 Credits**	
Code	**Course Title**	**Credit Hours**
CMPS 160	Data Structures	3
CMPS 180	Digital System Design	3
ENGL 102C	English for Computer Science I	3
MATH 370	Discrete Mathematics	3
SOCS 102	Omani Society	3

Year II		
Semester 3 (Fall)	**15 Credits**	
Code	**Course Title**	**Credit Hours**
CMPS 215	Computer Organization with Assembly Language	3
CMPS 240	Analysis of Algorithms	3
ENGL 203C	English for Computer Science II	3
ENTR 200	Entrepreneurship: Innovation & Creativity	3
Code	Major Elective (Suggested: CMPS200)	3
Semester 4 (Spring)	**15 Credits**	
Code	**Course Title**	**Credit Hours**
CMPS 250	Computer Networks	3
CMPS 260	Operating Systems	3
CMPS 270	Database Systems	3
Code	Major Elective	3
Code	General Elective	3
Completion of the Diploma Program in Computer Science - Total Credits 60		

Bachelor of Science Program

The BS Computer Science is a four-year, 120-121 Credit Hours program designed to enable its holders to contribute to improving and modernizing the lifestyle and work culture through the computerization and automation of a wide range of processes in the industries and the society. The program content is very much in

line with the current standards and guidelines established by the Association of Computing Machinery (ACM).

To graduate with a Bachelor of Science in Computer Science, students must satisfactorily complete the program of study that is specified below with an overall minimum average of 65 percent, and a cumulative average of 70 percent in all computer science courses.

Graduation Requirements

To graduate with a BS in Computer Science, students must satisfactorily complete 120 credit hours of course work from the courses that are described in the Program of Study with an overall minimum average of 65 percent, and a cumulative average of 70 percent in the major courses.

Program of Study

University Requirements

The BS general education requirements include the following 10 course comprising 30 credit hours:

- ARAB 101: Academic Writing in Arabic
- CMPS 100B: Introduction to Technical Computing for the Sciences
- ENGL 101: Basic Academic English I
- ENGL 102C: English for Computer Science I
- ENGL 203C: English for Computer Science II
- ENGL 204: Advanced English for Academic Purposes and Research
- ENGL305: Advanced English Language and Communication Skills
- MATH 199: Calculus I
- ENTR200: Entrepreneurship: Innovation and Creativity
- SOCS 102: Oman Society

College Requirements

This set consists of four courses comprising a minimum of 12 credit hours distributed as follows:

- One course in physical/natural sciences electives
- One course in social/humanities electives
- Two courses in any other majors.

Program Requirements

This set consists of 25 courses comprising 78 credit hours distributed as follows:

Major Core Courses

18 courses encompassing 57 credit hours

- CMPS 110: Introduction to Programming

- CMPS 160: Data Structures
- CMPS 180: Digital System Design
- CMPS 215: Computer organization with Assembly Language
- CMPS 240: Analysis of Algorithms
- CMPS 250: Computer Networks
- CMPS 260: Operating Systems
- CMPS 270: Database Systems
- CMPS 310: Programming Languages
- CMPS 350: Theory of Computation
- CMPS 405: Artificial Intelligence
- CMPS 410: Software Engineering
- CMPS 425: Computer Graphics
- CMPS 490: Final Project
- MATH 200: Calculus II
- MATH 250: Probability and Statistics
- MATH 320: Linear Algebra I
- MATH 370: Discrete Mathematics

Major Elective Courses

Seven courses encompassing 21 credit hours (Three of these courses should be above 300 levels)

- CMPS 200: Analysis and Design of Information Systems
- CMPS 205: Introduction to Multimedia Concepts
- CMPS 210: Digital Image and Video Processing
- CMPS 225: Introduction to Data Communications
- CMPS 230: Introduction to System Programming
- CMPS 235: Numerical Computing
- CMPS 255: Graphical User Interface
- CMPS 265: Introduction to Microprocessors
- CMPS 280: Introduction to Internet Programming & Web Design
- CMPS 290: Introduction to Database Management
- CMPS 315: Advanced Programming in C++
- CMPS 320: Introduction to Computer Security
- CMPS 330: Computer Architecture
- CMPS 340: Advanced Programming in Java
- CMPS 360: Parallel Computing
- CMPS 370: Database Management Systems
- CMPS 400: Human-Computer Interaction
- CMPS 420: Internet Programming and Web Design
- CMPS 430: Compiler Construction
- CMPS 440: Selected Topics in Computer Science
- CMPS 455: Digital Media
- CMPS 465: Scientific Visualization
- CMPS 475: Advanced Computer Graphics
- CMPS 485: Computer Aided Geometric Design

Study Plan

Year I		
Semester 1 (Fall)	**15 Credits**	
Code	**Course Title**	**Credit Hours**
ARAB 101	Academic Writing in Arabic	3
CMPS 100B	Introduction to Technical Computing for the Sciences	3
CMPS 110	Introduction to Programming	3
ENGL 101	Basic Academic English	3
MATH 199	Calculus I	3
Semester 2 (Spring)	**15 Credits**	
Code	**Course Title**	**Credit Hours**
CMPS 160	Data Structures	3
CMPS 180	Digital System Design	3
ENGL 102C	English for Computer Science I	3
MATH 370	Discrete Mathematics	3
SOCS 102	Omani Society	3

Year II		
Semester 3 (Fall)	**15 Credits**	
Code	**Course Title**	**Credit Hours**
CMPS 215	Computer Organization w/ Assembly Language	3
CMPS 240	Analysis of Algorithms	3
ENGL 203C	English for Computer Science II	3
ENTR 200	Entrepreneurship: Innovation & Creativity	3
Code	Major Elective (Suggested: CMPS200)	3
Semester 4 (Spring)	**15 Credits**	
Code	**Course Title**	**Credit Hours**
CMPS 250	Computer Networks	3
CMPS 260	Operating Systems	3
CMPS 270	Database Systems	3
Code	Major Elective	3
Code	General Elective	3

Year III		
Semester 5 (Fall)	**16 Credits**	
Code	**Course Title**	**Credit Hours**
CMPS 310	Programming Languages	4
ENGL 204	Advanced English for Academic purposes & Research	3
MATH 200	Calculus II	3
Code	Major Elective	3
Code	General Elective	3
Semester 6 (Spring)	**15 Credits**	
Code	**Course Title**	**Credit Hours**
CMPS 350	Theory of Computation	3
MATH 320	Linear Algebra I	3
ENGL 305	Advanced English language & Communication Skill	3
Code	Major Elective	3
Code	Major Elective	3

Year IV		
Semester 7 (Fall)	**16 Credits**	
Code	**Course Title**	**Credit Hours**
CMPS 405	Artificial Intelligence	3
CMPS 410	Software Engineering	4
CMPS 425	Computer Graphics	3
MATH 250	Probability and Statistics	3
Code	Humanities/Social Sciences Elective	3
Semester 8 (Spring)	**16 Credits**	
Code	**Course Title**	**Credit Hours**
CMPS 490	Final Project	4
Code	Major Elective	3
Code	Major Elective	3
Code	Physical/ Natural Sciences Elective	3-4
Completion of the BS in Computer Science - Total Credits 120-121		

Course Description

CMPS 100A   Introduction to Technical Computing for the Arts   (3 crs.)

This course introduces technical computer literacy. Students are expected to learn how computers affect the way we live and work. Students will become familiar with typical software applications such as database application, web page design and publication software. In addition, the course will familiarize with the basics and concepts of multimedia. *Prerequisite: FPT 102B or FPTL 100.* This course is open to arts/engineering students only.

CMPS 100B   Introduction to Technical Computing for the   **(3 crs.)**
                         Sciences

In addition to covering some aspects of CMPS100A like database application and web page design, this course provides an extension to HTML/java scripts. Topics also include programming concepts, using appropriate tool, whereby students will be introduced with concepts like loops and conditional statements. *Prerequisite: FPT 102B.* This course is open to science/business/engineering students only.

CMPS 105   Introduction to Computer Graphics   **(3 crs.)**

Through lectures, demonstrations, and practical experiences, the course covers the basics of page layout programs and image handling, utilizing various desktop publishing software programs. An emphasis is placed on graphics for print: posters, brochures, etc. *Prerequisite or Co-requisite: CMPS 100A or CMPS 100B. This course cannot be taken by computer science students.*

CMPS 106   Introduction to Web Design   **(3 crs.)**

This course introduces the application of graphic design techniques to develop effective, aesthetically, pleasant, and useful websites. It serves as an introduction to the basic principles of web design. Students will learn how to plan and develop well-designed websites that combine effective navigation techniques with the creative use of graphics and typography. They will also learn the appearance of their choices in different browsers and gain a critical eye for evaluating website design. *Prerequisite or Co-requisite: CMPS 100A or CMPS 100B. This course cannot be taken by computer science students.*

CMPS 110   Introduction to Programming   **(3 crs.)**

Introduction to the methodology of programming and its use in solving a variety of problems with computers. Topics include the introduction of a high level language with emphasis on procedural abstraction, adequate programming style and the concept of algorithm design. *Prerequisite or Co-requisite: CMPS 100A or CMPS 100B.*

CMPS 160   Data Structures   **(3 crs.)**

This course is a continuation of CMPS 110. It emphasizes algorithm design and programming techniques in large programs. It also includes detailed studies of data structures and data abstraction such as queues, linked lists, and trees. The course also offers an introduction to program complexity and verification. *Prerequisite: CMPS 110.*

CMPS 180   Digital System Design   **(3 crs.)**

An introduction to the digital design of electronic circuits. Digital circuits are employed in the design and construction of systems such as digital computers, data communications, digital recordings and other applications that require digital hardware. The course provides the students with the basic tools for the design of digital circuits as well as the fundamental concepts in the design of digital systems such as combinational logic, synchronous sequential logic, programmable logic and other essential concepts. *Prerequisite: CMPS 100A or CMPS 100B.*

CMPS 200   Analysis and Design of Information Systems   (3 crs.)
This course highlights the main techniques used to model and design information systems. It differentiates between the conceptual, logical, and physical levels of modeling. Using a structured method, it presents the main phases of analysis and design, including requirement analysis, analysis, design, implementation, and testing. In this course, the student will learn the most important techniques of conceptual data modeling (e.g. entity-relation approach) and process modeling (e.g. information flow diagrams). The student will also learn the main techniques of processing design. *Prerequisite or Co-requisite: CMPS 100A or CMPS 100B.*

CMPS 205   Introduction to Multimedia Concepts   (3 crs.)
Introducing the general concepts of multimedia. Students will learn the principles of graphics, sound, video, and animation. Topics include learning scripting techniques with the most common multimedia programs available to develop and create an interactive multimedia project. Prerequisite: CMPS 100A or CMPS 100B.

CMPS 210   Digital Image and Video Processing   (3 crs.)
Introducing the basic techniques of automated (computer) processing, analysis, and understanding of image/video data. Topics include geometry and physics of image formation, image enhancement, feature extraction, video imagery, and multi-view imagery analysis. *Prerequisite: CMPS 100A or CMPS 100B.*

CMPS 215   Computer Organization with Assembly Language   (3 crs.)
This course deals with the fundamentals of computer organization using assembly language as an aid to studying computer organization. Topics include machine level representation of data, digital logic design, ALU and CPU design, memory system organization and architecture, object code, microprogramming, CISC, RISC, and parallel computers. *Prerequisite: CMPS 180.*

CMPS 225   Introduction to Data Communications   (3 crs.)
An introduction to Data Communications concepts with practical applications to enhance understanding of those concepts. The course includes examination of the principles of data communications for computers and computer terminals, including data transmission performance, communications software, protocols, switching, and simple networks. Easy-to-understand language and clear examples explain many technical terms associated with data communications networks. *Prerequisite: CMPS 215.*

CMPS 230   Introduction to System Programming   (3 crs.)
Features of the C language commonly used in systems programming, application to systems programming in a UNIX environment. Topics include C pre-processor macros, I/O, bit-manipulation facilities, timesharing system concepts, file permissions, shell script programming, make files and source code control, basic system calls like fork and exec, pointers and dynamic memory allocation, libraries and relocation and linking concepts including assembler handling of symbol tables. Prior knowledge of a programming language similar to C is presumed. *Prerequisite: CMPS 215.*

CMPS 235   Numerical Computing   (3 crs.)

A survey of the following areas: set theory, mathematical induction, number theory, relations, functions, algebraic structures and introductory graph theory. The topics to be discussed are fundamental to most areas of mathematics and have wide applicability to computer science. *Prerequisite: MATH 370.*

CMPS 240   Analysis of Algorithms   (3 crs.)
Examination of the techniques of designing and analyzing efficient algorithms and advanced data structures. Topics include: asymptotic analysis, divide and conquer, greedy algorithms, dynamic programming, and optimization algorithms. Students will apply the techniques to problems such as searching, sorting, graphs, matrices, and set manipulation. Prerequisite: CMPS 160 and MATH 370 for Computer Science students only.

CMPS 250   Computer Networks   (3 crs.)
This course discusses the foundation of computer networks. It presents a top-down view of the layered architectural elements of communication systems, focusing on the Internet and TCP/IP. Topics include client/server systems, packet switching, protocol stacks, queuing theory, application protocols, socket programming, remote service calls, reliable transport, UDP, TCP, and security. *Prerequisite: CMPS 160 and CMPS 180.*

CMPS 255   Graphical User Interface   (3 crs.)
This course deals with concepts and techniques used in the design and implementation of interactive systems. Topics include interface design guidelines, human factors, technical methods of user interface design, and the design and execution of usability studies. Students will learn how to apply various techniques through designing, creation, and testing of an interactive software application. *Prerequisite: CMPS 160.*

CMPS 260   Operating Systems   (3 crs.)
An overview of operating systems. Topics include: operating system principles, scheduling and resource management, virtual memory, file systems, concurrent processing and synchronization, Deadlocks, and Disk Scheduling. Programming under UNIX is an essential part of this course with the emphasis on concurrency, and inter-process communication (IPC). *Prerequisites: CMPS 215.*

CMPS 265   Introduction to Microprocessors   (3 crs.)
This course covers the historical development of microprocessors including its internal structure, units' functions, and principles of operation. Dealing with synchronous data transfer inside the computers, the pin configuration, and pins functions are covered. The modern technologies of pipelining and parallel processing are also included. *Prerequisite: CMPS 180.*

CMPS 270   Database Systems   (3 crs.)
An introduction to data modeling and various relational models (with relational algebra, and calculus) in a database system. Other topics include: the entity relationship model, SQL and integrity constraints, file organization and index files; and normalization. *Prerequisite: CMPS 160, CMPS 200, and MATH 370*.

**CMPS 280   Introduction to Internet Programming & Web   (3 crs.)
              Design**

This course provides an introduction to programming on the internet. It covers the "nuts and bolts" of internet programming. In addition to core fundamentals, students are introduced to web page construction, HTML, managing an account on a web server, client-server model, and JavaScript programming. *Prerequisite: CMPS 160.*

CMPS 290   Introduction to Database Management   (3 crs.)
The main objective of this course is to introduce students to fundamentals of database technology by studying databases from three viewpoints: those of the database user, the database designer, and the database administrator. It teaches the use of a database management system (DBMS) by treating it as a black box, focusing only on its functionality and its interfaces. Topics include: introduction to database systems, relational database systems, database design methodology, SQL and interfaces, database application development, concept of transactions, ODBC, JDBC, database tuning, database Administration, and advanced topics (distributed databases, data warehouses, data mining). *Prerequisite: CMPS 270.*

CMPS 310   Programming Languages   (4 crs.)
A comparative study of the design and implementation of advanced programming language features in imperative, scripting, object-oriented, functional, logic, and visual languages. Formal methods for syntactic and semantic description of imperative programming languages are examined. Topics include statement types, data types, variable binding, method binding, and backtracking mechanisms. *Prerequisite: CMPS 160.*

CMPS 315   Advanced Programming in C++   (3 crs.)
This course introduces advanced programming techniques in C++. It is structured in such a way that a good theoretical knowledge and practical experiences are gained in the advanced concepts and features of object oriented programming. The course covers: An introduction to classes and objects, class functions and constructors, overloaded constructors, public and private access to functions, operators, use of conditional and iterative control statements, accessing arrays subscripts and pointers, inheritance, inherited and overridden functions, use of the stream library functions to access files and use of user defined classes to write object-oriented programs. *Prerequisite: CMPS 160.*

CMPS 320   Introduction to Computer Security   (3 crs.)
An introduction to cryptography and the security of networks and databases. Topics include classical encryption; modern encryption techniques; public key encryption; elliptic curve cryptography; message authentication, message digest functions; and methods for relational database security, including access control. *Prerequisite: MATH 370.*

CMPS 330   Computer Architecture   (3 crs.)
This course provides a comprehensive understanding of the structure and function of a computer system from architectural and integration viewpoint. It focuses on two broad architectural perspectives: the internal perspective, which entails the architecture and design integration of the data path logic, control path logic, memory and I/O; and the external perspective, which provides consumer

views and system selection aspects. Examples of real machines are used in the course. *Prerequisite: CMPS 215.*

CMPS 340   Advanced Programming in Java   (3 crs.)
This course provides the basic theoretical understanding and the necessary practical experience of advanced Java programming. The topics include: - Types, operators and expressions, Control flow, IO functions and program structure, Object Oriented software design techniques, Features of the Java language and commonly used application systems programming, Testing and debugging techniques, Analysis, design and systems software lifecycles. *Prerequisite: CMPS 160.*

CMPS 350   Theory of Computation   (3 crs.)
Introduction to formal languages and computational models. Topics covered include finite automata, pushdown automata, Turing machines, undesirability, recursive and recursively enumerable functions. Some applications to computer science are also discussed, such as compiler design and text processing. *Prerequisites: MATH 370 and CMPS 110.*

CMPS 360   Parallel Computing   (3 crs.)
Introducing the essentials of parallel computers and the methodology of programming using such computers. The basic architecture of parallel computers including shared memory, message passing, meshes, and hyper-cubes are introduced. Topics include: the basic techniques of parallel computations, portioning and divide-conquer, and the basic algorithms such as searching algorithms, numerical algorithms, etc. *Prerequisites: CMPS 215 and CMPS 240.*

CMPS 370   Database Management Systems   (3 crs.)
The objective of this course is to introduce students to fundamentals of building a relational database management system. The course focuses on the database engine core technology by studying topics such as storage management (data layout, disk-based data structures), indexing, query processing algorithms, query optimization, transactional concurrency control, logging and recovery. *Prerequisite: CMPS 270.*

CMPS 400   Human-Computer Interaction   (3 crs.)
Examining formal methods for facilitating human-computer communication. Topics include information processing characteristics important to facilitate human-computer interaction, and formal models of human-computer interaction. Other topics include dialogue techniques, response times and display rates, information presentation, interaction devices, computer training, help systems, information search and visualization, and hypermedia. *Prerequisite: CMPS 255.*

CMPS 405   Artificial Intelligence   (3 crs.)
An introduction to the automation of intelligent capabilities, including knowledge representation and reasoning (search and logical inference), interpreting, behavior modeling and learning. Expert systems, knowledge acquisition, and machine learning will also be stressed. Programming projects will be given, some of which will be in Prolog. *Prerequisites: CMPS 240. Prerequisites: Instructor approval.*

CMPS 410   Software Engineering   (4 crs.)

Examination of the overall process of software development. Students will learn the principles of software requirements, analysis, implementation, testing, and maintenance. Other topics include professional ethics, practices, risks and liabilities. A brief survey of available tools will be presented covering analysis, planning, design and structure charts, system and information flow diagrams, testing and quality control. Students complete a project by implementing a significant software system in teamwork. *Prerequisites: CMPS 200.*

CMPS 420   Internet Programming and Web Design   (3 crs.)

This course provides a hands-on approach in understanding how medium-sized interactive client/server Web applications are built using different types of integrated Web technologies. Students will learn how to implement a database-driven website, and gain understanding of the relevant technologies involved in each tier of the web architectural model. Topics include the accessibility of Web agents and end-users, Web caching and proxy techniques, and security issues and strategies of Web-based applications. *Prerequisites: CMPS 250 and CMPS 270.*

CMPS 425   Computer Graphics   (3 crs.)

This course introduces the fundamentals of computer graphics with emphasis on 2-D graphics. An application-based approach is used to introduce various topics such as: graphics output primitives, their attributes, colors, transformations, anti-aliasing, texture mapping, and curves and surfaces. Other topics include: 2D graphics algorithms, essentials of user interface and window management systems, and graphics hardware. Programming using OpenGL is an essential part of this course. *Prerequisites: CMPS 160.*

CMPS 430   Compiler Construction   (3 crs.)

Examining of how compilers work. Topics include a simple compiler, context-free grammars, lexical analysis, top-down parsing, bottom-up parsing, semantic analysis, and code generation. Programming projects are an essential part of this course. *Prerequisites: CMPS 215 and CMPS 310.*

CMPS 440   Selected Topics in Computer Science   (1-3 crs.)

This course requires the presentation of a selected topic, according to the interests of the instructors and/or students. Topics will be chosen from state-of-the-art innovations in software and computer information systems. *Prerequisite: Instructor Approval.*

CMPS 455   Digital Media   (3 crs.)

This course covers technical aspects of digital media. Topics include capturing, storage, digital representation, compression, and generation of digital media. The forms of media to be covered include text, images, 2D animation, video, sound, and 3D graphics and animation. *Prerequisite: CMPS 425.*

CMPS 465   Scientific Visualization   (3 crs.)

Introducing various techniques in scientific data visualization with an object oriented approach. Topics include basic data representation, visualization schemes for scalar, vector and other types of data, basic algorithms for

generation of ISO-surface and volume visualization. Applications include 3D medical imaging, financial applications, modeling, algorithms visualization and other. *Prerequisite: CMPS 425.*

CMPS 475   Advanced Computer Graphics   (3 crs.)
Introducing the basic concepts of 3D computer graphics by adopting an application based approach. Topics include 3D object representations and manipulations; 3D transformation and viewing; hidden-surface and hidden-line removal; shading models; rendering; texture mapping; ray-tracing; animation techniques. Programming using OpenGL is an essential part of this course. *Prerequisite: CMPS 425.*

CMPS 485   Computer-Aided Geometric Design   (3 crs.)
An overview of the use of a computer in modeling 2- and 3-D objects. It discusses the representation of free-form curves and surfaces with emphasis on Bezier and Bspline. Other topics include: approximation and interpolation, visual smoothness, geometric continuity, parameterization and subdivision surfaces. Programming projects using OpenGL will be given with various applications including animation. *Prerequisite: CMPS 425.*

CMPS 490   Final Project   (4 crs.)
This course requires the implementation of a term project that reflects and demonstrates knowledge gained on the computer science undergraduate program. The final project will be a group project (a group of 2 or 3 students depending on the nature of the project). Prerequisite: Fourth year candidate.

DEPARTMENT OF EDUCATION

Personnel

Department Chairperson (Acting):	Bait Ali Suliman, Moosa
Professor:	Nasser, Ramzi
Associate Professor:	Abdulrashed, Naser
Assistant Professors:	El Sayed, Abdelkader; Al Maashani, Ahmed; Al Mashikhi, Khalid; Suliman, Sobhy; Almagaly, Mousleh
Lecturer:	Bait Ali Suliman, Moosa;
Secretary:	Bait Said, Azad

Mission

The Education Department provides its students with the knowledge and skills that qualify them to be successful teachers and educational administrators in their fields of specialization. It encourages them to conduct research in their fields, learn independently, and develop themselves as students, teachers and administrators. Moreover, it encourages them to think critically and get involved in their society's activities to participate actively in its development and progress.

Objectives

The objectives of the Department of Education are:

- Providing students with quality education and content pedagogy that will prepare them to become productive teachers in schools and responsible professionals and citizens;
- Preparing caring and reflective teachers who are critical thinkers, problem-solvers, and can easily adapt to the changes in the relevant fields of knowledge;
- Preparing teachers who respect their cultural heritage, understand the main issues of modern society, and appreciate the role that both play in the lives of students;
- Providing students with solid liberal education, training and appropriate learning skills and values; and
- Promoting life-long independent learning.

Learning Outcomes

By the end of their studies, students at the Education Department will be able to:

- Teach successfully in public and private schools
- Carry out different activities in their schools.
- Participate in their society's development and activities.
- Participate in the administration of their schools and other activities related to the MOE.

- Think critically in their life and participate in the development of their schools.
- Carry out research that benefits their schools and society.
- Be aware of up-to-date pedagogy that qualifies them to be productive teachers.
- Continue to develop themselves during their life.
- Prepare them to become good and productive citizens in Oman.

Degrees Offered

- Bachelor of Education (B. Ed.)
- Master of Education in Curriculum and Instruction: Teaching English Language
- Master of Educational in Educational Administration
- Master of Education in Psychological Counseling

Specializations

The following specializations are currently available for the B. Ed.:

- Teaching of English Language;
- Teaching of Mathematics;
- Teaching of Science; and
- Teaching of Information Technology in cycles 1 and 2 of Basic Education.

Career Opportunities

Career opportunities are available for all Education department graduates in the education sector. Our graduates can work immediately after graduate teaching mathematics, science, IT, and English language teachers.

Admission Criteria

Admission to the B. Ed. program follows the instructions of the Ministry of Higher Education which require having a minimum average of 75% in the General Education Certificate for all specializations and a minimum grade of 80% in Arabic, English, Mathematics, or Science for those who plan to specialize in teaching any of those subjects. In addition, students should take placement tests or equivalent to determine their proficiency in English, Mathematics, and Information Technology skills.

Bachelor of Education (B.Ed.) Program

The Bachelor of Education curriculum is designed to comply with the requirements of Omani Academic Accreditation Authority (QAAA). It includes at least (30) credit hours of University Requirements, at least (6) credit hours of College Requirements, and at least (84-86) credit hours of Major Requirements, including language and technical writing courses. Lab hands-on experience and emphasis on Education are important elements that are integrated throughout

the curriculum. It is designed to grant students the Bachelor of Education degree upon the successful completion of the four-year program.

The program offers a wide range of courses in the subject matter specialization, psychology of learning, teaching methodology, optimizing meaningful learning by students, using information and communication technologies in education, and practicum in actual school settings.

The first common year with other college majors allows students to switch between the majors at the same college at the start of the second year of their study.

Graduation Requirements

To graduate from Education Department, students must satisfactorily complete 120 credit hours of course work from the courses that are described in the Program of Study with an overall minimum average of 65 percent, and a cumulative average of 70 percent in the major courses.

University Requirements

This set includes the following 10 course encompassing 30 Credit Hours:

- ARAB 101: Academic Writing in Arabic
- CMPS 100A: Introduction to Technical Computing for the Arts
- ENGL 101: Basic Academic English
- ENGL 102 A: English for Arts, Humanities and Social Sciences I
- ENGL 203 A: English for Arts, Humanities and Social Sciences II
- ENGL 204: Advanced English for Academic Purposes and Research
- ENGL 305: Advanced English Language and Communication Skills
- MATH 103: Mathematics for Social Sciences I
- SOCS 102: Omani Society
- ENTR 200: Entrepreneurship: Innovation & Creativity

College Requirements

This set includes the following four course encompassing 12 Credit Hours:

- One course in physical/natural sciences electives (3 Cr. hrs.)
- One course in humanities/social sciences electives (3 Cr. hrs.)
- Two courses in major specialization electives (6 Cr. hrs.)

Program Requirements

Required Education Courses: The following set of ten Education courses encompassing 30 credit hours is required in all Specializations:

- EDUC 120: Learning and Child Development
- EDUC 150: Introduction to Foundations of Education
- EDUC 300: Curriculum Development and Analysis
- EDUC 303: School Observation and Classroom Observation

- EDUC 320: Instructional Methods and Strategies
- EDUC 360: Educational Systems in Oman and the GCC Countries
- EDUC 365: Information and Communication Technologies (ICT) in Education
- EDUC 420: Introduction to Research Methodology in Education
- EDUC 490: Senior Project
- PSYC 150: Introduction to Psychology

Elective Education Courses: English Language, Sciences, and Information Technology specializations are required to choose two Education courses encompassing 6 credit hours, and Math specialization is required to choose one, 3 Credit hours course from the list below.

- EDUC 200: Introduction to Guidance and Counseling
- EDUC 205: Introduction to Special Education
- EDUC 210: Children's Literature
- EDUC 250: Education in Islam
- EDUC 260: Environmental Education
- EDUC 305: Approaches to Integration in Education
- EDUC 310: Visual Arts Education
- EDUC 355: Behavior Modification
- EDUC 370: Learning Difficulties
- EDUC 400: Professional Development in Education
- EDUC 425: Foundations of Health Education
- EDUC 430: Educational Administration
- EDUC 460: Senior Seminar: Issues in Education

Specialization Requirements

I. Teaching English Language

This specialization consists of 13 Courses encompassing 42 Credit hrs distributed as follows.

Required Specialized Education Courses

This set includes four courses encompassing 15 Credit Hours chosen from the following list:

- EDUC 350A: Methods of Teaching English as a Second Language at the Elementary and Intermediate Levels (Grades 1-10) I
- EDUC 410A: Methods of Teaching English as a Second Language at the Elementary and Intermediate Levels (Grades 1-10) II
- EDUC 440A: Methods of Assessing Learning of English as a Second Language at the Elementary and Intermediate Levels (Grades 1-10)
- EDUC 485A: Practicum in Teaching English as a Second Language at the Elementary and Intermediate Levels (Grades 1-10)

Required Subject Courses

This set includes eight courses encompassing 24 Credit Hours chosen from the following list

- ENGL 120: Understanding English Grammar
- ENGL 160: Understanding Literature
- ENGL 210: Introduction to Linguistics
- ENGL 215: The Sounds of English
- ENGL 230: Prose Fiction in English
- ENGL 270: Situational English
- ENGL 285: Writing Workshop
- ENGL 290: Poetry

Elective Subject Courses

This set includes three courses encompassing 9 Credit Hours chosen from the following list

- ENGL 240: Introduction to Language
- ENGL 255: The Psychology of Language
- ENGL 260: Shakespeare
- ENGL 265: Culture in the classroom
- ENGL 275: Rhetoric
- ENGL 280: Business English
- ENGL 315: The Novel
- ENGL 345: Morphology
- ENGL 350: Advanced Writing for Humanities
- ENGL 355: Language in Society
- ENGL 440: Advanced Academic Writing
- TRAN 150: Introduction to Translation
- TRAN 220: Translation Theory
- TRAN 250: Contrastive Analysis
- TRAN 260: Translation Techniques

II. Teaching Mathematics

This specialization consists of 14 Courses encompassing 47 Credit hrs distributed as follows.

Required Specialized Education Courses

This set includes four courses encompassing 12 Credit Hours chosen from the following list

- EDUC 350B: Methods of Teaching Mathematics at the Elementary and Intermediate Levels (Grades 1-10) I
- EDUC 410B: Methods of Teaching Mathematics at the Elementary and Intermediate Levels (Grades 1-10) II
- EDUC 440B: Methods of Assessing Learning of Mathematics at the Elementary and Intermediate Levels (Grades 1-10)

- EDUC 485B: Practicum in Teaching Mathematics at the Elementary and Intermediate Levels (Grades 1-10)

Required Subject Courses

This set includes ten courses encompassing 32 Credit Hours chosen from the following list

- CHEM 130: Chemical Principles I
- CHEM 130L: Introductory Chemistry Laboratory
- MATH 200: Calculus II
- MATH 205: Calculus III
- MATH 210: Differential Equations
- MATH 240: Mathematics Computer Applications I
- MATH 250: Probability and Statistics
- MATH 255: Statistical Inference
- MATH 260: Numerical Analysis
- MATH 280: Mathematics Computer Applications II
- PHYS 170: Fundamentals of Physics I
- PHYS 170L: Introductory Physics Laboratory

Elective Subject Courses

This set includes two courses encompassing 6 Credit Hours chosen from the following list

- MATH 120: Geometry and Trigonometry
- MATH 204: Mathematics for Social Sciences II
- MATH 215: Elementary Statistics for the Social Sciences
- MATH 305: Advanced Calculus
- MATH 320: Liner Algebra I
- MATH 370: Discrete Mathematics
- MATH 390: Differential Equation II

III. Teaching Science

This specialization consists of 12 Courses encompassing 43 Credit hrs distributed as follows.

Required Specialized Education Courses

This includes four courses encompassing 15 Credit Hours chosen from the following list

- EDUC 350C: Methods of Teaching Science at the Elementary and Intermediate Levels (Grades 1-10) I
- EDUC 410C: Methods of Teaching Science at the Elementary and Intermediate Levels (Grades 1-10) II
- EDUC 440C: Methods of Assessing Learning of Science at the Elementary and Intermediate Level (Grades 1-10)

- EDUC 485C: Practicum in Teaching Science at the Intermediate Levels (Grades 1-10)

Required Subject Courses

This includes seven courses encompassing 25 Credit Hours chosen from the following list

- BIOL 120: Introductory Biology
- BIOL 120L: Introductory Biology Lab
- CHEM 130: Chemical Principles I
- CHEM 130L: Introductory Chemistry Laboratory
- CHEM 170: Chemical Principles II
- MATH 200: Calculus II
- PHYS 170: Fundamentals of Physics I
- PHYS 170L: Introductory Physics Laboratory
- PHYS 210: Fundamentals of Physics II
- PHYS 210L: Physics Lab II

Elective Subject Courses

This includes three courses encompassing 9 Credit Hours chosen from the following list

- CHEM 260: Analytical Chemistry
- CHEM 280: Environmental Chemistry
- MATH 205: Calculus III
- MATH 210: Differential Equations
- MATH 215: Elementary Statistics for Social Sciences
- MATH 240: Mathematics Computer Applications I

IV: Teaching Information Technology

This specialization consists of 13 Courses encompassing 42 Credit hrs distributed as follows.

Required Specialized Education Courses

This includes four courses encompassing 15 Credit Hours chosen from the following list:

- EDUC 350D: Methods of Teaching Informatics, Elementary and Intermediate Levels (Grades 1-10) I
- EDUC 410D: Methods of Teaching Informatics, Elementary and Intermediate Levels (Grades 1-10) II
- EDUC 440D: Methods of Assessing Learning of Informatics, Elementary and Intermediate Levels (Grades 1-10)
- EDUC 485D: Practicum in Teaching Informatics Elementary and Intermediate Levels (Grades 1-10)

Required Subject Courses

This includes nine courses encompassing 27 Credit Hours chosen from the following list

- CMPS 110: Introduction to Programming
- CMPS 160: Data Abstraction
- CMPS 180: Digital System Design
- CMPS 215: Computer Organization with Assembly Language
- CMPS 240: Analysis of Algorithms
- CMPS 250: Computer Networks
- CMPS 260: Operating Systems
- CMPS 270: Database Systems
- MATH 370: Discrete Mathematics

Elective Subject Courses

This includes two courses encompassing 6 Credit Hours chosen from the following list

- CMPS 200: Analysis and Design of Information Systems
- CMPS 205: Introduction to Multimedia Concepts
- CMPS 210: Digital Image and Video Processing
- CMPS 225: Introduction to Data Communications
- CMPS 230: Introduction to System Programming
- CMPS 235: Numerical Computing
- CMPS 265: Introduction to Microprocessors
- CMPS 280: Introduction to Internet Programming & Web Design
- CMPS 290: Introduction to Database Management

Study Plan - Teaching English Language

Year I		
Semester 1 (Fall)		**15 Credits**
Code	**Course Title**	**Credit Hours**
ARAB 101	Academic Writing in Arabic	3
CMPS 100A	Introduction to Technical Computing for the Arts	3
EDUC 120	Learning and Child Development	3
ENGL 101	Basic Academic English I	3
ENGL 120	Understanding English Grammar	3
Semester 2 (Spring)		**15 Credits**
Code	**Course Title**	**Credit Hours**
EDUC 150	Introduction to Foundations of Education	3
ENGL 102A	English for Arts, Humanities & Social Science I	3
ENGL 160	Understanding Literature	3
MATH 103	Mathematics for Social Sciences I	3
PSYC 150	Introduction to Psychology	3

Year II		
Semester 3 (Fall)		**15 Credits**
Code	**Course Title**	**Credit Hours**
ENGL 203A	English for Arts, Humanities & Social Science II	3
ENGL 210	Introduction to Linguistics	3
ENGL 215	The Sounds of English	3
ENGL 230	Prose Fiction in English	3
ENTR 200	Entrepreneurship: Innovation & Creativity	3
Semester 4 (Spring)		**15 Credits**
Code	**Course Title**	**Credit Hours**
ENGL 204	Advanced English for Academic Purposes & Research	3
ENGL 270	Situational English	3
ENGL 285	Writing Workshop	3
ENGL 290	Poetry	3
SOCS 102	Omani Society	3

Year III		
Semester 5 (Fall)		**15 Credits**
Code	**Course Title**	**Credit Hours**
EDUC 300	Curriculum Development and Analysis	3
EDUC 303	School Visit and Classroom Observation	3
EDUC 320	Instructional Methods and Strategies	3
Code	English Major Elective	3
Code	Physical/Natural Sciences Elective	3
Semester 6 (Spring)		**15 Credits**
Code	**Course Title**	**Credit Hours**
EDUC 360	Educational Systems in Oman and the GCC Countries	3
EDUC 365	Information and Communication Technologies (ICT) in Education	3
EDUC 350A	Methods of Teaching English as a Second language at the Elementary and Intermediate Level I	3
Code	Major Education Elective	3
Code	English Major Elective	3

Year IV		
Semester 7 (Fall)		**18 Credits**
Code	**Course Title**	**Credit Hours**
EDUC 420	Introduction to Research Methodology in Education	3
ENGL 305	Advanced English Language and Communication Skills	3
EDUC 440A	Methods of Teaching English as a Second language at the Elementary and Intermediate Level II	3
Code	English Major Elective	3
Code	Humanities & social Science Elective	3
Semester 8 (Spring)		**12 Credits**
Code	**Course Title**	**Credit Hours**
EDUC 490	Senior Project	3
EDUC 485A	Practicum in Teaching English as a Second language at the Elementary and Intermediate Level	6
Code	Major Education Elective	3
Completion of the B. Ed. In Education - Total Credits 120		

Study Plan - Teaching Mathematics

Year I		
Semester 1 (Fall)		**15 Credits**
Code	**Course Title**	**Credit Hours**
ARAB 101	Academic Writing in Arabic	3
CMPS 100B	Introduction to Technical Computing for the Sciences	3
EDUC 120	Learning and Child Development	3
ENGL 101	Basic Academic English	3
MATH 199	Calculus I	3
Semester 2 (Spring)		**16 Credits**
Code	**Course Title**	**Credit Hours**
CHEM 130	Chemical Principles I	3
CHEM 130L	Introductory Chemistry Laboratory	1
EDUC 150	Introduction to Foundations of Education	3
ENGL 102A	English for Arts, Humanities & Social Science I	3
MATH 200	Calculus II	3
PSYC 150	Introduction to Psychology	3

Year II		
Semester 3 (Fall)		**16 Credits**
Code	**Course Title**	**Credit Hours**
ENGL 203A	English for Arts, Humanities & Social Science II	3
MATH 205	Calculus III	3
MATH 210	Differential Equations	3
PHYS 170	Fundamentals of Physics I	3
PHYS 170L	Introductory Physics Laboratory	1
MATH 240	Mathematics Computer Applications I	3
Semester 4 (Spring)		**15 Credits**
Code	**Course Title**	**Credit Hours**
ENGL 204	Advanced English for Academic Purposes & Research	3
MATH 250	Probability and Statistics	3
MATH 255	Statistical Inference	3
MATH 260	Numerical Analysis I	3
SOCS 102	Omani Society	3

Year III		
Semester 5 (Fall)		**15 Credits**
Code	**Course Title**	**Credit Hours**
EDUC 300	Curriculum Development and Analysis	3
EDUC 303	School Visit and Classroom Observation	3
EDUC 320	Instructional Methods and Strategies	3
MATH 280	Mathematics Computer Applications II	3
Code	Mathematics Major Elective	3
Semester 6 (Spring)		**15 Credits**
Code	**Course Title**	**Credit Hours**
EDUC 360	Educational System in Oman and GCC Countries	3
EDUC 365	Information and Communication Technologies in Education	3
ENTR 200	Entrepreneurship: Innovation & Creativity	3
EDUC 350B	Methods of Teaching Mathematics at the Elementary and Intermediate Level	3
Code	Mathematics Major Elective	3

Year IV		
Semester 7 (Fall)		**18 Credits**
Code	**Course Title**	**Credit Hours**
EDUC 420	Introduction to Research Methodology in Education	3
ENGL 305	Advanced English Language and Communication Skills	3
EDUC 440A	Methods of Teaching Mathematics at the Elementary and Intermediate Level II	3
EDUC 440B	Methods of Assessing learning of Mathematics at the elementary and intermediate level	3
Code	Mathematical or Physical nature/Science Elective	3
Code	Humanities and Social Science Elective	3
Semester 8 (Spring)		**12 Credits**
Code	**Course Title**	**Credit Hours**
EDUC 490	Senior Project	3
EDUC 485B	Practicum in teaching Mathematics at the elementary and intermediate level	6
Code	Major Education Elective	3
Completion of the B.Ed. in Education - Total Credits 122		

Study Plan - Teaching Science

Year I		
Semester 1 (Fall)		**15 Credits**
Code	**Course Title**	**Credit Hours**
ARAB 101	Academic Writing in Arabic	3
CMPS 100B	Introduction to Technical Computing for the Sciences	3
EDUC 120	Learning and Child Development	3
ENGL 101	Basic Academic English I	3
MATH 103	Mathematics for Social Sciences I	3
Semester 2 (Spring)		**16 Credits**
Code	**Course Title**	**Credit Hours**
CHEM 130	Chemical Principles I	3
CHEM 130L	Introductory Chemistry Laboratory	1
EDUC 150	Introduction to Foundations of Education	3
ENGL 102A	English for Arts, Humanities & Social Science I	3
MATH 200	Calculus II	3
PSYC 150	Introduction to Psychology	3

Year II		
Semester 3 (Fall)		**14 Credits**
Code	**Course Title**	**Credit Hours**
BIOL 120	Introductory Biology with Laboratory	3
BIOL 120L	Introductory Biology Laboratory	1
ENGL 203A	English for Arts, Humanities & Social Science II	3
PHYS 170	Fundamentals of Physics I	3
PHYS 170L	Introductory Physics Laboratory	1
SOCS 102	Omani Society	3
Semester 4 (Spring)		**16 Credits**
Code	**Course Title**	**Credit Hours**
BIOL 160	Modern Topics in Biology	3
ENGL 204	Chemical Principles II	3
PHYS 210	Fundamentals of Physics	3
PHYS 210L	Physics Lab II	1
Code	Physical/Natural Sciences Elective	3

Year III		
Semester 5 (Fall)		**15 Credits**
Code	**Course Title**	**Credit Hours**
EDUC 300	Curriculum Development and Analysis	3
EDUC 303	School Visit and Classroom Observation	3
EDUC 320	Instructional Methods and Strategies	3
Code	Physical/Natural Sciences Elective	3
Code	Physical/Natural Sciences Elective	3
Semester 6 (Spring)		**18 Credits**
Code	**Course Title**	**Credit Hours**
EDUC 360	Educational Systems in Oman and the GCC Countries	3
EDUC 365	Information and Communication Technologies (ICT) in Education	3
ENTR 200	Entrepreneurship: Innovation & Creativity	3
EDUC 350C	Methods of Teaching Science at the Elementary and Intermediate Level (Grade 1-10) I	3
Code	Physical/Natural Sciences Elective	3

Year IV		
Semester 7 (Fall)		**18 Credits**
Code	**Course Title**	**Credit Hours**
EDUC 420	Introduction of Research Methodology in Education	3
ENGL 305	Advanced English Language and Communication Skills	3
EDUC 410	Methods of Teaching Science at the Elementary and Intermediate Level (Grade 1-10) II	3
EDUC 440C	Methods of Assessing learning of Science at the elementary and intermediate level (Grade 1-10)	3
Code	Major Education Elective	3
Code	Humanities/Social Sciences Elective	3
Semester 8 (Spring)		**12 Credits**
Code	**Course Title**	**Credit Hours**
EDUC 490	Senior Project	3
EDUC 485C	Practicum in Teaching Science at the Elementary and Intermediate Level (Grade 1-10	6
Code	Major Education Elective	3
Completion of the B.Ed. in Science - Total Credits 121		

Study Plan: Teaching Information Technology

Year I		
Semester 1 (Fall)		**15 Credits**
Code	**Course Title**	**Credit Hours**
EDUC 120	Learning and Child Development	3
CMPS 100B	Introduction to Technical Computing for the Sciences	3
CMPS 110	Introduction to Programming	3
ENGL 101	Basic Academic English I	3
MATH 103	Mathematics for Social Sciences I	3
Semester 2 (Spring)		**15 Credits**
Code	**Course Title**	**Credit Hours**
EDUC 150	Introduction to Foundations of Education	3
CMPS 160	Data Abstraction	3
CMPS 180	Digital System Design	3
ENGL 102A	English for Arts, Humanities & Social Science I	3
MATH 370	Discrete Mathematics	3

Year II		
Semester 3 (Fall)		**14 Credits**
Code	**Course Title**	**Credit Hours**
EDUC 150	Introduction to Foundations of Education	3
CMPS 160	Data Abstraction	1
CMPS 180	Digital System Design	3
ENGL 102A	English for Arts, Humanities & Social Science I	3
MATH 370	Introductory Physics Laboratory	1
SOCS 102	Omani Society	3
Semester 4 (Spring)		**15 Credits**
Code	**Course Title**	**Credit Hours**
ARAB 101	Academic Writing in Arabic	3
CMPS 250	Computer Networks	3
CMPS 260	Operating Systems	3
CMPS 270	Database Systems	3
ENGL 204	Advanced English for Academic Purposes & Research	3

Year III		
Semester 5 (Fall)		**15 Credits**
Code	**Course Title**	**Credit Hours**
EDUC 300	Curriculum Development and Analysis	3
EDUC 303	School Visit and Classroom Observation	3
EDUC 320	Instructional Methods and Strategies	3
SOCS 102	Omani Society	3
Code	Physical/Natural Sciences Elective	3
Semester 6 (Spring)		**15 Credits**
Code	**Course Title**	**Credit Hours**
EDUC 360	Educational Systems in Oman and the GCC Countries	3
EDUC 365	Information and Communication Technologies (ICT) in Education	3
EDUC 350D	Methods of Teaching IT at the Elementary and Intermediate Level (Grade 1-10) I	3
Code	Major Education Elective	3
Code	Computer Science Major Elective	3

Year IV		
Semester 7 (Fall)		**18 Credits**
Code	**Course Title**	**Credit Hours**
EDUC 420	Introduction to Research Methodology in Education	3
EDUC 305	Advanced English Language and Communication Skills	3
EDUC 410D	Methods of Teaching IT at the Elementary and Intermediate Levels (Grades 1-10) II	3
EDUC 440D	Methods of Assessing Learning of IT at the Elementary and Intermediate Levels (Grades 1-10)	3
Code	Computer Science Major Elective	3
Code	Humanities and Social Science Elective	3
Semester 8 (Spring)		**12 Credits**
Code	**Course Title**	**Credit Hours**
EDUC 490	Senior Project	3
EDUC 485D	Practicum in Teaching IT at the Elementary and Intermediate Levels (Grades 1-10)	6
	Major Education Elective	3
Completion of the B.Ed. in Information Technology - Total Credits 120		

Course Description

EDUC 120   Learning and Child Development   (3 credits)

Introduction to theories of instruction, intelligence, child development, learning and behavior management. Implications of these theories for classroom teaching.

EDUC 150   Introduction to Foundations of Education   (3 credits)

Brief history of major factors that influenced the development of modern education. The philosophical, psychological, and social backgrounds of education with focus on the Arabic culture and the goals of the educational systems in the Sultanate of Oman and the GCC countries.

EDUC 200   Introduction to Guidance and Counseling   (3 credits)

An introduction to school guidance and counseling. Emphasis is on the role of guidance counselors in school and community settings. *Prerequisite: EDUC 120.*

EDUC 205   Introduction to Special Education   (3 credits)

An introduction to the various types of exceptionality. Educational characteristics of children with learning disabilities, emotional disturbance, mental retardation, speech, visual, and hearing impairment, and giftedness. *Prerequisite: EDUC 120.*

EDUC 210   Children's Literature   (3 credits)

Survey of the classics and contemporary children's literature of various genres. Topics include child development in relation to children's literature, poetry, fairy tales, epics, myths and legends, fantasy, fiction, nursery rhymes, ABC/counting and picture books. Using children's literature as an effective means to encourage reading enjoyment and self-expression is particularly stressed.

EDUC 250   Education in Islam   (3 credits)

This course examines the approach of Islam to education and the history of educational systems in Islamic societies.

EDUC 260   Environmental Education   (3 credits)

The basic concepts of the environment from economic, cultural, and religious point of views. The need to preserve the environment locally and internationally to secure continuity of the human race. The local environmental problems and suggested solutions. The role of schools and educational systems to spread environmental awareness and improve environment friendly behaviors.

EDUC 300   Curriculum Development and analysis   (3 credits)

Principles of curriculum development and techniques to analyze and select curricula that is appropriate to stated goals and objectives. Focus is on the Omani curriculum at its various stages. *Prerequisite: EDUC 320.*

EDUC 303   School Visit and Classroom Observation   (3 credits)

Visiting schools and getting acquainted with various aspects of school organization, structure, administration, teachers' duties, and the relationship between teachers and administrators. Students will be distributed in groups according to their area of specialization. *Prerequisite: One Methods Course*.

EDUC 305   Approaches to Integration in Education   (3 credits)

Approaches to the integrated curriculum and construction of integrated thematic units. Building, analyzing, and critiquing models of integration are emphasized. Developing interdisciplinary units of learning; involving parents and community; communicating effectively with children within their unique stages of development.

EDUC 310   Visual Arts Education   (3 credits)

Teaching visual art in the elementary school with focus on the techniques of teaching painting, drawing, paste modeling, and constructing visual products out of various media. Focus is on leading children to develop their creative thinking. The course includes observation and practice in actual classrooms.

EDUC 320   Instructional Methods and Strategies   (3 credits)

Exploration of known strategies and techniques of teaching, and learning. Essential teaching skills with focus on developing thinking abilities. Discussing the most commonly known theories and models such as Social Interaction Model, the Inductive Model, the Problem based Learning, Cooperative Learning, and Direct-Instruction Model. *Prerequisite: EDUC 150.*

EDUC 350A   Methods of Teaching English as a Second   (3 credits), 2.2
Language at the Elementary and
Intermediate Levels (Grades 1-10) I

Theoretical background and supervised teaching of English as a foreign language at the elementary and intermediate levels. Focus is on developing competencies in material development, instructional planning, classroom management, and methodology of teaching English as a foreign language in the elementary school. The course includes observation and application of these competencies in field settings. Micro teaching is an integral component. *Prerequisite or co-requisite: EDUC 320.*

EDUC 350B   Methods of Teaching Mathematics at the   (3 credits), 2.2
Elementary   and   Intermediate   Levels
(Grades 1-10) I

Theoretical background and supervised teaching of mathematics in the elementary school. Focus is on developing competencies in instructional material development, instructional planning, classroom management, and methodology of teaching mathematics. The course includes observation and application of these competencies in field settings. Microteaching is an integral component. *Prerequisite or co-requisite: EDUC 320.*

EDUC 350C   Methods of Teaching Science at the   (3 credits),2.2
Elementary and Intermediate Levels
(Grades 1-10) I

Theoretical background and supervised teaching of science at the intermediate level. Focus is on developing competencies in material development, instructional planning, classroom management, and methodology of teaching science. The course includes observation and application of these competencies in field settings. Microteaching is an integral component. *Prerequisite or co-requisite: EDUC 320.*

EDUC 350D   Methods of Teaching Information   (3 credits), 2.2
Technology at the Elementary and
Intermediate Levels (Grades 1-10) I

Theoretical background and supervised teaching of science at the intermediate level. Focus is on developing competencies in material development, instructional planning, classroom management, and methodology of teaching science. The course includes observation and application of these competencies in field settings. Microteaching is an integral component. *Prerequisite or co-requisite: EDUC 320.*

EDUC 355   Behavior Modification   (3 credits)

The meaning and psychological concepts that are associated with behavior. The distinction between normal and abnormal behaviors. The theoretical framework of behavior modifications in light of analytical and cognitive models with focus on the most common behavioral problems such as shyness, aggression, drug abuse, adolescent delinquency, and the role of family and school in this regard.

EDUC 360   Educational Systems in Oman and the GCC   (3 credits)
Countries

An in-depth analysis of the educational systems in Oman and the GCC, its components and philosophy with special emphasis on input quality standards and the process of output transmission to the markets equipped with the necessary skills to complete at regional and international levels. Case studies and applied examples are used. *The course may be offered in Arabic.*

EDUC 365   Information and Communication Technologies   (3 credits)
(ICT) in Education

An overview of how to use technology in the classroom. Focuses on teaching and managing classroom activities using Information and Communication Technologies (ICT), evaluating the effectiveness of educational software, integrating the Internet in teaching, and developing basic educational applications such as digital presentations and educational websites.

EDUC 370   Learning Difficulties   (3 credits)

The basic concept and the foundations of classifying learning difficulties from biological and cognitive points of views. Focus is on the most common learning difficulties in the classroom such as speech irregularities and difficulties in writing and self-expression.

EDUC 400   Professional Development in Education   (3 credits)

Models of professional development in educational settings. Topics include theories of professional development in education, continuous improvement in teaching, expanded leadership roles for all teachers, providing peer assistance, and supervision for professional growth. Designing and evaluating a professional development plan.

**EDUC 410A   Methods of Teaching English as Second   (3 credits), 2.2
                 Language   at   the   Elementary   and
                 Intermediate Levels (Grades 1-10) II**

A further development of the methods of teaching English as a second language at the elementary and intermediate levels that were studied in EDUC 350A. Focus is on curriculum analysis and the selection and evaluation of relevant textbooks and other support materials including computer software, and audio-visual materials. *Prerequisite: EDUC 350A.*

**EDUC 410B   Methods of Teaching Mathematics at the   (3 credits), 2.2
                 Elementary and Intermediate Levels
                 (Grades 1-10) II**

A further development of the methods of teaching mathematics at the elementary and intermediate levels that were studied in EDUC 350B. Focus is on curriculum analysis and the selection and evaluation of relevant textbooks and other support materials including computer software, and audio-visual materials. *Prerequisite: EDUC 350B.*

**EDUC 410C   Methods of Teaching Science at the   (3 credits), 2.2
                 Elementary   and   Intermediate   Levels
                 (Grades 1-10) II**

A further development of the methods of teaching science at the elementary and intermediate levels that were studied in EDUC 350C. Focus is on curriculum analysis and the selection and evaluation of relevant textbooks and other support materials including computer software, and audio-visual materials. *Prerequisite: EDUC 350C.*

**EDUC 410D   Methods   of   Teaching   Information   (3 credits), 2.2
                 Technology   at   the   Elementary   and
                 Intermediate Levels (Grades 1-10) II**

A further development of the methods of teaching Information Technology at the elementary and intermediate levels that were studied in EDUC 350C. Focus is on curriculum analysis and the selection and evaluation of relevant textbooks and other support materials including computer software, and audio-visual materials. *Prerequisite: EDUC 350D.*

**EDUC 420   Introduction   to   Research   Methodology   in   (3 credits)
                 Education**

The importance of research in education. The basic qualitative and quantitative research methods that are suitable to education. Classroom-based research (Action Research) and its importance in improving classroom practices. The basic

data collection techniques. Data types and basic data analysis techniques including frequency distributions, cross-tabulations, correlation, and hypothesis testing.

EDUC 425   Foundations of Health Education   (3 credits)

The foundation for improving health through modification of daily habits. Analysis of nutrition, exercise, and environmental health is emphasized. The characteristics of a healthy environment and health curriculum in schools.

EDUC 430   Educational Administration and Classroom   (3 credits)
Management

The school structure and its relationship with central educational administration. Educational supervision and leadership with focus on the Omani environment in light of some international experiences. Classroom management and teacher relationship with the school administration.

EDUC 440A   Methods of Assessing Learning of English   (3 credits), 2.2
as a Second Language at the Elementary
and Intermediate Levels (Grades 1-10)

Principles and procedures of assessment of learning English as a second language at the elementary and intermediate levels. Focus is on types of test items such as multiple choice, fill-in the blank, true and false, short answers, and essays in norm- and criterion referenced assessment; standardized tests and how to construct and administer tests. In addition, the course covers observation techniques, performance measures and alignment of assessment and instruction along with related current issues and controversies. Prerequisite: EDUC 320.

EDUC 440B   Methods of Assessing Learning of   (3 credits), 2.2
Mathematics at the Elementary and
Intermediate Levels (Grades 1-10)

Principles and procedures of assessment of learning mathematics at the intermediate level. Focus is on types of test items such as multiple choice, fill-in the blank, true and false, short answers, and essays in norm- and criterion-referenced assessment; standardized tests and how to construct and administer tests. In addition, the course covers observation techniques, performance measures and alignment of assessment and instruction along with related current issues and controversies. *Prerequisite: EDUC 320.*

EDUC 440C   Methods of Assessing Learning of Science   (3 credits), 2.2
at the Elementary and Intermediate Levels
(Grades 1-10)

Principles and procedures of assessment of learning science at the intermediate level. Focus is on types of test items such as multiple choice, fill-in the blank, true and false, short answers, and essays in norm- and criterion-referenced assessment; standardized tests and how to construct and administer tests. In addition, the course covers observation techniques, performance measures and alignment of assessment and instruction along with related current issues and controversies. *Prerequisite: EDUC 320.*

EDUC 440D   Methods of Assessing Learning of   (3 **credits), 2.2**
Information Technology at the Elementary
and Intermediate Levels (Grades 1-10)

Principles and procedures of assessment of learning Information Technology at the elementary and intermediate levels. Focus is on types of test items such as multiple choice, fill-in the blank, true and false, short answers, and essays in norm- and criterion-referenced assessment; standardized tests and how to construct and administer tests. In addition, the course covers observation techniques, performance measures and alignment of assessment and instruction along with related current issues and controversies. *Prerequisite: **EDUC 320.***

EDUC 460   Senior Seminar: Issues in Education   (3 credits)

A seminar intended for majors in elementary education focusing on one or more current issues in elementary education. *Senior Standing*.

EDUC 485A   Practicum in Teaching English as at the   (6 credits), 2.10
Elementary and Intermediate Levels
(Grades 1-10)

Experience in classroom settings under the supervision of university instructors and cooperating school teachers. *Prerequisite: EDUC 410A*

EDUC 485B   Practicum in Teaching Mathematics at   (6 credits), 2.10
the Elementary and Intermediate Levels
(Grades 1-10)

Experience in classroom settings under the supervision of university instructors and cooperating school teachers. *Prerequisite: EDUC 410B*

EDUC 485C   Practicum in Teaching Science at the   (6 credits), 2.10
Elementary and Intermediate Levels
(Grades 1-10)

Experience in classroom settings under the supervision of university instructors and cooperating school teachers. *Prerequisite: EDUC 410C*

EDUC 485D   Practicum in Teaching Information   (6 credits), 2.10
Technology at the Elementary and
Intermediate Levels (Grades 1-10)

Experience in classroom settings under the supervision of university instructors and cooperating school teachers. *Prerequisite: EDUC 410D*

EDUC 490   Senior Project   (3 credits)

Methods and concepts of action research. Action research is presented as a reflective process used by practicing classroom teachers to identify and solve problems of importance in the classroom. The course includes an action research project. The course should be taken only in the spring semester of the fourth year.

DEPARTMENT OF LANGUAGES AND TRANSLATION

Personnel

Department Chairperson:	Thakur, Vijay Singh
Professor	Al-Sa'adoon, Sabbar S. Sultan
Associate Professors:	Al Abdullah, Mufeed; Al Saqqaf, Abdullah; Risse, Marielle; Thakur, Vijay Singh
Assistant Professors:	Al-Jurf, Maisoon Salahaldeen; Al-Nobany, Shafeeq Taha Mostafa; Bigagli, Francesco; Khan, Khader Nawaz, Adil, Zaidi Syed Mohammed
Lecturers:	Al Mashani, Salim; Al-Sabtan, Yasser Naguib; Amjad, Ali Mohamed Yusuff; Cass, Stephen Joseph; Ehsan, Elahi; Horn, Christopher A; Irudayasamy, Julius
Secretary:	AL Zawamri, Muna Ahmed

Mission

The Department of Languages and Translation is committed to provide a conducive learning environment for effective oral, written and conversational skills and also effective study, research and critical thinking skills in the fields of English Language, Arabic Language and Translation that are necessary for a self-sufficient, self-reliant individual to grow and develop in a competitive world, to survive and flourish in the local and global job market, and to serve the Omani Society.

Objectives

The objectives of the Department of Languages and Translation are:
- Help the students develop a high level of linguistic competence in English and Arabic through combining theoretical knowledge and extensive practice;

- Prepare students for careers that need the use of English language such as teaching, editing, writing, publishing, and public relations, or for pursuing their education in English language beyond the undergraduate level;

- Prepare students for careers in translation from Arabic into English and from English into Arabic, interpretation, teaching, editing, writing, publishing, and public relations, or for pursuing their education in translation beyond the undergraduate level;

- Raise students' awareness regarding the importance of language structure and familiarizing them with the social, historical, and cultural contexts in which languages are used;

- Provide students with a solid liberal education, training, and appropriate learning skills;

- Prepare graduates to become responsible professionals and citizens with high ethical values; and
- Promote life-long independent learning.

Learning Outcomes

1) Students will demonstrate the skills needed to participate in a conversation that builds knowledge independently as well as collaboratively:
  - Listening carefully and respectfully to others' viewpoints;
  - Articulating their own ideas and questions clearly; and
  - Situating their own ideas in relation to other voices and ideas.

2) Students will be able to prepare, organize, and deliver an engaging oral talk and presentation.

3) Students will be trained in presentation skills especially with the use of computers and multimedia.

4) Students will develop a teamwork habits and practices.

5) Students will become skillful, active, and critical readers,

Degrees Offered

- Diploma in English Language
- BA in Arabic Language
- BA in English Language
- BA in Translation

Bachelors and Diploma Program in English Language

Overview

The Bachelor of Arts in English curriculum is designed to comply with the requirements of Omani Academic Accreditation Authority (OAAA) accreditation. It includes at least 30 credit hours of University Requirements, at least 12 credit hours of College Requirements, and at least 42 credit hours of major Core Courses, and 36 Credit hours of Major Elective Courses. Hands-on experience in practice and emphasis on application-oriented activities and exercises are important elements that are integrated throughout the curriculum. It is designed to grant students the Bachelor of Arts degree upon the successful completion of the four-year program.

The program is also offered in Diploma Degree upon the successful completion of a two-year program. It includes at least 27 credit hours of University Requirements, at least 6 credit hours of College Requirements, and at least 24 credit hours of Major Core Courses and 3 credit hours of a Major Elective Course.

The first common year with other college majors allows students to switch between the majors at the same college at the start of the second year of their study.

Learning Outcomes

Graduates of the English Language Program will be able to:

- Use listening skills to understand English in a range of contexts with speakers of their own and other languages and with native speakers of English.
- Demonstrate speaking skills in order to express thoughts, opinions, arguments and a range of language functions to speakers of English and other languages with sufficient clarity and accuracy of language and pronunciation.
- Apply a range of reading skills and strategies to cope with authentic texts in a range of contexts.
- Demonstrate writing skills to express thoughts, opinions, arguments and a range of language functions in styles appropriate to the task.
- Demonstrate the acquired ability to make effective use of grammatical devices and lexical resources of the language for the purposes of efficient communication.
- Show informed awareness of linguistic systems of English language and demonstrate the acquired ability to identify and analyze the structure and functions of the language.
- Show informed awareness of different literary genres and demonstrate the acquired ability to critically examine different literary texts in English.
- Show the ability of independent/autonomous learning by using a range of learning techniques and strategies.
- Apply study, research and presentation skills in order to increase academic, professional, and employment potential.

Career Opportunities

The graduates of English language program will have many career choices spanning a wide range of fields. Most notable are: government sector, banking sector, corporate sector, tourism and hospitality sector, media sector, education sector, etc. Graduates will have employment opportunities in working as school teacher, receptionist, secretary, clerk, salesperson, sub editor, proofreader, tourist guide, teaching assistant, etc. Innovative fields include establishing a private enterprise like tutorial center, consultancy services, human resource center for service industry, etc.

Graduation Requirements

To graduate with a Diploma in English Language, students must satisfactorily complete 60 credit hours of course work from the courses that are described in the Program of Study with an overall minimum average of 65%. To graduate with a BA in English Language, students must satisfactorily complete 120 credit hours of course work from the courses that are described in the Program of Study with an overall minimum average of 65%, and a cumulative average of 70% in the major courses.

Program of Study

Diploma Program in English Language

The course requirements for a Diploma in English Language are described below.

University Requirements

The general education requirements include the following 9 courses encompassing 27 Credit Hours:

- ARAB 101: Academic Writing in Arabic
- CMPS 100A: Introduction to Technical Computing for the Arts
- ENGL 101: Basic Academic English I
- ENGL 102A: English for Arts, Humanities and Social Sciences I
- ENGL 203A: English for Arts, Humanities and Social Sciences II
- ENGL 204: Advanced English for Academic Purposes and Research
- MATH 103: Mathematics for Social Sciences I
- ENTR 200: Entrepreneurship: Innovation and Creativity
- SOCS 102: Omani Society

College Requirements

The college requirements include the following 2 courses encompassing 6 Credit Hours:

- One, 3-credit hours course in physical/natural sciences elective
- One, 3-credit hours course in humanities and social sciences elective

Program Requirements

The program requirements for the Diploma in English Language consists of 27 credit hours distributed as follows.

Major Core Courses: This set includes the following 8 courses encompassing 24 credit hours

- ENGL 120: Understanding English Grammar
- ENGL 160: Understanding Literature
- ENGL 210: Introduction to Linguistics
- ENGL 215: The Sounds of English
- ENGL 230: Prose and Fiction in English
- ENGL 270: Situational English
- ENGL 285: Writing Workshop
- ENGL 290: Poetry

Major Elective Courses: This set includes a 3-credit hour course chosen from the following set:

- ENGL 240: Introduction to Language
- ENGL 255: The Psychology of Language

- ENGL 260: Shakespeare
- ENGL 265: Culture in the Classroom
- ENGL 275: Rhetoric
- ENGL 280: Business English

Bachelor of Arts (BA) Program in English Language

The courses required for a BA in English Language includes the following components.

University Requirements

The general requirements include the following set of 10 courses encompassing 30 credit hours:

- ARAB 101: Academic Writing in Arabic
- CMPS 100A: Introduction to Technical Computing for the Arts
- ENGL 101: Basic Academic English
- ENGL 102A: English for Arts, Humanities and Social Sciences I
- ENGL 203A: English for Arts, Humanities and Social Sciences II
- ENGL 204: Advanced English for Academic Purposes and Research
- ENGL 305: Advanced English Language and Communication Skills
- ENTR 200: Entrepreneurship: Innovation and Creativity
- MATH 103: Mathematics for Social Sciences I
- SOCS 102: Omani Society

College Requirements

The college requirements include the following set of 4 courses encompassing 12 credit hours:

- One, 3-credit hours course in physical/natural sciences elective
- One, 3-credit hours course in humanities/social sciences elective
- Two, 6-credit hours courses in any other major

Program Requirements

The program requirements for BA in English Language program consists of 78 Credit Hours distributed as detailed below.

Major Core Courses: This set consists of the following 14 Courses encompassing 42 Credit hours:

- ENGL 120: Understanding English Grammar
- ENGL 160: Understanding Literature
- ENGL 210: Introduction to Linguistics
- ENGL 215: The Sounds of English
- ENGL 230: Prose and Fiction in English
- ENGL 270: Situational English
- ENGL 285: Writing Workshop

- ENGL 290: Poetry
- ENGL 310: Meaning in Language
- ENGL 320: Introduction to Creative Writing
- ENGL 335: Discourse Analysis
- ENGL 375: Drama
- ENGL 420: Models of Second Language Acquisition
- ENGL 470: History of the English Language

Major Elective Courses: This set consists of 12 courses encompassing 36 Credit hrs chosen from the following list:

- ENGL 240: Introduction to Language
- ENGL 255: The Psychology of Language
- ENGL 260: Shakespeare
- ENGL 265: Culture in the Classroom
- ENGL 275: Rhetoric
- ENGL 280: Business English
- ENGL 300: Foundations of Linguistic Theory
- ENGL 315: The Novel
- ENGL 330: The Victorian Age
- ENGL 345: Morphology
- ENGL 350: Advanced Writing for Humanities
- ENGL 355: Language in Society
- ENGL 360: Advanced Writing for Professional Fields
- ENGL 365: Advanced Creative Writing
- ENGL 415: The Romantic Movement
- ENGL 440: Special Topic in Literature or Language
- ENGL 455: Language and Gender
- TRAN 250: Contrastive Analysis

Study Plan: Diploma in English Language

Year I		
Semester 1 (Fall)		**15 Credits**
Code	**Course Title**	**Credit Hours**
CMPS 100A	Introduction to Technical Computing for the Arts	3
ENGL 101	Basic Academic English I	3
ENGL 120	Understanding English Grammar	3
MATH 103	Mathematics for Social Sciences I	3
ENTR 200	Entrepreneurship: innovation & creativity	3
Semester 2 (Spring)		**15 Credits**
Code	**Course Title**	**Credit Hours**
ARAB 101	Academic Writing in Arabic	3
ENGL 102A	English for Arts, Humanities and Social Sciences I	3
ENGL 160	Understanding Literature	3
SOCS 102	Omani Society	3
Code	Physical/ Natural Sciences Elective	3

Year II		
Semester 3 (Fall)		**15 Credits**
Code	**Course Title**	**Credit Hours**
ENGL 203A	English for Arts, Humanities and Social Sciences II	3
ENGL 210	Introduction to Linguistics	3
ENGL 215	The Sounds of English	3
ENGL 230	Prose and Fiction in English	3
Code	Humanities/Social Sciences Elective	3
Semester 4 (Spring)		**15 Credits**
Code	**Course Title**	**Credit Hours**
ENGL 204	Advanced Academic English II	3
ENGL 270	Situational English	3
ENGL 285	Writing Workshop	3
ENGL 290	Poetry	3
Code	Major Elective	3
Completion of the Diploma in English Language - Total Credits 60		

Study plan: BA in English language

Year I		
Semester 1 (Fall)		**15 Credits**
Code	**Course Title**	**Credit Hours**
CMPS 100A	Introduction to Technical Computing for the Arts	3
ENGL 101	Basic Academic English I	3
ENGL 120	Understanding English Grammar	3
MATH 103	Mathematics for Social Sciences I	3
Code	Humanities/Social Sciences Elective	3
Semester 2 (Spring)		**15 Credits**
Code	**Course Title**	**Credit Hours**
ARAB 101	Academic Writing in Arabic	3
ENGL 102A	English for Arts, Humanities and Social Sciences I	3
ENGL 160	Understanding Literature	3
SOCS 102	Oman Society	3
Code	Physical/ Natural Sciences Elective	3

Year II		
Semester 3 (Fall)		**15 Credits**
Code	**Course Title**	**Credit Hours**
ENTR 200	Entrepreneurship: Innovation and Creativity	3
ENGL 203A	English for Arts, Humanities and Social Sciences II	3
ENGL 210	Introduction to Linguistics	3
ENGL 215	The Sounds of English	3
ENGL 230	Prose and Fiction in English	3
Semester 4 (Spring)		**15 Credits**
Code	**Course Title**	**Credit Hours**
ENGL 204	Advanced Academic English II	3
ENGL 270	Situational English	3
ENGL 285	Writing Workshop	3
ENGL 290	Poetry	3
Code	Major Elective	3

Year III		
Semester 5 (Fall)		**15 Credits**
Code	**Course Title**	**Credit Hours**
ENGL 310	Meaning in Language	3
EGNL 320	Introduction to Creative Writing	3
ENGL 335	Discourse Analysis	3
Code	Major Elective	3
Code	Major Elective	3
Semester 6 (Spring)		**15 Credits**
Code	**Course Title**	**Credit Hours**
ENGL 375	Drama	3
ENGL 305	Advanced English Language and Communication Skills	3
Code	Major Elective	3
Code	Major Elective	3
Code	Major Elective	3

Year IV		
Semester 7 (Fall)		**15 Credits**
Code	**Course Title**	**Credit Hours**
ENGL 420	Models of Second Language Acquisition	3
Code	Major Elective	3
Code	Major Elective	3
Code	Major Elective	3
Code	General Elective	3
Semester 8 (Spring)		**15 Credits**
Code	**Course Title**	**Credit Hours**
ENGL 470	History of the English Language	3
Code	Major Elective	3
Code	Major Elective	3
Code	Major Elective	3
Code	General Elective	3
Completion of the BA in English Language - Total Credits 120		

Course Description

ENGL 101 - A   Basic Academic English IA   (3 credits)
An integrated course that focuses on improving reading skills and comprehension and developing compositional competency. Participants are guided through the processes of reading and composing various types of short essays i.e., descriptive, narrative, opinion, and comparison and contrast. Listening and speaking skills as well as grammar and vocabulary building are also enhanced. This three credit-hour course also includes 2 additional hours per week of Lab training in which students further practice the skills targeted for the course.

ENGL 102   Basic Academic English II   (3 credits)
This course aims to develop the processes of composing expository and persuasive prose. It focuses primarily on essays as models for the rhetorical patterns that students will use in developing their own expository and argumentative essays.   Activities include: reading, writing, discussing, researching, presenting, and thinking critically. The course is designed to enhance the research skills of gathering, recording, organizing, critiquing, and reporting information from a variety of library and electronic sources. Prerequisite: ENGL 101.

ENGL 120   Understanding English Grammar   (3 credits)
This course offers basics of English Grammar and is designed to make students use correct and creative structures of English in realistic situations. Topics include auxiliaries, time and tense, subject-verb agreement, pronoun antecedent agreement, passive, conditionals, co-ordination and articles.

ENGL 160   Understanding Literature   (3 credits)
This course is designed to acquaint students with the various literary genres. Without being comprehensive, the course emphasizes inquiry into works of major authors in poetry, drama, and prose. Through the study of thematically related texts, the course provides insights into the historical, political, and cultural contexts that influenced the work of these authors. It also introduces important literary concepts, such as character, plot, narrative, and imagery.

ENGL 203   Advanced Academic English I   (3 crs)
This course aims to consolidate students' communication skills in academic context. It offers students training in the development of communicative academic skills, ranging from critical reading comprehension to writing expository and argumentative essays. Students will be also trained in note-taking, summarizing, and quoting from sources, outlining and properly documenting sources in their writing. Prerequisite: ENGL 102

ENGL 204   Advanced Academic English II   (3 credits)
In this course, students continue to increase and develop their comprehension, analysis, and synthesis skills of a variety of extended texts about issues across the curriculum. Students also learn how to conduct and report independent research. Prerequisite: ENGL 203.

ENGL 210   Introduction to Linguistics   (3 credits)

This course investigates the nature of human language through a survey of some of the major findings and research results in linguistics. Topics include the biological basis of human language, the structure of sounds, phrases, and meaning, language evolution, writing systems, linguistic variation, language acquisition, and computer analyses of speech.

ENGL 215   The Sounds of English   (3 credits)

This course is an overview of English phonetics and phonology. Topics include the articulatory process, stress, and intonation. Students will learn how to transcribe spoken English into phonetic script and explore the range of variation found in English. This course will also help students recognize the differences among diverse sound systems.

ENGL 230   Prose and Fiction in English   (3 credits)

This course covers a range of Anglo-American prose genres, including short stories, autobiographical writing and essays, in order to introduce some of the themes and literary techniques prevalent in British and American writing today. The course will focus on the individual and the family and will raise questions of identity and tradition. Prerequisite: ENGL 160.

ENGL 240   Introduction to Language   (3 credits)

The aim of this course is to introduce the study of language to both non-specialists and those who are interested in language-related careers. Areas covered are human communication, the meaning and function of language, language and culture, language and thought, language acquisition, languages of the world, and the evolution of language.

ENGL 255   The Psychology of Language   (3 credits)

This course introduces students to the psychological processes that underlie linguistic behavior. Topics include theories of the language-thought relationship, language processing, language production, language comprehension, language and the brain, language acquisition, theories of language learning, and bilingualism.

ENGL 260   Shakespeare   (3 credits)

In this course, students will read representative plays by Shakespeare and one play of his contemporaries. Attention will be given to theatrical conventions, as well as social, cultural, and intellectual history of the period. Prerequisite: ENGL 160.

ENGL 265   Culture in the Classroom   (3 credits)

This course will acquaint students with the important issues related to culture in the classroom. Course topics include definitions of culture, the relationship between culture and language, teaching culture, designing culturally responsive lessons and curricula, and enhancing the cultural elements in specific English language lessons.

ENGL 270   Situational English   (3 credits)

This course is a hands-on workshop designed to offer students opportunities to speak English in diverse situations. Drawing on objectives learned in the Sounds

of English, the student will apply the theories and knowledge to actually practice and hone their oral language abilities. Multiple role-playing scenarios will be practiced.

ENGL 275   Rhetoric   (3 credits)
This course focuses on developing students' ability to think critically and analytically, using language in a logical, purposeful and persuasive manner. Students will have the opportunity to improve their writing, listening and speaking skills in a series of structured debates.

ENGL 280   Business English   (3 credits)
This course focuses on diverse types of written business communication required in commercial areas. Among these types are business memos, letters, reports, and curriculum vitae.

ENGL 285   Writing Workshop   (3 credits)
This course is designed to practice writing in English. Formats for diverse genres of writing will be reviewed followed by writing clinics. The students will be required to write several drafts of each assignment under close scrutiny by their teacher and peers. Prerequisite: ENGL 203.

ENGL 290   Poetry   (3 credits)
This course involves reading texts critically, particularly selected to elucidate the nature of poetic genres and modes. It also exposes students to critical theory and relevant aspects of social and political history. Prerequisite: ENGL 160.

ENGL 300   Foundations of Linguistic Theory   (3 credits)

This course concentrates on linguistic theories that have shaped 20th-century linguistics. This course is on theories propounded by Structural lists (e.g. Bloomfield), Transformation lists (e.g. Chomsky), Systemic Grammarians (e.g. Halliday) and Case Grammarians (e.g. Fillmore). This course also includes recurrent themes and descriptive practices. Prerequisite: ENGL 210.

ENGL 310   Meaning in Language   (3 credits)
This course focuses on Semantics, Pragmatics and the relationship between linguistic meaning, structure, and context. Students will explore various approaches to word meaning, phrase and sentence meaning, and observe the effects of context and background information on interpretation.

ENGL 315   The Novel   (3 credits)
This course introduces students to characteristics of the novel form such as narrative structure, voice, point of view, plot and characters. Students will study and analyze one novel in detail and consider the social, cultural and political forces that shape it. Prerequisite: ENGL 160.

ENGL 320   Introduction to Creative Writing   (3 credits)
This course offers opportunities for the students to experiment with various forms of creative writing. Students also explore literary devices used in contemporary literary texts and apply them to their own writing. Classes are

conducted as workshops where students share their writing with each other and learn to revise their work. Prerequisite: ENGL 203.

ENGL 330   The Victorian Age   (3 credits)
This course studies the works of major writers of the Victorian era and emphasizes their social, cultural, and philosophical background. Students will read and analyze primary literary texts in various genres like prose, poetry, and fiction. Prerequisite: ENGL 160.

ENGL 335   Discourse Analysis   (3 credits)
This course investigates human discourse as a means to understand the nature of language and language use. It examines different forms of discourse using various approaches including speech act theory, pragmatics, conversational analysis, and ethnography of communication. Pre-requisite: ENGL 310.

ENGL 345   Morphology   (3 credits)
This course trains students to analyze and describe word constituents by means of authentic language data from a wide variety of languages. Students will learn how to correctly use common linguistic terms relating to morphology, organize data and perform morphological analyses, and write clear and adequate descriptions of the patterns discovered in the analyses.

ENGL 350   Advanced Writing for Humanities   (3 credits)
This course, intended for students majoring in the Social Sciences, prepares students to write and present papers related to their fields of study. It includes individual and/or group preparation of reports, term papers, multimedia presentations, and other specialized forms of writing. This class is equivalent to ENGL 360 and is offered in spring semesters. Prerequisite: ENGL 204.

ENGL 355   Language in Society   (3 credits)
This course explores the role of language in society, and introduces the students to research methodologies applied in sociolinguistics. Topics include multilingualism and language choice, Pidgins and Creoles, regional and social variation, conventions of conversation and politeness, and interactions between languages and identity, language and social class, language and culture, and language and thought.

ENGL 360   Advanced Writing for Professional Fields   (3 credits)
This course, intended for students majoring in English or Education, prepares students to write and present papers related to their fields of study. It includes individual and/or group preparation of reports, term papers, multimedia presentations, and other specialized forms of writing. This course is equivalent to ENGL 350 and is offered in fall semesters. Prerequisite: ENGL 204.

ENGL 365   Advanced Creative Writing   (3 credits)
This course is a sequel to English 320 with the objective of refining students' creative writing skills by introducing them to several texts, while emphasizing one of the following genres: fiction, nonfiction, poetry, or drama. Prerequisite: ENGL 320.

ENGL 375   Drama   (3 credits)

This course emphasizes theoretical definition of dramatic form, changes in the conception of dramatic genres, and the nature of the genre as it influences the expectations of the reader. Prerequisite: ENGL 160.

ENGL 415   The Romantic Movement   (3 credits)

This course is an introduction to the literature of the Romantic period in Britain. Students will be asked to read and analyze a selection of poems and prose texts by representative authors such as Wordsworth, Blake, Coleridge, Keats, Byron, and Mary Shelley. Reference will be made to the cultural contexts of literature. Prerequisite: ENGL 160.

ENGL 420   Models of Second Language Acquisition   (3 credits)

This course introduces students to the study of second language acquisition and provides them with training in the collection, analysis, and interpretation of representative learner language data in second language contexts. Course topics include universals of language acquisition, major theoretical models of second language acquisition, and individual differences in second language acquisition. Implications for language teaching are also addressed.

ENGL 440   Special Topic in Literature or Language   (3 credits)

This course introduces students to independent research on a topic decided by the professor. Students will use texts by important authors or on subjects of importance to the subject of English language as a basis for their own investigations and explorations of current literary and language theory. The students' work will be shared with the class in a formal research paper and multimedia presentations. Prerequisite: ENGL 204.

ENGL 455   Language and Gender   (3 credits)

This course surveys and evaluates the research that has been done on gender differences in language use. Topics include power and solidarity, gender differences in turn-taking, choice of topic, and communicative styles, and anthropological work on men and women's speech genres. Students should complete the course with enhanced awareness of the role of language in relation to issues of inequality and sexual politics.

ENGL 470   History of the English Language   (3 credits)

This course is a survey of the history of the English language from its earliest Indo-European origins to the present day. The nature and changes of the language are presented by reviewing the shifts that have occurred from Indo-European, Germanic, Old English, Middle English, up to Early and Modern English.

Bachelor of Arts (BA) in Translation

The Bachelor of Arts in Translation curriculum is designed to comply with the requirements of Omani Academic Accreditation Authority (OAAA) accreditation. It includes at least 30 credit hours of University Requirements, at least 12 credit hours of College Requirements, and at least 48 credit hours of Major Core Courses and 30 credit hours of Major Elective Courses. Hands-on experience in practical training and emphasis on application-oriented activities and exercises are important elements that are integrated throughout the curriculum. It is designed to grant students the Bachelor of Arts degree upon the successful completion of the four-year program.

The first common year with other college majors allows students to switch between the majors at the same college at the start of the second year of their study.

Mission

The mission of the B.A. program in Translation in the Dept. of Languages and Translation at Dhofar University is to equip students with the necessary knowledge and skills to translate/ interpret a variety of written and spoken texts from English to Arabic and vice versa and to integrate essential intercultural and interdisciplinary knowledge inseparable from language acquisition and the technical understanding of language in order to graduate skillful translators for the local, regional, and national market.

Program Learning Outcomes

- Demonstrate the ability to understand proper approach to translation issues be it socio- and psycholinguistic, pragmatic, semantic, etc.
- Show the ability to carry out comparative and contrastive analysis between the two languages.
- Demonstrate the understanding of useful strategies needed to achieve equivalence at different levels between English and Arabic.
- Apply the skills of translating/interpreting different text types.
- show the ability to identify the special linguistic and stylistic characteristics of each text type.
- Demonstrate the ability to identify the tools and techniques of generic and discourse analyses.
- Demonstrate skills of effective use of specialized dictionaries and glossaries in various fields to find closest matches of senses of translation units.
- Show awareness of the complexities of cultural differences when rendering and interpreting different text types
- Show the ability of independent/autonomous learning by using a range of learning techniques and strategies.
- Apply study, research and presentation skills in order to increase academic, professional, and employment potential.

Theoretical Knowledge

- Students will understand the proper approach to translation issues be it socio- and psycholinguistics, pragmatics, semantics, etc.
- Students will be able to carry out comparative and contrastive analysis between the two languages.
- Students will be aware of all viable and useful strategies needed to achieve equivalence at different levels between English and Arabic.

Practical Translation

- Students will be able to translate/interpret different text types.
- Students will identify the special linguistic and stylistic characteristics of each text type.
- Students will identify the tools and techniques of generic and discourse analyses.
- Students will be aware of effective use of specialized dictionaries and glossaries in various fields to help find closest matches of senses of translation units.
- Students will be aware of the complexities of cultural differences when rendering and interpreting different text types

Language competencies

Students will improve different language skills in both Arabic and English. They will improve in:
- Oral communicative skills
- Reading comprehension skills
- Writing skills in both languages
- Research skills

Career Opportunities

The graduates of Bachelor of Arts in Translation program will have many career choices spanning a wide range of fields. Most notable are: government sector, corporate sector, tourism and hospitality sector, media sector, education sector etc. Graduates will have employment opportunities in working as translator, interpreter, school teacher, receptionist, secretary, clerk, salesperson, sub editor, proofreader, tourist guide, teaching assistant etc. Innovative fields include establishing a private enterprise like translation center, consultancy services in interpreting, etc.

Graduation Requirements

To graduate with a BA in Translation, students must satisfactorily complete 120 credit hours of course work from the courses that are described in the Program of Study with an overall minimum average of 65 percent, and a cumulative average of 70 percent in the major courses.

University Requirements

The general education component for a BA in Translation includes the following ten course encompassing 30 credit hours:

- ARAB 101: Academic Writing in Arabic
- CMPS 100A: Introduction to Technical Computing for the Arts
- ENGL 101: Basic Academic English
- ENGL 102A: English for Arts, Humanities and Social Sciences I
- ENGL 203A: English for Arts, Humanities and Social Sciences II
- ENGL 204: Advanced English for Academic Purposes and Research
- ENGL 305: Advanced English Language and Communication Skills
- ENTR 200: Entrepreneurship: Innovation and Creativity
- MATH 103: Mathematics for Social Sciences
- SOCS 102: Omani Society

College Requirements

The college requirement component for a BA in Translation includes the following 4 course encompassing 12 credit hours:

- One course in physical/ natural sciences electives (3 Cr. hrs.)
- One course in humanities/social sciences electives (3 Cr. hrs.)
- Two courses in any other majors (6 Cr. hrs.)

Program Requirements

The program requirement component for a BA in Translation includes the following 26 course encompassing 78 credit hours:

Major Core Courses: This set consists of the following 16 Courses encompassing 48 Credit hours:

- ARAB 115: Basic Arabic Syntax and Morphology
- ARAB 360: Arabic Semantics and Lexicography
- ENGL 120: Understanding English Grammar
- ENGL 210: Introduction to Linguistics
- ENGL 215: The Sounds of English
- ENGL 335: Discourse Analysis
- TRAN 150: Introduction to Translation
- TRAN 220: Translation Theory
- TRAN 250: Contrastive Analysis
- TRAN 260: Translation Techniques
- TRAN 300: Translating Business Texts
- TRAN 310: Translating Journalistic Texts
- TRAN 355: Contrastive Grammar and Syntax
- TRAN 360: Translating Scientific Texts
- TRAN 420: Translating Legal Documents
- TRAN 480: External Practicum

Major Elective Courses: This set includes ten course encompassing 30 credit hours distributed as follows:

I. Five Translation Electives courses encompassing 15 credit hours chosen from the following list

- TRAN 225: Introduction to Interpreting
- TRAN 330: Comparative Literature
- TRAN 365: English Literature in Arabic Translations
- TRAN 410: Arabic Literature in English Translations
- TRAN 425: Contrastive Rhetoric and Stylistics
- TRAN 435: Lexicography and Terminology
- TRAN 465: Critical Analysis of Translation Texts
- TRAN 470   Machine Translation

II. Two Arabic Language Electives courses encompassing 6 credit hours chosen from the following list:

- ARAB 180: Advanced Arabic Syntax
- ARAB 200: Survey of Arabic Literature
- ARAB 220: Arabic Sociolinguistics
- ARAB 300: Modern Arabic Poetry
- ARAB 370: Modern Arabic Novel
- ARAB 430: Special Topics in Arabic Linguistics
- ARAB 470: Special Topics in Arabic Literature

III. Three English Language Elective courses encompassing 9 credit hours selected from the following list:

- ENGL 240: Introduction to Language
- ENGL 285: Writing Workshop
- ENGL 310: Meaning in Language
- ENGL 320: Introduction to Creative Writing
- ENGL 350: Advanced Writing for Humanities
- ENGL 355: Language in Society
- ENGL 360: Advanced Writing for Professional Fields
- ENGL 365: Advanced Creative Writing
- ENGL 440: Advanced Academic Writing
- ENGL 460: Politics of Language
- ENGL 470: History of the English Language

Study Plan: BA in Translation

Year I		
Semester 1 (Fall)		**15 Credits**
Code	**Course Title**	**Credit Hours**
ARAB 101	Academic Writing in Arabic	3
CMPS 100A	Introduction to Technical Computing for the Arts	3
ENGL 101	Basic Academic English	3
MATH 103	Mathematics for Social Science I	3
Code	Humanities/Social Sciences Elective	3
Semester 2 (Spring)		**15 Credits**
Code	**Course Title**	**Credit Hours**
ARAB 115	Basic Arabic Syntax and Morphology	3
ENGL 102A	English for Arts, Humanities and Social Sciences I	3
ENGL 120	Understanding English Grammar	3
TRAN 150	Introduction to Translation	3
Code	Humanities/Social Sciences Elective	3

Year II		
Semester 3 (Fall)		**15 Credits**
Code	**Course Title**	**Credit Hours**
ENTR 200	Entrepreneurship: Innovation & Creativity	3
ENGL 203A	English for Arts, Humanities and Social Sciences II	3
ENGL 210	Introduction to Linguistics	3
ENGL 215	The Sounds of English	3
TRAN 220	Translation Theory	3
Semester 4 (Spring)		**15 Credits**
Code	**Course Title**	**Credit Hours**
ENGL 204	Advanced English for Academic Purposes and Research	3
TRAN 250	Contrastive Analysis	3
TRAN 260	Translation Techniques	3
Code	English Language Elective	3
Code	Arabic Elective	3

Year III		
Semester 5 (Fall)		**15 Credits**
Code	**Course Title**	**Credit Hours**
ENGL 335	Discourse Analysis	3
TRAN 300	Translating Business Texts	3
TRAN 310	Translating Journalistic Texts	3
SOCS 102	Omani Society	3
Code	Major Translation Elective	3
Semester 6 (Spring)		**15 Credits**
Code	**Course Title**	**Credit Hours**
ARAB 360	Arabic Semantics and Lexicography	3
TRAN 355	Contrastive Grammar and Syntax	3
TRAN 360	Translating Scientific Texts	3
Code	Humanities/Social Sciences Elective	3
Code	Major Translation Elective	3

Year IV		
Semester 7 (Fall)		**15 Credits**
Code	**Course Title**	**Credit Hours**
TRAN 420	Translating Legal Documents	3
ENGL 305	Advanced English Language and Communication Skills	3
Code	Major Translation Elective	3
Code	English Language Elective	3
Code	General Elective	3
Semester 8 (Spring)		**15 Credits**
Code	**Course Title**	**Credit Hours**
TRAN 480	External Practicum	3
Code	English Language Elective	3
Code	Major Translation Elective	3
Code	Major Translation Elective	3
Code	Arabic Elective	3
Completion of the BA in Translation - Total Credits 120		

Course Description

TRAN 150   Introduction to Translation   (3 credits)
This course introduces the preliminaries of translation as both a process and a product. It covers the main issues that are involved in producing a translation, the standards for acceptable translations, the cultural issues involved in translation, and the general rules that govern the translation of texts from English into Arabic and vice versa.

TRAN 220   Translation Theory   (3 credits)
This course introduces students to the history and theories of translation. The purpose of the course is to make students aware of the main theoretical debates that have surrounded translation throughout history and more particularly in the 20th century, in order to enable them to see the relevance of theory to the practice of translation.

TRAN 225   Introduction to Interpreting   (3 credits)
The aim of this course is to provide students with basic knowledge in the field of interpretation from English into Arabic and vice versa. Practical training in listening and oral skills is central to this course. Both theoretical and practical perspectives are integrated.

TRAN 250   Contrastive Analysis   (3 credits)
This course introduces students to the cross-cultural aspects of discourse organization for different genres and different purposes, focusing on a comparison between Arabic and English languages/cultures. Students will become acquainted with the problems of Arabic speakers in learning English and will be able to describe similarities and differences between Arabic and English.

TRAN 260   Translation Techniques   (3 credits)
This course provides students with general training in translation of a variety of text types. Students will become aware of the various methods that can be used to tackle challenging texts and will perform annotated translations with commentaries, editing exercises, and textual analyses, enabling them to draw conclusions concerning the purpose of the original message and the role of the translator as communicator.

TRAN 300   Translating Business Texts   (3 credits)
This course provides students with training in reading, analyzing, and translating business, finance, and economics reports and articles. Students will compile a special topics portfolio of translated business texts, annotated translations with commentaries, textual analyses, and editing exercises. Prerequisite: TRAN 260.

TRAN 310   Translating Journalistic Texts   (3 credits)
This course provides students with training in reading, analyzing, and translating journalistic texts. Students will compile a special topics portfolio of translated journalistic texts, annotated translations with commentaries, textual analyses, and editing exercises. *Prerequisite: TRAN 260.*

TRAN 330   Comparative Literature   (3 credits)

In this course, students are exposed to theoretical issues of comparative literature. A broad cultural perspective is adopted to acquaint students with the ways in which literary works of a culture influence other cultures. Theoretical topics based on literary works in English and Arabic will be analyzed.

TRAN 355   Contrastive Grammar and Syntax   (3 credits)

This course exposes students to syntactic rules in Arabic and English that may be similar or different in the other language. Students will also focus on the contrastive aspect of grammar when translating from one language to another.

TRAN 360   Translating Scientific Texts   (3 credits)

This course provides students with training in reading, analyzing, and translating scientific, technical, and technological texts. Students will compile a special topics portfolio of translated scientific and technical texts, annotated translations with commentaries, textual analyses, and editing exercises. *Prerequisite: TRAN 250.*

TRAN 365   English Literature in Arabic Translations   (3 credits)

This course deals with the metamorphosis of English literary texts in Arabic translations. Students will be familiar with the problems of literary translation, especially in terms of transplanting English texts into Arabic context. Issues like faithful, literal, free translation and cultural adaptation are dealt with extensively. Students will also be exposed to techniques of literary translation.

TRAN 410   Arabic Literature in English Translations   (3 credits)

This course deals with the metamorphosis of Arabic literary texts in English translations. Students will become familiar with the problems of literary translation, especially in terms of transplanting Arabic texts into English context. Issues like faithful, literal, free translation and cultural adaptation are dealt with extensively. Students will also be exposed to techniques of literary translation.

TRAN 420   Translating Legal Documents   (3 credits)

This course focuses on the theory and practice of translating legal instruments (such as certificates and contracts) from and into English and Arabic. Attention is paid to linguistic features of documentary texts (such as constitutions, charters and protocols) and the nature of the translational equivalence in the two languages. *Prerequisite: TRAN 260.*

TRAN 425   Contrastive Rhetoric and Stylistics   (3 credits)

This course introduces students to a higher level of contrastive analysis between Arabic and English. The purpose of the course is to equip students with a firm knowledge of different styles of the two languages including idioms, figures of speech, metaphors, and so forth in order to utilize such knowledge in translating English and Arabic texts. A special focus will be on idiomatic and metaphoric styles, and the influence of cultural settings on the production and transfer of stylistic forms from Arabic to English and vice versa.

TRAN 435   Lexicography and Terminology   (3 credits)

This course focuses on the problems of equivalences and variability of terminologies. The phenomena of terminology banks and databases are studied,

as well as the role of Arabic language academies in the creation and standardization of terminologies in Arabic.

TRAN 465   Critical Analysis of Translated Texts   (3 credits)

This course presents a functional pragmatic approach to the peculiarities of situational linguistics, their sources and their targets; and then assesses the results of the situation. The students will be required to write a critique of a translated work.

TRAN 470   Machine Translation   (3 credits)

This course offers training in machine translation and it focuses on the differences between human translation/ interpretation and machine translation.

TRAN 480   External Practicum   (3 credits)

This course offers an opportunity for supervised translation in a commercial or government office. Periodic reports will be a part of the requirement for this practicum course.

Bachelor of Arts (BA) in Arabic Language

The Bachelor of Arts in Arabic Language curriculum is designed to comply with the requirements of Omani Academic Accreditation Authority (OAAA) accreditation. It includes at least 15 credit hours of University Requirements, at least 96 credit hours of Major Core Courses, and at least 9 credit hours of Major Elective Courses. Hands-on experience in practical training and emphasis on application-oriented activities and exercises are important elements that are integrated throughout the curriculum. It is designed to grant students the Bachelor of Arts degree upon the successful completion of the four-year program.

The first common year with other college majors allows students to switch between the majors at the same college at the start of the second year of their study.

Objectives:

- Reinforcing the students' language ability and make them acquire the skills of correct expression.

- Reinforcing students' literary ability to realize beauty in language styles.

- Familiarize students with methods of using the different books and references in the library as well as heritage books.

- Developing the students' skills in reading and speaking and encouraging them to think logically and creatively.

- Developing students writing and dictation abilities and skills and training them to write correctly.

- Training students to use the correct forms of syntax and morphology while reading, writing or expressing.

- Developing the Arabic Language and trying to spread it as it is the language of religion and civilization.

Program Learning Outcomes

Graduates of the Bachelor of Arts in Arabic Language program will be able to:

- Use listening skills to understand Arabic in a range of contexts.
- Demonstrate speaking skills in order to express thoughts, opinions, arguments and a range of language functions to speakers of Arabic.
- Apply reading skills and strategies to cope with authentic Arabic texts in a range of contexts.
- Use writing skills to express thoughts, opinions, arguments and a range of language functions in styles appropriate to the task in Arabic.
- Demonstrate the acquired ability to make effective use of grammatical devices and lexical resources of Arabic language for the purposes of efficient communication.

- Show informed awareness of linguistic systems of Arabic language and demonstrate the acquired ability to identify and analyze the structure and functions of the language.
- Show informed awareness of different literary genres and demonstrate the acquired ability to critically examine different literary texts in Arabic.
- Show the ability of independent/autonomous learning by using a range of learning techniques and strategies.
- Apply study, research and presentation skills in order to increase academic, professional, and employment potential.

Career Opportunities

Graduates of the Bachelor of Arts in Arabic Language program will have many career choices spanning a wide range of fields. Most notable are: government sector, corporate sector, tourism and hospitality sector, media sector, education sector, etc. Graduates will have employment opportunities in working as school teacher, receptionist, secretary, clerk, salesperson, sub editor, proofreader, tourist guide, teaching assistant, etc. Innovative fields include establishing a private enterprise like Arabic coaching center for non-native speakers, legal documents preparation center, consultancy services, etc.

Study Plan

(120 credit hours)

The study plan is divided into:

- University Requirements (15 credit hours)
- Program Requirements (96 credit hours)
- Major Electives (9 credit hours)

University Requirements:

(15 credit hours)

- ARAB 101: Academic writing in Arabic
- ENG 101: Basic Academic English
- CMPS 100A: Introduction to Technical Computing for the Arts
- SOCS 102: Omani Society
- ENTR 200: Entrepreneurship: Innovation and Creativity

Program Requirements:

Major core courses: (96 credit hours)

- ARAB 102 Syntax and Morphology (1)
- ARAB 103 Introduction to Arabic Literature
- ARAB 104 Advanced Academic Writing
- ARAB 105 Pre-Islamic Literature
- ARAB 106 Introduction to Linguistics
- ARAB 202 Syntax and Morphology (2)

- ARAB 203 Phonetics
- ARAB 204 Studies in Quran and Hadith
- ARAB 205 Lexicography and Terminology
- ARAB 206 Modern Arabic Novel
- ARAB 207 Jihad Poetry
- ARAB 208 Special Topic in Literature
- ARAB 209 Ancient Arabic Prose and fiction
- ARAB 210 Historical Linguistics
- ARAB 213 Stylistics
- ARAB 303 Andalusian Literature
- ARAB 304 Modern Arabic Poetry
- ARAB 305 Sociolinguistics
- ARAB 306 Modern Arabic Drama
- ARAB 307 Theory of Literature and Criticism
- ARAB 308 Syntax and Morphology (3)
- ARAB 309 Prosody
- ARAB 310 Overseas Literature
- ARAB 401 Modern Arabic Renaissance Literature
- ARAB 402 Syntax and Morphology (4)
- ARAB 403 Mystic Literature
- ARAB 404 Folk Literature
- ARAB 405 Applied Linguistics
- ARAB 406 Abbasid Poetry
- ARAB 407 Applied Phonetics
- ARAB 408 Comparative Literature
- ARAB 409 Special Topic in Language

Major Elective Courses: (9 credit hours)

- ARAB 211 Literary and Linguistic Sources and References
- ARAB 212 Oman and Arabian Peninsula Literature
- ARAB 214 Arabic Dialects
- ARAB 311 Arabic Rhetoric
- ARAB 313 Literary Text Appreciation
- ARAB 314 Language Workshop
- ARAB 315 Issues in Omani Literature
- ARAB 411 Orientalism and Orientalists
- ARAB 412 Modern Studies in Linguistics

Study Plan: Bachelor of Arts in Arabic Language

Year I		
Fall Semester		**15 Credits**
Code	**Course Title**	**Credit Hours**
ARAB 101	Academic Writing in Arabic	**3**
ENGL 101	Basic Academic English	**3**
CMPS 100A	Introduction to Technical Computing For The Arts	**3**
SOCS 102	Omani Society	**3**
ARAB 102	Syntax and Morphology (1)	**3**
Spring Semester		**15 Credits**
Code	**Course Title**	**Credit Hours**
ENTR 200 A	**Entrepreneurship: Innovation and Creativity**	**3**
ARAB 103	Introduction to Arabic Literature	**3**
ARAB 104	Advanced Academic Writing	**3**
ARAB 105	Pre-Islamic Literature	**3**
ARAB 106	Introduction to Linguistics	**3**

Year II		
Fall Semester		**15 Credits**
Code	**Course Title**	**Credit Hours**
ARAB 202	Syntax and Morphology (2)	**3**
ARAB 203	Phonetics	**3**
ARAB 204	Studies in Quran and Hadith	**3**
ARAB 205	Lexicography and Terminology	**3**
ARAB 206	Modern Arabic Novel	**3**
Spring Semester		**15 Credits**
Code	**Course Title**	**Credit Hours**
ARAB 207	Jihad Poetry	**3**
ARAB 208	Special Topic in Literature	**3**
ARAB 209	Ancient Arabic Prose and Fiction	**3**
ARAB 210	Historical Linguistics	**3**
ARAB 213	Stylistics	**3**

Year III		
Fall Semester		**15 Credits**
Code	**Course Title**	**Credit Hours**
ARAB 303	Andalusian Literature	**3**
ARAB 304	Modern Arabic Poetry	**3**
ARAB 305	Sociolinguistics	**3**
ARAB 306	Modern Arabic Drama	**3**
Code	Major Elective Course	**3**
Spring Semester		**15 Credits**
Code	**Course Title**	**Credit Hours**
ARAB 307	Theory of Literature and Criticism	**3**
ARAB 308	Syntax and Morphology (3)	**3**
ARAB 309	Prosody	**3**
ARAB 310	Overseas Literature	**3**
Code	Major Elective Course	**3**

Year IV		
Fall Semester		**15 Credits**
Code	**Course Title**	**Credit Hours**
ARAB 401	Modern Arabic Renaissance Literature	**3**
ARAB 402	Syntax and Morphology (4)	**3**
ARAB 403	Mystic Literature	**3**
ARAB 404	Folk Literature	**3**
ARAB 405	Applied Linguistics	**3**
Spring Semester		**15 Credits**
Code	**Course Title**	**Credit Hours**
ARAB 406	Abbasid Poetry	**3**
ARAB 407	Applied Phonetics	**3**
ARAB 408	Comparative Literature	**3**
ARAB 409	Special Topic in Language	**3**
Code	Major Elective Course	**3**
Completion of Bachelor of Arts Degree in Arabic Language: Total Credits: 120		

Course Description

ARAB 102   Syntax and Morphology (1)   (3 credits)
This module focuses on the basic elements of Arabic sentences and the word formation rules and principles. The students are acquainted with the necessary knowledge to differentiate between grammatically correct and incorrect sentences. Students are expected to analyze different types of texts and produce adequate examples.

ARAB 103   Introduction to Arabic Literature   (3 credits)
This module explores the history of Arabic literature from pre-Islamic period to the modern era. It also presents examples of poetry and prose to show the most important features and characteristics of each era. (Prerequisite ARAB 101)

ARAB 104   Advanced Academic Writing   (3 credits)
This module focuses on consolidating the students' writing skills in academic activities such as note-taking, summarizing, understanding main ideas and details, writing definitions, classifying, inferring, supporting a position, utilizing resources like the Internet, presenting, writing cohesive reports and conducting research. (prerequisite ARAB 101)

ARAB 105   Pre-Islamic Literature   (3 credits)
This module explores the different shapes of the cultural, social, political and intellectual life of the pre-Islamic Arabs through examples of highly achieved poetry and prose. It also presents a critique of some of the most disputed issues in pre-Islamic literature such as the beginning of poetry and its priority, the issue of plagiarism and the issue of narration and writing. Students are also acquainted with the most important characteristics and topics of pre-Islamic poetry such as al Muaallaqat, al Hawliyat, al Monsifat, al Saaleek poetry. They are also given the required tools to analyze, interpret and recognize the parts of the pre-Islamic poem. (prerequisite: ARAB 101)

ARAB 106   Introduction to Linguistics   (3 credits)
This module investigates the fundamental nature of linguistics at the level of phonetics, syntax, morphology, semantics as well as the relationship them. It also explores the approaches of studying linguistics such as historical, comparative and contrastive approaches. (Prerequisite ARAB 106)

ARAB 202   Syntax and Morphology (2)   (3 credits)
This module depends on the knowledge students obtain in ARAB 102. It further investigates how to analyze different texts of Arabic literature and focuses on the mechanism of how to form syntactically and morphologically correct sentences. Students are expected to deliver presentations and engage in discussion of modern linguistic theories. (prerequisite ARAB 102)

ARAB 203   Phonetics   (3 credits)
This module is a study of the articulatory and acoustic features of Arabic sounds, both in Classical Arabic and modern standard Arabic. A special emphasis will be on the relationship between semantics and phonology.

(prerequisite ARAB 106)

ARAB 204   Studies in Quran and Hadith   (3 credits)
This module reveals the uniquely beautiful style of the Holy Quran and Hadith. It also explores the eloquent miracle of language expressed in the Holy Quran with a focus on how to infer guidance and laws from texts. In addition to that, the module presents applied studies on the effects of eloquence on the beauty of language in the Holy Quran and Hadith. (prerequisite ARAB 102)

ARAB 205   Lexicography and Terminology   (3 credits)
The module investigates in part 1 the structure of the Arabic lexicography as well as the most important Arabic dictionaries in old and modern times. As for part 2, the module covers the study of meaning in Arabic by Arab grammarians and philosophers and provides new insights in light of modern linguistic theories. (Prerequisite ARAB 106)

ARAB 206   Modern Arabic Novel   (3 credits)
The focus of this course is on the rise of the modern Arabic novel with its first pioneers and their first attempts until the modern novelists who are influenced by European Literature. Students are required to read and analyze samples of works by prominent Arab novelists. (prerequisite ARAB 103)

ARAB 207   Jihad Poetry   (3 credits)
This module analyzes some examples of Arabic poetry during the Islamic conquests with a focus on the changes that occurred in its style and purposes after the emigration of many Arabs to the territories they had conquered. It also examines the social, economic and political changes that affected the nature of poetry in that era, especially during Umayyad Period. (prerequisite ARAB 103)

ARAB 208   Special Topic in Literature   (3 credits)
The course is an in-depth study of a literary topic. Pre-requisite: ARAB 103

ARAB 209   Ancient Arabic Prose and Fiction   (3 credits)
The course analyzes samples of early Arabic prose such as the writings of Ibn Al Mugaffa', Al Jahidh, and Ibn Kholdoun. It also surveys the evolution of prose and its influence on Arabic writings of later epochs.

ARAB 210   Historical Linguistics   (3 credits)
The course covers historical linguistics with concentration on Semitic studies. After an introduction on the methods of comparing and contrasting and reconstructing ancient languages, students will have a chance to inspect some ancient scripts and identify the phonetic, syntactic, grammatical, and semantic variations in a number of ancient and modern Semitic languages. Pre-requisite: ARAB 106 and ARAB 203.

ARAB 213   Stylistics   (3 credits)
The course studies the emergence and concepts of stylistics and the relationship between stylistics and rhetoric (AL Balaghah). It also highlights the major traits and applications of stylistics in literature and criticism. It further points out the bases that help in applying and utilizing stylistics in textual analysis and studies.

ARAB 303   Andalusian Literature   (3 credits)
The course is meant to orient the students on the similarities and differences between Arabic literature in the East and its counterpart in Andalusia and North

Africa. It studies the major subjects that permeated Andalusian and North African prose and poetry, including love, courting, description of nature, search for the truth, and elegies of cities.

Moreover, the course studies the Muwashahat poems, the factors that led to writing them, scholarship on this type of poetry, and their place and importance in the evolution of Arabic poetry. Pre-requisite: ARAB 103

ARAB 304   Modern Arabic Poetry   (3 credits)
The course studies and analyzes selected poems from the modern period. It also studies the factors that led to the evolution of Arabic poetry beginning from Bakathir's early attempts of innovation, the movement of free verse, the poetic plays of Shawqi, the Romantic movement, and most recently the prose poem. Pre-requisite: ARAB 103

ARAB 305   Sociolinguistics   (3 credits)
The course studies the variations of language in light of socio-geographic factors. It also focuses on issues relevant to politics in language, linguistic diversity, and language and identity. Pre-requisite: ARAB 203

ARAB 306   Modern Arabic Drama   (3 credits)
The course studies modern Arabic drama and the history of its evolution as a new genre in Arabic literature. Students will study and analyze a number of famous dramas. Pre-requisite: ARAB 103

ARAB 307   Theory of Literature and Criticism   (3 credits)
The course surveys the theory of literature and criticism from the beginning till now. It also points out the favorite literary subjects for critics throughout the ages. Pre-requisite: ARAB 209

ARAB 308   Syntax and Morphology (3)   (3 credits)
This course studies the following topics in syntax: prepositions, genitive, praising styles, nouns that function as verbs and non-inflectional nouns. In morphology, derivation when possible, infinitives, etc. are studied. Prerequisite: ARAB 202.

ARAB 309   Prosody   (3 credits)
The course teaches traditional prosody and its distinctive features. Students learn how to scan poetry, know all the 16 meters and their variations of feet, rhyme, prosody of free verse, and modern theories of rhythm. Pre-requisite: ARAB 203

ARAB 310   Overseas Literature   (3 credits)
This course is a survey of Arabic literature in Diaspora in North America and South America. It sheds light on the reasons and motives of migration in a quick historical introduction beginning from the end of 19th century. The course also aims to introduce the writers of Diaspora, with focus on the major writers, samples of their work, the innovations they introduced, and their contributions that enriched Arabic literature. The course further introduces the Orientalist views of that literature. *Pre-requisite: ARAB 103*

ARAB 401   Modern Arabic Renaissance Literature   (3 credits)
The course studies the evolution of Arabic literature as one of the landmarks of modern Arabic Renaissance between 1800-1940. It highlights the major factors that influenced Arabic literature of that period that witnessed contact and

openness to Western literatures. A selection of prose and poetry by pioneers and innovators will be studied. The course will further survey the evolution of Arabic literature since 1940 and points out the new literary movements that appeared during that period and were influenced by Western literature such as the Neo-Classical (renaissance and rebirth), Romantic, and Modern movements. A selection of prose and poetry texts will be studied to show the distinctive features of each movement. Pre-requisite: ARAB 103

ARAB 402   Syntax and Morphology (4)   (3 credits)
This course studies the following syntactical topics: vocatives, lamentations, dropping syncope, warning and temptation styles, verbs, etc. In morphology, diminutive, initiation and pausing, etc. are studied.

ARAB 403   Mystic Literature   (3 credits)
This course aims to acquaint students with so fist literature, reasons for its beginning most prominent people, what distinguish it from other literature fields; it is considered one of the most important aspects of Arab literature. Prerequisite. Arab 103

ARAB 404   Folk literature   (3 credits)
This course with the subject of folk literature, different folk tale, like: The one Thousand and One Nights, stories and adventures of heroes like: Bani Hilal story, Saif Bin Thi Yazan, Antara Al Absi and Al-Zeer Salim …etc. Such examples characterize and distinguish this kind of literature. Prerequisite Arab103

ARAB405   Applied Linguistics   (3 credits)
This course deals with using applied linguistics in teaching Arabic for native and non-native speakers in addition to translation issues, acquiring language, error analysis and Contrastive linguistics. Prerequisite Arab 203

ARAB 406   Abbasid Poetry   (3 credits)
This course deals with Abbasid Poetry and concentrates on the historical, political and social background for that period. In the first part of the course, students study a number of the most famous poets of first Abbasid period which ends in the time of Caliphet Al Motasem. The second part deals with the rest of the late poets until the falling of Baghdad. Prerequisite: Arab103

ARAB 407   Applied Phonetics   (3 credits)
This course deals with application study on the modern phonology using whatever possible of the new and modern theories of western scholars and to make compressions and apply those theories on Arabic and its different dialects. Prerequisite Arab 203

ARAB 408   Comparative Literature   (3 credits)
This course deals with the relationship between old and new Arabic literature and the literature of other languages like Greek and Farsi literature, the relationship between old Arabic poetry and the poets of Altrobador, the effect of modern English and Spanish on modern Arabic poetry. The course also deals with the Arabic experience in the field of comparative literature worldwide: French, American, German, Slavic.

ARAB 409   Special Topic in Language   (3 credits)
This course focuses on one language Aspect in details. Prerequisite Arab 402.

ARAB 211   Literary and Linguistic Sources and References   (3 credits)
This course introduces the student to eminent linguistic and literary heritage sources. This can be achieved by surveying the different styles of traditional writers and comparing it with modern styles. It is hoped that such a course will create link between tradition and modernity. Prerequisite: ARAB 209

ARAB 212   Oman and the Arabian Peninsula Literature   (3 credits)
This course surveys literature of Oman and the Arabian Peninsula as well as the literature of Omani emigrants in Asia and Africa. Literature in different historical periods. Famous men of letters in Oman and the Arabian Peninsula in the modern age. Modern trends in the Arabian and different genres (maqaamah, essay, rhetoric, poetry and the novel) with analytic study of each trend. Prerequisite ARAB 207

ARAB 214   Arabic Dialects   (3 credits)
This course deals with the difference between language and dialect. A survey on some of the most well-known old and modern Arabic dialects. The phonology, morphology, syntax and semantics of such dialects. Prerequisite: ARAB 204

ARAB 311   Arabic Rhetoric   (3 credits)
This course studies the emergence of Arabic rhetoric, its development and its branches:
- *bayaan*(rhetoric) and its development.
- semantics
- literary techniques (*badii'*)

ARAB 313   Literary Text Appreciation   (3 credits)
This course deals with the following:

- the Arabic literary text and its relation to the culture of the text producer.
- the position of language, its diverse semantic aspects and understanding the literary text.
- the different readings of the texts.
All these can be achieved through applications and analysis by selecting a number or texts which can change in every semester. Prerequisite: ARAB 304

ARAB 314   Language Workshop   (3 credits)
This course deals with studying the analysis of linguistic styles, starting from the sound level moving the word level, syntax, semantics and rhetoric aspects. The practical part of the course will deal with selected texts (old or new) through which the role of the linguistic function of such text can be defined. Prerequisite: ARAB 308

ARAB 315   Issues in Omani Literature   (3 credits)
This course aims at projecting the authenticity of the Arabic culture in Oman through studying different sources of literary works through centuries, especially poetry. In order to illustrate the important of the literary and poetic sources of Omani literature, it is necessary to study the factors that influenced its direction. Also, the different genres of the Omani literature should be studied together with

examples of some eminent names of men of letters in Oman, both of older generations and modern ones. These will include poets like Al-Sitali, Al-Nabhani, Al-Ghashri, IbnRuzaiq, Sheikh Musallam Al-Bahlani, Noor-Eddin Al-Salmi, Sheik Abdullah Al-Khalili and others. The history of literature in Oman will also be reviewed in order to shed light on certain literary and linguistic issues in this part of the Arab world. Prerequisite: ARAB 103

ARAB 410   History of the Islamic thought groups   (3 credits)
This course examines the factors that led to the emergence of the Islamic thought groups and the prominent ones. The terminology of Islamic theology will be discussed and groups like mu'taziolah, ash'aries and imaamis will be discussed in more details. By examining more literary texts related to such groups and schools of thought, more light can be shed on the features of such literature. Prerequisite: ARAB 403

ARAB 411   Orientalism and Orientalists   (3 credits)
This is an elective course we can be taken by both Arabic and non-Arabic major students. It includes:

-    the beginnings of western interest of the Islamic east and its relation to colonial movement.

-    the writings of the Orientalists against Islam in the 19th century.

-    the objective attitude in the 20th century.

-    the efforts of Brockelmann, Plachir, Massinon and Andre Mickel in classification, translation of Arabic literature and the present situation of Orientalists.

Prerequisite: ARAB 408

ARAB 412   Modern Studies in Linguistics   (3 credits)
This course reviews modern Arabic schools of linguistics, especially modern Arabic philology, phonetic school, descriptive school, stylistic school, lexical and terminological school and Arabic computational school. Prerequisite: ARAB 405

Arabic Minors

The Languages and Translation Department offers two minors: one in Arabic Language and the other in Arabic Literature. These minors can be taken by students who have regular standing in any major in the University.

Students who wish to take a minor in Arabic should submit a written application to the Languages and Translation department. The minor in Arabic will appear on the student's academic record during study and after graduation. The course requirements for each of the Arabic minors are listed below.

Arabic Language Minor

This minor encompasses six course encompassing 18 credits distributed as follows:

I. Four Required Courses encompassing 12 credit hours:

ARAB 115: Basic Arabic Syntax and Morphology
ARAB 180: Advanced Arabic Syntax
ARAB 201: Advanced Academic Writing in Arabic
ARAB 220: Arabic Sociolinguistics

II. Two Elective Courses encompassing 6 credit hours selected from the following list:

ARAB 250: Writing for the Media
ARAB 260: Arabic for Business
ARAB 320: Arabic Phonology
ARAB 360: Arabic Semantics and Lexicography
ARAB 430: Special Topics in Arabic Linguistics

Arabic Literature Minor

This minor encompasses six courses encompassing 18 credits distributed as follows:

I. Four Required Courses encompassing 12 credit hours:

ARAB 225: Early Arabic Poetry
ARAB 270: Early Arabic Prose
ARAB 300: Modern Arabic Poetry
ARAB 370: Modern Arabic Novel

II. Two Elective Courses encompassing 6 credit hours selected from the following list:

ARAB 200: Survey of Arabic Literature
ARAB 201: Advanced Academic Writing in Arabic
ARAB 250: Writing for the Media
ARAB 260: Arabic for Business
ARAB 470: Special Topics in Arabic Literature

Course Description

ARAB 101   Academic Writing in Arabic   (3 crs.)
This course focuses on studying the essential elements of academic writing in Arabic including effective sentences, paragraphs, essays, academic papers, professional reports, and official letters. The students are required to demonstrate high-level abilities to produce academically sound documents in Arabic.

ARAB 115   Basic Arabic Syntax and Morphology   (3 crs.)
This course examines the basic elements of Arabic sentences and the word formation rules and principles. The students will be acquainted with the necessary knowledge to differentiate between grammatical and ungrammatical sentences. Students are expected to analyze different types of texts and produce adequate examples.

ARAB 180   Advanced Arabic Syntax   **(3 crs.)**

This course builds upon the experience acquired in ARAB 115. It involves examining Arabic texts from different types of literature and analyzing tem from grammatical point of view. There will be a focus on training in various methods of sentence formation and parsing. Students are expected to make presentations and participate in discussions about modern syntax theories such as transformational grammar. Prerequisite: ARAB 115.

ARAB 200   Survey of Arabic Literature   **(3 crs.)**

This course provides a survey of Arabic literature from pre-Islamic times to modern times with an emphasis on the socio-cultural aspects of various periods. Samples of literature pieces will be studied.

ARAB 201   Advanced Academic Writing in Arabic   **(3 crs.)**

The main focus of this course is to consolidate the students writing skills in academic activities such as note taking, summary, understanding main ideas and details, writing definitions, classifying, inferring, supporting a position, utilizing resources like internet, presenting, writing cohesive reports, conducting a research. Prerequisite: ARAB 101.

ARAB 220   Arabic Sociolinguistics   **(3 crs.)**

This course examines language variation in Arabic as a function of geographical and social factors. The issues of language policies, multilingualism, and language and identity will also be examined in detail. Prerequisite: ARAB 115.

ARAB 225   Early Arabic Poetry   **(3 crs.)**

This course provides a close study of pre-Islamic, early Islamic, Umayyad, and Abbasid Arabic poetry. The historical, political, and social background of the poetry of each period will be considered. Prerequisite: ARAB 115.

ARAB 250   Writing for the Media   **(3 crs.)**

This course covers topics discussed in contemporary Arabic media. The main objective of the course is to enrich students' contemporary vocabulary and communication skills. Focus is on discussing the characteristics of language for media, developing students' ability to write texts in media styles, and enhancing students' awareness of how language is used for manipulation and orientation of public opinion. Prerequisite: ARAB 115.

ARAB 260   Arabic for Business   **(3 crs.)**

The course involves discussion of prominent issues in business relations between the Arab World and the rest of the world. The focus is on enhancing students' vocabulary and writing skills in the realm of business including terminology, advertisement, reports, and analysis of major financial and economic events. Prerequisite: ARAB 115.

ARAB 270   Early Arabic Prose   **(3 crs.)**

This course focuses on analyzing samples of the early Arabic prose writings such as the works of Ibn Al-Muqaffa', Al-Jahiz and Ibn Khaldoun, how they evolved, and influenced Arabic writings in later stages. Prerequisite: ARAB 115.

ARAB 300   Modern Arabic Poetry   **(3 crs.)**

This course involves studying and analyzing selections of modern Arabic poetry and the factors that influenced the development of Arabic poetry.

ARAB 320   Arabic Phonology   **(3 crs.)**

This course is a study of the articulatory and acoustic features of Arabic sounds, both in Classical Arabic and modern standard Arabic. A special emphasis will be on the relationship between semantics and phonology.

ARAB   Arabic Semantics and Lexicography   **(3 crs.)**
360

This course covers the study of meaning in Arabic by Arab grammarians and provides new insights in light of modern linguistic theories.

ARAB 370   Modern Arabic Novel   **(3 crs.)**

The focus of this course is on the rise and development of the Arabic novel and the factors that have shaped its structure and contents. Students will read and analyze samples of works by prominent Arab novelists.

ARAB 430   Special Topics in Arabic Linguistics   **(3 crs.)**

This course varies in content from year to year and focuses on varied topics in Arabic linguistics.

ARAB 470   Special Topics in Arabic Literature   **(3 crs.)**

This course varies in content from year to year and focuses on varied topics in Arabic literature.

DEPARTMENT OF SOCIAL SCIENCES

Personnel

Department Chairperson (Acting)   Al Mashikhi, Khalid
Associate Professor   Narayanan, Lakshmi; Menon, Shanker
Assistant Professors   Salithamby, Abdul Rauff
Lecturer   Al Dheeb, Hussain
Secretary   Al-Shanfari, Hajer

Mission

The mission of the Social Sciences Department is to provide knowledge of the historical, social and cultural context for understanding contemporary social and psychological phenomena. The mission of social work program is to advance knowledge of social work theories and effective practices and its aim is to educate students on how to practice social work sensitively and competently with diverse, multicultural, rural/urban populations of Oman and the Arabian Gulf.

Program overview

The Program in Social Work curriculum is designed to comply with the requirements of Omani Academic Accreditation Authority(OAAA) accreditation. It includes at least (30) credit hours of University Requirements, at least 12 credit hours of College Requirements, and at least 12 credit hours of Major Elective Courses and at least 66 credit hours of Major Requirements, excluding language and technical writing courses. Lab hands-on experience and emphasis on Social Work are important elements that are integrated throughout the curriculum. It is designed to grant students the Bachelor of Arts degree upon the successful completion of the four-year program.

The program is also offered in Diploma Degree upon the successful completion of a two-year program.

The first common year with other college majors allows students to switch between the majors at the same college at the start of the second year of their study.

Career Opportunities

Graduates of the Social Work program will have many career choices spanning a wide range of fields. Most notable are: Social Worker and Supervisor. Graduates will have employment opportunities in schools, hospitals, social services agencies, community issue based organizations and NGOs. Innovative fields include education, health, courts, ministries and prisons, and many other related industries.

Objectives

The objectives of the department are to:
1. Provide students with solid liberal arts education, training in social work and appropriate learning and critical thinking skills and values.
2. Provide students with the skills, knowledge and ethical values that will prepare them to work competently in a range of social work settings and with a diversity of population segments that need professional social and welfare services such as children and families, the mentally or physically challenged, students with special needs at schools and institutions of higher learning, the chronically sick and elderly, criminals and other relevant environments;
3. Prepare students to practice and serve the social work needs of their society and advocate on behalf of those who are socially disadvantaged or at risk of social discrimination or exploitation both at local and national levels;
4. Prepare students for graduate studies in social work or its practice in any other related field;
5. Promote life-long independent learning.

Learning Outcomes

The graduates of the will be able to:
- Describe social work profession conceptually, historically and theoretically.
- Re-read social work in contemporary trend: issues, challenges and relations with other disciplines.
- Apply the critical knowledge of values, ethics and other principles of social work during a professional practice/intervention.
- Accommodate both traditional bases and scientific theories of various liberal arts into social work discipline.
- Apply different theoretical frameworks purely underpinned by empirical evidences to understand the nature, growth and development of human being across life span.
- Recognize the interaction of human beings who have a multiple needs and challenges with environment, and critically analyze their behavior in individual, familial, societal and organizational context.

Degrees Offered

- Diploma in Social Work

- BA in Social Work

Diploma Program

The Diploma in Social work is a two-year, 60-credit hour program designed to offer basic but up-to-date theoretical knowledge with relevant skills and competencies in social work. The program focuses on pairing theoretical explanations with practical work in the form of realistic scenarios and research projects. In addition, the program follows a modern liberal arts approach by exposing the students to a sound knowledge of general sciences, the arts, study of the Omani culture, mastery of general computing skills, and efficient usage of Arabic and English languages.

The students who graduate with a Diploma may continue their education at a later stage and receive a Bachelor of Arts degree in social work, if they satisfy the requirements of admission to the B.A. in Social Work. All the credits that they have successfully completed in the Diploma program are transferable to the B.A. program in Social Work.

Graduation Requirements

To graduate with a Diploma in Social Work, students must satisfactorily complete 60 credit hours of course work from the courses that are described in the Program of Study with an overall minimum average of 65 percent.

Program of Study

University Requirements

This component consists of the following 8 courses encompassing 24 credit hours

- ARAB 101: Academic Writing in Arabic
- CMPS 100A: Introduction to Technical Computing for the Arts
- ENGL 101: Basic Academic English
- ENGL 102 A: English for Arts, Humanities and Social Sciences I
- ENGL 203 A: English for Arts, Humanities and Social Sciences II
- MATH 103: Mathematics for Social Sciences I
- ENTR 200: Entrepreneurship: Innovation & Creativity
- SOCS 102: Omani Society

College Requirements

This component consists of the following two courses encompassing 6 credit hours:
- One course in physical/ natural sciences (3 Cr. hrs.)
- One course in humanities/social sciences: SOCS 100: World Civilizations I (3 Cr. hrs.)

Program Requirements

This component consists of eleven courses constituting of 33 credit hours distributed as follows:

Major Required Courses: This component consists of the following 9 courses constituting 27 credit hours:
- PSYC 150: Introduction to Psychology
- SOCS 150: Introduction to Sociology
- SOCS 220: Individuals, Families, and Groups
- SOWO 200: Introduction to Social Work
- SOWO 235: Communication and Interviewing Skills
- SOWO 245: Human Behavior and the Social Environment
- SOWO 255: Social Policy & Services I: An Introduction
- SOWO 280: Social Work Practice I: Assessment, Planning, and Intervention
- SOWO 290: Social Work: Field Internship I

Major Elective Courses: This component includes two courses encompassing 6 credit hours chosen form the following list:
- PSYC 180: Human Development
- PHIL 120: Introduction to Philosophy
- PHIL 160: Critical and Creative Thinking

Study Plan

Year I		
Semester 1 (Fall)		**15 Credits**
Code	**Course Title**	**Credit Hours**
ARAB 101	Academic Writing in Arabic3	**3**
COMP 100A	Introduction to Technical Computing for the Arts	**3**
ENGL 101	Basic Academic English	**3**
SOCS 102	Omani Society	**3**
MATH 103	Mathematics for the Social Sciences	**3**
Semester 2 (Spring)		**15 Credits**
Code	**Course Title**	**Credit Hours**
ENGL 102A	English for Arts, Humanities and Social Sciences I	3
Code	College Requirement (1) : Humanities/Social Sciences	3
PSYC 150	Introduction to Psychology	3
SOCS 150	Introduction to Sociology	3
PSYC 180	Human Development	3

Year II		
Semester 3 (Fall)		**15 Credits**
Code	**Course Title**	**Credit Hours**
ENGL 203A	English for Arts, Humanities and Social Sciences II	3
Code	College Requirement (2): Physical/Natural Science	3
SOWO 200	Introduction to Social Work	3
SOWO 235	Communication and Interviewing Skills	3
SOWO 245	Human Behavior and Social Environment	3
Semester 4 (Spring)		**15 Credits**
Code	**Course Title**	**Credit Hours**
ENTR 200	Entrepreneurship: Innovation & Creativity	3
SOWO 255	Social Policy and Social Planning	3
SOWO 260	School Social Work	3
SOWO 280	Social Work Practice I: Working with Individuals	3
SOWO 290	Social Work: Field Internship I	3
Completion of the Diploma in Social Work - Total Credits 60		

Bachelor of Arts (BA) Program

The BA curriculum focuses on developing students' awareness and knowledge of the social work profession, its skills, and ethical values and principles, relating that to religious heritage and rich diversity prevalent in Oman and the Arabian Gulf countries. Social work students will come to understand the influence of cultural heritage and religious/spiritual beliefs on the practice and application of their professional behavior. The Program prepares undergraduate students for entry-level generalist practitioners through the integration of classroom and field internship experience, allowing ambitious students to continue for graduate studies in social work.

Graduation Requirements

To graduate with a BA in Social Work, students must satisfactorily complete 120 credit hours of course work from the courses that are described in the Program of Study with an overall minimum average of 65 percent, and a cumulative average of 70 percent in the major courses.

Program of Study

University Requirements

This component consists of the following nine courses encompassing 27 credit hours:
- ARAB 101: Academic Writing in Arabic
- CMPS 100A: Introduction to Technical Computing for the Arts
- ENGL 101: Basic Academic English
- ENGL 102 A: English for Arts, Humanities and Social Sciences I
- ENGL 203 A: English for Arts, Humanities and Social Sciences II
- ENGL 204: Advanced English for Academic Purposes and Research

- ENGL 305: Advanced English Language and Communication Skills
- MATH 103: Mathematics for Social Sciences I
- SOCS 102: Omani Society
- ENTR 200: Entrepreneurship: Innovation & Creativity

College Requirements

This component consists of the following four courses encompassing 12 credit hours:

- One three-credit hour course in physical/ natural sciences
- One three-credit hour course in humanities/social sciences (SOCS 100)
- Two Courses comprising six credit hours in any other major

Program Requirements

This component consists of 26 courses constituting 81 credit hours distributed as follows.

Major Required Courses: This component consists of the following 23 courses constituting 69 credit hours:

- ENGL 350: Advanced Writing for Humanities
- MATH 215: Elementary Statistics for the Social Sciences
- PSYC 150: Introduction to Psychology
- PSYC 180: Human Development
- PSYC 215: Social Psychology
- SOCS 150: Introduction to Sociology
- PHIL 230: Principles of Professional Ethics
- SOCS 220: Individuals, Families, and Groups
- SOCS 375: Communities and Organizations
- SOWO 200: Introduction to Social Work
- SOWO 235: Communication and Interviewing skills
- SOWO 245: Human Behavior and the Social Environment
- SOWO 255: Social Policy & Services I: An Introduction
- SOWO 280: Social Work: Practice I: Assessment, Planning, and Intervention
- SOWO 290: Social Work: Field Internship I
- SOWO 320: Social Policy & Services II: Delivery Systems in Oman and the Gulf
- SOWO 330: Social Work Practice II: Family and Children's Services
- SOWO 370: Research Methods in Social Work
- SOWO 410: Social Work: Field Internship II
- SOWO 440: Social Work: Practice III: Working with Groups
- SOWO 450: Social Work Administration
- SOWO 475: Social Work in Islam
- SOWO 490: Senior Study Project

Major Elective Courses: This component includes four courses encompassing 12 credit hours chosen form the following list:

- PHIL 120: Introduction to Philosophy
- PHIL 160: Critical and Creative Thinking
- ECON 201: Microeconomics
- ECON 202: Macroeconomics
- EDUC 120: Learning and Child Development
- EDUC 355: Behavior Modification
- EDUC 360: Educational Systems in Oman and the GCC Countries
- EDUC 370: Learning Difficulties
- SOCS 310: Culture and Society in the Gulf
- SOCS 340: Social Problems
- SOCS 460: Social Change
- SOWO 300: Populations with Special Needs
- SOWO 380: Social Justice Settings
- SOWO 460: Social Work Mental Health Assessment

Study Plan

Year I		
Semester 1 (Fall)		**15 Credits**
Code	**Course Title**	**Credit Hours**
ARAB 101	Academic Writing in Arabic	3
CMPS 100A	Introduction to Technical Computing for the Arts	3
ENGL 101	Basic Academic English	3
SOCS 102	Omani Society	3
MATH 103	Mathematics for the Social Sciences I	3
Semester 2 (Spring)		**15 Credits**
Code	**Course Title**	**Credit Hours**
ENGL 102A	English for Arts, Humanities and Social Sciences I	3
PSYC 150	Introduction to Psychology	3
Code	General Elective (1)	3
SOCS 150	Introduction to Sociology	3
ENTR 200	Entrepreneurship: Innovation& Creativity	3

Year II		
Semester 3 (Fall)		**15 Credits**
Code	**Course Title**	**Credit Hours**
ENGL 203	Advanced Academic English I	3
PSYC 180	Human Development	3
SOWO 200	Introduction to Social Work	3
SOWO 235	Communication and Interviewing Skills	3
SOWO 245	Human Behavior and the Social Environment	3
Semester 4 (Spring)		**15 Credits**
Code	**Course Title**	**Credit Hours**
ENGL 203A	English for Arts, Humanities and Social Sciences II	3
PSYC 180	Human Development	3
SOWO 200	Introduction to Social Work	3
SOWO 235	Communication and Interviewing Skills	3
SOWO 245	Human Behavior and the Social Environment	3

Year III		
Semester 5 (Fall)		**15 Credits**
Code	**Course Title**	**Credit Hours**
ENGL 204	Advanced English for Academic Purposes and Research	3
Code	College Requirement (2): Physical/Natural Science	3
PSYC 215	Social Psychology	3
SOWO 220	Social Work and Volunteers	3
SOWO 285	Social Work with Disabled	3
Semester 6 (Spring)		**15 Credits**
Code	**Course Title**	**Credit Hours**
SOWO 300	Social Work With the Family	3
SOCS 310	Social Work and Cultural Diversity	3
SOWO 330	Social Work Practice II: Working with Groups	3
MATH 215	Elementary Statistics for the Social Sciences	3
ENGL 305	Advanced English Language and Communication Skills	3

Year IV		
Semester 7 (Fall)		**15 Credits**
Code	**Course Title**	**Credit Hours**
SOCS 340	Social Work Practice with Health	3
SOWO 370	Research Methods in Social Work	3
SOWO 410	Social Work: Field Internship II	3
SOWO 440	Social Work Practice III: Working with Communities	3
SOWO 480	Special Topics in Social Work	3
Semester 8 (Spring)		**15 Credits**
Code	**Course Title**	**Credit Hours**
SOWO 450	Social Work Administration	3
SOWO 475	Social Work in Islam	3
SOWO 490	Senior Study Project	3
SOWO 470	Social Work Integrative Seminar	3
Code	General Elective (2)	3
Completion of the BA in Social Work - Total Credits 120		

Course Description

Philosophy

PHIL 120   Introduction to Philosophy   (3 crs.)
This course raises some of the initial questions posed by the early Greek philosophers regarding the world: What is its origin? What is it made of? What is the soul? Is it immortal? What is the relationship between mind and body? What are the moral values, like freedom and justice? How do we know them? What is good? What is the truth? The answers given to these questions by Greek philosophers are examined in light of Islamic philosophy.

PHIL 160   Critical and Creative Thinking   (3 crs.)
Explores critical thinking, explaining how various philosophical schools deal with the concepts of mind, reason, critical thinking, problem solving, logical reasoning, creative thinking, logical and textual analyses, formal and informal fallacies and certainty in knowledge. Students will develop understanding of the critical and creative thinking processes and will learn to think more clearly, insightfully and effectively.

PHIL 230   Principles of Professional Ethics   (3 crs.)
Deals with the meaning and authenticity of ethical life; raises issues of working in a professional environment such as: what does it mean to be a professional? What moral qualities should professionals have? What are their rights and responsibilities? How to balance one's professional responsibilities with the interests of the clients and the community? Students will be exposed to various ethical theories in order to develop an ethical perspective that makes them morally responsible professionals.

Psychology

PSYC 150   Introduction to Psychology   **(3 crs.)**

An introduction to the principles, concepts and theories of psychology with an overview of the various psychological approaches to human behavior; Explores diverse fields in psychology such as social, cognitive, abnormal, clinical, educational, and neuropsychological.

PSYC 180   Human Development   **(3 crs.)**

An overview of the psychology of development - cognitive, linguistic, emotional, and physical - from the prenatal period to adulthood; Examination of the nature of intelligence, learning, behavior management, and the influence of heredity and environment.

PSYC 215   Social Psychology   **(3 crs.)**

A brief survey of social psychological theory and research; Exploration of the subjects of attitudes, intra-group and inter-group relations, social perception, and group conformity processes.

Sociology

SOCS 100   World Civilizations I   **(3 crs.)**

Survey of the main features of ancient Near Eastern, Medieval and World Civilizations from the Mesopotamian civilization circa 3500 B.C. till the Renaissance in Europe around 1400 A.D. May be offered in Arabic.

SOCS 102   Omani Society   **(3 crs.)**

A brief survey of the history of the Sultanate of Oman, both ancient and contemporary; examines current features of Omani society, notably its social structure, social groups, culture, languages, customs, and the process of social change and community development. May be offered in Arabic.

SOCS 110   History of Arab-Islamic Civilization   **(3 crs.)**

This course studies the intellectual and scientific developments of Arab Islamic Civilization and the transformations it has undergone, beginning with the late Pre-Islamic period up to the end of the Abbasid Caliphate.

SOCS 150   Introduction to Sociology   **(3 crs.)**

An introduction to the study of human behavior; Exploration of the basic sociological concepts and theories, social groups, and critical social institutions; and Examination of the relationship between structure and change in society.

SOCS 200   World Civilizations II   **(3 crs.)**

Studies some current world issues; such as globalization and its economic impact on the world market, climate change, biodiversity, genetic engineering, world population, immigration and illegal migration, urbanization and poverty. *Prerequisite: ENGL 203.*

SOCS 210   Contemporary World Issues   **(3 crs.)**

Deals with Contemporary World social problems such as environment, nuclear war threat, economic development, and poverty…etc. These issues will be studied with special emphasis on developing countries including the Arab World.

SOCS 220   Individuals, Families, and Groups   (3 crs.)

Exploration of various perspectives of individuals, families, and social groups and their implications for social work; Examination of the generalist social work practice model, theories of human behavior and the social environment including ecological/systems, well-being, stress, coping, adaptation, and the concepts of risk, crisis, and protective factors.

SOCS 310   Culture and Society in the Gulf   (3 crs.)

A study of contemporary societies in the Arab Gulf countries with special emphasis on the Sultanate of Oman; Examination of the social structures, social groups, cultural patterns, and processes of cultural and social change.

SOCS 340   Social Problems   (3 crs.)

Examination of social problems and forms of social disorganization from a sociological perspective; such as poverty, aging, marital dissolution, orphanage, child abuse, adolescent delinquency, substance abuse, crime, and suicide. Prerequisite: SOCS 150.

SOCS 375   Communities and Organizations   (3 crs.)

Examination of the diversity of social systems relating to organizations and communities and the ways in which they impact individuals, families, and social groups; Studies how the nature of organizations and communities and the environment may influence the direction and extent of social interaction in the society. Prerequisite: SOCS 150.

SOCS 460   Social Change   (3 crs.)

Introduces students to the dimensions of social change and the main theoretical approaches; Changes in cultural and social systems of the rural and urban areas and their influence in the development programs; Demographic structures, patterns of conflict, cooperation, and social problems. Prerequisite: SOCS 150.

Social Work

SOWO 200   Introduction to Social Work   (3 crs.)

An introduction to social work as a profession; Explores the role of social work and the knowledge, values and skills required to practice it within a generalist social work model, practice skills and theoretical frameworks; the interaction between human behavior and the social environment, the intersection of culture, religion and spirituality in the helping process.

SOWO 235   Communication and Interviewing Skills   (3 crs.)

Introduces students to the patterns and elements of the communication process; Practical training in dealing with people and interviewing skills which are critical for the success of holders of degrees in social work. Prerequisite: SOCS 150.

SOWO 245   Human Behavior and the Social Environment   (3 crs.)

This course introduces ecological/systems theory as an umbrella for the generalist practice model; focuses on the reciprocal relationships between human behavior and social environments; the interaction between and among individuals, groups, societies and economic systems; Issues of values, ethics, religion, spirituality, and diversity; social and economic justice as they impact

populations in the Arab Gulf are infused throughout the course. Prerequisites: PSYC 150 and SOCS 150.

SOWO 255   Social Policy & Services I: An Introduction   (3 crs.)

Social welfare as an institution; response to human and societal needs presented from a global, national and local perspectives; Exposition of policy frameworks and their applications to the study of policy and the social and economic institutions that shape social welfare; awareness of the role of social work in policy advocating and formulation and improvement of social welfare services in Oman, and the Arab Gulf countries. *Prerequisite:* SOWO 200 and ENGL 203.

**SOWO 280   Social Work Practice I: Assessment, Planning, and   (3 crs.)
              Intervention**

As the first of a three courses in the generalist practice sequence, it introduces the student to social casework and the problem solving model for schools and health care settings. Students gain beginning level skills in assessment, intervention, evaluation, termination with individual, children and families and the professional use of self. This course emphasizes the cultural, religious and spiritual strengths of the diverse populations in Oman and the Arab Gulf countries. Prerequisites: SOWO 200, SOWO 235 and SOWO 245.

SOWO 290   Social Work: Field Internship I   (3 crs.)

This is the first of two practical training courses that require 12 hours of field work per week under the guidance of professional instructors. Students are placed in a relevant institution in order to acquire practical experience in applying the principles and skills they have learned in other Social Work courses. Prerequisites: SOWO 200, SOWO 235, SOWO 245, and SOWO 255. Co-requisite: SOWO 280.

SOWO 300   Populations with Special Needs   (3 crs.)

Dealing with various social categories that have special needs such as children with mental retardation, learning disabilities, physically challenged individuals, hearing and visual impairment. It discusses the nature of the needs of each of these categories, assessments, interventions, and the appropriate social welfare services that can be extended to them and to older people. Prerequisites: PSYC 150.

**SOWO 320   Social Policy & Services II: Delivery Systems in   (3 crs.)
              Oman and the Gulf**

The second of two social policy and services sequence this course builds on the knowledge and skills gain in SOWO 255 and with added emphasis on the knowledge, values and skills necessary for conducting policy analysis. Focus is on the methodology for understanding and analyzing social welfare policies and services as they impact citizens of Oman and the Arab Gulf countries. Prerequisite: SOWO 255, SOWO 280, SOWO 290, and ENGL 204.

**SOWO 330   Social Work Practice II: Family and Children's   (3 crs.)
              Services**

The second course in the sequence of three practice courses expands the generalist practice model through the use of theory, knowledge, research, values, ethics, and skills for generalist social work practice with groups, individuals and

families. Content on values, ethics, diversity, social and economic justice, religion, spirituality, empowerment, and the professional use of self are infused throughout the course. Special attention is given to the diverse populations of Oman and the Arab Gulf countries. Prerequisite: SOWO 280, SOWO 290.

SOWO 370   Research Methods in Social Work   (3 crs.)
Introducing a students to a variety of research methods in social sciences and enables them to practice social research and to critically evaluate published research work. Students learn how to link sociological theory with research methods. Prerequisite: MATH 215, SOCS 150, and ENGL 204.

SOWO 380   Social Justice Settings   (3 crs.)
Social work with delinquents, criminals, criminal law, and crime-related institutions this course surveys a variety of social justice settings with special emphasis on those of the Arab Gulf.

SOWO 410   Social Work: Field Internship II   (3 crs.)
This is the second and final practical training course that requires 16 hours of field work per week. After completing SOWO 290, students are given more complicated tasks in order to enrich their experience in social work practice. Prerequisite: SOWO 290, SOWO 330.

SOWO 440   Social Work Practice III: Working with Groups   (3 crs.)
As the last course in the three course generalist social work practice sequence, it expands the problem solving model to focus on the strengths, capacities, and resources of large groups, organizations, and communities in relation to the broader environments. Students strengthen their skills in implementing the generalist social work practice model to include leadership, assessment of large systems; applying empirical knowledge and technological advances; developing, analyzing, and advocating for policies and services. Content on values, religion, spirituality, ethics, diversity, social and economic justice are infused throughout the course. Special attention is given to Oman and the Arab Gulf countries. Prerequisites: SOWO 290, SOWO 330.

SOWO 450   Social Work Administration   (3 crs.)
Examines the organization and management social service agency settings including system and environmental influences, leadership, communication, organization behavior, team development, organization design, evaluation, productivity, supervision, and performance evaluation. Prerequisites: SOWO 290, SOWO 330.

SOWO 460   Social Work Mental Health Assessment   (3 crs.)
This course will enhance students practice in mental health assessment using Play Therapy, Art Therapy, grief and loss, Brief Psychosocial Therapy approaches. Students will gain skills in the application and assessment using appropriate therapy interventions with children, adolescents and adults. Prerequisite: SOWO 290 and SOWO 330.

SOWO 475   Social Work in Islam   (3 crs.)

Examination of the principles of social work according to Islamic Shari'a Law and surveying the history of social welfare services in various Islamic societies. Basic social work principles in working with Muslims are presented.

SOWO 490   Senior Study Project   (3 crs.)

In this course, the fourth year student brings together a variety of theoretical and technical skills that acquired over four years by writing a research paper on a social work topic of interest in consultation with the instructor. Prerequisite: SOWO 370, SOWO 440, and ENGL 350. Co-requisite: SOWO 410, SOWO 475, SOWO 450.

MATHEMATICS AND SCIENCES UNIT

Personnel

Unit Chairperson	Abo Hassan, Khedr.
Associate Professors	Abo Hassan, Khedr; Ul-Hassan, Israr; Gondal, Muhammad Asif; Awawdeh, Fadi
Assistant Professors	Siddiqui, Sabir Ali; Horchani, Ridha; Mohammad Idrees; Abdelkarim, Raed; Tabidi, Mohammed Abdul;
Instructor	Gowhar, Ahmed
Laboratory Technicians	Yousri, Mohammed; Shayma Al-Yafai
Secretary	Al Khaldi, Nawal; (temporarily in Dean's office)

Mission

The mission of the Mathematics and Sciences Unit is to provide the university community with a theoretical and practical experience in mathematics and the sciences. This experience can be applied to other academic disciplines, teaching, or professional fields. The Unit works to provide its students with the background and critical thinking skills required for life-long learning in mathematical and scientific areas.

Objectives

The objectives of the Mathematics and Sciences Unit are to:

- Meet the interests and career goals of students by offering them a flexible program in mathematics that would lead to having either a bachelor of arts or a bachelor of science in mathematics;
- Provide undergraduate chemistry and physics majors with a strong theoretical and experimental education in preparation for careers in academia, industry, or graduate studies;
- Prepare students for graduate study in basic or applied research, in mathematics, physics, chemistry, and related fields;
- Prepare students for careers that demand the use of mathematics and sciences such as teaching, and careers that require the use of mathematics and sciences;
- Help students develop as rounded individuals by structuring the program within a liberal arts education framework where students are exposed to different fields of knowledge, including literature, philosophy, education, and the arts;
- Provide students with solid liberal education, training and appropriate learning skills and values; and
- Promote life-long independent learning.

Learning outcomes

The learning outcomes for the Mathematics and Sciences Unit are to:

- Provide a knowledge of the important theorems and techniques in pre-calculus and calculus mathematics;
- Provide knowledge of the theory and applications of ideas in physics, chemistry, and biology;
- Provide experience with laboratory techniques in the sciences;
- Provide knowledge and experience in statistics and its applications;
- Introduce and provide practice for important applications of mathematical and scientific theory;
- Provide a background in advanced mathematics theory and practice, in areas of computing and numerical analysis, abstract algebra, mathematical analysis.

Career Opportunities

Graduates of the Mathematics program will have many career choices spanning a wide range of fields. Most notable are: teacher, researcher and statistician. Graduates will have employment opportunities in schools, banks and companies. Innovative fields include education, industry, commerce and many other related industries.

Graduates of the Chemistry program will have many career choices spanning a wide range of fields. Most notable are: teacher, laboratory technician/assistant and researcher. Graduates will have employment opportunities and in schools, chemistry labs and industry. Innovative fields include education, chemical industry, medicine, and many other related industries.

Degrees Offered

- Diploma in Mathematics
- BS in Mathematics
- Diploma in Chemistry
- BS in Chemistry

Program in Mathematics

Program Overview

The Bachelor of Science in Mathematics curriculum is designed to comply with the requirements of Omani Academic Accreditation Authority (OAAA) accreditation. It includes at least 30 credit hours of University Requirements, at least 12-13 credit hours of College Requirements, and at least 79 credit hours of Major Courses, including language and technical writing courses. Lab hands-on experience and emphasis on Mathematics are important elements that are integrated throughout the curriculum. It is designed to grant students the

Bachelor of Science degree upon the successful completion of the four-year program.

The program is also offered in Diploma Degree upon the successful completion of a two-year program.

The first common year with other college majors allows students to switch between the majors at the same college at the start of the second year of their study.

Diploma Program Overview

The Diploma in Mathematics is a two-year, 62 credit hours study program designed to equip its holders with adequate knowledge, skills, and competencies in mathematics and statistical analysis. The program focuses on pairing theoretical explanations with practical work in the form of problem solving and projects. In addition, the program follows a modern liberal arts approach by exposing the students to a sound knowledge of general sciences, the arts, study of the Omani culture, mastery of general computing skills, and efficient usage of Arabic and English languages.

Although the Diploma holders may exit the university education with this degree, they will also have opportunities to continue their education to complete Bachelor of Science (BS) degree in Mathematics if they satisfy the requirements for admission to the BS in Mathematics programs, then all the credits that are successfully completed in the Diploma program are transferable to the BS programs.

Graduation Requirements

To graduate with the Diploma in Mathematics, students must satisfactorily complete 60 credit hours of course work from the courses that are described in the Program of Study with an overall minimum average of 65 percent.

Program of Study

University Requirements

This component consists of the following nine courses encompassing 30 credit hours:

- ARAB 101: Academic Writing in Arabic
- CMPS 100B: Introduction to Technical Computer for the Sciences
- ENGL 101: Basic Academic English I
- ENGL 102: Basic Academic English II
- ENGL 203: Advanced Academic English I
- ENGL 204: Advanced Academic English II
- MATH 199: Calculus I
- SOCS 100: World Civilizations I
- SOCS 102: Omani Society

College Requirements

This component consists of a one, 3-credit hour course in any other majors (Highly Recommended CMPS 110).

Program Requirements

This component consists of the following twelve courses encompassing 32 credit hours:

- CHEM 130: Chemical Principles I
- CHEM 130L: Introductory Chemistry Laboratory
- MATH 120: Geometry and Trigonometry
- MATH 200: Calculus II
- MATH 205: Calculus III
- MATH 210: Differential Equations
- MATH 240: Mathematics Computer Applications I
- MATH 250: Probability and Statistics
- MATH 255: Statistical Inference
- MATH 260: Numerical Analysis
- PHYS 170: Fundamentals of Physics I
- PHYS 170L: Introductory Physics Laboratory

Study Plan

Year I		
Semester 1 (Fall)	**15 Credits**	
Code	**Course Title**	**Credit Hours**
ARAB 101	Academic Writing in Arabic	3
CMPS 100B	Introduction to Technical Computing for the Sciences	3
ENGL 101	Basic Academic English	3
MATH 199	Calculus I	3
SOCS 102	**Omani Society**	3
Semester 2 (Spring)	**17 Credits**	
Code	**Course Title**	**Credit Hours**
CHEM 130	Chemical Principles I	3
CHEM 130L	Introductory Chemistry Laboratory	1
ENGL 102E	English for Engineering and Sciences I	3
MATH 200	Calculus II	3
PHYS 170	Fundamentals of Physics I	3
PHYS 170L	Introductory Physics Laboratory	1
ENTR 200	Entrepreneurship: Innovation & Creativity	3

Year II		
Semester 3 (Fall)	**15 Credits**	
Code	**Course Title**	**Credit Hours**
ENGL 203E	English for Engineering and Sciences II	3
MATH 205	Calculus III	3
MATH 250	Probability and Statistics	3
MATH 240	Mathematics Computer Applications I	3
	General Elective *	3
Semester 4 (Spring)	**15 Credits**	
Code	**Course Title**	**Credit Hours**
ENGL 204	Advanced English for Academic Purposes and Research	3
MATH 210	Differential Equations	3
MATH 255	Statistical Interference	3
MATH 260	Numerical Analysis I	3
MATH 120	Geometry and Trigonometry	3
Completion of the Diploma In Mathematics - Total Credits 62		

* A course in programming, Computer Science CMPS 110, is highly recommended for Mathematics major.

Bachelor of Science Program in Mathematics

Overview

The degree of BS in Mathematics is a four-year, 120-121 credit hours study program designed to offer high quality teaching that promotes critical thinking and problem-solving skills in a variety of subjects and through related disciplines. It provides fundamental background knowledge and expertise for study in engineering and sciences.

Graduation Requirements

To graduate with a BS in Mathematics, students must satisfactorily complete 120 credit hours of course work from the courses that are described in the Program of Study with an overall minimum average of 65 percent, and a cumulative average of 70 percent in the major courses.

Program of Study

University Requirements

This component consists of the following ten courses encompassing 30 credit hours:
- ARAB 101: Academic Writing in Arabic
- CMPS 100B: Introduction to Technical Computing for the Sciences
- ENGL 101: Basic Academic English I
- ENGL 102: Basic Academic English II
- ENGL 203: Advanced Academic English I
- ENGL 204: Advanced Academic English II
- MATH 199: Calculus I
- SOCS 100: World Civilizations I
- SOCS 102: Omani Society
- SOCS 200: World Civilizations II

College Requirements

This component consists of the following four courses encompassing 12 or 13 credit hours:

- One courses in physical/ natural sciences electives   (3-4 Cr. hrs.)
- One course in humanities/ social sciences electives   (3 Cr. hrs.)
- Two courses in any other majors   (6 Cr. hrs.)

Program Requirements

This component consists of a 26 courses constituting 79 credit hours distributed as follows.

Major Required Courses: This component consists of the following 19 courses constituting 58 credit hours:

- CHEM 130: Chemical Principles I
- CHEM 130L: Introductory Chemistry Laboratory
- CHEM 170: Chemical Principles II
- MATH 120: Geometry and Trigonometry
- MATH 200: Calculus II
- MATH 205: Calculus III
- MATH 210: Differential Equations
- MATH 240: Mathematics Computer Applications I
- MATH 250: Probability and Statistics
- MATH 255: Statistical Inference
- MATH 260: Numerical Analysis I
- MATH 305: Advanced Calculus
- MATH 320: Linear Algebra I
- MATH 360: Linear Algebra II
- MATH 370: Discrete Mathematics
- MATH 415: Abstract Algebra I
- MATH 470: Complex Analysis
- MATH 490: Mathematics Seminar
- PHYS 170: Fundamental of Physics I
- PHYS 170L: Introductory Physics Laboratory
- PHYS 210: Fundamental of Physics II
- PHYS 210L: Physics Lab II

Major Electives: This component includes seven course encompassing 21 credit hours chosen form the following list:

I. Three Mathematics Elective course encompassing 9 credit hours chosen from the following list:

- MATH 280: Mathematics Computer Applications II
- MATH 335: Mathematics for Science and Engineering
- MATH 345: Topics in Geometry
- MATH 365: Fourier Series and Partial Differential Equations
- MATH 375: Topics in Statistics
- MATH 380: Numerical Analysis II
- MATH 390: Differential Equations II
- MATH 410: Number Theory
- MATH 435: Topology
- MATH 440: Real Analysis
- MATH 455: Abstract Algebra II
- MATH 475: Set Theory

II. Four supporting major elective courses encompassing 12 credit hours chosen from the following list:

- ACCT 101: Financial Accounting I
- ACCT 102: Financial Accounting II
- ACCT 260: Intermediate Accounting I
- CHEM 100: Chemistry for the Arts
- CHEM 210: Organic Chemistry I
- CHEM 250: Organic Chemistry II
- CHEM 260: Analytical Chemistry
- CHEM 280: Environmental Chemistry
- ECON 201: Microeconomics
- ECON 202: Macroeconomics
- ECON 310: International Economics
- ENGL 280: Business English
- FINA 201: Business Finance I
- FINA 202: Business Finance II
- FINA 260: Money and Capital Markets
- FINA 265: Financial Institutions
- FINA 270: Commercial Banking
- MATH 204: Mathematics for Social Sciences II
- MATH 280: Mathematics Computer Applications II
- MKTG 101: Principles of Marketing
- MKTG 260: Service Marketing
- MKTG 265: Marketing Communications
- MNGT 201: Management I
- MNGT 202: Management II
- MNGT 260: Entrepreneurship and Small Business Management
- MNGT 265: Human Resource Management
- MNGT 270: Organization Behavior
- PHYS 100: Physics for the Arts

Study Plan

Year I		
Semester 1 (Fall)		**15 Credits**
Code	**Course Title**	**Credit Hours**
ARAB 101	Academic Writing in Arabic	3
CMPS 100B	Introduction to Technical Computing for the Sciences	3
ENGL 101	Basic Academic English	3
MATH 199	Calculus I	3
SOCS 102	Omani Society	3
Semester 2 (Spring)		**17 Credits**
Code	**Course Title**	**Credit Hours**
CHEM 130	Chemical Principles I	3
CHEM 130L	Introductory Chemistry Laboratory	1
ENGL 102E	English for Engineering and Sciences I	3
MATH 200	Calculus II	3
PHYS 170	Fundamentals of Physics I	3
PHYS 170L	Introductory Physics Laboratory	1
MATH 240	Mathematics Computer Applications I	3

Year II		
Semester 3 (Fall)		**15 Credits**
Code	**Course Title**	**Credit Hours**
ENGL 203E	English for Engineering and Sciences II	3
MATH 205	Calculus III	3
MATH 250	Probability and Statistics	3
ENTR 200	Entrepreneurship: Innovation & Creativity	3
Code	General Elective*	3
Semester 4 (Spring)		**15 Credits**
Code	**Course Title**	**Credit Hours**
ENGL 204	Advanced English for Academic Purposes and Research	3
MATH 210	Differential Equations	3
MATH 255	Statistical Interference	3
MATH 260	Numerical Analysis I	3
MATH 120	Geometry and Trigonometry	3

Year III		
Semester 5 (Fall)		**16 Credits**
Code	**Course Title**	**Credit Hours**
MATH 305	Advanced Calculus	3
MATH 320	Linear Algebra I	3
PHYS 210	Fundamental of Physics II	3
PHYS 210L	Physics Lab II	1
Code	Major Elective	3
Code	Major Elective	3
Semester 6 (Spring)		**15 Credits**
Code	**Course Title**	**Credit Hours**
CHEM 170	Chemical Principals II	3
MATH 360	Linear Algebra II	3
MATH 370	Discrete Mathematics	3
ENGL 305	Communication Skills	3
Code	Major Elective	3

Year IV		
Semester 7 (Fall)		**15 Credits**
Code	**Course Title**	**Credit Hours**
MATH 415	Abstract Algebra I	3
Code	Major Elective	3
Code	Major Elective	3
Code	Physical and Natural Sciences Elective	3
Code	General Elective	3
Semester 8 (Spring)		**13 Credits**
Code	**Course Title**	**Credit Hours**
MATH 470	Complex Analysis	3
MATH 490	Mathematics Seminar	1
Code	Major Elective	3
Code	Major Elective	3
Code	Humanities and Social Science Elective	3
Completion of the BS in Mathematics - Total Credits 121-122		

* A course in programming, Computer Science CMPS 110 is highly recommended for Mathematics majors.

Course Description of Science Courses

Mathematics

MATH 103   Mathematics for Social Sciences I   (3 crs.)

Factorization of polynomials, second degree equations, equations for straight lines, inequalities, systems of linear equations, Gaussian elimination, curve plotting, derivatives, maxima and minima, limits, algebra of exponents, the exponential and logarithmic functions. The emphasis is on applications. *Note: This course may not be used as an elective for Diploma or BS in Mathematics.*

MATH 120   Geometry and Trigonometry   (3 crs.)

Coordinate systems, distances, Pythagorean Theorem, vectors and vector operations, transformations (symmetry, reflections, etc.) analytic geometry (circles, ellipses, parabolas, etc.), areas and volumes. Exponential and logarithm function: Properties, graphs, and equations. Trigonometry: Radian measure, trigonometric functions and inverse functions, graphs, identities, equations, applications (law of sines and law of cosines), trigonometric form for complex numbers (De Moivre's Theorem), hyperbolic functions.

MATH 199   Calculus I   (3 crs.)

Calculus of one variable: limits, continuity, differentiation, chain rule, maxima and minima, curve plotting, Rolle's theorem, integration by substitution, definite integrals with applications to areas, volumes and arc length, fundamental theorem of integral calculus, exponential and logarithmic functions, trigonometric functions, parametric equations.

MATH 200   Calculus II   (3 crs.)

Methods of integration, inverse trigonometric functions, limits, sequences and series, tests for convergence, Taylor approximations, and Taylor series. Polar coordinates. Prerequisite: MATH 199.

MATH 204   Mathematics for Social Sciences II   (3 crs.)

Continuation of MATH 103 where the emphasis is on applications. Determinants, matrix inversion, combinations, introduction to probability, methods of integration, approximations of definite integrals, differential equations, multivariable functions, partial derivatives, chain rule, optimization of bivariate functions. *Prerequisite: MATH 199 or MATH 103.*

MATH 205   Calculus III   (3 crs.)

Multivariable Calculus: Partial derivatives, directional derivatives, chain rule, tangent planes, maxima and minima, Lagrange multipliers, cylindrical and spherical coordinates, multiple integrals, substitutions, line and surface integrals. Theorems of Green, Gauss and Stokes. *Prerequisite: MATH 200.*

MATH 210   Differential Equations   (3 crs.)

First-order differential equations, linear differential equations of second and higher order, homogenous and non-homogenous with constant coefficients, power series solutions, Bessel functions and Legendre polynomials, Laplace transforms, and initial value problems. *Prerequisite: MATH 200.*

MATH 215   Elementary Statistics for the Social Science   (3 crs.)

Organizing Data; Standard deviation, variance, mean deviation and coefficient of variation. Correlation and Regression Analysis. Multiple and partial correlation. Regression Lines, Test of Significance: Hypotheses, level of significance, tests for significance. Credits can be awarded for only one course of either MAT H 215 or MATH 250.

MATH 240   Mathematics Computer Applications I   (3 crs.)

This course is a hands-on course intended for students from various disciplines who are using MATLAB for the first time and have little or no experience in computer programming. Knowledge of elementary linear algebra concepts is assumed. The course focuses mainly on teaching students the foundations of MATLAB. Major topics of the course include: Introduction to MATLAB, Arrays, Script files, 2D-plotting, function files, initiation to programming with MATLAB. Prerequisite: MATH 103 or MATH 199.

MATH 250   Probability and Statistics   (3 crs.)

Statistical measures: Measures of central tendencies, partition values; measure of dispersion; moments. Theory of Probability: Addition theorem. Multiplication rule, Bayes' theorem. Random variables and mathematical Expectation: Discrete and continuous random variables. Central limit theorem and law of large numbers. Prerequisite: MATH 200.

MATH 255   Statistical Inference   (3 crs.)

Sampling and sampling distributions: Chi-square distribution, t-distribution. Point and interval estimation; Unbiasedness, consistency, efficiency and maximum likelihood estimation, method of moments, minimum variance unbiased estimator. Testing of Hypothesis: Neyman-Pearson lemma. Test of significance: Paired t-test, Chi-Square tests and F-test. Co-requisite: MATH 250 or consent of instructor.

MATH 260   Numerical Analysis I   (3 crs.)

Programming for numerical calculations, round off errors, solutions of equations by iteration, interpolation methods, numerical integration, and numerical methods for ordinary differential equations: first order methods, multi-step methods, and boundary value problem. Solutions of ordinary differential equations, and Monte-Carlo methods, implementations and analysis of algorithms, and projects using MATLAB or a similar tool. Prerequisites: MATH 210, and (CMPS 110, or MATH 240), Co-requisite: MATH 240, or CMPS 110.

MATH 280   Mathematics Computer Applications II   (3 crs.)

This is a hands-on course for students with some experience using MATLAB, or who have taken the MATH 240 course; assuming no or little background in programming. Major topics of the course include: Accessing data, programming with MATLAB (loops and conditional control statements), how to use polynomials in MATLAB, 3-D Plots, and application of MATLAB in numerical analysis, and some techniques for improving performance. Prerequisite: MATH 240 or CMPS 110 or co-requisite: EECE 130.

MATH 305   Advanced Calculus   (3 crs.)

A rigorous and proof-motivated study of the foundations of differential and integral calculus. Definition of a limit, and application of the definition to functions of a real variable. continuous functions, derivatives and integrals. Introduction to point-set topology, compact sets. Prerequisite: MATH 200.

MATH 320   Linear Algebra I   (3 crs.)

Systems of linear equations, Gaussian elimination, matrices, determinants, inverse, introduction to vector spaces, subspaces and dimension, rank and nullity, eigenvalues and eigenvectors, linear transformations and matrices, similar matrices, inner products, orthogonal projection, least squares approximation, and orthogonal diagonalization.

MATH 335   Mathematics for Science and Engineering   (3 crs.)

A course that covers linear algebra: Vector spaces, linear transformations and matrices, determinants, rank and inverse, systems of linear equations, eigenvalue and eigenvector analysis, and generalization of linear systems to include differential equations. Partial differential equations, classification, methods of variable separation, applications to the wave equations, heat equation, and Laplace and Poisson equations. Prerequisites MATH 205 and MATH 210.

MATH 345   Topics in Geometry   (3 crs.)

Topics include: Isometries of Euclidean plane, two-dimensional crystallography, inversive geometry, affine geometry, projective geometry, Desargues theorem, hyperbolic geometry, differential geometry of curves and surfaces: Frenet formulas, differential forms, Gaussian and mean curvatures, normal curvature, isometries, geodesics, and Gauss-Bonnet theorem. Prerequisites: (MATH 205 and MATH 320), or MATH 335.

MATH 360   Linear Algebra II   (3 crs.)

A deeper study of vector spaces, linear transformations, rank-nullity theorem, determinants, eigenvalue theory. Minimal polynomial, primary decomposition, diagonalization, triangulation, rational and Jordan canonical forms. Inner product spaces, self-adjoint and unitary operators, normal operators, the spectral theorem, positive symmetric matrices, and bilinear forms. Prerequisite: MATH 320 or MATH 335.

MATH 365   Fourier Series and Partial Differential Equations   (3 crs.)

Fourier series of a function, convergence theorems, half-range expansions, Fourier integrals, Fourier transform, complete orthonormal systems, Parseval's identity. Partial differential equations: methods of variable separation, hyperbolic, parabolic and elliptic equations, wave equation, heat equation, and Laplace equation, solution by Fourier and Laplace transforms. *Prerequisites: MATH 210, MATH 305, and MATH 320.*

MATH 370   Discrete Mathematics   (3 crs.)

Logical reasoning, sets, relations and functions, modular arithmetic, mathematical induction, recurrence relations, counting methods, inclusion-exclusion, binomial theorem, elementary probability, introduction to graphs and trees, recursive algorithms, and some Boolean algebra.

MATH 375   Topics in Statistics   (3 crs.)

Time Series Analysis: Index numbers: Weighted index numbers, Cost of living index number. Correlation Analysis: Regression lines, regression coefficients, determination of future values, Curve fitting. Analysis of variance: Rates and ratios of mortality and fertility. Life table and its uses. Prerequisite: MATH 250 or consent of the instructor.

MATH 380   Numerical Analysis II   (3 crs.)

Iterative solution of systems of nonlinear equations. Numerical methods in linear algebra: linear systems, matrix inversion, LU factorization, eigenvalues and eigenvectors. Numerical methods for differential equations, applications to simple partial differential equations. Prerequisite: MATH 260.

MATH 390   Differential Equations II   (3 crs.)

Systems of linear equations, Rank of matrices. Eigenvalues and eigenvectors, vector spaces, subspaces, bases, dimensions. Invertible matrices, Similar matrices, Diagonalizable matrices, Block diagonal and Jordan forms, First order differential equations: separable and exact equations, homogeneous differential equations with constant coefficients, Wronskian, Non-homogeneous differential equations, Methods of undetermined coefficients and variation of parameters, Systems of differential equations, Non-homogeneous systems. Prerequisite: MATH 210.

MATH 410   Number Theory   (3 crs.)

Divisibility, congruence equations, quadratic reciprocity, numerical functions, some Diophantine analysis, binary quadratic forms, continued fractions, Pell's equation. Prerequisite: MATH 320 or MATH 335.

MATH 415   Abstract Algebra I   (3 crs.)

Groups, subgroups, homomorphisms, normal subgroups and quotient groups, permutation groups, orbits and stabilizers, Cauchy's theorem. Rings and fields, ideals, homomorphisms and quotient rings, maximal and prime ideals, ring of polynomials, non-commutative examples. Prerequisite: MATH 320 or MATH 335.

MATH 435   Topology   (3 crs.)

Topological Spaces, subspaces, continuous mappings, separation axioms, compactness, connectedness, metric spaces, and finite product spaces. Prerequisite: MATH 305.

MATH 440   Real Analysis   (3 crs.)

Metric spaces, vector analogues of the mean value theorem, Weirstrass-Bolzano Theorem and Heine-Borel Theorem, differential calculus in Rn, differentiation, the inverse and implicit function theorems, divergence, curl, differential forms, Stokes' Theorem, Lebesgue integration on the line, comparison of Lebesgue and Riemann integrals, L2 functions. Prerequisite: MATH 305.

MATH 455   Abstract Algebra II   (3 crs.)

Topics on groups, rings and fields not covered in MATH 415, including the Sylow theorems and their applications to group theory, abelian groups, Euclidean domains, algebraic field extensions, and constructions by compass and ruler,

splitting fields, classification of finite fields, solvability of equations by radicals, Galois Theory. Prerequisite: MATH 415.

MATH 470   Complex Analysis   (3 crs.)

Analytic functions of a complex variable, Cauchy-Riemann equations, harmonic functions, complex integration, Cauchy's integral theorem, Taylor series, trigonometric functions, Laurent series, singularities and zeroes, the residue theorem and contour integration with applications to real integrals. Prerequisite: MATH 305.

MATH 475   Set Theory   (3 crs.)

Uncountable sets, ordered and well-ordered sets, equivalent forms of the axiom of choice such as well-ordering and Zorn's Lemma, transfinite induction, arithmetic with cardinal numbers, generalized continuum hypothesis, ordinal numbers.

MATH 490   Mathematics Seminar   (1 crs.)

A written report and oral presentation in the form of a seminar about a current topic in Mathematics.

Biology

BIOL 100   Biology for the Arts   (3 crs.)

This is an introductory course which covers major biological principles and concepts. Topics include basic cells and its organelles, properties of water, organs and organ systems, genetics, DNA and RNA, and a look at emerging diseases in modern times for non-science majors. This course emphasizes the significance of fundamental biological principles and methodologies in the real world.

BIOL 120   Introductory Biology   (3 crs.)

An introduction to biological principles at the ecosystem, population, organism and organ system level using an investigative and problem-based approach. Exploration of cellular processes including metabolism and inheritance from an evolutionary perspective in an investigative, problem-based format.

BIOL 120L   Introductory Biology Lab   (1 cr.)

Weekly introductory lab sessions for Biology, which includes an introduction to biological principles covering the material taught in BIOL 120. Prerequisite or co-requisite: BIOL 120.

Program in Chemistry

The Bachelor of Sciences in Chemistry curriculum is designed to comply with the requirements of Omani Academic Accreditation Authority (OAAA) accreditation. It includes at least 30 credit hours of University Requirements, at least 12-13 credit hours of College Requirements, and at least 78 credit hours of major Courses, including language and technical writing courses. Lab hands-on experience and emphasis on Chemistry are important elements that are integrated throughout the curriculum. It is designed to grant students the Bachelor of Sciences degree upon the successful completion of the four-year program.

The program is also offered in Diploma Degree upon the successful completion of a two-year program.

The first common year with other college majors allows students to switch between the majors at the same college at the start of the second year of their study.

Program Objectives

The objectives of the program are to:

- Meet the Interest and career goals of students by offering them a flexible program in Chemistry that will lead to having a bachelor of science in Chemistry

- Provide undergraduate Chemistry and Physics majors with a strong theoretical and experimental education in preparation for carriers in academia, industry, or graduate studies.

- Prepare students for graduate study in basic or applied research, in Chemistry.

- Prepare students for careers that demand the use of Chemistry and science such as teaching and industry.

- Help students to develop as rounded individuals by structuring the program within a liberal arts education framework where students are exposed to different fields of knowledge, including literature, philosophy, and the arts.

- Provide students with solid liberal education, training and an appropriate learning skills and values; and

- Promote life-long independent learning.

Program Learning Outcomes

Graduates of the program in Chemistry program will be able to:

- Interpret and analyze scientific data and information

- Apply knowledge and understanding of essential facts, concepts, principles and theories related to Chemistry.

- Conduct laboratory procedures involved in synthetic and analytical work, in relation to both inorganic and organic systems.

- Use standard chemical instrumentation.

- Conduct risk assessments concerning the use of chemical substances and laboratory procedures.

Diploma Program in Chemistry

Overview

The Diploma in Chemistry is a two-year study program designed to equip its holders with adequate theoretical knowledge of chemistry as a science and effective practical entry level of skills in the field of chemistry. The program focuses on pairing theoretical explanations with practical work in actual chemistry labs. In addition, it follows a modern liberal arts approach by exposing the students to a sound knowledge of general sciences, the arts, study of the Omani culture, mastery of general computing skills, and efficient usage of Arabic and English languages.

Although the Diploma holders may exit the university education with this degree, they will also have opportunities to continue their education to complete a Bachelor of Science degree in Chemistry if they satisfy the requirements for admission to the B.S. in Mathematics program, then all the credits that are successfully completed in the Diploma program are transferable to the B.S. program.

Admission Requirements

Admission to the Diploma in Chemistry requires the students:

- To have a General Secondary School Certificate or equivalent.
- To take placement tests to determine their levels in Arabic, English, Mathematics and Information Technology skills.

Graduation Requirements

To graduate with a Diploma in Chemistry, students must satisfactorily complete 63 credit hours of course work from the courses that are described in the Program of Study with an overall minimum average of 65 percent.

Learning Outcomes

With the successful completion of the Diploma in Chemistry program, students should have shown evidence of learning in the following areas:

Knowledge

1. Understanding the underlying concepts and principles associated with chemistry, combining depth and breadth of study across current knowledge in the disciplines;

2. Acquiring appropriate methods of acquiring, interpreting and analyzing scientific data and information;

3. Demonstrating the manipulative skills necessary to carry out scientific investigations with precision and safety;

4. Familiarity with the scientific terminology, classification systems, conventions and units appropriate to chemistry;

5. Carrying out debate using informed knowledge to evaluate different lines of evidence; and

6. Awareness of the limits of current scientific knowledge in chemistry; and

7. Awareness of the importance of cooperation, and team work in the scientific fields, and the nature of science.

Cognitive Skills

1. Using and applying knowledge and understanding of essential facts, concepts, principles and theories relating to chosen areas in chemistry;

2. Applying scientific knowledge and understanding to address familiar and unfamiliar situations and to plan and carry out project work;

3. Interpreting and synthesizing scientific data and information and commenting on particular aspects of current research;

4. Critically evaluating information from a range of sources and making sound judgments taking account scientific theories and concepts and the social context;

5. Using conceptual models to understand, develop, and apply scientific principles; and

6. Acquiring skills required conduct standard laboratory procedures involved in synthetic and analytical work, in relation to both inorganic and organic systems.

General Competencies

1. Applying knowledge and understanding to the solution of qualitative and quantitative problems;

2. Safe handling of chemical materials, taking into account their physical and chemical properties, including any specific hazards associated with their use;

3. Skillful monitoring, observation and measurement, of chemical properties, events or changes, and the systematic and reliable recording and documentation;

4. Skillfully using standard chemical instrumentation such as those used for structural investigations and separation;

5. Interpreting data derived from laboratory observations and measurements in terms of their significance and the theory underlying them;

6. Conducting risk assessments concerning the use of chemical substances and laboratory procedures;

7. Generalizing scientific findings to situations where evaluations have to be made on the basis of limited information;

8. Using up-to-date computerized technologies and other technologies whenever needed; and

9. Showing the ability of becoming independent life-long learners.

Qualities of Holders of Diploma in Chemistry

In addition to their ability to continue their education toward the B.S. in Chemistry, the holders of the Diploma in Chemistry shall be able to function as start-up chemistry lab assistants, lab technicians, and teacher assistants, in a commercial or educational setting.

Program of Study

University Requirements (30 Credit hrs.)

- ARAB 101: Academic Writing in Arabic
- CMPS 100B: Introduction to Technical Computer for the Sciences
- ENGL 101: Basic Academic English
- ENGL 102E: English for Engineering and Sciences I
- ENGL 203E: English for Engineering and Sciences II
- ENGL 204: Advanced English for Academic Purposes and Research
- ENGL 305: Advanced English Language and Communication skills
- MATH 199: Calculus I
- SOCS 102: Oman Society
- ENTR 200: Entrepreneurship: Innovation & Creativity

College Requirements (3 Credit hrs.)

- One in any other majors (Highly Recommended CMPS 110) (3 Cr. hrs.)

Program Requirements (32 Credit hrs.)

- CHEM 130: Chemical Principles I
- CHEM 130L: Introductory Chemistry Laboratory
- CHEM 170: Chemical Principles II
- CHEM 210: Organic Chemistry I
- CHEM 250: Organic Chemistry II
- CHEM 255: Organic Chemistry Laboratory
- CHEM 260: Analytical Chemistry
- CHEM 265: Analytical Chemistry Laboratory
- MATH 200: Calculus II
- MATH 205: Calculus III
- PHYS 170: Fundamentals of Physics I
- PHYS 170L: Introductory Physics Laboratory

Study Plan

Year I		
Semester 1 (Fall)		**16 Credits**
Code	**Course Title**	**Credit Hours**
CHEM 130	Chemical Principles I	3
CHEM 130L	Introductory Chemistry Laboratory	1
CMPS 100B	Introduction to Technical Computing for the Sciences	3
ENGL 101	Basic Academic English	3
MATH 199	Calculus I	3
SOCS 102	Omani Society	3
Semester 2 (Spring)		**16 Credits**
Code	**Course Title**	**Credit Hours**
ARAB 101	Academic Writing in Arabic	3
CHEM 170	Chemical Principles II	3
ENGL 102E	English for Engineering and Sciences I	3
MATH 200	Calculus II	3
PHYS 170	Fundamentals of Physics I	3
PHYS 170L	Introductory Physics Laboratory	1

Year II		
Semester 3 (Fall)		**15 Credits**
Code	**Course Title**	**Credit Hours**
CHEM 210	Organic Chemistry I	3
ENGL 203E	English for Engineering and Sciences II	3
MATH 205	Calculus III	3
ENTR 200	Entrepreneurship: Innovation & Creativity	3
Code	General Elective*	3
Semester 4 (Spring)		**15 Credits**
Code	**Course Title**	**Credit Hours**
CHEM 250	Organic Chemistry II	3
CHEM 255	Organic Chemistry Laboratory	4
CHEM 260	Analytical Chemistry	3
CHEM 265	Analytical Chemistry Laboratory	2
ENGL 204	Advanced English for Academic Purposes and Research	3

* A course in programming, Computer Science CMPS 110, is highly recommended for Chemistry major.
**Total Credits for the Diploma degree: 62 credit hrs.

Program of Study

A. University Requirements (30 Credit hrs.)

Following are the BS general education requirements including the courses that may have been taken in the Diploma in Chemistry Program:

- ARAB 101: Academic Writing in Arabic
- CMPS 100B: Introduction to Technical Computer for the Sciences
- ENGL 101: Basic Academic English
- ENGL 102E: English for Engineering and Sciences I
- ENGL 203E: English for Engineering and Sciences II
- ENGL 204: Advanced English for Academic Purposes and Research
- ENGL 305: Advanced English Language and Communication skills
- MATH 199: Calculus I
- SOCS 102: Omani Society
- ENTR 200: Entrepreneurship: Innovation & Creativity

B. College Requirements (12-13 Credit hrs.)

- One course in physical/ natural sciences electives   (3-4 cr. hrs.)
- One course in humanities/social sciences electives   (3 cr. hrs.)
- Two courses in any other majors   (6 cr. hrs.)

C. Program Requirements (78 Credit hrs.)

Following are the courses required for the BS in Chemistry including the Diploma in Chemistry Courses:

Major Required Courses: The following 22 Courses (69 Credit hrs.)

- CHEM 130: Chemical Principles I
- CHEM 130L: Introductory Chemistry Laboratory
- CHEM 170: Chemical Principles II
- CHEM 210: Organic Chemistry I
- CHEM 250: Organic Chemistry II
- CHEM 255: Organic Chemistry Laboratory
- CHEM 260: Analytical Chemistry
- CHEM 265: Analytical Chemistry Laboratory
- CHEM 330: Chemical Dynamics and Thermodynamics
- CHEM 355: Quantum Chemistry
- CHEM 360: Inorganic Chemistry
- CHEM 410: Advanced Physical Chemistry Laboratory
- CHEM 420: Biochemistry
- CHEM 440: Research Project
- CHEM 455: Inorganic Chemistry Laboratory
- CHEM 480: Chemistry Seminar
- ENGL 360: Advanced Writing for Professional Fields
- MATH 200: Calculus II
- MATH 205: Calculus III
- MATH 210: Differential Equations
- PHYS 170: Fundamentals of Physics I
- PHYS 170L: Introductory Physics Laboratory
- PHYS 210: Fundamentals of Physics II
- PHYS 210L: Physics Laboratory II
- PHYS 275: Electronic Instrumentation
- PHYS 275L: Electronic Instrumentation Laboratory

Major Elective Courses: Three of the following Courses (9 Credit hrs.)

- CHEM 280: Environmental Chemistry
- CHEM 435: Advanced Inorganic Chemistry
- CHEM 460: Computational Chemistry
- CHEM 465: Electrochemistry
- CHEM 475: Special Topics

Bachelor of Science in Chemistry

Study Plan (BS in Chemistry)

Year I		
Semester 1 (Fall)		**16 Credits**
Code	**Course Title**	**Credit Hours**
CHEM 130	Chemical Principles I	3
CHEM 130L	Introductory Chemistry Laboratory	1
CMPS 100B	Introduction to Technical Computing for the Sciences	3
ENGL 101	Basic Academic English	3
MATH 199	Calculus I	3
SOCS 102	Omani Society	3
Semester 2 (Spring)		**16 Credits**
Code	**Course Title**	**Credit Hours**
ARAB 101	Academic Writing in Arabic	3
CHEM 170	Chemical Principles II	3
ENGL 102E	English for Engineering and Sciences I	3
MATH 200	Calculus II	3
PHYS 170	Fundamentals of Physics I	3
PHYS 170L	Introductory Physics Laboratory	1

Year II		
Semester 3 (Fall)		**15 Credits**
Code	**Course Title**	**Credit Hours**
CHEM 210	Organic Chemistry I	3
ENGL 203E	English for Engineering and Sciences II	3
MATH 205	Calculus III	3
ENTR 200	Entrepreneurship: Innovation & Creativity	3
Code	General Elective*	3
Semester 4 (Spring)		**15Credits**
Code	**Course Title**	**Credit Hours**
CHEM 250	Organic Chemistry II	3
CHEM 255	Organic Chemistry Laboratory	4
CHEM 260	Analytical Chemistry	3
CHEM 265	Analytical Chemistry Laboratory	2
ENGL 204	Advanced English for Academic Purposes and Research	3
Total Credits for the Diploma degree: 62 credit hrs.		

*A course in programming, Computer Science CMPS 110, is highly recommended for Chemistry majors.

Year III		
Semester 5 (Fall)		**16 Credits**
Code	**Course Title**	**Credit Hours**
CHEM 330	Chemical Dynamics and Thermodynamics	3
ENGL 360	Advanced Writing for Professional Fields	3
MATH 210	Differential Equations	3
PHYS 210	Fundamentals of Physics II	3
PHYS 210L	Physics Laboratory II	1
Code	General Elective	3
Semester 6 (Spring)		**16Credits**
Code	**Course Title**	**Credit Hours**
CHEM 355	Quantum Chemistry	3
CHEM 360	Inorganic Chemistry	3
PHYS 275	Electronic Instrumentation	3
PHYS 275L	Electronic Instrumentation Laboratory	1
ENGL 305	Communication Skills	3
Code	General Elective	3

Year IV		
Semester 7 (Fall)		**13 Credits**
Code	**Course Title**	**Credit Hours**
CHEM 410	Advanced Physical Chemistry Laboratory	3
CHEM 420	Biochemistry	3
CHEM 440	Research Project	4
Code	Major Elective	3
Semester 8 (Spring)		**13Credits**
Code	**Course Title**	**Credit Hours**
CHEM 455	Inorganic Chemistry Laboratory	3
CHEM 480	Chemistry Seminar	1
Code	Major Elective	3
Code	Major Elective	3
Code	Physical/ Natural Sciences Elective	3
Total Credits for the Bachelor degree: 120 credit hrs		

Course Description

Chemistry

CHEM 100   Chemistry for the Arts   (3 crs.)

A survey of chemistry including atomic structure, chemical bonding, acid-base equilibrium, and introductory thermodynamics and kinetics designed for non-science majors. This course emphasizes the significance of fundamental chemical principles and methodologies in real world problems. Students cannot receive credits for both CHEM 170 and CHEM 100. CHEM 100 cannot be taken for credit in lieu of CHEM 130, CHEM 130L or CHEM 170 when these courses are required for the major.

CHEM 130   Chemical Principles I   (3 crs.)

An introduction to chemical principles covering atomic structure, quantum theory, chemical bonding, stoichiometry, thermodynamics, net ionic equations, aqueous reaction and gas laws with emphasis on examples and problems to illustrate the applications of chemistry to engineering disciplines.

CHEM 130L   Introductory Chemistry Lab   (1cr.) 0.3*

Weekly introductory lab sessions for Chemical Principles I which includes an introduction to chemical principles covering atomic structure, chemical bonding, stoichiometry, gas laws, chemical equilibrium including acid-base and solubility equilibrium, electrochemistry, introductory kinetics and thermodynamics. *Prerequisite or co-requisite: CHEM 130.*

CHEM 170   Chemical Principles II   (3 crs.)

An introductory theoretical formulation of physical and analytical chemistry including the periodic table, properties of solutions, chemical equilibrium, acid-base equilibrium, electrochemistry, and an introduction to organic chemistry. *Prerequisites: CHEM 130.*

CHEM 210   Organic Chemistry I   (3 crs.)

Introduction to organic chemistry functional groups, structures and reactions of alkanes, alkenes, alkynes, alkyl halides, and aromatic molecules; nomenclature of organic compounds; stereochemistry; reaction mechanisms and dynamics, and an introduction to biochemistry. *Prerequisite: CHEM 170.*

CHEM 250   Organic Chemistry II   (3 crs.)

This course covers structures and reactions of alcohols, ethers, carboxylic acids, aldehydes, ketones, and amines. It also provides an introduction to chemistry of heterocycles, carbohydrates, amino acids, and synthesis and reaction techniques. Emphasis is on the classification of biochemical and petroleum products including synthetic polymers, lipids, detergents, and crude oil. *Prerequisite: CHEM 210.*

CHEM 250L   Organic Chemistry Laboratory   (1 crs.)

Experimental organic chemistry focusing on the synthesis, separation, purification, and characterization of organic compounds. Characterization techniques include IR and UV visible absorbance, NMR, mass spectrometry, and chemical tests. Unknown compounds and mixtures of unknown compounds will be separated and identified by chemical and spectroscopic techniques. *Prerequisite: CHEM 210.*

CHEM 260   Analytical Chemistry   (3 crs.)

The fundamentals and techniques of analytical chemistry including solution equilibria, titrations, spectroscopic fundamentals and techniques, electrochemical fundamentals and techniques, chromatography, and statistical analysis.

CHEM 280   Environmental Chemistry   (3 crs.)

A survey of environmental problems, the chemistry of atmospheric processes. Stratospheric chemistry, the ozone layer, air pollution, the greenhouse effect, photochemical and chemical reactions, and properties of aerosols. Effect of pollutants on acid rain, global warming, water, soil, and health; and destruction of pollutants. Effect of energy production on the state of the environment including nuclear energy, fossil fuels, and hydrogen fuel. Prerequisite: CHEM 170 or CHEM 100. Can be taken by science and non-science majors.

CHEM 370   Physical Chemistry   (3 crs)

Surface phenomena and chemistry: Surface tension. Capillarity. Adsorption. Electrical double layers. Colloids. Transport properties: Thermal conductivity. Viscosity and diffusion coefficients. Porous media. Chemical kinetics: Rate laws, mechanisms, catalysis, reaction rates. Heterogeneous reactions, photochemistry. Polymers: types: Thermodynamics of solutions. Applications: Principles of oil production performance. Water flooding and enhanced oil recovery techniques. Prerequisite: CHEM 170.

Physics

PHYS 100   Physics for the Arts   (3 crs.)

An introductory formulation of physical concepts. Covers mechanics, electricity and magnetism, light, atomic and nuclear physics for non-science majors. This course emphasizes the significance of fundamental physical principles and methodologies in real world problems. PHYS 100 cannot be taken for credits in lieu of PHYS 170, PHYS 170L or PHYS 210, PHYS 210L when these courses are required for the major.

PHYS 170   Fundamentals of Physics I   (3 crs.)

Measurements, vectors, motion in one two and three dimensions, Newton's laws, Particle dynamics, work and energy, circular motion and rotation, collisions, linear momentum and angular momentum, oscillations, Fluid statics and dynamics, wave motion and sound waves. *Prerequisite or co-requisite: MATH 199 or MATH 103.*

PHYS 170L   Introductory Physics Lab   (1 crs.)

Experiments related to the material taught in PHYS 170 (classical physics) with emphasis on error analysis and computer-assisted experimentation. *Prerequisite or co-requisites: PHYS 170.*

PHYS 210   Fundamentals of Physics II   (3 crs.)

Electric field and potential, capacitance and dielectrics, current and resistance, DC circuits, magnetic fields, Faraday's law, inductance, AC circuits, Maxwell's equations. Lab experiments related to the material taught in PHYS 210 with emphasis error analysis and computer-assisted experimentation. *Prerequisite: PHYS 170 or co-requisite: MATH 200.*

PHYS 210L   Physics Lab II   (1 crs.)

Lab experiments related to the material taught in PHYS 210 with emphasis on error analysis and computer-assisted experimentation. *Prerequisite or co-requisite: PHYS 210.*

DEPARTMENT OF LAW

Personnel

Chairperson (Acting)	Al-Sarairah, Ahmad
Professor	Chebat, Youssef Fandi
Associate Professor	AL Heti, Mohammed Abdulrazzaq; Khater, Talaat Youssef Helmy
Assistant Professor	AL-Sarairah, Ahmad; AL Majali, Fares Mustaf; Abood Mahdi, Najim; Jaber, Sabrine; Elzein, Ahmed Mohamed; Hamdy, Hazem Abouelhamd; Khaled Tofeeq Tah; AL-Shawbkeh, Mohmmed; Al-Shagti, Saad Salih
Secretary	Al Farsi, Haifa Nasser

Mission

The Department of Law is committed to provide a conductive learning environment for effective study, research and critical thinking skills in the field of law and to provide the society of qualified graduates in the field of law.

Program Overview

The Bachelor Law curriculum is designed to comply with the requirements of Omani Academic Accreditation Authority (OAAA) accreditation. It includes at least 15 credit hours of University Requirements, at least 101 credit hours of Major Requirements (Compulsory), and at least 14 credit hours of Major Requirements (Elective), including language and technical writing courses. It is designed to grant students the Bachelor of Arts in Law degree upon the successful completion of the four-year program. The Students get the training in courts.

The university, college, and program requirements for this program are listed in the College introductory pages.

Program Objectives

The objectives of the program are to:
- Provide the students with the knowledge and academic specialization in legal sciences.
- Let the students to acquire the skills of preparing a legal research and memos.
- Introduce the students to the general principles of the various types of laws.
- Familiarize the students with legal proceedings in the courts.
- Enable the students to learn some Islamic studies, which is the basis of legislation in the Sultanate of Oman.

- Meet the continuing needs of the labor market in the private and public sectors of experts in law.
- Instill optimal values that should be displayed by law man.

Program Learning Outcomes

The graduates of the program of Law will be able to:

- Express the legal bases.
- Explain the legal taxes.
- Write the legal researches and memos
- Compare between the logistic texts and scholars' opinions.
- Improve the legal bases to pair with modern improvements.
- Use the IT in his work.
- Work within a team work.

Career Opportunities

Graduates of the law program will have many career choices spanning a wide range of fields. Most notable are: Lawyer, Legal advisor, Judges, Legal clerk, and Notaries. Graduates will have employment opportunities in Government Departments, Public and Private Companies, Banks and Courts. Innovative fields include establishing layer offices, legal consultancy agencies, and many other related industries.

Program of Study

University Requirements

This component consists of the following ten courses encompassing 18 credit hours:

- ARAB 101: Academic Writing in Arabic
- CMPA 100A: Introduction to Technical Computing for the Arts
- ENGL 101: Basic Academic English I
- SOCS 102: Omani Society
- ENTR 200A: Entrepreneurship: Innovation & Creativity

Study Plan

Year I		
Semester 1 (Fall)		**15 Credits**
Code	**Course Title**	**Credit Hours**
ARAB101	Academic Writing in Arabic	3
ENGL 101	Basic Academic English	3
CMPS 100 A	Introduction to Technical Computing for the Arts	3
SOCS 102	Omani Society	3
LAWS 100	Introduction to Law	3
Semester 2 (Spring)		**17 Credits**
Code	**Course Title**	**Credit Hours**
LAWS 101	State Theory and Governance system	3
LAWS 103	Sources of Obligations	3
LAWS 204	Basic Law of the Sultanate of Oman	3
LAWS 107	International and Regional Organizations	3
ENTR 200 A	Entrepreneurship: Innovation & Creativity	3
Code	Elective	2

Year II		
Semester 3 (Fall)		**17 Credits**
Code	**Course Title**	**Credit Hours**
LAWS 105	Principles of Commercial Law	3
LAWS 202	Provisions of Obligations	3
LAWS 206	Criminal Law (General Part)	3
LAWS 308	Administrative Judiciary	3
LAWS 210	International Law (General Part)	3
Code	Elective	2
Semester 4 (Spring)		**17 Credits**
Code	**Course Title**	**Credit Hours**
LAWS 215	Law of Evidence	3
LAWS 225	Administrative Law	3
LAWS 241	Personal Status law l	3
LAWS 208	Corporate Law	3
ECON	Principles of Economics	3
Code	Elective	2

Year III		
Semester 5 (Fall)		**17 Credits**
Code	**Course Title**	**Credit Hours**
LAWS 302	Criminal Law (Special Part)	3
LAWS 312	Labour Law and Social Insurance	3
LAWS 320	Personal Status Law II	3
LAWS 235	Law of Civil and Commercial Procedures	3
LAWS 335	Commercial Paper and Bankruptcy	3
Code	Elective	2
Semester 5 (Spring)		**16 Credits**
Code	**Course Title**	**Credit Hours**
LAWS 341	Business Contracts	3
LAWS 345	Judicial Execution	3
LAWS 328	Maritime Law	2
LAWS 375	Public Finance and Tax Legislation	3
Laws 430	Private International law	3
Code	Elective	2

Year IV		
Semester 7 (Fall)		**17 Credits**
Code	**Course Title**	**Credit Hours**
Real Rights		3
LAWS 412	Law of Criminal Procedure	3
LAWS 418	Banking and Commercial Contracts	3
LAWS 434	Private International Law II	3
LAWS 447	Research Methods in Law	3
Code	Elective	2
Semester 6 (Spring)		**14 Credits**
Code	**Course Title**	**Credit Hours**
LAWS 455	Foundations of Islamic Jurisprudence	3
LAWS 490	Internship	3
LAWS 450	Law of Criminal Procedure II	3
LAWS 475	Intellectual Property Rights	3
Code	Elective	2
Completion of Bachelor of Law: Total Credits: 130		

COLLEGE OF COMMERCE AND BUSINESS ADMINISTRATION (CCBA)

COLLEGE OF COMMERCE AND BUSINESS ADMINISTRATION

Officers

Dean   Jamil, Syed Ahsan
Assistant Dean   AL Housary, Tareq Muhammad
Academic Coordinator   Al Zoubi, Eedeh Ahmed
Secretary   bait Said, Laila; Al Shahri, Kamila Said

Organizational Structure

The College of Commerce and Business Administration is headed by a Dean overseeing **three** departments:
1. Department of Accounting and Finance,
2. Department of Management and Marketing and
3. Department of Management Information Systems

Vision

The College of Commerce and Business Administration (CCBA) at Dhofar University aspires to acquire a distinguished place among national, regional and international business educational institutions.

Mission

To provide high quality practical business education in an open learning environment, fostering research and community outreach and nurturing leaders who are capable of taking on leadership roles in society.

Objectives

The objectives of the programs at the College are:

- To provide students with up-to-date academic programs of high quality and relevance through excellent instruction, scholarly contribution, and service to students and other constituencies.
- To prepare students for a variety of managerial and professional careers in business through innovative programs that integrates theory with practical experience.
- To produce morally responsible individuals who are highly competent in their fields of specialization and well prepared to succeed in a global knowledge economy.
- To produce life-long self-learners committed to serve their society

Learning Outcomes of BA program

The bachelor degree programs aim to produce graduates who:

1. Have the knowledge and skills specifically in their area of specialization necessary to understand and succeed in business, government, and/or graduate school.
2. To create a global-oriented BA graduates who recognize the influence of globalization on country's economy.
3. Are equipped to think creatively and critically and play leadership roles in society.
4. To nurture the research-oriented spirit among graduates so that they challenge the status quo situations to move to better ones.
5. To nurture the team work spirit among graduates.
6. To develop the interpersonal communication skills among graduates.
7. To enable graduates to professionally use the latest technologies that relate to their major in business.

Learning Outcomes of Diploma program

The diploma programs aim to produce graduates who:
1. Have the knowledge and skills specifically in their area of specialization necessary to understand and succeed in business, government, and/or graduate school.
2. Are equipped to think creatively and critically and play leadership roles in society.
3. To nurture the team work spirit among graduates.
4. To develop the interpersonal communication skills among graduates.
5. To enable graduates to professionally use the latest technologies that relate to their major in business.

Academic Programs

The College grants a Diploma in Business Administration, Bachelor of Arts in Business Administration, Master of Arts in Management and Master in Business Administration. Diploma and bachelor students may join for the morning or the evening program (but not both). The medium of instruction in all programs is English except the Masters of Art in Management program is in Arabic. (For a description of the Master of Arts in Management and Masters of business administration, please refer to the Graduate Studies section of this catalog.)

Diploma Programs
- Business Administration - Accounting
- Business Administration – Finance
- Business Administration - Insurance
- Business Administration – Management
- Business Administration – Marketing
- Business Administration - Management Information Systems (MIS)

Bachelor Degrees (BA)
- Business Administration - Accounting
- Business Administration – Finance
- Business Administration - Insurance
- Business Administration - Management
- Business Administration - Marketing
- Business Administration - Management of Information Systems (MIS)

Master Programs
- Master in Business Administration(MBA)
- Master of Arts in Management(MA in management)
  (The complete description and details of the master programs are given under the section Graduate Studies in DU)

Admission Requirements

The College of Commerce and Business Administration admits students to the Diploma in Business Administration and the Bachelor of Arts degree in Business Administration. The student's entry requirements for admission in **diploma, Business Administration and Master** are given as under:

Program	Entry Standard
Business Administration Diploma in Accounting	Passed Foundation program with 60% in Mathematics
Business Administration Diploma in Finance	Passed Foundation program with 60% in Mathematics
Business Administration Diploma in MIS	Passed Foundation program with 60% in IT
Business Administration Diploma in Marketing	Passed Foundation program with 60% in English
Business Administration Diploma in Management	Passed Foundation program with 50% in English

The admission criterion for the bachelors programs in business administration is a cumulative CGPA of 65% and a cumulative average of 70 percent in the courses of his/her major specialization area. For complete information on admission requirements to the diploma and Bachelors please refer to the first section of this catalogue.

Graduation Requirements

To receive a diploma in Business Administration, students must satisfactorily complete 60 credit hours with a cumulative average of **65 percent**.

To receive a Bachelor Degree in Business Administration, students must satisfactorily complete a total of 120 credit hours (including the 60 credits earned in the diploma) with a **cumulative average of 65 percent**, and a cumulative average of 70 percent in the courses of his/her major specialization area.

The following table summarizes the number of credits normally required for each Diploma and Bachelor granting program in the CCBA.

Program	University Requirements	College Requirements	Major Compulsory Requirements	Electives Courses		Total Credit Hours
				General Elective	Skills of Life	
Diploma	21	24	15	---	---	60
Bachelor	30	51	30	6	3	120

Course Coding System

Courses offered at CCBA have the following system of course prefixes.

ACCT	Accounting
BUSS	Business Administration
ECON	Economics
INSR	Insurance
FINA	Finance
MISS	Management Information Systems
MKTG	Marketing
MNGT	Management

University Requirements

The University requirements for Diploma programs consist of the following seven courses comprising 21 credit hours: (please refer to university requirement section of the catalogue)

1. CMPS 100B: Introduction to Technical Computing for the Sciences
2. ENGL 101: Basic Academic English

3.   ENGL 102 B: English for Business I
4.   ENGL 203 B: English for Business II
5.   MATH 103: Mathematics for Social Sciences I
6.   SOCS 102: Oman Society
7.   ENTR 200: Entrepreneurship: Innovation & Creativity

The University requirements for BA programs consist of the following additional three courses comprising 9 credit hours: (please refer to university requirement section of the catalogue)

8.   ARAB 101: Academic Writing in Arabic
9.   ENGL 204: Advanced English for Academic Purposes and Research
10. ENGL 305: Advanced English Language and Communication Skills

College Requirements

The college requirements for the diploma programs consist of the following eight courses comprising 24 credit hours:

1.   BUSS 101: Principles of Management
2.   BUSS 102: Principles of Financial Accounting
3.   BUSS 103: Principles of Marketing
4.   BUSS 104: Principles of Management Accounting
5.   BUSS 105: Principles of Financial Management
6.   BUSS 106: Business and Information Technology
7.   BUSS 201: Principles of Microeconomics
8.   BUSS 203: Principles of Macroeconomics

The college requirements for the BA programs consist of the following additional nine courses a part from the courses already taken at the diploma level comprising 27 credit hours and the student has to undergo summer internship which is a zero-credit course:

1.   BUSS 302: Business Law
2.   BUSS 303: Corporate Finance
3.   BUSS 304: Quantitative Methods in Business
4.   BUSS 306: Strategic Management
5.   BUSS 307: Statistics for Business
6.   BUSS 401: Research Methods
7.   BUSS 402: Business Communications
8.   BUSS 403: Business Environment
9.   BUSS 404: Final Year Project
10. BUSS 405: Internship in Business (0 Credit)

Electives

Every student in the bachelor program only has to select a total of three or 9 credit hours from two clusters:

Cluster one - Skill of Life Elective (SLE)

The students have to choose any one course comprising 3 credit hours from the list of skills of life courses list.

Cluster two - General Electives (GE)

This set consists of two courses comprising 6 credit hours. General Electives include all courses taken in the college and/or outside the college as given in the list of courses below. No other course can be taken apart from the one listed as general elective. However, the Dean of the college could substitute a course as per the rules. (Please Refer to Course description from respective departments)

List of Elective Courses (SLE & GE Clusters)

			Crs	Pre-requisites
ELECTIVES: Select 9 (nine) Credit Hours from TWO Clusters				
	CLUSTER 1: Skills for life Elective(SLE): Select 3 Cr Hrs		**Crs**	**Pre-requisites**
Cluster One	PHIL160	Critical and Creative Thinking	3	
	PHIL 230	Principles of Professional Ethics	3	
	ENVR 150	Introduction to Environmental Studies	3	
	PSYC 250	Personal Development	3	
	NUTR 150	Food and Nutrition	3	
	PSYC 150	Introduction to Psychology	3	
	SOCS 110	History of Arabic and Islamic Civilization	3	
	SOCS 150	Introduction to Sociology	3	
	SOCS 210	Contemporary World Issues	3	
	PHIL 120	Introduction to Philosophy	3	
	CLUSTER 2: General Electives (GE): Select 6 Cr Hrs		**Crs**	**Pre-requisites**
Cluster Two	MISS 211	Introduction to Information Systems	3	BUSS 106
	MISS 212	Systems Analysis and Design	3	BUSS 106
	MISS 213	Business Programming	3	BUSS 106
	ACCT 211	Intermediate Accounting I	3	BUSS 104
	ACCT 212	Managerial Cost Accounting	3	BUSS 104
	ACCT 213	Financial Statement Analysis	3	BUSS 104
	MNGT 211	Human Resource Management	3	BUSS 101
	MNGT 212	Organizational Behavior	3	BUSS 101
	MNGT 213	Business Ethics	3	BUSS 101
	MKTG 211	Consumer Behavior	3	BUSS 103
	MKTG 212	Marketing Communication	3	BUSS 103
	MKTG 213	Service Marketing	3	BUSS 103
	FINA 211	Money and Capital Markets	3	BUSS 105
	FINA 212	Commercial Bank Management	3	BUSS 105
	FINA 213	Financial Services	3	BUSS 105
	INSR 211	Principles of Insurance	3	BUSS 105
	INSR 212	Principles of Risk	3	BUSS 105
	INSR 213	Marketing of Insurance Products	3	BUSS 103
	ECON 211	International Economics	3	BUSS 203
	ECON 212	Economics of the Gulf Region	3	BUSS 203
	ECON 213	Economic Development	3	BUSS 203
	CMPS 205	Introduction to Multimedia Concepts	3	CMPS 100B
	CMPS 210	Digital Image and Video Processing	3	CMPS 100B
	ENGL 270	Situational English	3	
	GRDS 210	Typography I	3	
	GRDS 220	Digital Media I	3	CMPS 100B
	GRDS 232	Photography	3	

Course Description

University Requirements

ENTR 200   Entrepreneurship: Innovation & Creativity   (3 crs)
This introductory course provides a fully-enabled curriculum for the students to explore entrepreneurship as a study topic as well as practice. Entrepreneurship has become one of the most powerful and influential force of change in the world. This course aims to provide a basic understanding of the most important and relevant concepts and processes in the field of entrepreneurship in addition to practical training. Topics covered in this course will include significance of entrepreneurship, feasibility study, business model, business plan, understanding the concept of opportunity, different types of business ownership existing in Sultanate of Oman, as well as practical applications and field visits. *Prerequisite: ENGL 203A; ENGL 203B; ENGL 203E.*

College Requirements

BUSS 101   Principles of Management   (3 crs)
This course is a foundation course in management that surveys the basic concepts and ideas related to management of organizations including the various functions and activities of the manager. This course surveys current management theories, research, and practice. This course includes the following topics: organizational plans, goals, decision making, change, motivation, human resources, communication, ethics and social responsibility, groups and teams, organization design, leadership and control and globalization. The course is intended to provide students with a basic understanding of the concepts and tools in management. *Prerequisite:* FPE 103C

BUSS 102   Principles of Financial Accounting   (3 crs)
This course is the foundation course in accounting and aims to develop an understanding of the basic elements of financial accounting and the role of accounting in society.   Topics covered include financial statements and fundamental accounting concepts; recording transactions, accounting cycle, accounting for cash and receivables. *Prerequisite:* FPE 103C

BUSS 103   Principles of Marketing   (3 crs)
This course introduces the field of marketing to students and how to make marketing decisions in business and non-profit organizations within the global context. The course devotes particular attention to analyzing consumer needs, segmenting markets, and developing product, promotion, pricing and distribution strategies. Relationships between consumers, business and governments are explored. *Prerequisite:* FPE 103C

BUSS 104   Principles of Management Accounting   (3 crs)
This is an introductory course to the discipline of Cost & Managerial Accounting. As College requirement, it is conceptually oriented. The course focuses on the role accounting as an information system can play inside an organization to help its various levels of management in performing their functions efficiently. It is

designed to introduce that role to students with different specialization interests, not only those with interest in accounting. Generally, the course covers the basic cost concepts, analyses and methods of measurement, some of the tools available for the managerial accounting function, the types of information a cost and management accounting system can provide to help the manager. *Prerequisite: BUSS 102*

BUSS 105   Principles of Financial Management   (3 crs)
The central focus of this course is on the role of financial management in maximizing the value of the firm. The course covers the basic building blocks of financial management, which will be needed in more advanced courses in finance. The core of this course is on the principles of modern corporate finance and financial management. It emphasizes important concepts and techniques needed for financial decision-making. Topics covered includes the goals of the firm, finance functions, agency problem, business ownership, ratio analysis of financial statement, financial environment of Oman including types of financial markets and types of financial instruments being used, the concept of time value of money, risk and return concept and calculations, and working capital management. *Prerequisite: BUSS 102*

BUSS 106   Business and Information Technology   (3 crs)
This course aims at introducing the use of computer and computer systems to support business various needs. It can be considered as an extension of the "Introduction to computers and applications (CMPS100B)" course with a major difference in perspective. This course introduces students to the business needs and how computers and their applications can be used to support solving those needs. It builds the clear role of information technology (IT) in general as an enabler element to the support businesses to realize their missions efficiently and effectively in an overall business environment increasingly characterized for its rigorous competition. Technically, it focuses on when and how to effectively use the various hardware and software applications to assist in conducting various business tasks that include creating documents, presentation files and spread sheets in addition to how correctly and effectively use the electronic mail system. Lab practices and assignments are essential teaching method of this course. *Prerequisite: CMPS100B*

BUSS 201   Principles of Microeconomics   (3 crs)
This course introduces the basic principles of microeconomics and their applications: supply and demand, operation of markets, consumer and enterprise behavior, competition and monopoly and income distribution. *Prerequisite: BUSS 105*

BUSS 203   Principles of Macroeconomics   (3 crs)
This course introduces the basic principles of macroeconomics, stressing national income, unemployment, inflation, economic growth, business cycles, open economies and international trade. *Prerequisite: BUSS 201*

BUSS 302   Business Law   (3 crs)

This course examines business legal issues such as legal concepts, philosophy and functions of court systems. It surveys contracts, legal forms of business and the regulation of businesses. Focuses on Omani law but also considers international and global legal perspectives. *Prerequisite: BUSS 203*

BUSS 303   Corporate Finance   (3 crs)

The course reviews and reinforces the basic concepts covered in principles of financial management and completes on them. The primary objective of this course is to expand on that knowledge by introducing students to real world examples of how these concepts are used in day to day corporate strategic planning and decision making. Topics covered include capital budgeting techniques and analysis methods like NPV, IRR, Payback period, average return, cost benefit, cost of capital and leverages, sources and uses of funds, capital structure of the firm and dividend decisions. *Prerequisite: BUSS 203*

BUSS 304   Quantitative Methods in Business   (3 crs)

This course is designed to provide an understanding and working knowledge of quantitative methods and concepts applied in business areas. The course aims to cover topics of business mathematics & and statistical description and analysis appropriate for business students. The topics include are Applications of AP and GP, exponential techniques, applications derivative, descriptive statistics – measures of central tendencies and measures of dispersion, introduction of probability, expected value of random variable and its application in business, probability distributions - binomial, Poisson, and normal use of MS Excel. *Prerequisite: MATH 103*

BUSS 306   Strategic Management   (3 crs)

This course applies the functional knowledge acquired in previous coursework to the analysis of strategic level business problems and decisions. The course includes the following topics: vision, missions and objectives, environmental analysis, formulating, implementing and assessing strategies and policies. It deals with both classical and contemporary issues of importance such as industry analysis, core competencies of organizations, top management teams and corporate governance, product/market scope decisions, and value chain analysis. The emphasis is on the application analytical tools and frameworks to understand complex strategy issues. The course stresses the integration of the various disciplines studied and the opportunity to develop managerial decision-making abilities. Contemporary developments in joint ventures, strategic alliances, cross-border mergers and acquisitions, and the management of the globally diversified organization will be addressed. *Prerequisite: BUSS 302*

BUSS 307   Statistics for Business   (3 crs)

This course is designed to provide an understanding and working knowledge of statistical methods and concepts applied in business areas. The focus of the course is on the practical uses of data decision making in business management. It will use a problem solving approach that focuses on interpretation of statistical information while developing understanding of underlying theory. The topics

include are normal distribution, hypotheses testing of large and small sample sizes, test of hypotheses of categorical data set, correlation, regression analysis, and time series analysis. *Pre-requisite: BUSS 304*

BUSS 401   **Research Methods**   **(3 crs)**

The primary objective of this course is to develop a research orientation among the students and to acquaint them with fundamentals of research methods. Specifically, the course aims at introducing them to the basic concepts used in research and their approach. It includes discussions on problem definition, research process, research design, sampling techniques, data collection, questionnaire designing, and its analysis by using MS Excel /SPSS software, ethical issues in research, report writing, bibliography, and the presentation. *Prerequisite: BUSS* 304

BUSS 402   **Business Communications**   **(3 crs)**

The course aims to maximize student practice and production in communication for an academic or professional environment. It is intended to promote the acquisition of new skills and language relevant to oral communication in a variety of practical settings and, in particular, to improve student confidence in planning and delivering oral presentations in English. Also, it provides the basic knowledge of English report writing for business. *Prerequisite: ENGL 305*

BUSS 403   **Business Environment**   **(3 crs)**

Business Environment is a course that is firmly based upon current business practice and organization. While being broad and flexible it is relevant, thus providing commercial students with a strong foundation for courses of further specialization such as Economics, Accounting, Finance and Marketing. The Business Environment is a cornerstone undergraduate course delivering a comprehensive introduction to major topics, theories and issues relevant to the elements of the 21st century business environment. Business Environment will encourage students to acquire the basic analytical tools necessary to engage in analyses of business problems and decisions. *Prerequisite: BUSS 306*

BUSS 404   **Final Year Project**   **(3 crs)**

Every student has to choose a relevant business situation/problem and using the knowledge gained on how to tackle the problem come out with a viable solution. The entire project has to be completed under the supervision of a faculty mentor and the students have to defend the report submitted in front of a jury. *Prerequisite: BUSS 401*

BUSS 405   **Internship in Business**   **(0 crs)**

All third year business students are required to fulfill a summer (July and August) internship period of eight weeks of specialized work on an individual basis, consisting of training and practice in actual service in a technical, business, or governmental establishment under both faculty supervision by a mentor and corporate guidance by a preceptor who will acquaint students with the world of work and help them acquire the core values and basic skills necessary for an understanding of the business world. Internees will be assigned tasks and

responsibilities commensurate with their skills and qualifications. This program is offered on a pass/fail basis only.

The main objective of the training is to let students experience work prior to their employment by external bodies and to acquaint the students formally to a real life work place environment. This will help to explore the relationship between the knowledge & skills acquired with those in the working situations to make them more useful to the market demand. This also enhances strong industrial links between the students and the industrial sector.

ELECTIVES

CLUSTER 1- Skills for Life Electives (SLE)

PHIL 160   Critical and Creative Thinking   (3 crs)
This course explores the field of critical thinking from a historical perspective, explaining how various philosophical schools define and deal with the concepts of critical thinking, problem solving, logical reasoning, creative thinking, logical and textual analyses, fallacies and certainty in knowledge. Students will develop understanding of the critical and creative thinking processes. They will be guided to think more clearly, insightfully and effectively, enhancing their own natural tendencies for critical and creative thinking.

PHIL 230   Principles of Professional ethics   (3 crs)
Deals with the meaning and authenticity of ethical life and raises issues related to working in a professional environment such as: what does it mean to be a professional? What moral qualities should professionals have? What are the rights and responsibilities of professionals? Can one's personal morality conflict with one's professional moral commitments? How to balance one's professional responsibilities with the interests of the clients and the community? What is corporate responsibility? What are the limits of privacy and confidentiality? What are the ethical implications of plagiarism, cheating, deception, dishonesty and infringement of copyrights? These discussions will be set within an ethical theoretical framework, which will provide students with an ethical perspective necessary for making them better decision-making professionals.

ENVR 150   Introduction to Environmental Studies   (3 crs)
This course attempts to provide an overview of environmental science: the interactions between humans and the environment, with an emphasis on the natural science elements of environmental issues. More specifically, this course is an introduction to the various ways that humans depend on the earth's natural resources, and how human activities directly and indirectly affect the earth and its human and non-human inhabitants. In addition, the course will explore how policy, individual behavior, and technology can prevent, control, and reverse environmental harm.

PSYC 250   Personal development   (3 crs)

This course aims at introducing students to the world of work, potential career paths and planning. The primary goal of this course is to enable students to acquire the knowledge and skills for employment and think entrepreneurially. The course also enables the student to know oneself in terms of personality type and vocational aptitudes that are considered useful in making occupational decisions. Various hands-on activities are offered both inside and outside the classroom to give students a taste of the world of work in the 21st century. Professionals are invited in class to introduce students to various career opportunities available after graduation.

NUTR 150   Food and Nutrition   (3 crs)
Food and Nutrition is a course which focuses on helping students understand the significance of eating appropriate foods, principles of nutrition, and the importance of carbohydrates, fats, proteins, vitamins and minerals in the diet. This course provides students with the opportunity to analyze diet according to nutritional needs and also to develop skills in the selection, storage, and preparation of food.

DEPARTMENT OF ACCOUNTING AND FINANCE

Personnel

Chairperson	Al Ani, Mawih Kareem Shaker
Professor	Fatouh, Ibrahim
Associate Professor	Jamil, Syed Ahsan; Tawfik, Omar Ikbal
Assistant Professors	Mohammed, Ahmaruddin; Khan, Mohammed Abdul Imran; Mohammed, Shariq; Bilal, Zaroug Osman Mohammed; AL-Shubairi, Faris Nasif; Chavali, Kavita; Al Samman, Hazem Mohammed; Abumraen, Abubakarelsidiq; Alam, Shabbir; Alam, Naushad; Alam; Noor, Mohamed; Sha, Nadia; Ramo, Waheed
Lecturers	Hussein, Muawya Ahmed; Rosario, Shireen
Secretary	Tabook, Amina Mohammed Ali

Vision

To have leadership position in the region in accounting and finance education, research, and outreach to the society and the profession in the sultanate of Oman

Mission

To provide the students with accounting and finance knowledge, analytical and thinking skills, and encourage the scientific research in an open learning environment to serve the community

Programs Offered

The department offers the following programs in specific majors:

Diploma Program
- Diploma in Business Administration - Accounting
- Diploma in Business Administration – Finance
- Diploma in Business Administration - Insurance

Bachelors Program
- Bachelor of Arts in Business Administration - Accounting
- Bachelor of Arts in Business Administration - Finance
- Bachelor of Arts in Business Administration - Insurance

Accounting Major

Degrees Offered

- Diploma in Business Administration - Accounting
- Bachelor of Arts in Business Administration - Accounting

Aims of the Accounting program

Upon completion of a Bachelor's degree in Accounting, graduates will be able to:
1. Develop skills for lifelong learning in accounting and economics.
2. Demonstrate competencies in the development, measurement, analysis, validation and communication of financial and other information.
3. Develop oral and written communication skills.
4. Identify a problem and the information needed to develop alternative solutions, evaluate alternative solution in the framework of critical thinking.
5. Recognize role of ethics in both the profession and the business world.
6. Understand the global business environmental and accounting issues.
7. Understand and use technology.
8. Implement the activities with teamwork.
9. Find placement in local, regional, and national Certified Public Accounting firms; industry firms; and not-for-profit and government entities

Major Compulsory Requirements

The courses required for **Accounting** major are as follows:

Diploma Level
- ACCT 211: Intermediate Accounting I
- ACCT 212: Managerial Cost Accounting
- ACCT 213: Financial Statement Analysis
- ACCT 214: Internal Auditing
- ACCT 215: Intermediate Accounting II

Bachelors Level

- ACCT 401: Advanced Auditing
- ACCT 402: Advanced Accounting
- ACCT 403: Government and Fund Accounting
- ACCT 404: International Accounting
- ACCT 405: Accounting Information Systems

Study Plan

Year I

Term	Course	Title	Crs	Pre-requisites
(1) Fall	BUSS 101	Principles of Management	3	FPE 103C
	BUSS 102	Principles of Financial Accounting	3	FPE 103C
	MATH 103	Mathematics for Social Sciences I	3	FPM 102B
	CMPS 100B	Introduction to Technical Computing for Science	3	FPT 102B
	ENGL 101	Basic Academic English	3	FPE 103C
		Total Credits	**15**	
(2) Spring	BUSS 104	Principles of Management Accounting	3	BUSS 102
	BUSS 105	Principles of Financial Management	3	BUSS 102
	BUSS 106	Business and Information Technology	3	CMPS 100B
	ENGL 102B	English for business I	3	ENGL 101
	BUSS 103	Principles of Marketing	3	FPE 103C
		Total Credits	**15**	

Year II

Term	Course	Title	Crs	Pre-requisites
(3) Fall	SOCS 102	Omani Society	3	
	BUSS 201	Principles of Microeconomics	3	BUSS 105
	ENGL 203B	English for Business II	3	ENGL 102 B
	ACCT 211	**Intermediate Accounting I**	**3**	**BUSS 104**
	ACCT 212	**Managerial Cost Accounting**	**3**	**BUSS 104**
		Total Credits	**15**	
(4) Spring	BUSS 203	Principles of Macroeconomics		BUSS 201
	ACCT 213	**Financial Statement Analysis**	**3**	**BUSS 104**
	ACCT 214	**Internal Auditing**	**3**	**ACCT 211**
	ACCT 215	**Intermediate Accounting II**	**3**	**ACCT 211**
	ENTR 200	Entrepreneurship - Innovation and creativity	3	ENGL 203B
		Total Credits	**15**	

Year III

(5) Fall	BUSS 302	Business Law	3	BUSS 203
	BUSS 303	Corporate Finance	3	BUSS 203
	BUSS 304	Quantitative Methods for Business	3	MATH 103
	ENGL 204	Advanced English for Academic Purposes and Research	3	ENGL 203B
		Skills of Life Elective	3	
		Total Credits	**15**	
(6) Spring	BUSS 306	Strategic Management	3	BUSS 302
	BUSS 307	Statistics for Business	3	BUSS 304
	ACCT 401	**Advance Auditing**	**3**	**ACCT 214**
	ENGL 305	Advanced English language and communication skills	3	ENGL 204
	BUSS 401	Research Methods	3	BUSS 304
		Total Credits	**15**	

Year IV

(7) Fall	BUSS 404	Final year Project	3	BUSS 401
	BUSS 402	Business Communications	3	ENGL 305
	ACCT 402	**Advanced Accounting**	**3**	**ACCT 215**
	ACCT 403	**Government and Fund Accounting**	**3**	**ACCT 215**
		General Elective I	3	
		Total Credits	**15**	
(8) Spring	BUSS 403	Business Environment	3	BUSS 306
	ARAB 101	Academic Writing in Arabic	3	4th year standing
	ACCT 404	**International Accounting**	3	ACCT 401 & ACCT 402
	ACCT 405	**Accounting Information System**	3	ACCT 401 & ACCT 402
		General Elective II	3	
		Total Credits	**15**	

Summer	*BUSS 405*	*Internship in Business (Two Months)*	*0*	*8 Weeks*

Course Description

ACCT 211   Intermediate Accounting I   (3 crs)
This course deals with the Underlying concepts of asset valuation and revenue recognition, Reporting of current and long-term assets, including cash and receivables, inventories, plant assets and depreciation, natural resources, intangibles and investments. Underlying concepts of liability recognition and reporting of current liabilities and contingencies. *Prerequisite: BUSS 104*

ACCT 212   Managerial Cost Accounting   (3 crs)
This course covers the Fundamental concepts of management and cost accounting such as cost-volume-profit analysis, budgeting and variance analysis, relevant costs for decision-making, and job order and process cost systems. It also covers emerging topics such as Activity-Based Costing (ABC) and JIT systems. *Prerequisite: BUSS 104*

ACCT 213   Financial statement analysis   (3 crs)
Financial Statement Analysis course provides a broad framework for using financial statement analysis to evaluate a firm's business operations and to predict its future condition. It is designed to achieve two main objectives. The first is to appreciate and understand the connections between firms' operation strategies and their financial statements. This understanding then serves as the basis for the second objective, which is to develop a critical, user's perspective to analyze and interpret financial statements to gain further insights into firms' performance. To achieve these objectives, important tools and skills are taught throughout the course with cases based on actual companies' financial statements. Main topics include, but are not limited to, ratio and profitability analysis, analysis of the statement of cash flows, pro forma forecasting, (credit and governance) risk analysis and earnings quality analysis. *Prerequisite: BUSS 104*

ACCT 214   Internal Auditing   (3 crs)
This course examines the role of the audit profession in society and the need for, and nature of, auditing in the public and private sectors. It aims to provide students with a conceptual and ethical framework within which to evaluate existing systems, and address practical problems. An essential part of the performance of an audit is the exercise of technical and ethical judgment. The development of judgment emerges from participation and experience for which this course is not a substitute. However, students should expect to be able to apply the material learned to problems they may encounter when they enter professional practice, including the formation of the auditor's opinion and writing the audit report. *Prerequisite: ACCT 211*

ACCT 215   Intermediate Accounting II   (3 crs)
The course covers Underlying concepts of long-term liability recognition and valuation, including bonds, long-term debt, leases, deferred taxes, and pensions and Concepts of shareholder's equity, including earnings per share, accounting

changes, error corrections and the Statement of Cash Flows. *Prerequisite: ACCT 211*

ACCT 401   Advance Auditing   (3 crs)
This course aims at preparing students to make decisions that an auditor often¬ makes when he conducts the audit. It includes auditing problems such as Audit Risk, Materiality & Analytical Review. The course also includes Contemporary Trends in the following topical area: statistical sampling in Auditing & the impact of Computer on Auditing. It utilizes auditing software package. *Prerequisite: ACCT 214*

ACCT 402   Advanced Accounting   (3 crs)
The course covers specialized accounting topics in business combinations, consolidated financial statements, foreign currency transactions, translation of foreign financial statements, partnership ownership changes and liquidations, and bankruptcy. *Prerequisite: ACCT 215*

ACCT 403   Government and Fund Accounting   (3 crs)
This course introduces the theory and concepts underlying accounting, control, and financial reporting in governmental and non-profit (G&NP) organizations with emphasis on funds and fund accounting. It acquaints students with full knowledge of the budget cycle for governmental organizations. It also covers the financial accounting and reporting for colleges and universities and for health care organizations. Topics include Budgeting, accounting, auditing and financial reporting principles and practices for government and other nonprofit entities. *Prerequisite: ACCT 215*

ACCT 404   International Accounting   (3 crs)
The objective of this course is to enhance the students' ability to think through and resolve international accounting and financial reporting problems. Accounting principles and comparative practices are reviewed; inflation accounting and foreign currency translation; management control in the foreign environment, analysis of foreign financial statements, transfer pricing and international taxation are also treated. *Prerequisite: ACCT401 & ACCT 402*

ACCT 405   Accounting Information Systems (AIS)   (3 crs)
The course is an Introduction to accounting information systems covering topics like intelligent systems for aiding decision making, documenting information systems, database management systems, relational database and SQL, internal control, and AIS applications. *Prerequisite: ACCT401 & ACCT 402*

Finance Major

Degrees Offered

- Diploma in Business Administration – Finance
- Bachelor of Arts in Business Administration - Finance

Aims of the Finance program

Upon completion of a Bachelor's degree in Finance, graduates will be able to:

1. Develop skills for lifelong learning in Finance and economics.
2. Demonstrate competencies in the development, measurement, analysis, validation and communication of financial and other information.
3. Develop oral and written communication skills.
4. Identify a problem and the information needed to develop alternative solutions, evaluate alternative solution in the framework of critical thinking.
5. Recognize role of ethics in both the profession and the business world.
6. Understand the global business environmental and financial system
7. Understand and use technology in all financial applications.
8. Implement the activities with teamwork.
9. Find placement in local, regional, and national finance companies; banks and insurance sector

Major Compulsory Requirements

The courses required for **Finance** major are as follows:

Diploma Level
- FINA 211: Money and Capital Markets
- FINA 212: Commercial Bank Management
- FINA 213: Financial Services
- FINA 214: Islamic Finance
- FINA 215: Risk Management

Bachelor level
- FINA 401: Insurance
- FINA 402: Investment Management
- FINA 403: Behavioral Finance
- FINA 404: Personal Financial Planning
- FINA 405: International Financial Management

Study Plan

Term	Course	Title	Crs	Pre-requisites
Year I				
(1) Fall	BUSS 101	Principles of Management	3	FPE 103C
	BUSS 102	Principles of Financial Accounting	3	FPE 103C
	MATH 103	Mathematics for Social Sciences I	3	FPM 102B
	CMPS 100B	Introduction to Technical Computing for Science	3	FPT 102B
	ENGL 101	Basic Academic English	3	FPE 103C
		Total Credits	**15**	
(2) Spring	BUSS 104	Principles of Management Accounting	3	BUSS 102
	BUSS 105	Principles of Financial Management	3	BUSS 102
	BUSS 106	Business and Information Technology	3	CMPS 100B
	ENGL 102B	English for business I	3	ENGL 101
	BUSS 103	Principles of Marketing	3	FPE 103C
		Total Credits	**15**	
Year II				
(3) Fall	SOCS 102	Omani Society	3	
	BUSS 201	Principles of Microeconomics	3	BUSS 105
	ENGL 203B	English for business II	3	ENGL 102 B
	FINA 211	**Money and Capital Markets**	**3**	**BUSS 105**
	FINA 212	**Commercial Bank Management**	**3**	**BUSS 105**
		Total Credits	**15**	
(4) Spring	BUSS 203	Principles of Macroeconomics		BUSS 201
	FINA 213	**Financial services**	**3**	**BUSS 105**
	FINA 214	**Islamic Finance**	**3**	**FINA 211**
	FINA 215	**Risk Management**	**3**	**FINA 212**
	ENTR 200	Entrepreneurship - Innovation and creativity	3	ENGL 203B
		Total Credits	**15**	
Year III				

	BUSS 302	Business Law	3	BUSS 203
	BUSS 303	Corporate Finance	3	BUSS 203
(5) Fall	BUSS 304	Quantitative Methods for Business	3	MATH 103
	ENGL 204	Advanced English for Academic Purposes and Research	3	ENGL 203B
		Skills of Life Elective	3	
		Total Credits	**15**	
	BUSS 306	Strategic Management	3	BUSS 302
	BUSS 307	Statistics for Business	3	BUSS 304
(6) Spring	**FINA 401**	**Insurance**	**3**	**FINA 211**
	ENGL 305	Advanced English language and communication skills	3	ENGL 204
	BUSS 401	Research Methods	3	BUSS 304
		Total Credits	**15**	
Year IV				
	BUSS 404	Final year Project	3	BUSS 401
	BUSS 402	Business Communications	3	ENGL 305
(7) Fall	**FINA 402**	**Investment Management**	**3**	**FINA 215 & BUSS307**
	FINA 403	**Behavioral Finance**	**3**	**FINA 215**
		General Elective I	3	
		Total Credits	**15**	
	BUSS 403	Business Environment	3	BUSS 306
	ARAB 101	Academic Writing in Arabic		4th year standing
(8) Spring	**FINA 404**	**Personal Financial Planning**	**3**	FINA 401 & FINA 402
	FINA 405	**International Financial Management**	**3**	FINA 401 & FINA 402
		General Elective II	3	
		Total Credits	**15**	
Summer	*BUSS 405*	*Internship in Business (Two Months)*	*0*	*8 Weeks*

Course Description

FINA 211   Money and Capital Markets   (3 crs)
The course covers the concept of the utility and importance of money and capital market for a country's financial system and the role they plays in financial management and development of the financial system of the country. Topics covered are financial markets and their utility, the financial system and its constituents, Financial development in Oman, the role and impact of inflation on project decisions, the role of central bank in controlling the market, Features and functions of the money market, functions and features of the capital markets and their constituents and instrument used in both the markets. *Prerequisite: BUSS 105*

FINA 212   Commercial Bank Management   (3 crs)
This course is a study of the functions and operations of financial institutions and provides an overview of the financial intermediary industry with an emphasis on commercial bank management. The course deals with financial decision-making procedures and policies of commercial banks and other types of financial institutions. The focus of this course is on regulatory environment, applications of financial engineering in risk management, and management of assets and liabilities of commercial banks, using the portfolio analysis approach and capital adequacy indicators. Topics covered include, financial analysis of bank statements, liquidity management, assets and liability management, bank profitability measurement, capital adequacy and banking regulations, duration and term structure of interest rates, market risk management. *Prerequisite: BUSS 105*

FINA 213   Financial Services   (3 crs)
The course covers the available and important financial service in the world with special focus on the financial services and investment banking options available in Oman. The course is intended to give a understanding on the utilities of these services and the impact they make on the financial system. The course will help the students to have good understanding about insurance, mortgages market and the market for short term loans, hire purchase and leasing, mutual funds, credit cards, bills of exchange, venture capital, depository and custodial services and micro financing services in Oman. *Prerequisite: BUSS 105*

FINA 214   Islamic Finance   (3 crs)
This course aims to provide the essential understanding of Islamic economics and Islamic finance, including the setting up of traditional Islamic financial tools and practices and the development of modern Islamic banking and financial instruments and institutions. The course examines and relates the theory of Islamic finance to recent development in Islamic banking and financial industry. Topic covered include money policy, profit sharing, Islamic financial and banking institutions and their operations, Islamic banking model and alternative models of financing and structuring of Islamic investment funds. *Prerequisite: FINA 211*

FINA 215   Risk Management   (3 crs)

This course aims to give an introduction of the basic elements of risk theory and the techniques and procedures used by risk professionals to measure, manage and control of financial risk. This course covers the role of risk management in the financial institutions industry with real-world financial market applications. The topics covered include: risk identification, classification and measurement, risk control, emerging markets risks including currency crises, Value-at-Risk (delta-normal or parametric approach, historical simulation, risk budgeting, stress testing and event risk, liquidity risk, measuring and managing corporate exposures and measuring firm-wide risk. An integral part of the course is the foundation and advanced approach of financial risk as developed by the Bank of International Settlement (BIS) and Basel Committee on Banking Supervision. *Prerequisite: FINA 211*

FINA 401   Insurance   (3 crs)

The major direction of this course is to introduce students to the various types of insurance contracts including life, health, property, and liability insurance, and the techniques of how to measure and manage risk in an innovative way in the insurance markets. This course also covers reinsurance and the competence to make the best use of insurance contracts and coverage. The course focuses on the fundamentals of insurance including interpretation of policies, property insurance, life insurance, liability insurance, health insurance, risk control tools, retirement plans and annuities, computation of insurance premiums, and the legal aspects of insurance. *Prerequisite: FINA 211*

FINA 402   Investment Management   (3 crs)

This course introduces the students to the analysis of investment information, evaluation of risks and returns, and principles of portfolio selection in investment decisions. This course focuses on securities markets, investment risk-return tradeoff, asset pricing models, and stock price behavior in relation to capital market efficiency hypotheses. Particular emphasis is placed on stocks, bonds, mutual funds and financial futures and options contracts. Special prominence is given on the study of the operations of securities markets, investment policies, valuation of individual securities, and techniques of investing in securities. Topics covered include investment instruments and their characteristics, introduction to portfolio and capital market theory, theory of valuation of stocks, bonds and the term structure of interest rates, options, commodity and financial futures, investment companies and mutual funds, and international investments**.** *Prerequisite: FINA 215 and BUSS 307*

FINA 403   Behavioral Finance   (3 crs)

The course aims to introduce the students to the concept of behavioral finance and its impact on financial markets and decision making. Investigates behavioral traits such as overconfidence, representativeness, and anchoring and loss aversion and demonstrates how these psychological phenomena impact on an individual's behavior. Other topics covered include the impact of behavioral factors on stock market anomalies, capital structure, dividend policy and mergers and acquisitions. At the end of this course, students will understand the nature

and impact of these psychological factors on many important business decisions. *Prerequisite: FINA 215*

FINA 404   Personal Financial Planning   (3 crs)
The courses covers all aspect of personal Financial planning and management for any individual and includes personal investing goals and strategies; budgeting to match income and expenses; developing a savings plan; controlling expenses and credit usage; owning and financing a home; investment options and analysis , determining life, health, home, auto insurance needs; and retirement planning. *Prerequisite:* FINA 401 & FINA 402

FINA 405   International Financial Management   (3 crs)
This course aims to provide a foundational knowledge of the international business environment as well as introduces ideas on how financial management helps multinational firms operate optimally in that environment. The course focuses on international financial management within the multinational firm and provides an understanding of international regulatory and environment differences, the different foreign exchange regimes, balance of payments, access to money and capital markets, use of derivatives to hedge exchange rate risk, measurement and management of exposure to exchange rate and interest rate fluctuations, and international diversification. Emphasis is on international financial decision-making through the extensive use of cases and real-world examples. *Prerequisite:* FINA 401 & FINA 402

Insurance Major

Degrees Offered

- Diploma in Business Administration - Insurance
- Bachelor of Arts in Business Administration - Insurance

Aims of the Insurance program

Upon completion of a Bachelor's degree in Insurance, graduates will be able to:
1. Develop skills for lifelong learning in insurance.
2. Demonstrate competencies in the development, measurement, analysis, validation and communication of insurance and other information.
3. Develop oral and written communication skills.
4. Identify a problem and the information needed to develop alternative solutions, evaluate alternative solution in the framework of critical thinking.
5. Recognize role of ethics in both the profession and the business world.
6. Understand the global business environmental and insurance system
7. Understand and use technology in all insurance applications.
8. Implement the activities with teamwork.
9. Find placement in local, regional, and national insurance companies; banks and insurance sector

Major Compulsory Requirements

The courses required for **Insurance** major are as follows:

Diploma Level
- INSR 211: Principles of Insurance
- INSR 212: Legal Aspects of Insurance
- INSR 213: Marketing of Insurance Products
- INSR 214: Personal and Health Insurance
- INSR 215: Insurance Practice and Policies in Oman

Bachelor level
- INSR 401: Fundamentals of Actuarial Sciences
- INSR 402: Risk Analysis and Underwriting
- INSR 403: Life Insurance
- INSR 404: Property and Liability Insurance
- INSR 405: Islamic Insurance

Study Plan

Year I

Term	Course	Title	Crs	Pre-requisites
(1) Fall	BUSS 101	Principles of Management	3	FPE 103C
	BUSS 102	Principles of Financial Accounting	3	FPE 103C
	MATH 103	Mathematics for Social Sciences I	3	FPM 102B
	CMPS 100B	Introduction to Technical Computing for Science	3	FPT 102B
	ENGL 101	Basic Academic English	3	FPE 103C
		Total Credits	**15**	
(2) Spring	BUSS 104	Principles of Management Accounting	3	BUSS 102
	BUSS 105	Principles of Financial Management	3	BUSS 102
	BUSS 106	Business and Information Technology	3	CMPS 100B
	ENGL 102B	English for business I	3	ENGL 101
	BUSS 103	Principles of Marketing	3	FPE 103C
		Total Credits	**15**	

Year II

Term	Course	Title	Crs	Pre-requisites
(3) Fall	SOCS 102	Omani Society	3	
	BUSS 201	Principles of Microeconomics	3	BUSS 105
	ENGL 203B	English for Business II	3	ENGL 102 B
	INSR 211	**Principles of Insurance**	**3**	**BUSS 105**
	INSR 212	**Principles of Risk**	**3**	**BUSS 105**
		Total Credits	**15**	
(4) Spring	BUSS 203	Principles of Macroeconomics		BUSS 201
	INSR 213	**Marketing of Insurance Products**	**3**	**INSR 211**
	INSR 214	**Personal and Health Insurance**	**3**	**INSR 211**
	INSR 215	**Insurance Practices and Policies in Oman**	**3**	**INSR 211**
	ENTR 200	Entrepreneurship - Innovation and creativity	3	ENGL 203B
		Total Credits	**15**	

Year III

(5) Fall	BUSS 302	Business Law	3	BUSS 203
	BUSS 303	Corporate Finance	3	BUSS 203
	BUSS 304	Quantitative Methods for Business	3	MATH 103
	ENGL 204	Advanced English for Academic Purposes and Research	3	ENGL 203B
		Skills of Life Elective	3	
		Total Credits	**15**	
(6) Spring	BUSS 306	Strategic Management	3	BUSS 302
	BUSS 307	Statistics for Business	3	BUSS 304
	INSR 401	**Fundamentals of Actuarial sciences**	**3**	**BUSS 303 & INSR 215**
	ENGL 305	Advanced English language and communication skills	3	ENGL 204
	BUSS 401	Research Methods	3	BUSS 304
		Total Credits	**15**	

Year IV

(7) Fall	BUSS 404	Final year Project	3	BUSS 401
	BUSS 402	Business Communications	3	ENGL 305
	INSR 402	**Risk analysis and Underwriting**	**3**	**BUSS 304 & INSR 215**
	INSR 403	**Life Insurance**	**3**	**INSR 215**
		General Elective I	3	
		Total Credits	**15**	
(8) Spring	BUSS 403	Business Environment	3	BUSS 306
	ARAB 101	Academic Writing in Arabic		4th year standing
	INSR 404	**Property and liability Insurance**	**3**	**INSR 401 & INSR402**
	INSR 405	**Islamic Insurance**	**3**	**INSR 401 & INSR402**
		General Elective II	3	
		Total Credits	**15**	

Summer	*BUSS 405*	*Internship in Business (Two Months)*	*0*	*8 Weeks*

Course Description

INSR 211   Principles of Insurance   (3 crs)

It will give an overall view of the principles and practices of insurance as a financial product. It covers the study of the principles on which insurance is formed, the contract, the business of life assurance and general insurance and their principles. It will also cover the insurance environment in Oman and its present position and future prospects. *Prerequisite: BUSS 105*

INSR 212   Principles of Risk   (3 crs)

It covers the risks and its types and ways and means to tackle systematic risk and its risk reduction. Measures to eliminate unsystematic risk and procedure to be followed by any organization including good risk management policies and practices. *Prerequisite: BUSS 105*

INSR 213   Marketing of Insurance Products   (3 crs)

The service marketing principles as applied to insurance product marketing. Salesmanship involved in prospecting and converting clients into customer. *Prerequisite: BUSS 103*

INSR 214   Personal and Health Insurance   (3 crs)

Analysis and evaluation of personal health insurance need and innovating product to match the same The concept of banc assurance as a good means to sell these products. *Prerequisite: INSR 211*

INSR 215   Insurance Practices and Policies in Oman   (3 crs)

This course covers the entire gamut of products on offer in Oman in general insurance business and their principles. Understanding the system of developing new products given the environment of the country. *Prerequisite: INSR 211*

INSR 401   Fundamentals of Actuarial sciences   (3 crs)

The concepts and principles of actuarial science and the role of actuary in life insurance products. Use and formulation of actuarial tables and calculation of price and premiums for an insurance product. *Prerequisite: BUSS 304 & INSR 215*

INSR 402   Risk analysis and Underwriting   (3 crs)

This course covers the determination of pure risks and their handling and financing and the concept of underwriting as a tool to handle pure risks. *Prerequisite: BUSS 304 & INSR 215*

INSR 403   Life Insurance   (3 crs)

This course is designed to give the student a basic knowledge of the various types of life insurance products, liabilities and coverage peculiar to each one treated including basic principles of life insurance and annuities. Policy provisions, policy innovations, *and* the role of life insurance in financial planning are examined. *Prerequisite: INSR 215*

INSR 404   Property and liability Insurance   (3 crs)
The course covers the property and various liability insurance products and their Computation. It also covers Fire, marine and Agricultural insurance. The objective is to give the learner a hand on experience and learning of the methods of providing insurance products and their benefits for liability and property insurance in the country. *Prerequisite: INSR 401 & INSR 402*

INSR 405   Islamic Insurance   (3 crs)
This course deals with the concept of tawaful and the legal aspects and regulations governing the Islamic insurance business with special emphasis on the shariah compliance. The learner must become conversant with the provision of the law and its implication for the development of the Islamic insurance sector in the country. *Prerequisite: INSR 401 & INSR 402*

DEPARTMENT OF MANAGEMENT AND MARKETING

Department Officers

Chairperson	Ahmad, Moinuddin
Associate Professor	Menon, Shanker
Assistant Professors	Khan, Khaliquzzaman; Salih, Tariq Mohammed; Rehman, Asad; Imran, Rabia; Allil, Kamaal; Sanyal, Shouvik; Pauceanu, Alexandrina Maria; Durrah, Omar Muhammad; Kahwaji, Ahmad Taha; Ghouse, Suhail Mohammad; Gharib, Moaz Nagib; Ward, Shakoor; Hamdoun, Mohammed; Palalic, Ramo; sahil, Sadok
Lecturers	Hisam, Mohammed Wamique; Al Ansi, Khayar; Hasan, Hassan Mahmoud; Eltigani, Mohammed Osman
Secretary	AL Kathiri, Nawal Hafedh

Vision

To provide high quality and practical business education and research to meet the future needs of the country.

Mission

To provide relevant management knowledge and skills in an open learning environment that will have practical relevance at the work place and has benefit for the community at large. Our faculty members strive to excel in teaching in a student-centered environment, supported by research and service contributing to the professional and academic communities at the national and regional levels.

Programs Offered

The department offers courses in management, marketing, statistics, and Human Resources. Students can opt for a major in one of the following areas: management or marketing. The details for each major are as follows:

Diploma Program
- Diploma in Business Administration - Management
- Diploma in Business Administration – Marketing

Bachelors Program
- Bachelor of Arts in Business Administration - Management
- Bachelor of Arts in Business Administration – Marketing

Master Programs

- Master in Business Administration(MBA)
- Master of Arts in Management (MA in management)

Management Major

Degrees Offered

- Diploma in Business Administration - Management
- Bachelor of Arts in Business Administration - Management

Aims of the program:

Upon completion of a Bachelor's degree in Management, graduates will be able to:
1. Develop skills for lifelong learning in the area of management in business.
2. Demonstrate competencies in the development, measurement, analysis, validation and communication of management and other information.
3. Develop oral and written communication skills.
4. Identify the role of management in an organization.
5. Identify a problem and the information needed to develop alternative solutions, evaluate alternative solution in the framework of critical thinking.
6. Recognize role of ethics in both the profession and the business world.
7. Understand the global business environmental and management system

Major compulsory requirements

The courses required for **Management** major are as follows:

Diploma level

- MNGT 211: Human Resource Management
- MNGT 212: Organizational Behavior
- MNGT 213: Business Ethics
- MNGT 214: International Management
- MNGT 215: Operations Management

Bachelor level

- MNGT 401: Total Quality Management
- MNGT 402: Leadership for Results
- MNGT 403: Operations Research
- MNGT 404: Project Management
- MNGT 405: Small Business Management

Study Plan

Term	Course	Title	Crs	Pre-requisites
Year I				
(1) Fall	BUSS 101	Principles of Management	3	FPE 103C
	BUSS 102	Principles of Financial Accounting	3	FPE 103C
	MATH 103	Mathematics for Social Sciences I	3	FPM 102B
	CMPS 100B	Introduction to Technical Computing for Science	3	FPT 102B
	ENGL 101	Basic Academic English	3	FPE 103C
		Total Credits	**15**	
(2) Spring	BUSS 104	Principles of Management Accounting	3	BUSS 102
	BUSS 105	Principles of Financial Management	3	BUSS 102
	BUSS 106	Business and Information Technology	3	CMPS 100B
	ENGL 102B	English for business I	3	ENGL 101
	BUSS 103	Principles of Marketing	3	FPE 103C
		Total Credits	**15**	
Year II				
(3) Fall	SOCS 102	Omani Society	3	
	BUSS 201	Principles of Microeconomics	3	BUSS 105
	ENGL 203B	English for business II	3	ENGL 102 B
	MNGT 211	**Human Resources Management**	3	**BUSS 101**
	MNGT 212	**Organizational Behavior**	3	**BUSS 101**
		Total Credits	**15**	
(4) Spring	BUSS 203	Principles of Macroeconomics	3	BUSS 201
	MNGT 213	**Business Ethics**	3	**BUSS 101**
	MNGT 214	**International Management**	3	**MNGT 211 & MNGT 212**
	MNGT 215	**Operations Management**	3	**MNGT 211 & MNGT 212**
	ENTR 200	Entrepreneurship - Innovation and creativity	3	ENGL 203B
		Total Credits	**15**	

Year III

(5) Fall	BUSS 302	Business Law	3	BUSS 203
	BUSS 303	Corporate Finance	3	BUSS 203
	BUSS 304	Quantitative Methods for Business	3	MATH 103
	ENGL 204	Advanced English for Academic Purposes and Research	3	ENGL 203B
		Skills of Life Elective	3	
		Total Credits	**15**	
(6) Spring	BUSS 306	Strategic Management	3	BUSS 302
	BUSS 307	Statistics for Business	3	BUSS 304
	MNGT 401	**Total Quality Management**	3	**BUSS 304**
	ENGL 305	Advanced English language and communication skills	3	ENGL 204
	BUSS 401	Research Methods	3	BUSS 304
		Total Credits	**15**	

Year IV

(7) Fall	BUSS 404	Final year Project	3	BUSS 401
	BUSS 402	Business Communications	3	ENGL 305
	MNGT 402	**Leadership for Results**	3	**BUSS 306**
	MNGT 403	**Operation Research**	3	**BUSS 306**
		General Elective I	3	
		Total Credits	**15**	
(8) Spring	BUSS 403	Business Environment	3	BUSS 306
	ARAB 101	Academic Writing in Arabic	3	4th year standing
	MNGT 404	**Project Management**	**3**	**MNGT 403**
	MNGT 405	**Small Business Management**	**3**	**MNGT 402**
		General Elective II	3	
		Total Credits	**15**	
Summer	*BUSS 405*	*Internship in Business (Two Months)*	*0*	*8 Weeks*

Course Description

MNGT 211   Human Resources Management   (3 crs)
This Principles of Management course presents those areas most crucial to understanding the management theories and applications necessary for success in the business world. It covers the management functions with focus on Planning, Controlling, Staffing, Leading, and Organizing. Exploring the theory and practice of managing an organization and its personnel to meet the needs of modern public and private organizations, includes emerging trends and international issues. The course is a foundation course for all business students. It provides a basis for understanding the management role in all business operations and thus relates to all business emphasis. *Prerequisite: BUSS 101*

MNGT 212   Organizational Behavior   (3 crs)
The aim of this course is to provide the student with basic ideas of behavioral dynamics in organizations at individual and group levels and their effects on organizational performance The course covers basic principles of organization behavior (OM) and their applications in business organizations. Some of the topics include core concepts of OB, foundations of individual behavior in organizations (perception, learning, motivation, personality, values, attitudes, and emotions) and group behavior (group types and development, structure, and processes, power, conflict, and leadership). *Prerequisite: BUSS 101*

MNGT 213   Business Ethics   (3 crs)
This course introduces the student to the ethical dimensions of social responsibility in business and the application of ethical judgments to business decision making as they relate to the various stakeholders inside and outside the organization. Topics include ethical theory and the relationship between ethics and business, ethical decision making, ethical dilemmas in the workplace, ethical issues in marketing, purchase, finance and human resources, ethics and the environment, the role of trust and ethics, corporate governance and ethics, and corporate social responsibility. *Prerequisite: BUSS 101*

MNGT 214   International Management   (3 crs)
This course focuses on the management challenges associated with developing strategies and managing the operations of companies whose activities stretch across national boundaries, especially in high-growth and developing economies. Specific topics will include market entry, forming alliances, managing growth and cross-border financing in different regions of the world. This course involves understanding the global political, legal, economic and technological environment, communicating across cultures, cross-cultural communication, global alliances and strategy implementation, staffing, training and compensating for global operations; Cross-cultural negotiation and decision making. These course students develop a world-view of the global marketplace. They learn how knowledge and understanding of the global environment affect business functions. Special consideration is given to key issues in ethics & social responsibility, global trade and investment organizations, and technology. *Prerequisite: MNGT 211* & MNGT 212

MNGT 215   Operations Management   (3 crs)

This course is designed to provide the student with an understanding of the foundations of the operations function in both manufacturing and services. Managing operations is vital to every organization. The course will analyze operations from both the strategic and operational perspectives and highlight the competitive advantages that operations can provide for the organization.

Topics include but not limited to Process Management and Capacity and Location Planning, Forecasting Total Quality Management / Six Sigma, Statistical Quality Control, Just-in-Time and Lean Systems, Aggregate Planning / Material Requirement Planning (MRP). *Pre-requisite: MNGT 211* & MNGT 212

MNGT 401   Total Quality Management   (3 crs)

Total Quality Management is a powerful management tool that promotes process improvement, cost reduction and significant enhancement of bottom-line profitability. The purpose of this course is to thoroughly examine the concept of quality, to define it in terms that are useful for organizations, to survey the ideas of major quality thinkers and theorists, to develop proficiency in the use of quality tools, and to consider the challenges of quality program implementation in real business situations. Throughout the course we will investigate similarities and differences between quality management in manufacturing and service contexts. This course will focus on understanding the different TQM philosophies, how to implement the principles and concepts inherent in a Total Quality Management (TQM) approach to managing a manufacturing or service organization, and assessment of the success of these strategies. Specific topics include TQM perspective, TQM Principles and Strategies, TQM tools and Quality Systems. *Prerequisite: BUSS 304*

MNGT 402   Leadership for Results   (3 crs)

This course is designed to provide students with the opportunity to develop the essential knowledge and skills required of those who want to lead and/or facilitate successful change or transformation in individuals, groups, and/or organizations. This course helps students to become skilled at the understanding the process of change and transformation. This course examines the essence of leadership; its relationship to managing; and the behaviors, attitudes and perspectives that distinguish leaders. The course focuses on the theoretical bases of leadership including the theoretical traits, behaviors and situations as they relate to effective leadership. In addition, the course provides a survey of methods to sustain and develop both personal and organizational power, including the network-building and conflict-handling skills needed to manage the increasingly complex interests found in organizations. This course develops students' abilities to motivate human resources, facilitate team building, and guide organizational change and other organizational initiatives, such as a quality management program. *Prerequisite: BUSS 306*

MNGT 403   Operations Research   (3 crs)

Operations Research (OR) refers to the science of decision making. This course provides a survey of fundamental methods of Operations Research and their applications at an introductory level. The emphasis is on applications rather than

the details of methodology. By the end of the course, students will be exposed to a wide variety of applications and problems that can be addressed using Operations Research techniques.   Topics include in this course are linear programming (two and more than two decision variables), transportation and assignment problems, decision theory, game theory, inventory models, queuing models. *Pre-requisite: BUSS 306*

MNGT 404   Project Management   (3 crs)
This course addresses the basic nature of managing general projects. The course uses the project life cycle. It covers the whole process of project management, including project initiation, project planning, project implementation and project termination. Topics will include: project life cycle, project selection, and work breakdown structure, critical path method, and project evaluation and review techniques, project risk management. *Pre-requisite: MNGT 403*

MNGT 405   Small Business Management   (3 crs)
This course provides a survey of the basic concepts of starting a small business. The course covers the personal origins of motivation for entrepreneurship and the skills, knowledge, and abilities of the entrepreneur. The course focuses on the creation of new ventures: the people, the process and the dynamics. Topics include: identifying and evaluating opportunities, success and failure factors, attitudes and characteristics of entrepreneurs, stand-alone and internal corporate ventures, and family businesses and how they evolve, and local and global issues in entrepreneurship. The course includes developing skills in choosing a location, conducting a feasibility analysis, understanding forms of business ownership, developing a marketing plan, financial plan, managing cash flow problems, developing effective pricing strategies. Students will learn to develop a viable business plan in the process. *Pre-requisite: MNGT 402*

Marketing

Degrees Offered

- Diploma in Business Administration – Marketing
- Bachelor of Arts in Business Administration - Marketing

Aims of the program:

Upon completion of a Bachelor's degree in Marketing, graduates will be able to:
1. Identify the need and significance of marketing in real world of business.
2. Develop skills for lifelong learning in the area of marketing.
3. Demonstrate competencies in the development, measurement, analysis, validation and communication of marketing and other information.
4. Develop oral and written communication skills.
5. Identify the role and methods of marketing the organization and products.
6. Identify a problem and the information needed to develop alternative solutions, evaluate alternative solution in the framework of critical thinking.
7. Recognize role of ethics in both the profession and the business world.
8. Understand the global business environmental and challenges within the system.

Major Compulsory Requirements

The courses required for Marketing major are as follows:

Diploma level

- MKTG 211: Consumer Behavior
- MKTG 212: Marketing Communication
- MKTG 213: Service Marketing
- MKTG 214: Customer Relationship Management
- MKTG 215: Sales Management

Bachelor level

- MKTG 401: Brand Management
- MKTG 402: E-Marketing
- MKTG 403: Retail Management
- MKTG 404: Supply Chain Management
- MKTG 405: International Marketing

Study Plan

Year I

Term	Course	Title	Crs	Pre-requisites
(1) Fall	BUSS 101	Principles of Management	3	FPE 103C
	BUSS 102	Principles of Financial Accounting	3	FPE 103C
	MATH 103	Mathematics for Social Sciences I	3	FPM 102B
	CMPS 100B	Introduction to Technical Computing for Science	3	FPT 102B
	ENGL 101	Basic Academic English	3	FPE 103C
		Total Credits	**15**	
(2) Spring	BUSS 104	Principles of Management Accounting	3	BUSS 102
	BUSS 105	Principles of Financial Management	3	BUSS 102
	BUSS 106	Business and Information Technology	3	CMPS 100B
	ENGL 102B	English for Business I	3	ENGL 101
	BUSS 103	Principles of Marketing	3	FPE 103C
		Total Credits	**15**	

Year II

Term	Course	Title	Crs	Pre-requisites
(3) Fall	SOCS 102	Omani Society	3	
	BUSS 201	Principles of Microeconomics	3	BUSS 105
	ENGL 203B	English for business II	3	ENGL 102 B
	MKTG 211	**Consumer Behavior**	3	**BUSS 103**
	MKTG 212	**Marketing Communication**	3	**BUSS 103**
		Total Credits	**15**	
(4) Spring	BUSS 203	Principles of Macroeconomics	3	BUSS 201
	MKTG 213	**Service Marketing**	3	**BUSS 103**
	MKTG 214	**Customer Relationship Management**	3	**MKTG 211 & MKTG 212**
	MKTG 215	**Sales Management**	3	**MKTG 211 & MKTG 212**
	ENTR 200	Entrepreneurship - Innovation and creativity	3	ENGL 203B
		Total Credits	**15**	

Year III

	BUSS 302	Business Law	3	BUSS 203
	BUSS 303	Corporate Finance	3	BUSS 203
(5) Fall	BUSS 304	Quantitative Methods for Business	3	MATH 103
	ENGL 204	Advanced English for Academic Purposes and Research	3	ENGL 203B
		Skills of Life Elective	3	
		Total Credits	**15**	
	BUSS 306	Strategic Management	3	BUSS 302
	BUSS 307	Statistics for Business	3	BUSS 304
(6) Spring	**MKTG 401**	**Brand Management**	3	**MKTG 213**
	ENGL 305	Advanced English language and communication skills	3	ENGL 204
	BUSS 401	Research Methods	3	BUSS 304
		Total Credits	**15**	

Year IV

	BUSS 404	Final year Project	3	BUSS 401
	BUSS 402	Business Communications	3	ENGL 305
(7) Fall	**MKTG 402**	**E-Marketing**	3	**MKTG 214**
	MKTG 403	**Retail Management**	3	**MKTG 215**
		General Elective I	3	
		Total Credits	**15**	
	BUSS 403	Business Environment	3	BUSS 306
	ARAB 101	Academic Writing in Arabic	3	4th year standing
(8) Spring	**MKTG 404**	**Supply Chain Management**	**3**	**MKTG 401**
	MKTG 405	**International Marketing**	**3**	**MKTG 401**
		General Elective II	3	
		Total Credits	**15**	

Summer	*BUSS 405*	*Internship in Business (Two Months)*	*0*	*8 Weeks*

Course Description

MKTG 211   Consumer Behavior   (3 crs)

This course studies marketing, psychology, sociology and cultural anthropology to determine motivations for product purchases. The course focuses on illustrating the use of behavioral science theory to create new products and promotional campaigns, explaining the consumers buying process, and internal and cultural factors that affect consumer buying decisions. *Prerequisite: BUSS 103*

MKTG 212   Marketing Communications   (3 crs)

This course introduces the concepts, theories, techniques for the creation and management of integrated marketing communications campaigns to promote a variety of products. The course focuses on the selection of promotional tools such as advertising, public relations, consumer and trade promotions, sponsorships, databases and direct marketing. The course demonstrates also the competitive nature of marketing communications. It explores also the methods for assessing campaign effectiveness. *Prerequisite: BUSS 103*

MKTG 213   Services Marketing   (3 crs)

This course examines service-related issues, practice and strategy in business organizations. The course includes the following topics: marketing analysis of service quality, service gaps, consumer expectations, service delivery strategies and customer relationship management. The course builds on marketing concepts from other courses and applies them specifically to service industry settings. *Prerequisite: BUSS 103*

MKTG 214   Customer Relationship Management   (3 crs)

This course introduces the concept, theories, and techniques of CRM to students. The course covers topics such as; customer analysis and classifications, building customer databases, CRM techniques, and software uses in CRM. The course focuses also on the use CRM strategies in designing competitive marketing strategies. *Prerequisite: MKTG 211 & MKTG 212*

MKTG 215   Sales Management   (3 crs)

This course introduces the concepts and techniques of professional sales and sales force management. The course illustrates the steps of effective selling and develops student skills in planning a sales program, organizing the selling effort and in recruiting, training and motivating the sales force. *Prerequisite: MKTG 211 & MKTG 212*

MKTG 401   Brand Management   (3 crs)

This course introduces the concept of brand and steps involved in building strong brands and maximizing the value of existing brands. The course examines a framework for understanding when and why consumers care about brands, and introduces tools for measuring brand equity. The course illustrates also the business process of mission and strategy creation through brand and identity development and execution. *Prerequisite: MKTG 213*

MKTG 402   E-Marketing   (3 crs)

This course examines how electronic devices such as the Internet, mobile phones, and other electronic devices are used for marketing purposes. The course covers

concepts and techniques followed by prominent companies in developing e-marking strategies like Internet marketing, mobile marketing, and viral marketing. The course includes also competitive strategies of companies in their presence in the Web. *Prerequisite: MKTG 214*

MKTG 403   Retail Management   (3 crs)

This course explores marketing in large and small retail institutions. The course includes the following topics: retail strategy, store layout, buying, merchandising, pricing, promotion, inventory management, customer service, control, store image, trading area and location selection**.** *Prerequisite: MKTG 215*

MKTG 404   Supply Chain Management   (3 crs)

The aim of this course is to provide the student with basic ideas of supply chain management. The course covers basic concepts of supply chain management (SCM) and its importance in business organizations. Some of the topics include purchasing management, supplier relationship management, logistics managment, perfirmance measurement, and supply chain integration. *Prerequisite: MKTG 401*

MKTG 405   International Marketing   (3 crs)

This course provides a comprehensive understanding of the issues and challenges inherent in the formulation and implementation of international marketing strategies. The course examines and analyzes environmental forces affecting international marketing decisions, selection of international target markets and the design and development of international marketing plans. *Prerequisite: MKTG 401*

DEPARTMENT OF MANAGEMENT INFORMATION SYSTEMS

Personnel

Chairperson	Abdul Rasheed, Mohammed Aref
Assistant Professors	Al Housary, Tareq; Ismail, Mohammed Yousoof; Hammami, Samir; Alraja, Mansour Naser; Xanthidis, Dimitrios; Khan, Mohammed Ahmar; Sarfraz Fayaz Khan; Moh'd Abdel Qader Faris Obeidat
Lecturer	Farooque, Murtaza
Secretary	Safrar, Noor Ahmed Jamaan

Vision

To become a recognized unit of MIS that provides quality knowledge to students and quality consultation and solutions to industry.

Mission

To provide knowledge and skills on management information systems in an open learning environment that will have practical relevance at the work place and has benefit for the community at large. Our faculty members strive to excel in teaching in a student-centered environment, supported by research and service contributing to the professional and academic communities at the national and regional levels.

Programs Offered

The Department of MIS offers two programs of study: bachelor and diploma levels. Both MIS programs combine variety of courses that can build a coherent MIS body of knowledge with graduates. The details for each program are as follows:

- Diploma in Business Administration - Management Information Systems (MIS)
- Bachelor of Arts in Business Administration - Management of Information Systems (MIS)

Aims of the programs

Upon completion of a Bachelor's degree in MIS, graduates will be able to:
1. Develop skills for lifelong learning in information systems.
2. Demonstrate competencies in the development, measurement, analysis, validation and communication of information systems.
3. Develop oral and written communication skills.
4. Identify a problem and the information needed to develop alternative solutions, evaluate alternative solution in the framework of critical thinking.
5. Recognize role of ethics in both the profession and the business world.
6. Understand the global business environmental application to information systems.
7. Understand and use of technology in all business areas applications.
8. Implement the activities with teamwork.

Major Compulsory Requirements

The courses required for **Management Information Systems** major are as follows:

Diploma level
- MISS 211: Introduction to Information Systems
- MISS 212: Business Programming
- MISS 213: Introduction to E-Commerce
- MISS 214: Systems Analysis and Design
- MISS 215: Database Development

Bachelor level
- MISS 401: Application Software and Web Development
- MISS 402: Business Data Communication and Network
- MISS 403: E-Government
- MISS 404: Business Intelligence and Decision Support System
- MISS 405: Database Analysis and Design

Study Plan

Year I				
Term	**Course**	**Title**	**Crs**	**Pre-requisites**
(1) Fall	BUSS 101	Principles of Management	3	FPE 103C
	BUSS 102	Principles of Financial Accounting	3	FPE 103C
	MATH 103	Mathematics for Social Sciences I	3	FPM 102B
	CMPS 100B	Introduction to Technical Computing for Science	3	FPT 102B
	ENGL 101	Basic Academic English	3	FPE 103C
		Total Credits	**15**	
(2) Spring	BUSS 104	Principles of Management Accounting	3	BUSS 102
	BUSS 105	Principles of Financial Management	3	BUSS 102
	BUSS 106	Business and Information Technology	3	CMPS 100B
	ENGL 102B	English for business I	3	ENGL 101
	BUSS 103	Principles of Marketing	3	FPE 103C
		Total Credits	**15**	
Year II				
(3) Fall	SOCS 102	Omani Society	3	
	BUSS 201	Principles of Microeconomics	3	BUSS 105
	ENGL 203B	English for business II	3	ENGL 102 B
	MISS 211	**Introduction to Information Systems**	3	**CMPS100B/ BUSS 106**
	MISS 212	**Business Programming**	3	**CMPS100B/ BUSS 106**
		Total Credits	**15**	
(4) Spring	BUSS 203	Principles of Macroeconomics		BUSS 201
	MISS 213	**Introduction to E-Commerce**	3	**CMPS100B/ BUSS 106**
	MISS 214	**Systems Analysis and Design**	3	**MISS 211**
	MISS 215	**Database Development**	3	**MISS 212**
	ENTR 200	Entrepreneurship - Innovation and creativity	3	ENGL 203B
		Total Credits	**15**	

Year III

(5) Fall	BUSS 302	Business Law	3	BUSS 203
	BUSS 303	Corporate Finance	3	BUSS 203
	BUSS 304	Quantitative Methods for Business	3	MATH 103
	ENGL 204	Advanced English for Academic Purposes and Research	3	ENGL 203B
		Skills of Life Elective	3	
Total Credits			**15**	
(6) Spring	BUSS 306	Strategic Management	3	BUSS 302
	BUSS 307	Statistics for Business	3	BUSS 304
	MISS 401	**Application Software and Web Development**	3	**MISS 214 & MISS 215**
	ENGL 305	Advanced English language and communication skills	3	ENGL 204
	BUSS 401	Research Methods	3	BUSS 304
Total Credits			**15**	

Year IV

(7) Fall	BUSS 404	Final year Project	3	BUSS 401
	BUSS 402	Business Communications	3	ENGL 305
	MISS 402	**Business Data Communication and Network**	3	**MISS 214 & MISS 215**
	MISS 403	**E- Government**	3	**MISS 214 & MISS 215**
		General Elective I	3	
Total Credits			**15**	
(8) Spring	BUSS 403	Business Environment	3	BUSS 306
	ARAB 101	Academic Writing in Arabic	3	4th year standing
	MISS 404	**Business Intelligence and Decision Support**	3	**MISS 402 & MISS 403**
	MISS 405	**Database Analysis and Design**	3	**MISS 402 & MISS 403**
		General Elective II	3	
Total Credits			**15**	
Summer	***BUSS 405***	***Internship in Business (Two Months)***	***0***	***8 Weeks***

Course Description

MISS 211   Introduction to Information Systems   (3 crs)

This course forms the main gateway to the management information systems (MIS) area. For this, students are exposed to the general concept of MIS and how information system (IS) differs from information technology (IT). The students are introduced through this course to the main topics in the MIS field including: database development, business programming, system analysis and design, e-commerce, web applications and development. Reaching the purpose of the course is realized through the integration of lectures, discussions, lab practices and assignments   *prerequisite: BUSS 106*

MISS 212   Business Programming   (3 crs)

This course provides an exposure to algorithm development, programming, computer concepts, the design and application of data and file structures. It includes the use of logical and physical structures for both programs and data. It introduces students to business programming applications by providing them with the skills necessary to design and implement programs for user interfaces. This course covers fundamentals of object-oriented program development using top-down design, structured programming and debugging, testing and implementation, and elementary data structures. Visual Basic is used as the software tool for students to learn about the fundamentals of programming for business applications. Topics include: data structures and presentation: characters, records, and files; precision of data; information representation, organization, and storage; algorithm development; programming control structures; program correctness; verification, and validation; file structures and representation; programming in traditional and visual development environments that incorporate event-driven, object-oriented design. *Prerequisite: BUSS 106*

MISS 213   Introduction to E-Commerce   (3 crs)

This course focuses on the linkage between organizational strategy and networked information technologies of business models in the national and global contexts connecting individuals, businesses, governments, and other organizations to each other. The course provides an introduction to e-commerce strategy and the development and architecture of e-commerce solutions and their components. This course examines the electronic methods of delivering products, services and exchanges in inter-organizational, national, and global environments. Information technology strategy and technological solutions for enabling effective business processes within and between organizations in a global environment are considered. It includes Business models, technology architectures for e- commerce, supply chain management, consumer behavior within electronic environments, legal and ethical issues, information privacy and security, data flows, information accuracy and error handling. site design, Internet standards and methods, design of solutions for the Internet, intranets, and extranets, EDI, payment systems, support for inbound and outbound logistics*. Prerequisite: CMPS 100B or BUSS 106*

MISS 214   Systems Analysis and Design   (3 crs)

This course examines the systems development and modification process Structured and object oriented analysis and design, use of modeling tools, adherence to methodological life cycle and project management standards. This course is viewed as the cornerstone upon which all subsequent information systems activities are based. Skills learned in this course will be applied again and again throughout the student's college and MIS careers. It includes Life cycle phases: requirements determination, logical design, physical design, and implementation planning; interpersonal skills, interviewing, presentation skills; group dynamics; risk and feasibility analysis; group-based approaches: project management, joint application development JAD, and; structured, object oriented methodologies; RAD, prototyping; database design; software package evaluation, acquisition, and integration; global and inter-organizational issues and system integration. *Prerequisite: MISS 211*

MISS 215   Database Developments   (3 crs)

This course aims to provide students with comprehensive understanding of Database Technology introducing the applications in business that raise productivity & the importance of data management in the business organizations. The students will be able to understand the database principles, issues and development methods including conceptual modeling, logical and physical design, and implementation. Specially, the focus will be on applications and utilize (Oracle PL/SQL), concepts of RDBMS & SQL Commands & Functions. The students will gain additional understanding of how to Analyze, Design, Program and Implement the Database system. *Prerequisite: MISS 212*

MISS 401   Application Software and Web Developments   (3 crs)

This course provides the students with experience in the design and implementation of Internet Web sites for business applications. Topics include Web page design, various markup languages (e.g. HTML and XHTML), scripting languages (JavaScript), Tables, Image Manipulation, Graphic formats, Image maps, Forms, the principle of control statements, Frames, Cascading style sheets, Adobe Master Collection CS3 to create interactive, animated content. The design aspect of the class is as important as the quality of the HTML and JavaScript codes. *Prerequisites: MISS 215 & MISS 214*

MISS 402   Business Data Communication and Networks   (3 crs)

The primary goal of this course is to enable the students understand the basic concepts in data networking. It takes a practical approach to the principle and practices of system context requirements, development and use. This includes: Data communication and Telecommunication, Data communication components, Physical structure, Network topologies (Mesh, Star, Bus, Ring and hybrid), Protocols and Standards, Categories of network (local Area Networks (LANs) and Wide Area Networks (WANs). In addition, it will explain important topics in the field like PC networking and the Internet; Network models (OSI model); layered Architectures, Data and signals, Digital Transmission, Analog Transmission, Bandwidth Utilization, Switching, WWW and HTTP; Network Management; Multimedia and Network Security. *Prerequisites: MISS 215& MISS 214*

MISS 403   E-Government   (3 crs)

This is a basic (fundamental) course on electronic governance. This course deals with the Information and Communication Technology and its use by various Government Departments as a tool to provide E**fficient Governance** to the people. It focuses but not limited to the reasons to adopt E-governance, Planning and Challenges to E-Government, Interoperations, Supervision, better services to Society and Management of E-Government projects. The E-government Academic Program is dealing with the way in which Internet Technologies (IT) are affecting how people interact with government and how government, in turn, are using and managing technology to better provide information and services to the public. *Prerequisites: MISS 215 & MISS 214*

MISS 404   Business Intelligence and Decision Support   (3 crs)
This course focuses on the design types, and use of computer-based information systems to assist human decision-making processes. The course addresses the integration of decision support systems into an organizational context which have taken on a more significant role, and deals with both individual and group decision-making. The development, implementation, and deployment of decision support and expert systems are covered. It includes decision support and decision making; it's concept, applications; organizational issues; hardware and software technologies; data-model-user relationships; user interfaces; implementation strategies; data warehousing and mining; knowledge management; intelligent systems development. *Prerequisites MISS 402 & MISS 403*

MISS 405   Database Analysis and Design   (3 crs)
The aim of this course is to provide the students with an opportunity to apply the skills and knowledge gained in all MIS courses to a real Information Systems development project. It provides an opportunity to learn through supervised experience how to carry out a small Information System Development project, including: project definition, Planning, Analysis, Designing & implementation processes. It consists of gathering information, use of Process and Data model. Oracle software application (SQL, Graph builder, form builder, Query builder & report builder) can be used as database tool for implementation. The final evaluation based on project report and presentation. *Prerequisites: MISS 402 & MISS 403*

COLLEGE OF ENGINEERING (CE)

Officers of the College

Dean	Prof. Aliasgar Contractor
Acting Asst. Dean	Dr. Mazin Zeki Othman
Secretary	Ms. Salma Naseeb Safrar
	Ms. Atsloom Ali Zaid Al-Amri
	Ms. Asma Said Hassan Bait Said
Engineering Workshop Supervisor	Mr. Laiq Ahmed Mombasawala

Organization Structure

The College of Engineering (CE) constitutes the following departments:

1. Department of Chemical Engineering
2. Department of Civil & Environmental Engineer
3. Department of Electrical and Computer Engineering
4. Department of Graphic Design Interior Architecture Engineering
5. Department of Mechanical and Mechatronics Engineering

Vision

The College of Engineering at DU foresees a future in which its graduates are branded for their breadth and depth of knowledge, exemplary technical and personal skills, awareness of the world around them, commitment to excellence, passion to achieve, and for their abilities to work in and manage diverse teams.

Mission

The College shall create the conditions that promote academic excellence, nurture responsibility, breed professionalism, drive personal growth so that students define their purpose and develop the skills and character that enable them to transform 21st century challenges into possibilities, advance their lives, affect their community, and impact the world.

Academic Programs

The College of Engineering admits students to the following undergraduate degree programs:

- Diploma in Civil Engineering (CVE)
- Diploma in Chemical Engineering (CHE)
- Diploma in Electrical and Computer Engineering (ECE)
- Diploma in Mechanical Engineering (ME)
- Diploma in Mechatronics Engineering (MTE)
- Diploma in Interior Architecture Engineering (IAE)

- Bachelor of Science in Chemical Engineering (CHE)
- Bachelor of Science in Civil Engineering (CVE)

- Bachelor of Science in Computer and Communications Engineering (CCE)
- Bachelor of Science in Electrical and Electronics Engineering (EEE)
- Bachelor of Science in Mechanical Engineering (ME)
- Bachelor of Science in Mechatronics Engineering (MTE)
- Bachelor of Interior Architecture Engineering (IAE)

- Masters of Science in Electrical and Computer Engineering (in English)

ABET Compliance

All engineering programs offered in the CE are designed to comply with the requirements of the OAAA and Accreditation Board for Engineering and Technology (ABET) standards. It includes courses in basic sciences and mathematics, engineering sciences, engineering design, English composition, and the humanities and social sciences. Laboratory hands-on experience and emphasis on design are important elements that are integrated throughout the curriculum.

The requirements pertaining to Criterion 4 (Professional Component) of the ABET EC2000 specify subject areas appropriate to engineering but do not prescribe specific courses. The College of Engineering must ensure that the program curriculum devotes adequate attention and time to each component, consistent with the objectives of the program and institution. Students must be prepared through the curriculum for engineering practice culminating in a major design experience based on the knowledge and skills acquired in earlier coursework and incorporating engineering standards and realistic constraints that include most of the following considerations: economic, sustainability, manufacturability, environmental, ethical, health and safety, and social. The professional component must include:

- One year of a combination of college level mathematics and basic sciences (some with experimental experience) appropriate to the discipline,
- One and a half years of engineering topics, to include engineering principles and engineering design appropriate to the student's field of study, and
- A general education component that complements the technical content of the curriculum and is consistent with the program and institution objectives.

Graduation Requirements

To receive a diploma in any of the majors in the College of Engineering, students must satisfactorily complete the required credit hours for his/her major, with a cumulative average of 65 percent.

To receive a Bachelor Degree in any of the majors in the College of Engineering, the student must satisfactorily complete the required credit hours for his/her major with an overall minimum average of 65 percent, and a cumulative average of 70 percent in the major courses. The total number of required credits varies by major and by placement level in English. The following table summarizes the number of credits normally required for each undergraduate program in the College of Engineering.

| Program | Requirements | | | | Total Credit Hours |
| | University | College | Major | | |
			Core	Elective	
Diploma in Chemical Engineering (CHE)	21	21	33	-	75
Diploma in Civil Engineering (CVE)	21	15	39	-	75
Diploma in Electrical and Computer Engineering (ECE)	21	21	33	-	75
Diploma in Mechanical Engineering (ME)	21	18	36	-	75
Diploma in Interior Architecture Engineering (IAE)	21	-	53	-	74
Bachelor of Science in Chemical Engineering (CHE)	30	36	60	12	138
Bachelor of Science in Civil Engineering (CVE)	30	33	66	9	138
Bachelor of Science in Computer and Communications Engineering (CCE)	30	36	59	13	138
Bachelor of Science in Electrical and Electronics Engineering (EEE)	30	33	58	14	138
Bachelor of Science in Mechanical Engineering (ME)	30	36	58	14	138
Bachelor of Interior Architecture Engineering (IAE)	30	-	98	9	137
Master of Science in Electrical and Computer Engineering (Thesis/Non-Thesis)	-	-	18/15	12/15	30

University requirements

A student working for a bachelor degree must complete a total of 30 credit hours of general educational (university) requirements distributed as follows:

- 3 credits of Arabic: ARAB 101 (Academic Writing in Arabic)
- 3 credits of Social and Cultural Studies: SOCS 102 (Omani Society)
- 15 credits of English Communication Skills: ENGL 101 (Basic Academic English I), ENGL 102E (English for Engineering and Sciences), ENGL 203E (English for

Engineering and Sciences II), ENGL 204 (Advanced English for Academic Purposes and Research), and ENGL 305 (Advanced English Language and Communication Skills).
- 3 credits of computer literacy: CMPS 100B (Introduction to Technical Computing for the Sciences).
- 3 credits of mathematics: MATH 199 (Calculus I).
- 3 credits of Entrepreneurship: ENTR 200 (Introduction to Entrepreneurship)

College requirements

The college requirements include (33-36) credits of which:
- 21 credits are in humanities and sciences: one science elective, one general elective (except for Civil Engineering), MATH 200, MATH 205, MATH 210, MATH 335, PHYS 170
- 15 credits of engineering courses: ENGR 100, ENGR 110, ENGR 105, ENGR 300, EEC130, CHEE /CIVE /EECE /INTA /MECH 400, CHEE/CIVE/EECE/INTA/MECH 401, and CHEE/CIVE/EECE/INTA/MECH 402.

Program (Major) Requirements

Program requirements for a program varies depending on the chosen major from 57 to 98 credit hours from inside and outside the department in which the student is enrolled, including major-specific electives, with variation by major. The university, college, and program requirements for the diploma and bachelor programs in the different majors are listed hereafter.

General Engineering Courses

To meet the College requirements, a set of general courses are offered in programs at the College of Engineering. The following are the outlines of these courses.

ENGR 100   Introduction to Engineering   (3 crs)
This course introduces engineering students to engineering communication and ethics, report writing, dimensions and units - length, time, mass, force, temperature, electric current - and their related parameters - energy and power. *Prerequisite: FPE 100C, FPM 100B, FPT 100B*.

ENGR 105   Engineering Graphics   (2 crs)
This course covers geometrical construction, orthographic projection, first angle and third angle projections, drawing convention or standards, sections, dimensions, oblique and isometric, tolerances, limits and fits. Students will also learn how to prepare engineering drawings using Computer Aided Drawing (CAD) software such as AutoCAD and solid work. *Prerequisites*: *FPE 100C, FPM 100B, FPT 100B.*

ENGR 110   Engineering Workshop   (1 crs)
This course covers five sections. 1) Lathe - machine components and different operations; 2) Basic principles of arc (AC and DC) and gas welding; 3) machine-

shop, basic principle of milling, grinding, and drilling machines; 4) soldering of electronic components, and 5) electric wiring. The course includes hands-on practical experience on various machines. Prerequisite: FPE 100C, FPM 100B.

ENGR 300   Engineering Economy   (3 crs)
This course introduces economic decision processes in the design and implementation of real engineering projects; investment, financing, depreciation, economic selection, and replacement.

ENGR 352   Engineering Ethics   (3 crs)
This course introduces term values, definition and importance of engineering ethics; engineering ethics from Islamic perspectives; various approaches to engineering ethics; common ethical problems; ethical decision making process; development of ethical organization culture; case studies in engineering and environmental ethics.

Practical Training

Fourth year Bachelor students of engineering are required to acquire practical training experience through an internship period of eight weeks. This graduation requirement ensures that each student gains practical training experience during the summer prior to graduation, with either a company or another academic institution. Diploma students also are required to undergo the internship by the end of the second year.

Final Year Project

As part of their fourth year, students are required to carry out a project and submit a technical report. This project is a substantial piece of work that will require creative activity and original thinking. Students (Individually or in groups, normally three per group), are supervised while working on a project accounting for three-credits (8 credits for GDIA Department), extending over a full academic year. The project aims to provide students with a transitional experience from the academic world to the professional world. It is designed to serve as a platform in which students in teams engage in a meaningful design experience requiring the solution of engineering design projects.

DEPARTMENT OF CHEMICAL ENGINEERING

Personnel

Department Chairperson:	Ul-Islam, Mazhar
Professor:	Contractor, Ali
Associate Professor:	Wazwaz, Aref
Assistant Professor:	Ahmad, Md. Wasi
	Ibrehem, Ahmmed
	Ul-Islam, Mazhar
Laboratory Technician:	Arshad, Malik Waqar
	Thomas, Shana

Mission

The mission of the Department of Chemical Engineering is to provide high school graduate students with a strong foundation in the technical aspects of chemical engineering as well as communication, teamwork, and problem-solving skills required for professional success. This is achieved through offering students high quality education supported by practical skills, scientific and technological breakthroughs of knowledge and professional training in the field.

Program Overview

The BS in CHE curriculum is designed to comply with the requirements of ABET accreditation. It includes at least 30 credit hours of basic sciences and mathematics, at least 66 credit hours of engineering sciences, engineering design, communications skills, and at least 15 credit hours of humanities and social sciences, excluding language and technical writing courses. Lab hands-on experience and emphasis on design are important elements that are integrated throughout the curriculum.

The curriculum is designed to grant students the Bachelor of Sciences degree upon the successful completion of the four-year program. The first common year with other engineering majors allows students to switch between the engineering majors at the start of the second year of their study. The program is also offered in Diploma Degree upon the successful completion of a two-year program.

The first common year with other college majors allows students to switch between the majors at the same college at the start of the second year of their study. The university, college, and program requirements for this program are listed in the College introductory pages.

Objectives

The objectives of the program are to:

- Promote excellence in education since the programs offered by the department deliver an American-style education of the highest standards compatible with the guidelines of the US Accrediting Board for Engineering

and Technology (ABET), and the Omani Authority for Academic Accreditation (OAAA).
- Promote excellence in research since program graduates will be expected to conduct innovative and independent research activities.
- Provide services to the community at large with special consideration to the needs and circumstances of the Sultanate of Oman, and the region.
- Prepare students for leadership roles in a highly competitive and challenging environment in major fields of chemical engineering such as industry, government and academia.
- Prepare students for life-long learning, critical and independent thinking, sound judgment, professional ethics, and innovation.

Learning Outcomes

Each student graduating from the Chemical Engineering program will have:
- A deep knowledge of the chemical engineering major, familiarity with professional opportunities, and knowledge of contemporary issues.
- Practical experience with chemical process equipment, handling of chemicals, chemical analysis, and process instrumentation.
- An ability to use the modern engineering tools necessary for engineering practice.
- An ability to define and solve engineering problems, including the utilization of creative and innovative skills.
- An ability to communicate ideas effectively in both oral and written forms.
- Proficiency in core Chemical Engineering working knowledge, including safety and environmental aspects.

Degrees Offered

The Department of Chemical Engineering offers the following degrees:
- Diploma in Chemical Engineering
- Bachelor of Science in Chemical Engineering
- Minor in Petroleum Engineering

Career Opportunities

Graduates of the Chemical Engineering program will have many career choices spanning a wide range of engineering fields. Most notable are: petroleum and natural gas industries, pharmaceuticals, chemical plants, power generation, water treatment, healthcare, design and construction. Graduates will have employment opportunities in various manufacturing processes such as those involving petrochemicals and polymers, food processing, semiconductors, microelectronics and advanced electronic materials. Innovative fields include biotechnology, environmental health and safety, and many other related industries.

Study Plan: Diploma in Chemical Engineering

Year I		
Fall Semester		**15 Credits**
Code	**Course Title**	**Credit Hours**
CMPS 100B	Introduction to Technical Computing for the Sciences	3
ENGL 101	Basic Academic English I	3
MATH 199	Calculus I	3
CHEM 130	Chemical Principles I	3
CHEM 130L	Chemistry Laboratory	1
ENGR 105	Engineering Graphics	2
Spring Semester		**16 Credits**
Code	**Course Title**	**Credit Hours**
EECE 130	Computers and Programming I	3
ENGL 102E	English for Engineering and Sciences I	3
ENGR 100	Introduction to Engineering	3
MATH 200	Calculus II	3
CHEM 170	Chemical Principles II	3
ENGR 110	Engineering Workshop	1
Summer Semester		**9 Credits**
Code	**Course Title**	**Credit Hours**
ENGL 203E	English for Engineering and Sciences II	3
MATH 205	Calculus III	3
SOCS 102	Omani Society	3

Year II		
Fall Semester		**18 Credits**
Code	**Course Title**	**Credit Hours**
PHYS 170	Fundamentals of Physics I	3
CHEM 260	Analytical Chemistry	3
CHEE 270	Fluid Mechanics	3
CHEE 275	Thermodynamics	3
CHEE 201	Principles of Chemical Engineering	3
CHEM 210	Organic Chemistry I	3
Spring Semester		**17 Credits**
Code	**Course Title**	**Credit Hours**
ENTR 200	Introduction to Entrepreneurship	3
CHEE 270L	Fluid Mechanics Laboratory	1
CHEM 250	Organic Chemistry II	3
CHEM 250L	Organic Chemistry Laboratory	3
CHEM 370	Physical Chemistry	3
CHEE 208	Instrumentation	3
CHEE 280	Mass Transfer	3
Completion of Diploma Degree in Chemical Engineering: Total Credits: 75		

Study Plan: Bachelor of Science in Chemical Engineering

Year I		
Fall Semester		**18 Credits**
Code	**Course Title**	**Credit Hours**
CMPS 100B	Introduction to Technical Computing for the Sciences	3
ENGL 101	Basic Academic English I	3
MATH 199	Calculus I	3
CHEM 130	Chemical Principles I	3
CHEM 130L	Chemistry Laboratory	1
ENGR 105	Engineering Graphics	2
ENTR 200	Introduction to Entrepreneurship	3
Spring Semester		**16 Credits**
Code	**Course Title**	**Credit Hours**
EECE 130	Computers and Programming I	3
ENGL 102E	English for Engineering and Sciences I	3
ENGR 100	Introduction to Engineering	3
MATH 200	Calculus II	3
CHEM 170	Chemical Principles II	3
ENGR 110	Engineering Workshop	1
Summer Semester		**9 Credits**
Code	**Course Title**	**Credit Hours**
ENGL 203E	English for Engineering and Sciences II	3
MATH 205	Calculus III	3
SOCS 102	Omani Society	3
Year II		
Fall Semester		**18 Credits**
Code	**Course Title**	**Credit Hours**
PHYS 170	Fundamentals of Physics I	3
CHEM 260	Analytical Chemistry	3
CHEE 270	Fluid Mechanics	3
CHEE 275	Thermodynamics	3
CHEE 201	Principles of Chemical Engineering	3
CHEM 210	Organic Chemistry I	3
Spring Semester		**17 Credits**
Code	**Course Title**	**Credit Hours**
ARAB 101	Academic Writing in Arabic	3
CHEE 270L	Fluid Mechanics Laboratory	1
CHEM 250	Organic Chemistry II	3
CHEM 250L	Organic Chemistry Laboratory	1
CHEM 370	Physical Chemistry	3
CHEE 208	Instrumentation	3
CHEE 280	Mass Transfer	3

Year III		
Fall Semester		**15 Credits**
Code	**Course Title**	**Credit Hours**
MATH 335	Mathematics for Science and Engineering	3
CHEE 300	Computational Methods	3
CHEE 310	Reactive Process Engineering	3
MATH 210	Differential Equations	3
ENGL 204	Advanced English for Academic Purposes and Research	3
Spring Semester		**16 Credits**
Code	**Course Title**	**Credit Hours**
ENGL 305	Advanced English Language and Communication Skills	3
CHEE 380	Heat Transfer	3
CHEE 470	Chemical Process Dynamics and Control	3
ENGR 300	Engineering Economy	3
Code	Major Elective	3
Code	Elective Laboratory	1
Summer Semester		**0 Credits**
Code	**Course Title**	**Credit Hours**
CHEE 400	Practical Training	0
Year IV		
Fall Semester		**16 Credits**
Code	**Course Title**	**Credit Hours**
CHEE 401	Final Year Project I	0
CHEE 410	Separation Processes	3
CHEE 420	Chemical Engineering Process Design	3
CHEE 430	Materials Science	3
CHEE 440	Introduction to Biotechnology	3
Code	Science Elective	3
Code	Elective Laboratory	1
Spring Semester		**13 Credits**
Code	**Course Title**	**Credit Hours**
CHEE 402	Final Year Project II	3
Code	Major Elective	3
Code	Major Elective	3
Code	General Elective	3
Code	Elective Laboratory	1
Completion of Bachelor of Science Degree in Chemical Engineering: Total Credits: 138		

Petroleum Engineering Minor

The Department of Chemical Engineering offers a minor in Petroleum Engineering, which continue to contribute to the success of a chain of operations that are aimed at supplying energy to an increasingly demanding world. To earn a minor in PTE, students must complete 15 credits of course and lab work during their third and fourth year of study. The 15 credits courses selected from the following list:

Code	Course Title	Credit Hours
PETE 201	Introduction to Petroleum Engineering	3
PETE 210	Petroleum Production Engineering	3
PETE 220	Drilling Engineering	3
PETE 230	Reservoir Engineering	3
PETE 240	Well Logging	3
PETE 250	Economic Appraisal of Chemical and Petroleum Projects	3

Other courses will be added subject to instructors' availability.

Technical Electives

The list of technical electives for students majoring in Petroleum Engineering to choose from is given below.

Course Electives

Code	Course Title	Credit Hours
CHEE450	Materials Engineering	3
CHEE460	Computational Engineering	3
CHEE475	Chemical Reactor Design	3
CHEE480	Biochemical Engineering	3
CHEE485	Fuel Cell Technology	3
CHEE487	Polymer Engineering	3
CHEE488	Instrumentation and Process Control	3
CHEE489	Pharmaceutical Biotechnology	3
CHEE 490	Renewable Energy	3
Code	Up to two courses from the Petroleum Minor list	3+3

Laboratory Electives

Code	Course Title	Credit Hours
CHEE 311L	Reactive Process Engineering Laboratory	1
CHEE 411L	Separation Processes Laboratory	1
CHEE 441L	Biotechnology Laboratory	1
CHEE 421L	Chemical Engineering Process Design Laboratory	1
CHEE 476L	Chemical Reactor Design Laboratory	1
CHEE 486L	Fuel Cell Laboratory	1
CHEE 487L	Polymer Engineering Laboratory	1

Outlines of these and other required courses are listed in the next section.

Course Description

CHEM 260   Analytical Chemistry (3 crs)

This course covers the fundamentals and techniques of analytical chemistry including solution equilibria, titrations, spectroscopic fundamentals and techniques, electrochemical fundamentals and techniques, and statistical analysis. Prerequisite: CHEM 170.

CHEM 370   Physical Chemistry (3 crs)

The course covers surface phenomena (surface tension, adsorption, electrical double layers, colloids), transport properties (thermal conductivity, viscosity, diffusion coefficients, and porous media), chemical kinetics (rate laws, mechanisms, catalysis, reaction rates, heterogeneous reactions, photochemistry), and extraction. Prerequisites: CHEM 170, MATH 205.

CHEE 201   Principles of Chemical Engineering (3 crs)

The course covers the fundamentals of chemical engineering including balancing, introduction to the design of industrial processes, survey of unit operations, systems of units, first and second laws of thermodynamics, flow processes, heat engines, relationships between thermodynamic properties, and property estimation techniques. Prerequisite: CHEM 170, MATH 205.

CHEE 208   Instrumentation (3 crs)

The course covers the instrumentation of different chemical analysis techniques including: Chromatography (HPLC, GC, and TLC), UV-Visible spectroscopy, IR- and FTIR spectroscopy, X-ray spectrometry, and Atomic Absorption Fluorescence spectroscopy. Prerequisite: CHEM 260.

CHEE 270   Fluid Mechanics (3 crs)

The course covers the concepts of density, volume, mass, weight, viscosity, gravitational force, fluid statics, buoyancy, balance equation, first law of

thermodynamics, Bernoulli's equation, fluid friction and momentum balance. Prerequisites: MATH 205, CHEM 170.

CHEE 275   Thermodynamics   (3 crs)

The course covers the basic concepts of thermodynamics, the three laws of thermodynamics, system and control volume analysis of thermodynamic processes, irreversibility, relations for ideal gas mixtures, Carnot Cycle, and the thermodynamic properties of chemical reactions (ΔU, ΔH, ΔS, ΔG, ΔA). Prerequisites: ENGR 100, MATH 200, CHEM 170.

CHEE 280   Mass Transfer   (3 crs)

The course covers an introduction to mass transfer phenomena as relevant to the chemical and process industry, theories of mass transfer, the flux laws for mass transfer, diffusion of the gases, diffusion in liquid and solid, mass transfer coefficient, dimensional analysis, convective mass transfer, multi direction diffusion, and design principles for mass transfer equipment. Prerequisites: CHEE 201, MATH 205.

CHEE 299   Practical Training   (0 crs)

Supervised project/internship aimed at providing practical experience for Chemical Engineering diploma students. Prerequisite: Permission of the Instructor.

CHEE 310   Reactive Process Engineering   (3 crs)

The course covers the numerical solutions including: root finding, numerical differentiation and integration, series expansions and approximation, finite difference methods, solution of first-order ordinary differential equations, nonlinear systems. The students will learn the basics of structural programming and numerical analysis techniques. MATLAB will be used as a basic tool together with a dedicated CAD. Prerequisites: MATH 335, CHEE 201.

CHEE 380   Heat Transfer   (3 crs)

Modes of heat transfer: conduction, convection and radiation. Thermal conductivity. Steady and unsteady state heat conduction. Convective heat transfer coefficients, external flow, internal flow, free convection, heat transfer with laminar and turbulent flows, design of heat exchange equipment: double-pipe, shell- and-tube heat exchangers, condensers and re-boilers. Radiation heat transfer. Prerequisites: CHEE 275, CHEE 280, MATH 210.

CHEE 400   Practical Training   (0 crs)

This course requires eight weeks of practical training in chemical engineering with an established firm.

CHEE 401   Final Year Project I   (0 crs)

A supervised project, normally in groups of three students, aimed at providing practical experience in some aspects of chemical engineering. Students are expected to complete a literature survey, project specification, critical analysis, and to acquire the necessary material needed for their intended end product.

CHEE 402   Final Year Project II   (3 crs)

The course teaches students the skill to integrate the knowledge gained in

different courses, by asking them to deliver a product that has passed through the design, analysis, testing and evaluation stages. It includes production of a professional report, design process and outcome, implementation and testing, verification and validation, and critical appraisal of the project. Prerequisite: CHEE 401.

CHEE 410   Separation Processes   (3 crs)
The course covers basic concepts of separation processes, equilibrium-based processes with staging and continuous contacting, distillation, evaporation, liquid-liquid extraction, leaching, membrane based separations. Prerequisites: CHEE 208, CHEM 370, and co-requisite: CHEE 380.

CHEE 420   Chemical Engineering Process Design   (3 crs)
The course covers design of equipment, processes and systems of interest in chemical engineering through application of scientific, technological, economic principles. Emphasis is placed on problem formulation and the conceptual, analytical, and decision aspects of open-ended design situations. The work integrates knowledge and skills gained in previous and concurrent courses. Prerequisite: CHEE 310, CHEE 410, CHEE 470.

CHEE 430   Materials Science   (3 crs)
The course covers structure/property relationship for metals, ceramics, polymers and composite materials, atomic and molecular structure, bonds, electronic band structure and semi-conductors, order in solids, crystal structure, disorders, solid phases, mechanical properties and fracture, physico-chemical properties, and design. Prerequisite: CHEM 370.

CHEE 440   Introduction to Biotechnology   (3 crs)
The course covers introduction to biochemistry, enzyme kinetics, proteins, carbohydrates, other biochemicals, industrially significant microbes, introduction to genetic engineering, cell structure and metabolism. Prerequisites: CHEM 250, CHEE 310.

CHEE 470   Chemical Process Dynamics and Control   (3 crs)
The course covers introduction to modeling, control of dynamic chemical processes, the development of first-principles models, linearization and state space form, input-output (transfer function) form, design and tuning of PID controllers, model-based control, frequency response for robustness analysis, case studies in multivariable control, numerical analysis and simulation. Prerequisites: CHEE 310, CHEE 410.

Major Electives

CHEE 450   Materials Engineering   (3 crs)
The course covers processes for forming and producing engineering materials such as amorphous, semi-crystalline, textured and crystal-oriented substances and composites, effect of processing variables on the properties of the finished article, process of blending and alloying, shaping and joining operations, vessel equipment design for chemical engineering applications. Prerequisite: CHEE 430.

CHEE 460   Computational Engineering   (3 crs)
The course covers Monte Carlo integration; data analysis: plotting and interpretation of data, extraction of physical parameters; probability and statistics: simulation of distributions, histograms, calculation of moments, random walk problem; error analysis: sources of error, propagation of error; logistic map, and chaos. Prerequisite: CHEE 300.

CHEE 475   Chemical Reactor Design   (3 crs)
The course covers principles of kinetics, reactor design, analysis for both homogeneous and heterogeneous (catalytic) systems, the design for multiple reaction networks (optimum selectivity), analysis of simple reactor combinations, the design of isothermal, adiabatic, and optimum temperature profile reactor. Prerequisites: CHEE 300, CHEE 310, CHEE 320.

CHEE 480   Biochemical Engineering   (3 crs)
The course covers engineering aspects of microbial processes, conversions with immobilized enzymes, mixed-culture processes, sterilization, aseptic techniques, mass transfer, bioprocess control, product isolation, enzyme technology, bioprocess development. There are heavy emphases on continuous fermentation and on chemicals from biomass.   Prerequisite: CHEE 440.

CHEE 485   Fuel Cell Technology   (3 crs)
The course covers the basics of fuel cell, various types of fuel cells; cell equilibrium, standard potentials, Nernst equation, transport and adsorption in proton-exchange membranes and supported liquid electrolytes, kinetics and catalysis, the Butler-Volmer equation, reaction routes, mechanisms; applications of fuel cells. Prerequisite: CHEE 275.

CHEE 487   Polymer Engineering   (3 crs)
The course covers polymer processing operations with emphasis on the application of polymer rheology and transport phenomena to predict performance, polymer rheology and constitutive equations, mixing, extrusion, injection molding, coating flows, fiber spinning, film blowing, blow molding, compression molding, thermoforming and composites processing. Prerequisite: CHEM 250.

CHEE 488   Instrumentation and Process Control   (3 crs)
The course covers principles of control theory and their application to chemical processes, single-loop feedback and feed forward control; laboratory sessions cover measurement fundamentals, signal transmission, dynamic testing, control system synthesis, implementation and adjustment.   Prerequisite: CHEE 470.

CHEE 489   Pharmaceutical Biotechnology   (3 crs)
The course covers introduction to biotechnology, pharmaceuticals, therapeutic products derived from living organisms (e.g., proteins, peptides, DNA, RNA) and from the production plant, the challenges of keeping these products "active" as they are stored, shipped, and administered to patients. Prerequisite: CHEE 440.

CHEE 490   Renewable Energy   (3 crs)
The course covers energy conversion, utilization and storage for renewable technologies such as wind, solar, biomass, fuel cells and hybrid systems, energy supply from renewable resources as a result of solar power (such as direct solar radiation, and indirect forms such as bioenergy, water and wind power) , geothermal energy, and modern technologies used in renewable energy. Prerequisite: CHEE 275.

PETE 201   Introduction to Petroleum Engineering   (3 crs)
The course covers an overview of the petroleum industry, petroleum engineering (including nature of oil and gas reservoirs), petroleum exploration and drilling, formation evaluation, completion and production, surface facilities, reservoir mechanics, and improved oil recovery. Prerequisites: Approval of department head.

PETE 210   Petroleum Production Engineering   (3 crs)
The course covers components of the petroleum systems, well system, production from, gas reservoirs, pseudo critical properties of natural gases, gas well deliverability for non-Darcy flow, the Near-Wellbore condition and damage characterization, effect of perforating conditions on well performance, artificial lift systems, and horizontal well production, system analysis, production chemistry basics.

PETE 220   Drilling Engineering   (3 crs)
The course covers multidisciplinary aspects of overall drilling projects, equipment and accessories, various drilling techniques, analytical methods of drilling operations, demonstration of some simple design problems, the circulating system, the rotary system, bottom hole assembly, the well monitoring system, the well control system, drilling fluids, cementing, casing design, directional and multilateral drilling, offshore drilling and advanced drilling tools.

PETE 230   Reservoir Engineering   (3 crs)
The course covers classifications and drive mechanisms of hydrocarbon reservoirs, basic methods for estimating the reserves, application of rock and fluid properties and geology, derivation and modification of generalized Material Balance Equation for reservoirs of various drive mechanisms and water influx theory and models.

PETE 240   Well Logging   (3 crs)
The course covers analysis of well logs to determine properties of reservoir rocks, fluid saturations, lithology, and production logging. Prerequisite: 3rd or 4th year or consent of instructor.

PETE 250   Economic Appraisal of Chemical and Petroleum   (3 crs)
**   Projects**
The course covers consideration of the economic factors important in the development of the chemical or petroleum enterprise, applications of economic evaluation methods to engineering project development and consideration of risk and uncertainty in project development.

PETE 320   Gas Engineering   (3 crs)
The course covers review of properties of natural gases and condensate systems, gas flow in porous media, gas reservoir engineering, gas field development, gas condensate reservoirs, natural gas transportation and storage.

PETE 330   Petroleum Recovery   (3 crs)
The course covers principles of recovery of oil and gas fields including: polymer, surfactants, miscible recovery processes, inert gas injection, emulsions, steam, in situ and wet combustion techniques laboratory.

Laboratories

CHEM 250L   Organic Chemistry Laboratory   (1 crs)
The laboratory covers experiments that include, the synthesis, separation, purification, and characterization of organic compounds, characterization techniques (IR and UV visible absorbance, NMR, mass spectrometry, and chemical tests), unknown compounds and mixtures of unknown compounds will be separated and identified by chemical and spectroscopic techniques.   Co-requisite: CHEM 250.

CHEE 270L   Fluid Mechanics Laboratory   (# crs)
The laboratory covers experiments that include the basic principles of fluid mechanics. The course helps students to combine elements of theory and practice. During the course of this laboratory several experiments will be conducted that covers the course CHEE 270. Co-requisite: CHEE 270.

CHEE 311L   Reactive Process Engineering Laboratory   (1 crs)
The laboratory covers exercises in the design, operation and implementation of various types of simple chemical reactors. Co-requisite: CHEE 310.

CHEE 411L   Separation Processes Laboratory   (1 crs)
The laboratory covers exercises in techniques and instrumentation in separation processes. Co-requisite: CHEE 410.

CHEE 441L   Biotechnology Laboratory   (1 crs)
The laboratory covers exercises in techniques and instrumentation in biotechnology. Co-requisite: CHEE 440.

CHEE 421L   Chemical Engineering Process Design Laboratory   (1 crs)
The laboratory covers exercises in chemical engineering process design.   Co-requisite: CHEE 420.

CHEE 476L   Chemical Reactor Design Laboratory   (1 crs)
The laboratory covers exercises in advanced chemical reactor design. Co-requisite: CHEE 475.

CHEE 486L   Fuel Cell Laboratory   (1 crs)
The laboratory covers modern techniques for the design and assessment of fuel cells, and the deployment in hybrid electric systems. Co-requisite: CHEE 485.

CHEE 487L   Polymer Engineering Laboratory   (1 crs)
The laboratory covers experimental techniques to measure rheological and physical properties of various polymers. Co-requisite: CHEE 487.

PETE 221L   Drilling Mud Laboratory   (1 crs)
The course covers experiments that include the topics composition, measurement, and design of the properties of drilling fluids. Co-requisite: PETE 220.

PETE 231L   Reservoir Engineering Laboratory   (1 crs)
The laboratory covers laboratory measurement of reservoir fluid/rock properties, PVT, and core analysis, computer, data analyses using statistical techniques including probability concepts, regression, and optimization. Co-requisite: PETE 230.

PETE 241L   Well Design Lab   (1 crs)
The laboratory covers the composition, testing, and design of cement slurries and fracturing fluids.

PETE 251L   Evaluation of Reservoir Lab   (1 crs)
The laboratory covers properties from log, core and pressure transient data, interpretation of open-hole well logs and pressure drawdown and buildup tests, analysis of log and well test examples, preparation of subsurface maps.

DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING

Personnel

Department Chairperson:	Dr. Asim Rauf
Associate Professor:	Dr. Hazmathullah
Assistant Professors:	Dr. Khalid Alkaaf
	Dr. Janaka Kumara
	Dr. Mahad Shamas (Part Time)
Lecturers:	Mr. Mohamed Tabouk (Part Time)
	Mr. Mohamed Al Barami (Part Time)

Mission

The mission of the undergraduate program in Civil Engineering is to present a high standard of education, which prepares graduating students to provide quality professional services, contribute to the state of the knowledge and practice in civil engineering, and exposes them to a global perspective and an awareness of their leadership role in regional development.

Program Overview

The Bachelor of Sciences in Civil Engineering curriculum is designed to comply with the requirements of ABET accreditation. It includes at least 30 credits in basic sciences and mathematics, at least 62 credits engineering sciences and engineering design and communications skills, and at least 9 credits of humanities and social sciences excluding language and technical writing courses. Lab hands-on experience and emphasis on practicle aspects are important elements that are integrated throughout the curriculum. It is designed to grant students the Bachelor of Sciences degree upon the successful completion of the four-year program.

The program is also offered in Diploma Degree upon the successful completion of a two-year program. The first common year with other college majors allows students to switch between the majors at the same college at the start of the second year of their study.

The university, college, and program requirements for this program are listed in the College introductory pages.

Objectives

The objectives of the program are to:
- Provide students with a broad purposeful education targeting fundamental principles and concepts of civil engineering.

- Endow students with the technical skills required to forge successful careers in the various civil engineering disciplines.
- Develop and distribute, across the curriculum, open-ended activities that stimulate students' creativity.
- Commit to continually improve the curriculum to induce the latest and best practices in civil engineering education while conforming to the established standards of the Accrediting Board for Engineering and Technology (ABET) and the Omani Authority for Academic Accreditation.
- Affix high priority to continually improve the learning conditions for students to attain the mathematical, scientific, computational, technical, and experimental skills required to formulate and solve multidisciplinary, complex, contemporary, and socially relevant civil engineering problems.
- Inspire students to embrace the principles of life-long learning and endow them with the credentials that enable them to pursue higher education in reputable institutions.
- Engage students in activities that harness their social skills so that they can comfortably work in multidisciplinary teams, effectively communicate their ideas and positions, and successfully assume leadership roles in the arena of their professional life.
- Strengthen students' understanding of social, economic, professional, ethical, and environmental issues in an interconnected world.

Learning Outcomes

Each student graduating from the Civil Engineering program will have:
- An ability to apply knowledge of mathematics, science, and engineering.
- An ability to identify, formulate and solve engineering problems.
- An ability to design and conduct experiments, as well as to analyze and interpret data.
- An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
- An ability to use the techniques, skills, and modern tools necessary for engineering practice.
- The broad education necessary to understand the impact of engineering solutions in a local and global, economic, environmental, and societal context.
- An ability to function in multidisciplinary teams.
- An ability to communicate effectively.
- An understanding of professional and ethical responsibility.
- Knowledge of contemporary issues.
- Recognition of the need for, and an ability to engage in life-long learning.
- The teaching and learning strategies adopted by individual instructors and students will have to target the satisfaction of the above listed program outcomes, which are in line with the program objectives.

Degrees Offered

The Civil and Environmental Engineering offers the following degrees:

- Diploma in Civil Engineering
- Bachelor of Science in Civil Engineering

Career Opportunities

Graduates of the Civil Engineering program find various opportunities for employment either in the private sector or in governmental agencies. Fields that are available to the civil engineer include consulting, contracting, management, construction, and environmental agencies. The civil engineer can work as an employee, partner, or owner in contracting firms, construction management, and consultant offices and in local or regional consulting design offices in departments, such as Surveying, Transportation and Planning, Structures, Geotechnical Engineering, Environmental Engineering, and Water Resources.

Study Plan: Diploma in Civil Engineering

Year I		
Fall Semester		**16Credits**
Code	**Course Title**	**Credit Hours**
ENGL 101	Basic Academic English I	3
MATH 199	Calculus I	3
PHYS 170	Fundamentals of Physics I	3
PHYS 170L	Introductory Physics Laboratory	1
ENGR 100	Introduction to Engineering	3
ENGR 110	Engineering Workshop	1
ENGR 105	Engineering Graphics	2
Spring Semester		**16 Credits**
Code	**Course Title**	**Credit Hours**
ENGL 102E	English for Engineering and Sciences I	3
MATH 200	Calculus II	3
CMPS 100B	Introduction to Technical Programming	3
CHEM 130	Chemical Principles	3
CHEM 130L	Chemistry Laboratory	1
CIVE 210	Statics	3
Summer Semester		**9Credits**
Code	**Course Title**	**Credit Hours**
ENGL 203	English for Engineering and Sciences II	3
MATH 205	Calculus III	3
SOCS 102	Omani Society	3

Year II		
Fall Semester		**17Credits**
Code	**Course Title**	**Credit Hours**
MECH 270	Properties of Materials	3
ENTR 200	Introduction to Entrepreneurship	3
PHYS 210	Fundamentals of Physics II	3
PHYS 210L	Physics Laboratory II	1
CIVE 265	Surveying & GPS	3
CIVE 265L	Surveying & GPS Laboratory	1
CIVE 213	Strength of Materials	3
Spring Semester		**17Credits**
Code	**Course Title**	**Credit Hours**
EECE 210	Electric Circuits I	3
CIVE 230	Geotechnical Engineering	3
CIVE 230L	Geotechnical Engineering Laboratory	1
CIVE 221	Construction Materials	3
CIVE 221L	Construction Materials Laboratory	1
CIVE 250	Structural Analysis I	3
CIVE 241	Fluid Mechanics	3
Completion of Diploma Degree in Civil Engineering: Total Credits: 75		

Study Plan: Bachelor of Science in Civil Engineering

Year I		
Fall Semester		**16 Credits**
Code	**Course Title**	**Credit Hours**
ENGL 102	Basic Academic English I	3
MATH 199	Calculus I	3
PHYS 170	Fundamentals of Physics I	3
PHYS 170L	Introductory Physics Laboratory	1
ENGR 100	Introduction to Engineering	3
ENGR 110	Engineering Workshop	1
ENGR 105	Engineering Graphics	2
Spring Semester		**16 Credits**
Code	**Course Title**	**Credit Hours**
ENGL 102E	English for Engineering and Sciences I	3
MATH 200	Calculus II	3
CMPS 100B	Introduction to Technical Programming	3
CHEM 130	Chemical Principles	3
CHEM 130L	Chemistry Laboratory	1
CIVE 210	Statics	3
Summer Semester		**9Credits**
Code	**Course Title**	**Credit Hours**
ENGL 203E	English for Engineering and Sciences II	3
MATH 205	Calculus III	3
SOCS 102	Omani Society	3

Year II		
Fall Semester		**17 Credits**
Code	**Course Title**	**Credit Hours**
MECH 270	Properties of Materials	3
ENTR 200	Introduction to Entrepreneurship	3
PHYS 210	Fundamentals of Physics II	3
PHYS 210L	Physics Laboratory II	1
CIVE 265	Surveying & GPS	3
CIVE 265L	Surveying & GPS Laboratory	1
CIVE 213	Strength of Materials	3
Spring Semester		**17 Credits**
Code	**Course Title**	**Credit Hours**
EECE 210	Electric Circuits I	3
CIVE 230	Geotechnical Engineering	3
CIVE 230L	Geotechnical Engineering Laboratory	1
CIVE 221	Construction Materials	3
CIVE 221L	Construction Materials Laboratory	1
CIVE 250	Structural Analysis I	3
CIVE 241	Fluid Mechanics	3
Summer Semester		**3 Credits**
Code	**Course Title**	**Credit Hours**
MATH 210	Differential Equations	3

Year III		
Fall Semester		**16 Credits**
Code	**Course Title**	**Credit Hours**
MATH 335	Mathematics for Science and Engineering	3
CIVE 325	Concrete I	3
ECEE 130	Computers and Programming	3
CIVE 340	Engineering Hydrology	3
CIVE 241L	Fluid Mechanics Laboratory	1
ENGR 300	Engineering Economy	3
Spring Semester		**17 Credits**
Code	**Course Title**	**Credit Hours**
ENGL 204	Advanced English for Academic Purposes and Research	3
CIVE 361	Transportation Engineering	3
CIVE 361L	Transportation Engineering Laboratory	1
CIVE 451	Water and Wastewater Treatment	3
CIVE 451L	Water and Wastewater Treatment Laboratory	1
CIVE 420	Concrete II	3
ARAB 101	Academic Writing in Arabic	3
Summer Semester		**0 Credits**
Code	**Course Title**	**Credit Hours**
CIVE 400	Practical Training	0

Year IV		
Fall Semester		**15 Credits**
Code	**Course Title**	**Credit Hours**
CIVE 401	Final Year Project I	0
CIVE 331	Steel Design	3
CIVE 350	Environmental Engineering	3
CIVE 480	Construction Management	3
ENGL 305	Advanced English Language and Communication Skills	3
Spring Semester		**12 Credits**
Code	**Course Title**	**Credit Hours**
CIVE 402	Final Year Project II	3
Code	Major Elective	3
Code	Major Elective	3
Code	Science Elective	3
Completion of Bachelor of Science Degree in Civil Engineering: Total Credits: 138		

Major Elective Courses

Code	Course Title	Credit Hours
CIVE 485	Specifications and Cost Estimation	3
CIVE 570	Introduction to Geographic Information Systems	3
CIVE 410	Structural Analysis II	3
CIVE 510	Bridges	3
CIVE 511	Advanced Structural Analysis	3
CIVE 520	Plain Concrete	3
CIVE 522	Pre-stressed Concrete	3
CIVE 430	Foundation Engineering	3
CIVE 530	Applied Foundation Engineering	3
CIVE 532	Soil and Site Improvement	3
CIVE 460	Highway Engineering	3
CIVE 560	Pavement Design	3
CIVE 561	Urban Transportation Planning I	3
CIVE 562	Traffic Engineering	3
CIVE 440	Hydraulics + Laboratory	3
CIVE 540	Hydraulic Structures	3
CIVE 541	Surface Water Hydrology	3
CIVE 542	Groundwater Hydrology	3
CIVE 550	Methods of Environmental Sampling and Analysis	3
CIVE 553	Water and Sewage Works Design	3
CIVE 554	Solid Waste Management I	3

Course Description

Core Courses

CIVE 210   Statics   (3 crs)
This course covers the following topics: force vector, 2-D system of vectors, moment, couple, resultants, static equilibrium of 2-D forces and moments, centroid, truss, friction. Prerequisite: ENGR 100, PHYS 170, Pre/Co-requisite MATH 199.

CIVE 213   Strength of Materials   (3 crs)
This course covers the different types of stress and strain induced by different types of loading: axial loading, torsion, pure bending: shear force and bending moment diagrams; stress concentration; analysis and design of beams in bending; shearing stresses in beams and thin-walled members; deflection of beams. Prerequisite: CIVE 210.

CIVE 221   Construction Materials   (3 crs)
This course covers the composition and properties of engineering construction materials through hands-on laboratory experiments. The course introduces students to developments in construction equipment and technologies and Includes field demonstrations. Prerequisite: CIVE 213.

CIVE 230   Geotechnical Engineering   (3 crs)
A course on engineering geology, soil classification and index properties; soil structure and moisture; compaction; seepage; effective stress concept; compressibility and consolidation; stress and settlement analysis; shear strength. Laboratory tests are conducted to familiarize students with soil characterization and the engineering behavior of soils. Co-requisite: CIVE 213.

CIVE 241   Fluid Mechanics   (3 crs)
This course covers the basic concepts of fluid mechanics: properties of fluids, pressure and fluid statics, hydrostatic forces, fluid kinematics, conservation of mass, conservation of energy, fluids in rigid body translational and rotational motions, Bernoulli's equation, momentum analysis of flow systems. Prerequisite: CIVE 210 and MATH 200.

CIVE 250   Structural Analysis I   (3 crs)
This is an introductory course covering influence lines; deflection of beams and frames by double integration method, moment-area theorems, and conjugate beam; introduction to indeterminate structures; approximate analysis of building frames. Prerequisite: CIVE 210.

CIVE 265   Surveying & GPS   (3 crs)
This course deals with the theory of measurements and errors; linear measurements; surveying instruments; leveling; angles, bearings, and azimuths; stadia measurements; traversing–field aspects; traverse computations and adjustment; topographic surveying; triangulation. Prerequisite: MATH 200.

CIVE 299   Practical Training (Diploma Students)   (0 crs)
An 8-weeks professional training course in civil engineering.

CIVE 325   Concrete I   (3 crs)
This course covers the mechanical properties of concrete materials; ultimate strength theory of flexure and shear; flexural and shear design of beams; service load behavior; bond properties of reinforcing bars; design of solid and ribbed one-way slabs. Prerequisite: CIVE 250 and CIVE 221.

CIVE 331   Steel Design   (3 crs)
This is an introductory course to design steel structures using the LRFD method. Topics covered include tension members; compression members; beam design; serviceability requirements; beam-column design; bolted and welded connections. Prerequisite: CIVE 250 and CIVE 221.

CIVE 340   Engineering Hydrology   (3 crs)
This course focuses on hydrologic principles, rainfall-runoff analysis, flood routing, frequency analysis, and ground water hydrology. Prerequisite: CIVE 241.

CIVE 350   Environmental Engineering   (3 crs)
This course introduces the fundamentals of environmental engineering. A screening course of major topics in environmental engineering including water and wastewater, environmental hydrology, environmental hydraulics and pneumatics, air, solid waste, noise, environmental modeling, and hazardous waste. Prerequisite: CIVE 451.

CIVE 361   Transportation Engineering   (3 crs)
This course introduces the field of transportation engineering through a presentation of the basics of traffic engineering, traffic flow theory, and pavement design. Prerequisite: CIVE 265.

CIVE 400   Practical Training (BS Students)   (0 crs)
This is an 8 week practical training course in civil engineering.

CIVE 401   Final Year Project I   (0 crs)
A chosen design topic and preparation of a detailed execution program for CIVE 402, through comprehensive research with the guidance and approval of the faculty. Fourth Year Level.

CIVE 402   Final Year Project II   (3 crs)
A supervised project in groups of normally three students aimed at providing practical design experience in a civil and environmental engineering application. Prerequisite: CIVE 401.

CIVE 420   Concrete II   (3 crs)
A course that builds upon Concrete I and covers continuous beams; short columns, slender columns, and biaxially bent columns; wall footings, concentrically and eccentrically loaded single column footings, and combined footings; staircases; bearing walls; shear walls; two-way slabs. Prerequisite: CIVE 325.

CIVE 451   Water and Wastewater Treatment   (3 crs)
This course examines the quality and treatment methods of water and wastewater; testing for physical, chemical, and biological parameters.

Prerequisite: CHEM 130 and CIVE 241.

CIVE 480   Construction Management   (3 crs)

A course on organizing construction projects; pre-construction activities; bidding and contracts; fundamentals of construction planning, monitoring, and control; application of construction control tools: CPM, materials management, operations analysis, and quality control. Prerequisite: CIVE 221 and CIVE 325.

Major Elective Courses

CIVE 485   Specifications and Cost Estimation   (3 crs)

This course deals with the structure of construction documents and their interrelationships; bidding requirements; general and particular contract conditions; administrative and procedural requirements for construction; technical specifications; construction cost estimations process; unit rates determination. Prerequisite: CIVE 221 and CIVE 325.

CIVE 570   Introduction to Geographic Information Systems   (3 crs)

This is an introductory course on Geographic Information Systems (GIS) and their applications in the planning and engineering fields, alternatives in computer-based graphics, date concepts and tools, network data management and planning applications, and implementation issues. Prerequisite: CIVE 265.

CIVE 410   Structural Analysis II   (3 crs)

This course covers stability and determinacy of structures; energy theorems and applications to trusses, beams, and frames; solution of statically indeterminate structures by flexibility (force) and stiffness methods; introduction to the direct stiffness method; influence lines for indeterminate structures. Prerequisite: CIVE 250.

CIVE 510   Bridges   (3 crs)

This course discusses the types of bridges; influence lines; loads and their distribution on bridges; serviceability of bridges; methods of design of bridge deck, superstructure, and substructure. Prerequisites: CIVE 410, CIVE 420, and CIVE 331.

CIVE 511   Advanced Structural Analysis   (3 crs)

This course offers a review of matrix algebra; basic principles of structural analysis: stiffness, flexibility, and energy methods; direct stiffness method for plane and space trusses and frames; linear and nonlinear problems; special problems; computer programming. Prerequisite: CIVE 410.

CIVE 520   Plain Concrete   (3 crs)

This course examines Portland cements; aggregates; fly ash and silica fume; admixtures for concrete; proportioning normal concrete mixtures; pumping concrete; consolidating, finishing, and curing concrete; durability; testing hardened concrete; high-strength concrete; light and heavy weight concretes; hot and cold weather concreting. Prerequisites: CIVE 221.

CIVE 522   Pre-stressed Concrete   (3 crs)
This course covers material characteristics; pre-stress losses; working strength design procedures; composite construction; ultimate flexural strength and behavior; shear design; continuous pre-stressed concrete members. Prerequisite: CIVE 420.

CIVE 430   Foundation Engineering   (3 crs)
A course that covers site investigations; evaluation of data from field and laboratory tests; estimation of stresses in soil masses; applications of principles of soil mechanics to determination of bearing capacity and settlement of spread footings, mats, single piles, and pile groups. Prerequisite: CIVE 230.

CIVE 530   Applied Foundation Engineering   (3 crs)
A course on braced excavations, retaining structures, deep foundations, slope stability, and computer applications. Prerequisite: CIVE 430.

CIVE 532   Soil and Site Improvement   (3 crs)
This course covers compaction, admixture stabilization, foundation soil treatment, reinforced soil and composite materials, and material sites reclamation. Prerequisite: advanced standing level. CIVE 230.

CIVE 460   Highway Engineering   (3 crs)
A course that examines road vehicle performance; principles of geometric design and highways; horizontal and vertical alignment; earthwork; intersections and interchanges; parking facilities; basic traffic models; queuing theory and traffic analysis; travel demand forecasting. Prerequisite: CIVE 361.

CIVE 560   Pavement Design   (3 crs)
A course examining highway and airport pavement design; flexible and rigid pavement types and wheel loads; stresses in flexible and rigid pavements; pavement behavior under moving loads; soil stabilization. Prerequisite: CIVE 361.

CIVE 561   Urban Transportation Planning I   (3 crs)
This introductory course covers methods and models used in transportation planning with emphasis on the urban context. Prerequisite: CIVE 361.

CIVE 562   Traffic Engineering   (3 crs)
This course outlines traffic engineering studies; traffic control of signalized and un-signalized intersections; signal control hardware and maintenance; arterial performance and operations; network optimization. Prerequisite: CIVE 361.

CIVE 440   Hydraulics + Laboratory   (3 crs)
This lab deals with flow in conduits, flow in open channels, flow measurements, and laboratory experiments. Prerequisite: CIVE 241 and CIVE 241L.

CIVE 540   Hydraulic Structures   (3 crs)
This course covers closed conduit flow, water distribution systems, transient analysis, open channel flow, flood control, culvert hydraulics, design of various hydraulic structures. Prerequisite: CIVE 440.

CIVE 541   Surface Water Hydrology   (3 crs)
This course covers design storm, rainfall-runoff modeling, overland flow, flood

routing, reservoir routing, simulation models, hydrologic design, urban hydrology, and stochastic hydrology. Prerequisite: CIVE 340.

CIVE 542   Ground water Hydrology   (3 crs)
A course that deals with properties of groundwater, groundwater movement, general flow equations, steady – state well hydraulics, seepage forces, unsteady well hydraulics, infiltration, and groundwater modeling. Prerequisite: CIVE 340.

CIVE 550   Methods of Environmental Sampling and Analysis   (3 crs)
A course on sampling techniques and instrumental methods in environmental sciences; determination of pollutants in water, air and soil; analytical techniques and adaptation of procedures to specific matrices; case studies. Prerequisite: CIVE 350 and CIVE 450

CIVE 553   Water and Sewage Works Design   (3 crs)
A course that examines the design of water and water schemes, including design reports and a literature search on the development of conventional treatment processes. Prerequisite: CIVE 350and CIVE 450

CIVE 554   Solid Waste Management I   (3 crs)
A course on nature and effects of solid wastes including hazardous wastes; engineering management principles, practices, and techniques for management of solid wastes administration; solid waste generation, storage, collection and transport, processing, resource recovery, and disposal; trip to a local facility. Prerequisite: CIVE 350.

Laboratories

CIVE 221L   Construction Materials Laboratory   (1 crs)
The Construction Materials Laboratory is established to train students to carry out tests on common construction materials such as concrete, steel, wood, and masonry. The tests are conducted to determine the engineering properties in terms of strength, strain, fatigue, creep, elasticity, stiffness durability, and workability. Co-requisite: CIVE 221.

CIVE 230L   Geotechnical Engineering Laboratory   (1 crs)
The lab is meant to consolidate the course CIVE 230. Experiments will include: water content, organic content, specific gravity, grain size analysis, hydraulic conductivity (permeability), consolidation, direct shear, unconfined compression, triaxial shear. Co-requisite: CIVE 230.

CIVE 241L   Fluid Mechanics Laboratory   (1 crs)
This laboratory covers different experiments that may include: measurement of flow rate, Bernoulli's theorem, centre of pressure, floatation characteristics, centrifugal pumps, cavitations in centrifugal pumps, characteristics of two pumps in series, pipe friction losses, friction in bends and fittings, momentum of flow, Pelton turbine, hydraulic Ram Pump, free and forced vortices. Co-requisite: CIVE 241.

CIVE 265L   Surveying & GPS Laboratory   (1 crs)
In the Surveying Laboratory, students learn how to conduct distance

measurements, transits and theodolites, vertical control, directions, angular measurement, topographic surveys, area and volume of earthworks, curve setting out, planimetric adjustment, GPS observable; basic principles of GPS operations; GPS error analysis; field procedures; data collection, processing; applications. Co-requisite: CIVE 265.

CIVE 361L   Transportation Engineering Laboratory   (1 crs)
This laboratory will be used to collect and analyze data needed for the study and development of different types of transportation systems used on streets to major freeways. Experiments will include traffic counting and analysis, asphalt content of hot-mix asphalt by ignition method, Marshall Test, traffic impact studies, etc. Co-requisite: CIVE 361.

CIVE 451L   Water and Wastewater Treatment Laboratory   (1 crs)
This laboratory will cover experiments related to the following topics: water supply and wastewater collection systems. Water transmission mains, water distribution systems, pumping, storm sewers, and sanitary sewer systems, wastewater collection and wastewater treatment. Co-requisite: CIVE 450.

Laboratory Facilities

The Civil Engineering program has developed well equipped teaching and research laboratories for structural and materials testing, geotechnical testing, hydraulics and environmental engineering, and transportation engineering. The laboratories are used for teaching and research purposes as well as to enhance teaching through hands-on experience in the various fields of civil engineering. Course projects and final year projects will make effective use of the facilities.

Structural Testing and Construction Materials Laboratory

Undergraduate students use the laboratory to experiment with various construction materials to satisfy the requirements of the Construction Materials Laboratory course (CIVE 221L), which consists of standardized experiments to evaluate construction materials properties covered in Construction Materials course (CIVE 221). In addition, a number of other undergraduate and graduate core and elective courses will make use of the laboratory in projects related to building structural systems and testing components. This facility is used by students and faculty in their research activities and will contribute to the improvement of undergraduate and graduate education. The equipment in this lab include Rigid test frame, servo-hydraulic actuator for dynamic testing, universal testing machine, torsion testing machine, apparatus for tests on fresh concrete, concrete mixers and vibrators, load cells and data loggers.

Geotechnical Testing Laboratory

The Geotechnical Testing Laboratory is equipped with various pieces of equipment that are necessary for performing the basic geotechnical tests and more advanced tests such as triaxial compression tests, direct shear tests and soil bearing capacity experiments. Laboratory work is required from undergraduate students, as part of the Geotechnical Engineering Laboratory course (CIVE 230L), which introduces them to basic geotechnical principles and standard tests such

as soil classification and other soil properties that are covered in the Geotechnical Engineering course (CIVE 230). Several foundation and soil behavior courses utilize the lab facilities for demonstrations or projects (CIVE 430 and CIVE 532). Equipment include Direct Shear test machine, triaxial testing machine, consolidation apparatus, shrinkage apparatus, sieve analysis apparatus, permeability tests apparatus, plate bearing test apparatus, compaction tests apparatus, sand cone density apparatus, constant temperature bath and drying ovens.

Transportation Engineering Lab

The Transportation equipment include instruments used for the Transportation Engineering Laboratory course (CIVE 361L) and comprise a set of laboratory sessions that are oriented at carrying out field surveys related to transportation issues. The equipment includes sieve analysis apparatus, CBR test machine with sample extruders, Cleveland Flash Cup apparatus, Viscometer, Rolling thin film Oven, Rice test apparatus, electric core drill, Binder Ignition oven and density measurement apparatus.

Surveying and GPS Laboratory

Surveying and GPS Laboratory course (CIVE 265L) in which laboratory work and field measurements comprise the majority of the course work. Sufficient surveying instruments are available like traditional transits, the theodolites, total stations, levels, staff and measuring taps. Modern instruments such as EDM and GPS units are also available for group work and demonstration purposes.

Hydraulics and Environmental Engineering Laboratory

The hydraulics Laboratory is equipped with basic equipment used in standard experiments, such as channels, flumes, and hydrology systems which are normally present in hydraulic laboratories. Laboratory experiments are offered as part of the two basic undergraduate courses, Fluid Mechanics Laboratory (CIVE 241L), and Hydraulics and Laboratory (CIVE 440). The lab house 10 m of open channel flume fitted with accessories to carry out variety of experiments, force of jet apparatus, pipe friction apparatus, loses due to bend apparatus, characteristics of pump apparatus. The equipment for environmental engineering include COD reactor, conductivity meter, block digester, ph meters, turbidity meter, BoD bottles, spectrophotometer, oven muffle furnace, desiccators and incubator.

Computer Laboratory

The department has a dedicated computer lab equipped with softwares for various field of specializations available to CIVE students for instruction and project execution. Apart from that Six lab rooms are available in other departments that house a total of 80 PCs from Dell, Macintosh, Lenovo, IBM, and HP. Each lab has teaching equipment such as a whiteboard, a fixed ceiling LCD projector with a rollup projection screen and an audio system. Computers will be typically supplemented by a collection of software related to specific fields of civil engineering.

DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING

Personnel

Department Chairperson:	Dr. Manaf Zghaibeh
Professor:	Prof. Rustom Mamlook
Associate Professor:	Dr. Thabit Sultan Mohammed
	Dr. Mazin Zaki Othman
Assistant Professor:	Dr. Manaf Zghaibeh
	Dr. Abdulrazzak Selman
	Dr. Imran Baig
	Dr. Najam Ul Hassan
	Dr. Ahmed Abu Elanien
Lecturer:	Ms. Prajoona Valsalan
	Mr. Sheik Mohammed Sultan (Instructor)
Laboratory Technician:	Mr. Omer Faraz Khan

Mission

The department of Electrical and Computer Engineering is aiming at developing students coming from high schools with scientific background, to attain the fundamental skills, knowledge, and practice in the disciplines of electrical, electronics and computer engineering. Graduates from this department will be prepared to undertake careers in service, design, operation, and control of electrical engineering systems. The department strives to create the academic environment necessary for training innovators and leaders for the future, as well as to conduct scholarly research.

Degrees Offered

The Electrical and Computer Engineering department offers the following degrees:

- Diploma in Electrical and Computer Engineering
- Bachelor of Science in Computer and Communications Engineering
- Bachelor of Science in Electrical and Electronics Engineering

Computer and Communications Engineering

Program Overview

The Bachelor of Sciences in Computer and Communications Engineering curriculum is designed to comply with the requirements of ABET standards accreditation. It includes at least 30 credits in basic sciences and mathematics, at least 62 credits engineering sciences and engineering design and communications skills, and at least 9 credits of humanities and social sciences excluding language

and technical writing courses. Lab hands-on experience and emphasis on practicle aspects are important elements that are integrated throughout the curriculum. It is designed to grant students the Bachelor of Sciences degree upon the successful completion of the four-year program.

The program is also offered in Diploma Degree upon the successful completion of a two-year program. The first common year with other college majors allows students to switch between the majors at the same college at the start of the second year of their study.

The university, college, and program requirements for this program are listed in the College introductory pages.

Program Objectives

The objectives of the program are to:
- To prepare graduates for successful careers in engineering by gaining skills and knowledge that qualify them for professional practice in electrical and computer engineering.
- To provide graduates with fundamental knowledge, appropriate mathematical principles and computing tools for analysis and design in the fields of electrical, electronic, and computer engineering.
- To sustain atmosphere in which graduates can conduct professional projects, including internships with industry, which help in securing employment in the industrial sector.
- To provide graduates with an educational foundation that fosters creativity, team work, leadership, and communication skills, and prepares them for life-long learning.

Program Learning Outcomes

Each student graduating from the Computer and Communication Engineering program will have:
- Apply essential mathematical and engineering techniques for modeling and analysis of practical and hypothetical electrical and electronic engineering systems.
- Relate basic principles of information technology to electrical and electronic engineering applications.
- Develop solutions to practical engineering problems through analysis of data and ideas.
- Identify the essential design principles appropriate to electrical power systems; equipment and components.
- Develop systems or components by integrating ideas from various resources.
- Recognize the professional and ethical responsibilities of engineers.
- Generate high quality technical reports

Career Opportunities

Graduates of the Computer and Communications Engineering program will find a wide range of opportunities for employment either in the private sector, governmental agencies, and non-governmental organizations (NGO's). Fields that are available but not limited to ECE graduates include technical fields, consulting or management. Graduates can work in the communication sector, power sector, renewable energy enterprises, oil and refineries industries, defense, aviation, media broadcasting, software development, networking and hardware, power electronics industries, marketing, and software management, and in the fields of teaching and training.

Study Plans: Diploma in ECE

Year I		
Fall Semester		**18Credits**
Code	**Course Title**	**Credit Hours**
CMPS 100B	Introduction to Technical Computing for the Sciences	3
ENGL 101	Basic Academic English I	3
MATH 199	Calculus I	3
PHYS 170	Fundamentals of Physics I	3
PHYS 170L	Introductory Physics Laboratory I	3
ENGR 105	Engineering Graphics	2
Spring Semester		**17 Credits**
Code	**Course Title**	**Credit Hours**
EECE 130	Computers and Programming I	3
EECE 130L	Computers and Programming Laboratory	1
EECE 210	Electric Circuits I	3
ENGL 102E	English for Engineering and Sciences I	3
ENGR 100	Introduction to Engineering	3
MATH 200	Calculus II	3
ENGR 110	Engineering Workshop	1
Summer Semester		**9Credits**
Code	**Course Title**	**Credit Hours**
ENGL 203E	English for Engineering and Sciences II	3
MATH 205	Calculus III	3
SOCS 102	Omani Society	3

Year II		
Fall Semester		**17Credits**
Code	**Course Title**	**Credit Hours**
EECE 211	Electric Circuits II	3
EECE 210L	Electric Circuits Laboratory I	1
EECE 220	Digital Systems Design	3
EECE 230	Computers and Programming II	3
MECH 272	Mechanical Statics	3
PHYS 210	Fundamentals of Physics II	3
EECE 211L	Electric Circuits Laboratory II	1
Spring Semester		**17Credits**
Code	**Course Title**	**Credit Hours**
EECE 212	Basic Electronics	3
EECE 212	Basic Electronics Laboratory	1
EECE 220L	Digital Systems Laboratory	1
EECE 221	Microprocessor Systems	3
EECE 231	Data Structures and Algorithms	3
MATH 210	Differential Equations	3
ENTR 200	Introduction to Entrepreneurship	3
Summer Semester		**0 Credits**
Code	**Course Title**	**Credit Hours**
EECE 299	Practical training for Diploma Students	0
Completion of Diploma Degree in Electrical and Computer Engineering: Total Credits: 75		

Study Plans: Bachelors of Science in ECE

Year I		
Fall Semester		**15 Credits**
Code	**Course Title**	**Credit Hours**
CMPS 100B	Introduction to Technical Computing for the Sciences	3
ENGL 101	Basic Academic English I	3
MATH 199	Calculus I	3
PHYS 170	Fundamentals of Physics I	3
PHYS 170L	Introductory Physics Laboratory I	1
ENGR 105	Engineering Graphics	2
Spring Semester		**17 Credits**
Code	**Course Title**	**Credit Hours**
EECE 130	Computers and Programming I	3
EECE 130L	Computers and Programming Laboratory	1
EECE 210	Electric Circuits I	3
ENGL 102E	English for Engineering and Sciences I	3
ENGR 100	Introduction to Engineering	3
MATH 200	Calculus II	3
ENGR 110	Engineering Workshop	1
Summer Semester		**9Credits**

Code	Course Title	Credit Hours
ENGL 203E	English for Engineering and Sciences II	3
MATH 205	Calculus III	3
SOCS 102	Omani Society	3
Year II		
Fall Semester		**17 Credits**
Code	Course Title	Credit Hours
EECE 211	Electric Circuits II	3
EECE 210L	Electric Circuits Laboratory I	1
EECE 220	Digital Systems Design	3
EECE 230	Computers and Programming II	3
MECH 272	Mechanical Statics	3
PHYS 210	Fundamentals of Physics II	3
EECE 211L	Electric Circuits Laboratory II	1
Spring Semester		**17Credits**
Code	Course Title	Credit Hours
EECE 212	Basic Electronics	3
EECE 212L	Basic Electronics Laboratory	1
EECE 220L	Digital Systems Laboratory	1
EECE 221	Microprocessor Systems	3
EECE 231	Data Structures and Algorithms	3
MATH 210	Differential Equations	3
ENTR 200	Introduction to Entrepreneurship	3
Year III		
Fall Semester		**16 Credits**
Code	Course Title	Credit Hours
EECE 221L	Microprocessor Laboratory	1
EECE 330	Software Engineering	3
EECE 341	Electromagnetic Field Theory I	3
ENGL 204	Advanced English for Academic Purposes and Research	3
ENGR 300	Engineering Economy	3
MATH 335	Mathematics for Science and Engineering	3
Spring Semester		**16 Credits**
Code	Course Title	Credit Hours
EECE 320	Computer Organization and Architecture	3
EECE 340	Signals and Systems	3
EECE 344	Electromagnetic Field Theory II	3
Code	Major Electives	3
Code	Major Electives	3
Code	Elective Laboratory	1
Summer Semester		**0 Credits**
Code	Course Title	Credit Hours
EECE 400	Practical Training	0
Year IV		
Fall Semester		**16 Credits**
Code	Course Title	Credit Hours

Code	Course Title	Credit Hours
EECE 401	Final Year Project I	0
EECE 470	Computer Networks	3
EECE 342	Communication Systems	3
EECE 342L	Communication Systems Laboratory	1
ARAB 101	Academic Writing in Arabic	3
ENGL 305	Advanced English Language and Communication Skills	3
Code	Science Elective	3
Spring Semester		**15 Credits**
Code	Course Title	Credit Hours
EECE 402	Final Year Project II	3
EECE 422	Information Theory and Coding	3
Code	Major Electives	3
Code	Major Electives	3
Code	General Elective	3
Completion of Bachelor of Science Degree in Computer and Communications Engineering: Total Credits: 138		

Electrical and Electronics Engineering

Program Overview

The Bachelor of Sciences in Electrical and Electronics Engineering curriculum is designed to comply with the requirements of ABET standards accreditation. It includes at least 30 credits in basic sciences and mathematics, at least 62 credits engineering sciences and engineering design and communications skills, and at least 9 credits of humanities and social sciences excluding language and technical writing courses. Lab hands-on experience and emphasis on practical aspects are important elements that are integrated throughout the curriculum. It is designed to grant students the Bachelor of Sciences degree upon the successful completion of the four-year program.

The program is also offered in Diploma Degree upon the successful completion of a two-year program. The first common year with other college majors allows students to switch between the majors at the same college at the start of the second year of their study.

The university, college, and program requirements for this program are listed in the College introductory pages.

Program Objectives

The objectives of the program are to:
- To prepare graduates for successful careers in engineering by gaining skills and knowledge that qualify them for professional practice in electrical and computer engineering.
- To provide graduates with fundamental knowledge, appropriate mathematical principles and computing tools for analysis and design in the fields of electrical, electronic, and computer engineering.
- To sustain atmosphere in which graduates can conduct professional projects, including internships with industry, which help in securing employment in the industrial sector.
- To provide graduates with an educational foundation that fosters creativity, team work, leadership, and communication skills, and prepares them for life-long learning.

Program Learning Outcomes

Each student graduating from the Electrical and Electronics Engineering program will have:
- Apply essential mathematical and engineering techniques for modeling and analysis of practical and hypothetical electrical and electronic engineering systems.
- Relate basic principles of information technology to electrical and electronic engineering applications.
- Develop solutions to practical engineering problems through analysis of data and ideas.

- Identify the essential design principles appropriate to electrical power systems; equipment and components.
- Develop systems or components by integrating ideas from various resources.
- Recognize the professional and ethical responsibilities of engineers.
- Generate high quality technical reports

Career Opportunities

Graduates of the Electrical and Electronics Engineering program will find a wide range of opportunities for employment either in the private sector, governmental agencies, and non-governmental organizations (NGO's). Fields that are available but not limited to ECE graduates include technical fields, consulting or management. Graduates can work in the communication sector, power sector, renewable energy enterprises, oil and refineries industries, defense, aviation, media broadcasting, software development, networking and hardware, power electronics industries, marketing, and software management, and in the fields of teaching and training.

Study Plans: Bachelors of Science in Electrical and Electronics Engineering

Year I		
Fall Semester		**15 Credits**
Code	**Course Title**	**Credit Hours**
CMPS 100B	Introduction to Technical Computing for the Sciences	3
ENGL 101	Basic Academic English I	3
MATH 199	Calculus I	3
PHYS 170	Fundamentals of Physics I	3
PHYS 170L	Introductory Physics Laboratory	1
ENGR 105	Engineering Graphics	2
Spring Semester		**17 Credits**
Code	**Course Title**	**Credit Hours**
EECE 130	Computers and Programming I	3
EECE 130L	Computers and Programming Laboratory	1
EECE 210	Electric Circuits I	3
ENGL 102E	English for Engineering and Sciences I	3
ENGR 100	Introduction to Engineering	3
MATH 200	Calculus II	3
ENGR 110	Engineering Workshop	1
Summer Semester		**9Credits**
Code	**Course Title**	**Credit Hours**
ENGL 203E	English for Engineering and Sciences II	3
MATH 205	Calculus III	3
SOCS 102	Omani Society	3
Year II		
Fall Semester		**17 Credits**
Code	**Course Title**	**Credit Hours**
EECE 211	Electric Circuits II	3
EECE 210L	Electric Circuits Laboratory I	1
EECE 220	Digital Systems Design	3
EECE 230	Computers and Programming II	3
MECH 272	Mechanical Statics	3
PHYS 210	Fundamentals of Physics II	3
EECE 211L	Electric Circuits Laboratory II	1
Spring Semester		**17Credits**
Code	**Course Title**	**Credit Hours**
EECE 212	Basic Electronics	3
EECE 212L	Basic Electronics Laboratory	1
EECE 220L	Digital Systems Laboratory	1
EECE 221	Microprocessor Systems	3
EECE 231	Data Structures and Algorithms	3
MATH 210	Differential Equations	3
ENTR 200	Introduction to Entrepreneurship	3

Year III		
Fall Semester		**16 Credits**
Code	**Course Title**	**Credit Hours**
EECE 221L	Microprocessor Laboratory	1
EECE 341	Electromagnetic Field Theory I	3
EECE 350	Fundamentals of Electric Power Engineering	3
ENGL 204	Advanced English for Academic Purposes and Research	3
ENGR 300	Engineering Economy	3
MATH 335	Mathematics for Science and Engineering	3
Spring Semester		**16 Credits**
Code	**Course Title**	**Credit Hours**
EECE 340	Signals and Systems	3
EECE 344	Electromagnetic Field Theory II	3
EECE 320	Computer Organization and Architecture	3
EECE 361	Power Systems I	3
ENGL 305	Advanced English Language and Communication Skills	3
Code	Elective Laboratory	1
Summer Semester		**0 Credits**
Code	**Course Title**	**Credit Hours**
EECE 400	Practical Training	0
Year IV		
Fall Semester		**16 Credits**
Code	**Course Title**	**Credit Hours**
EECE 401	Final Year Project I	0
EECE 342	Communication Systems	3
ARAB 101	Academic Writing in Arabic	3
Code	Major Electives	3
Code	Major Electives	3
EECE 360	Control Systems	3
Code	Elective Laboratory	1
Spring Semester		**15 Credits**
Code	**Course Title**	**Credit Hours**
EECE 402	Final Year Project II	3
Code	Major Electives	3
Code	Major Electives	3
Code	General Elective	3
Code	Science Elective	3
Completion of Bachelor of Science Degree in Electrical and Electronics Engineering: Total Credits: 138		

Minor in Information Technology

The minor in Information Technology (IT) addresses a growing demand for graduates with professional IT skills. This minor intends to bridge the gap between scientific computing and engineering of computer systems and their applications in various domains, environments and platforms. The structure of the minor reflects the skills and knowledge needed to professionally apply complex information technology in business-driven environments. The IT minor helps in fulfilling the global need for professionals to acquire IT foundations. The 18 credits courses selected from the following list:

Code	Course Title	Credit Hours
ITEC 201	Computer Systems	3
ITEC 202	Software Systems	3
EECE 130	Computers and Programming I (for non-Mechanical Engineering students)	3
EECE 230	Computers and Programming II	3
EECE 231	Data Structures and Algorithms	3
EECE 320	Computer Organization and Architecture	3
EECE 330	Software Engineering	3
EECE 411	Computer Systems Analysis	3
EECE 422	Information Theory and Coding	3
EECE 430	Design and Applications of Information Systems	3
EECE 433	Database Management Systems	3
EECE 470	Computer Networks	3
EECE 475	Client-Server Computing	3
EECE 477	Internet Engineering	3

Other courses will be added subject to instructors' availability.

Technical Electives

The list of technical electives for students majoring in Computer and Communications Engineering or Electrical and Electronics Engineering to choose from is given below.

Course Electives

Code	Course Title	Credit Hours
EECE 410	Advanced Computer Architecture	3
EECE 411	Computer Systems Analysis	3
EECE 412	Computer Graphics	3
EECE 413	Embedded System Design	3
EECE 414	Fault Tolerant Computing	3
EECE 424	Data Communication Networks	3
EECE 430	Design and Applications of Information Systems	3
EECE 432	Distributed Object-Oriented Systems	3
EECE 433	Database Management Systems	3

EECE 437	Optimizing Compilers	3
EECE 439	Object-Oriented Systems	3
EECE 440	Fiber Optics	3
EECE 443	Microwave Communication Systems	3
EECE 444	Environmental Impacts of Energy Systems	3
EECE 450	Artificial Intelligence	3

Laboratory Electives

Code	Course Title	Credit Hours
EECE 330L	Object Oriented Technologies Laboratory	1
EECE 361L	Power Systems Simulation Laboratory	1
EECE 370L	Web Programming Laboratory	1
EECE 413L	Embedded System Design Laboratory	1
EECE 421L	Computer Interfacing Laboratory	1
EECE 422L	Information Theory and Coding Laboratory	1
EECE 460L	Control Systems Laboratory	1

Courses Description

EECE 130   Computers and Programming I   (3 crs)
This course covers the fundamental concepts of programming using C++ as a high level language, basic programming tools, input and output functions, variable declaration, mathematical and logical operations, programming control structures, program composition of functions, scope of identifiers, principles and basic operations of arrays. Prerequisite: CMPS 100B.

EECE 130L   Computers and Programming Laboratory   (3 crs)
This course covers the basic programming concepts with particular application to the solution of engineering problems using a high level programming language namely C++: fundamental concepts of C++, solving mathematical functions , control structures, functions, and arrays. Co-requisite: EECE 130.

EECE 210   Electric Circuits I   (3 crs)
This course covers the fundamentals of DC electric circuit: quantities such as current, voltage and power; active and passive elements; laws of DC circuit analysis; analyzing simple resistive circuits using DC circuit analysis standard techniques; and introduction to AC circuits. Prerequisite: PHYS 170.

EECE 211   Electric Circuits II   (3 crs)
This course deals with the experiments on DC circuits using modern experiment modules, measurement and display devices. The experiments include the practical realization, simulation, testing, and analysis of electric circuits: verification of basic circuit laws, series and parallel circuits, network analysis, analysis of DC circuits using MULTISIM. Co-requisite: EECE 210.

EECE 212   Basic Electronics   (3 crs)
This course covers the fundamentals of basic electronics: Introduction to semiconductors, PN-junctions, Diode circuits, models and applications: rectifiers,

comparators, voltage limiters, clippers, clampers and power dissipation. LEDs, Zener diode regulator, BJT and MOSFET characteristics and applications. Operational amplifiers. Prerequisite: EECE 210.

EECE 220   Digital Systems Design   (3 crs)
This course covers principles of digital systems design: Number systems and codes, combinational circuit analysis, synthesis and practices; minimization methods, sequential logic design principles, latches and flip-flops, synchronous circuits, state machines, and an introduction to VHDL. Prerequisite: EECE 210.

EECE 221   Microprocessor Systems   (3 crs)
This course covers an introduction to microprocessor systems; memory types, busses, and programming model; assembly language programming; addressing modes; assemblers. Translating high-level programs to assembly language; arithmetic operations, logic operations, selection statements, looping, pointers, subroutines, macros, etc. Interfacing techniques; interfacing ICs. Prerequisite: EECE 220.

EECE 230   Computers and Programming II   (3 crs)
This course covers advanced programming concepts with particular application to the solution of engineering problems using C++ programming language: strings, pointers, structures, object-oriented programming, classes, objects, constructors, destructors, inheritance and an introduction to data structures and algorithms. Prerequisite: EECE 130.

EECE 231   Data Structures and Algorithms   (3 crs)
This course covers algorithm design and programming techniques in large programs: recursion, sorting and searching algorithms, different data structures (stacks, queues, lists, trees, binary search trees) are described as abstract data types with their methods by training extensive examples and applications. Prerequisite: EECE 230.

EECE 299   Diploma Practical Training   (0 crs)
This is a supervised project/internship course aimed at providing practical experience for Electrical and Computer Engineering diploma students. Prerequisite: Permission of the advisor.

EECE 320   Computer Organization and Architecture   (3 crs)
This course covers and introduction to computer systems, CISC and RISC, performance of computer systems, the MIPS microprocessor architecture, ISA design principles, instruction mapping into registers, hardware floating point arithmetic, data path design, control unit design, pipelining, memory, I/O. Prerequisite: EECE 221. Annually.

EECE 330   Software Engineering   (3 crs)
This course covers the fundamentals of software engineering to create practical and cost-effective solutions to software systems including: understanding system requirements, effective methods of design, coding, testing, evaluation and maintenance. Prerequisite: EECE 231. Annually.

EECE 340   Signals and Systems   (3 crs)

This course covers the main concepts of signals and systems: definition, classification and examples of signals and systems, signals properties and operations, systems properties and interconnection; convolution theorem; La place transform and inverse Laplace transform of system examples; and Fourier series representation of signals. Prerequisites: EECE 210 and MATH 335. Annually.

EECE 341   Electromagnetic Field Theory I   (3 crs)

This course covers the concepts of electrostatics and magneto statics fields theory: vector analysis. static electric fields, Coulomb's law, Gauss's law and applications, capacitance, electrostatic forces, Poisson's equation, static magnetic fields, Biot-Savart law, Ampere's law, Faraday's law, vector magnetic potential, inductance, and magnetic energy. Co-requisites: MATH 335, PHYS210, EECE 210L. Annually.

EECE 342   Communication Systems   (3 crs)

This course covers baseband and pass band transmission techniques includes: continuous-wave modulation; pulse modulation (PAM, PWM, PPM), PCM, differential PCM, delta modulation, baseband data transmission and digital modulation techniques, ISI, Nyquist theorem, eye pattern, signal-space analysis, ASK, FSK, PSK, DPSK and M-ary modulation. Prerequisite: EECE 340.

EECE 344   Electromagnetic Field Theory II   (3 crs)

This course covers advances topics in electromagnetic field theory: Maxwell's equation for time varying electromagnetic fields; Faraday's Law; stationary loop in a time-varying magnetic field; moving conductor in a stationary magnetic field; plane wave propagation, time-harmonic fields, and propagation in lossless media; transmission lines and antennas. Prerequisite: EECE 341. Annually.

EECE 350   Fundamentals of Electric Power Engineering   (3 crs)

This course comprises the fundamentals of electric power engineering: an overview of electric power network; magnetic materials, basic laws and properties such as hysteresis loop and saturation; single-phase transformer, circuit analysis, modeling, efficiency and parameters calculation using open and short-circuit tests; induction motor; and synchronous generators. Prerequisite: EECE 211. Annually.

EECE 360   Control Systems   (3 crs)

This course includes the fundamentals of control systems engineering: definition, configuration and design of open loop and closed loop systems; mathematical modeling of dynamic control systems such as electric circuits; block diagrams, transfer functions; stability analysis; transient response and steady state error calculations of first and second order systems; and root locus. Prerequisite: EECE 340. Annually.

EECE 361   Power Systems I   (3 crs)

This course introduces the main features of electrical power systems: configuration; modeling of transmission lines; design procedure and parameters calculation of power feeders; per-unit system calculations; introduction to symmetrical components; Prerequisite: EECE 211. Annually.

EECE 400   Practical Training   (0 crs)
This is a supervised project/internship course aimed at providing practical experience for Electrical and Computer Engineering BS students. Prerequisite: Permission of the advisor.

EECE 401   Final Year Project I   (0 crs)
A supervised project, normally in groups of three students, aimed at providing practical experience in some aspects of computer, communications, and electrical engineering. Students are expected to complete a literature survey, project specification, critical analysis, and to acquire the necessary material needed for their intended end product. Annually.

EECE 402   Final Year Project II   (3 crs)
A course that seeks to impart in students the skill to integrate the knowledge gained in different courses by asking them to deliver a product that has passed through the design, analysis, testing, and evaluation stages. This course includes production of a professional report, design process and outcome, implementation and testing, verification and validation, and critical appraisal of the project. Prerequisite: EECE 401. Annually.

EECE 422   Information Theory and Coding   (3 crs)
This course covers and introduction to information theory, entropy and mutual information; discrete memory-less sources, discrete memory-less channels and their capacity-cost functions; concepts of source coding, lossy and lossless compression techniques; concepts of channel coding and error control, linear codes, convolutional codes, and Turbo codes. Prerequisite: MATH 335. Annually.

EECE 470   Computer Networks   (3 crs)
This course covers networking concepts and   technologies, networking architectures and protocols, internetworking and applications, data communications; wide area networks; circuit and packet switching; routing; congestion control; local area networks. Prerequisite: MATH 335. Annually.

Electives

EECE 410   Advanced Computer Architecture   (3 crs)
This course covers evolution of advanced computer architectures; classification of parallel processing systems; a study of scalable and parallel computer architectures for achieving a proportional increase in performance with increasing system resources; cutting-edge technologies in scalable parallel computing are presented with emphasis on design aspects. Prerequisite: EECE 320. Alternate years.

EECE 411   Computer Systems Analysis   (3 crs)
This course covers the development of analytical models of computer systems and application of such models to performance evaluation. Topics covered include scheduling policies, paging algorithms, multi-programmed resource management, and queuing theory. Prerequisite: EECE 320. Alternate years.

EECE 412   Computer Graphics   (3 crs)
This course covers fundamentals of computer graphics: interactive graphics,

vector generation and point-plotting displays, graphical input devices, windowing, clipping, viewports, zooming, geometrical transformations (2D and 3D), advanced display architecture, Raster algorithms, Raster display architecture, representation of 3D shapes and applications: CAD, menu-driven packages, and simulation. Prerequisite: EECE 320. Alternate years.

EECE 413   Embedded System Design   (3 crs)
This course covers the design of embedded systems: embedded hardware design, system design process, embedded computing platforms, software design tools and technologies, CAD tools, compilers, and assemblers; hardware design tools and technologies, hardware-description languages, high-level synthesis tools, ASIC and FPGA design flows; memory; interfacing. Prerequisite: EECE 221.

EECE 414   Fault Tolerant Computing   (3 crs)
This course covers the concepts and terminologies of fault-tolerant system design; reliability of series/parallel systems; redundancy management, voting, information redundancy, MTTF, M-of-N systems, reliability block diagrams, systems diagnosis; software fault tolerance, fault tolerant networks, common network topologies, fault tolerant routing. Prerequisite: EECE 220. Annually.

EECE 424   Data Communication Networks   (3 crs)
This course covers data communication networks: network topology; data transmission fundamentals; error control; multi-layer network architecture and protocols; network management; network security and privacy; network performance measurements. Prerequisite: EECE 470. Alternate years.

EECE 430   Design and Applications of Information Systems   (3 crs)
This course covers fundamentals of design and applications of information systems: investigating hardware and software selection criteria; case studies; application software maintenance; resource allocation; scheduling; staffing requirements; processing organizations; applications. Prerequisite: EECE 330. Annually.

EECE 432   Distributed Object-Oriented Systems   (3 crs)
This course covers the subject of distributed object-oriented systems: middleware for distributed objects; dynamic object requests; distributed objects life cycle, persistence, transactions, and security. Prerequisite : EECE 330. Alternate years.

EECE 433   Database Management Systems   (3 crs)
This course covers the fundamentals of data base technology: introduction to data base management systems, relational DB, relational model, relational algebra, SQL query languages, DB design and the E-R model and application design and development. Prerequisite: EECE 230. Alternate years.

EECE 437   Optimizing Compilers   (3 crs)
This course covers the area of optimizing compilers: characteristics of building modern optimizing compilers including intermediate representations, basic blocks and flow graphs, data flow analysis, partial evaluation and redundancy

elimination, loop optimizations, register allocation, instruction scheduling, and inter-procedural analysis. Prerequisites: EECE 231 and EECE 320. Alternate years.

EECE 439   Object-Oriented Systems   (3 crs)

This course covers the object oriented technology used for building software systems: languages, databases, analysis and designs, and systems: software lifecycles, layered architectures, object reusability, and multi-developer support. Prerequisite: EECE 330. Alternate years.

EECE 440   Fiber Optics   (3 crs)

This course covers fiber optics: generation and propagation of light, interaction of light and matter, geometric optics, ray tracing and aberration theory, superposition of waves, coherence and interference, and Fresnel and Fraunhofer diffraction; special topics: lasers and holography. Prerequisite: EECE 341. Annually.

EECE 443   Microwave Communication Systems   (3 crs)

This course covers microwave communication systems: transmission principles and media including lines, radio links, optical fibers; antennas: L.F., H.F., earth stations, and satellites; design and performance of microwave links; satellite communications; cellular networks. Prerequisite: EECE 342. Annually.

EECE 444   Environmental Impacts of Energy Systems   (3 crs)

This course covers the environmental impacts of energy systems: world energy resources and classifications; sources and effects of air pollution; air quality modeling, Gaussian dispersion models; motor vehicles emissions and noise pollution, mitigation strategies; environmental impacts of electricity generation, pollution control systems, electromagnetic radiations. Prerequisite: ENGR100. Annually.

EECE 450   Artificial Intelligence   (3 crs)

This course covers the fundamentals of artificial intelligence: search techniques, knowledge representation, logic and theorem proving; expert systems; natural language understanding, vision; learning from experience and prolog. Prerequisite: EECE 231. Alternate years.

EECE 452   Neural Networks   (3 crs)

This course covers back propagation, and adaptive neural networks; transformation by layered networks, statistical neurodynamics, associative memory and neural learning; applications to functional approximations, signal filtering, and pattern classification. Prerequisite: EECE 231. Alternate years.

EECE 460   Digital Control   (3 crs)

This course covers the analysis and design of digital control systems: z-transform techniques; state-space representation; single-input-single-output linear time invariant discrete and continuous systems; controllability, observability; and controllers. Prerequisite: EECE 360. Annually.

EECE 461   Instrumentation   (3 crs)

This course covers instrumentation systems, including measurements, sensors, data acquisition, and component integration. Application areas and course

projects include industrial control, lab measurements, and automation systems. Prerequisite: EECE 221. Annually.

Laboratories

EECE 210L   Electric Circuits Laboratory I   (1 crs)
This course deals with the experiments on DC circuits using modern experiment modules, measurement and display devices. The experiments include the practical realization, simulation, testing, and analysis of electric circuits: verification of basic circuit laws, series and parallel circuits, network analysis, analysis of DC circuits using MULTISIM. Co-requisite: EECE 210.

EECE 211L   Electric Circuits Laboratory II   (1 crs)
This course deals with wide range of experiments on DC circuits and AC circuits using modern experiment modules, measurement and display devices. The experiments include the practical realization, simulation, testing, and analysis of electric circuits: series and parallel circuits, network analysis, response of R, RL and RC circuits in frequency domain and circuit analysis using MULTISIM. Co-requisite: EECE 211.

EECE 212L   Basic Electronics Laboratory   (1 crs)
This course covers the characteristics and application of electronic devices: study of the characteristics of diodes, and BJTs, some applications of diodes such as rectifiers, voltage regulators, and characteristics as well as applications of OP-AMPS. The experiments are performed using modern experiment modules, measurement and display devices. MULTISIM is used for simulation and analysis of electronic circuits. Co-requisite: EECE 212.

EECE 220L   Digital Systems Laboratory   (# crs)
This course covers the experiments on logic gates, flip-flops, ALU, and timers: verification of logic gates and flip-flops, design of encoders and decoders, adders, comparators, code converters, counters and shift registers. Experiments are to include hardware realization and implementation using modern experiment modules, simulation of circuits using MULTISIM software. Co-requisite: EECE 220.

EECE 221L   Microprocessor Laboratory   (1 crs)
This course covers realization of engineering application using assembly language programming on microprocessor/microcontroller kits: hands-on design experience with micro-computer systems and applications including busses, interfaces, usage of ports and registers, realization of control of DC motor and stepper motor, traffic signal control and washing machine controller. Co-requisite: EECE 221.

EECE 342L   Communication Systems Laboratory   (1 crs)
This course covers various experiments related to analog and digital communication techniques: modulation and demodulation techniques such as AM and FM, PAM, PCM, and PWM; multiplexing and de-multiplexing, ASK, PSK, and FSK, and Signal broadcasting, some MATLAB based programming and modeling are introduced. Co-requisite: EECE 342. Annually.

EECE 330L   Object Oriented Technologies Laboratory   (1 crs)

This course covers Object oriented technologies using Java programming language: requirements analysis and system design using UML; documentation; debugging; testing; use of software development tools; graphical user interface; concurrent programming; database connectivity; web and networking applications and web services. Prerequisite: EECE 230.

EECE 361L   Power Systems Simulation Laboratory   (1 crs)
This course presents the MATLAB programming environment: introduction to linear algebra and operations on matrices; MATLAB commands; m-files; and MATLAB applications such as series expansions of trigonometric functions, solving simultaneous equations, plotting graphs, and simulation of electric circuits using SIMULINK toolbox. Prerequisite: EECE 211. Annually.

EECE 370L   Web Programming Laboratory   (1 crs)
This course covers fundamental technologies and techniques for creating applications on the world wide web (www) from client and server sides: introduction to the internet and web, HTMl, XHTML, CSS, JavaScript and PHP programming languages Prerequisite: EECE 130.

EECE 413L   Embedded System Design Laboratory   (1 crs)
This course covers embedded hardware design. Main topics includes: embedded computing platforms, software design tools and technologies: CAD tools, compilers, and assemblers; hardware design tools and technologies: (VHDL and/or Verilog), high-level synthesis tools (Handel-C), ASIC and FPGA design flows; memory; interfacing; Pre– or co-requisite: EECE 413 or Permission of the Instructor.

EECE 421L   Computer Interfacing Laboratory   (1 crs)
This course covers realization of engineering application by interfacing hardware with C++ programming language: debug environment, using parallel ports, I/O operation, realization of control of LEDs, seven segment displays and simple motor control through parallel ports. Introduction to VHDL. Co-requisites: EECE 130, EECE 220.

EECE 422L   Information Theory and Coding Laboratory   (1 crs)
This course covers encoding and decoding of linear block codes; convolution codes: generator polynomial, state diagram, Trellis diagram, Viterbi decoding algorithm, turbo codes: effect of change of frame size, iterations, code rate, MAP and SOVA decoding algorithms. Co-requisite: EECE 422. Annually.

EECE 460L   Control Systems Laboratory   (1 crs)
This laboratory comprises the analysis of linear continuous control systems: first and second order systems; transient and steady-state system responses; and the effect of system poles and zeros location on the overall system performance and stability. Co-requisite: EECE 360.

DEPARTMENT OF MECHANICAL AND MECHATRONICS ENGINEERING

Personnel

Department Chairperson:	Abbassi, Fethi
Assistant Professor:	Grami, Said
	Abbassi, Fethi
	Bhowmik, Himangshu
Lecturer:	Amjed Ali, Ahmed Faisal
Laboratory Technician:	Ahmed, Tofayel
	AL Housni, Fadhil
	Maiyi, Raghavendra

Mission

The mission of the Department of Mechanical and Mechatronics Engineering (MME) is to educate students from the science stream background in the fundamental skills, knowledge, and practice in mechanical and Mechatronics engineering that would enable them to provide quality engineering services in manufacturing industries, contribute to the state-of-the-art knowledge and practice in their field and to assume leadership roles in the development of their community.

Degrees Offered

The Department of Mechanical and Mechatronics Engineering offers the following degrees:

- Diploma in Mechanical Engineering
- Bachelor of Science in Mechanical Engineering

Program Overview

The curriculum is designed to allow students who successfully complete the first two years of their study to receive a diploma, while continuing to work to receive the Bachelor of Science Degree upon the successful completion of the four-year program. The Diploma in Mechanical Engineering (ME) is awarded to students who have successfully completed the first two years (75 crs.) of the program.

The first year is common with other engineering majors to allow students to change to other engineering majors during the second year of their study if they wish to do so. The undergraduate curriculum for the degree of Bachelor of Science in Mechanical Engineering consists of 138 credit-hours of course work.

The program is also offered in Diploma Degree upon the successful completion of a two-year program.

The first common year with other college majors allows students to switch between the majors at the same college at the start of the second year of their study.

The university, college, and program requirements for this program are listed in the College introductory pages.

Program Objectives

The objectives of the program are to:
- To impart a sound understanding of the fundamental principles and concepts of mechanical and Mechatronics engineering.
- To develop the mathematical, scientific and computational skills in formulating and solving mechanical and Mechatronics engineering problems.
- To cultivate the skills pertinent to the engineering design process, conduct of experiments and analyze and interpret data.
- To engage students in solving real-world problems that requires multi-disciplinary approaches while addressing relevant social, environmental, economical and aesthetic concerns.
- To develop effective teamwork and communication skills.
- To prepare students for leading roles in the profession and the community

Program Learning Outcomes

Each student graduating from the Mechanical Engineering program will have:
- An ability to apply knowledge of mathematics, science, and engineering.
- An ability to identify, formulate and solve engineering problems.
- An ability to conduct experiments, as well as to analyze and interpret data.
- An ability to design a system, component, or process to meet desired needs.
- An ability to use the techniques, skills, and modern tools necessary for engineering practice.
- An ability to appreciate the impact of engineering solutions in both local and global context.
- An ability to perform in a team environment.
- An ability to communicate effectively.
- An understanding of professional and ethical responsibilities.
- A demonstration of knowledge of contemporary issues in the field.
- An ability to engage in life-long learning.
- An ability to engage in undergraduate research

Career Opportunities

Graduates of the Mechanical Engineering program is a discipline that covers many areas and therefore provides opportunities for graduates to work in a variety of interdisciplinary fields which include machine design, energy, power generation and conversion, hydraulics, project management, automotive, environment, HVAC, and so on.

Study Plan: Diploma in Mechanical Engineering

Year I		
Fall Semester		**14Credits**
Code	**Course Title**	**Credit Hours**
CMPS 100B	Introduction to Technical Computing for the Sciences	3
ENGL 101	Basic Academic English I	3
MATH 199	Calculus I	3
PHYS 170	Fundamentals of Physics I	3
ENGR 105	Engineering Graphics	2
Spring Semester		**16 Credits**
Code	**Course Title**	**Credit Hours**
MATH 120	Geometry and Trigonometry	3
EECE 130	Computers and Programming I	3
ENGR 110	Engineering Workshop	1
ENGL 102E	English for Engineering and science I	3
ENGR 100	Introduction to Engineering	3
MATH 200	Calculus II	3
Summer Semester		**9Credits**
Code	**Course Title**	**Credit Hours**
ENGL 203E	English for Engineering and science II	3
MATH 205	Calculus III	3
SOCS 102	Omani Society	3

Year II		
Fall Semester		**17Credits**
Code	**Course Title**	**Credit Hours**
EECE 210	Electric Circuits I	3
EECE 210L	Electric Circuits Laboratory I	1
MECH 270	Properties of Materials	3
MECH 272	Mechanical Statics	3
MECH 271	Industrial Maintenance	3
MECH 278	Manufacturing Processes	3
MECH 270L	Solid Mechanics Laboratory	3
Spring Semester		**16Credits**
Code	**Course Title**	**Credit Hours**
MECH 274	Mechanical Dynamics	3
MECH 274L	Mechanical Dynamics Laboratory	1
MECH 275	Thermodynamics	3
MECH 276	Strength of Materials	3
MECH 277	Fluid Mechanics	3
MECH 277L	Fluid Mechanics Laboratory	1
MECH 279	CAD/CAM and CNC Machines	3
Summer Semester		**6 Credits**
Code	**Course Title**	**Credit Hours**
Code	Practical Training	0

ENTR 200	Introduction to Entrepreneurship	3
ENGL 204	Advanced English for academic Purposes and Research	3

Completion of Diploma Degree in Mechanical Engineering: Total Credits: 75

Study Plan: Bachelor of Science in Mechanical Engineering

Year I		
Fall Semester		**14 Credits**
Code	**Course Title**	**Credit Hours**
CMPS 100B	Introduction to Technical Computing for the Sciences	3
ENGL 101	Basic Academic English I	3
MATH 199	Calculus I	3
PHYS 170	Fundamentals of Physics I	3
ENGR 105	Engineering Graphics	2
Spring Semester		**16 Credits**
Code	**Course Title**	**Credit Hours**
MATH 120	Geometry and Trigonometry	3
EECE 130	Computers and Programming I	3
ENGR 110	Engineering Workshop	1
ENGL 102E	English for Engineering and science I	3
ENGR 100	Introduction to Engineering	3
MATH 200	Calculus II	#
Summer Semester		**9Credits**
Code	**Course Title**	**Credit Hours**
Code	English for Engineering and science II	3
Code	Calculus III	3
Code	Omani Society	3
Year II		
Fall Semester		**17 Credits**
Code	**Course Title**	**Credit Hours**
EECE 210	Electric Circuits I	3
EECE 210L	Electric Circuits Laboratory I	1
MECH 270	Properties of Materials	3
MECH 272	Mechanical Statics	3
MECH 271	Industrial Maintenance	3
MECH 278	Manufacturing Processes	3
MECH 270L	Solid Mechanics Laboratory	1
Spring Semester		**17Credits**
Code	**Course Title**	**Credit Hours**
MECH 274	Mechanical Dynamics	3
MECH 274L	Mechanical Dynamics Laboratory	1
MECH 275	Thermodynamics	3
MECH 276	Strength of Materials	3
MECH 277	Fluid Mechanics	3

Code	Course Title	Credit Hours
MECH 277L	Fluid Mechanics Laboratory	1
MECH 279	CAD/CAM and CNC Machines	3
Summer Semester		**6 Credits**
Code	**Course Title**	**Credit Hours**
ENTR 200	Introduction to Entrepreneurship	3
ARAB 101	Academic Writing in Arabic	3
Year III		
Fall Semester		**14 Credits**
Code	**Course Title**	**Credit Hours**
ENGL 204	Advanced English for academic Purposes and Research	3
MATH 335	Math for Science and Engineering	3
MECH 315L	Thermal Laboratory	1
MECH 371	Heat Transfer	3
MECH 376	Kinematics of Mechanical Systems	3
Code	Laboratory Elective	1
Spring Semester		**18 Credits**
Code	**Course Title**	**Credit Hours**
ENGR 300	Engineering Economy	3
MATH 210	Differential Equations	3
MECH 373	Mechanical Design I	3
MECH 374	Instrumentation and Measurements	3
ENGL 305	Advanced English Language and Communication Skills	3
Code	Major Elective	3
Summer Semester		**0 Credits**
Code	**Course Title**	**Credit Hours**
MECH 400	Practical Training	0
Year IV		
Fall Semester		**16 Credits**
Code	**Course Title**	**Credit Hours**
MECH 372	Control Systems + Laboratory	3
MECH 401	Final Year Project I	0
MECH 413	Air Conditioning	3
Code	Major Elective	3
Code	Major Elective	3
Code	Science Elective	3
Code	Laboratory Elective	1
Spring Semester		**12 Credits**
Code	**Course Title**	**Credit Hours**
MECH 402	Final Year Project II	3
MECH 431	Mechanical Vibrations	3
Code	Major Elective	3
Code	General Elective	3
Completion of Bachelor of Science Degree in Mechanical Engineering: Total Credits: 138		

Course Electives

Code	Course Title	Credit Hours
Code	Fluid Power	#
Code	PLC and Industrial Automation	#
Code	Internal Combustion Engines	#
Code	Gas Turbines	#
Code	Steam Turbines	#
Code	Fluids Engineering Application	#
Code	Thermal Power Plant	#
Code	Mechatronics and Intelligent Machines Engineering	#
Code	Mechanical Design II	#
Code	Environmental Impacts of Energy Systems	#

Laboratory Electives

Code	Course Title	Credit Hours
MECH 413L	HVAC and Refrigeration Laboratory	#
MECH 444L	Fuel Cell Laboratory	#
Code	Computer Applications in Mechanical Engineering	#
Code	Robotics	#
Code	Artificial Intelligence	#
Code	Hydraulics	#
Code	Renewable Energy	#
Code	Special Topics in Mechanical Engineering	#

Course Description

MECH 270   Properties of Materials   (3 crs)

This course covers the different types of materials: metals, ceramics, polymers; type of bonds: Ionic, covalent and metallic bonds; unit cells and crystal structures, points, directions and planes within a unit cell; mechanical properties of materials: strength, toughness, ductility, resilience; failure: fatigue, creep. Thermal properties of materials: heat capacity, thermal expansion, thermal conductivity. Prerequisite: ENGR 100. Annually.

MECH 271   Industrial Maintenance   (3 crs)

This course equips students with a variety of technical skill areas such as mechanical installation, power transmission, bearings, shaft alignment, lubrication, fluid power, piping systems, fasteners, and safety at the workplace. Prerequisites: ENGR 100, ENGR 110.

MECH 272   Mechanical Statics   (3 crs)

This course covers the following topics: force vector, 2-D system of vectors, moment, couple, resultants, static equilibrium of 2-D forces and moments, centroid, truss, friction. Prerequisites: ENGR 100, PHYS 170, Co-requisite MATH 199.

MECH 274   Mechanical Dynamics   (3 crs)

This course covers the following topics: position, velocity and acceleration of a particle, equations of motion for constant acceleration, Newton's Laws, mechanical work, energy and power, impulse, impact, coefficient of restitution, conservation of momentum, and spring stiffness. Prerequisites MECH 272, MATH 200. Annually.

MECH 275   Thermodynamics   (3 crs)

This course covers the following topics: basic considerations of the three laws of thermodynamics, open and close systems, two phase systems, steam tables and charts, elementary statistical principles for the prediction of properties of pure substances and mixtures, system and control volume analysis of thermodynamic processes, irreversibility, Entropy, relations for ideal gas mixtures. Prerequisites: ENGR 100, MATH 200.

MECH 276   Strength of Materials   (3 crs)

This course covers the different types of stress and strain induced by different types of loading: axial loading, torsion, pure bending: shear force and bending moment diagrams; stress concentration; analysis and design of beams in bending; shearing stresses in beams and thin-walled members; deflection of beams. Co-requisite: MECH 270 and Prerequisite: MECH 272.

MECH 277   Fluid Mechanics   (3 crs)

This course covers the basic concepts of fluid mechanics: properties of fluids, pressure and fluid statics, hydrostatic forces, fluid kinematics, conservation of mass, conservation of energy, fluids in rigid body translational and rotational motions, Bernoulli's equation, and momentum analysis of flow systems. Prerequisites: MECH 272, MATH 200.

MECH 278   Manufacturing Processes   (3 crs)

This course covers descriptive introduction to a wide variety of manufacturing processes: metal casting, powder metallurgy, sheet metal working, bulk deformation, fundamentals of machining, machining operation and machine tools. The course also covers dimensions, tolerance and surfaces, as well as a review of the classification of materials. Prerequisite: ENGR 100. Annually.

MECH 279   CAD/CAM and CNC Machines   (3 crs)

This covers the principles, techniques, and applications of computer numerically controlled (CNC) machine tools. G and M code programming of industrial machines, tooling systems, introduction to Computer Aided Drafting and Manufacturing (CAD/CAM) systems, introduction to the principle of Flexible Manufacturing Systems (FMS), and hands-on training on CNC machine. Prerequisite: MECH 273. Annually.

MECH 299   Practical Training   (0 crs)

Eight weeks of supervised project/internship aimed at providing practical experience for Mechanical Engineering diploma students. Prerequisite: Permission of the Instructor.

MECH 371   Heat Transfer   (3 crs)

This course covers the mechanism and basic equations for conduction, convection and radiation, steady-state one dimensional conduction heat transfer, Cartesian and cylindrical coordinates, resistance concept for plane wall & radial systems, contact resistance, multi-layer plane walls and radial systems, extended surfaces, forced convection dimensional analysis, natural convection, internal flows in tubes, heat exchangers, LMTD and e-NTU methods of design. Prerequisites: MECH 275, MECH 277. Annually.

MECH 372   Control Systems + Lab   (3 crs)

This course covers the basic concepts of control theory: plant, controller, process, open-loop, feed-back control; Laplace transform; mathematical modeling of dynamic systems; state-space; Linearization; transient and steady-state responses; stability; frequency-response analysis: bode diagram, Nyquist plots; lab may include software application (e.g. MATLAB or LabVIEW) and/or hardware equipment (inverted pendulum, level, pressure, temperature, motor speed control, etc.). Prerequisite: MATH 210. Annually.

MECH 373   Mechanical Design I   (3 crs)

This course covers a review of stress, strain, and deflection; combined loading; Mohr's circles, principal stresses and maximum shear stress; static failure theories; fatigue failure theories; surface failure; design of different mechanical components: shafts, keys, couplings; columns; bearings and lubrication; introduction to finite element analysis (FEA). Prerequisite: MECH 276. Annually.

MECH 374   Instrumentation & Measurements   (3 crs)

This course covers the whole spectrum of measurement and instrumentation concepts: sensor classification, calibration and characteristics; measurement chain and interfacing concepts; data acquisition, manipulation, transmission, and recording; measurement of various physical variables; computer application (e.g. LabVIEW); and practical team project. Prerequisites: EECE 210 and MATH 205.

MECH 376   Kinematics of Mechanical Systems   (3 crs)

This course covers the following topics: kinematics fundamentals, Grashof condition, graphical linkage syntheses, position analysis, computer-aided mechanism design, velocity analysis using graphical and analytical methods, acceleration analysis using analytical and graphical methods, dynamic force analysis, balancing of rotating machineries. Prerequisite: MECH 274. Annually.

MECH 400   Practical Training   (0 crs)

Supervised project/internship aimed at providing practical experience for Mechanical Engineering bachelor students. Prerequisite: Permission of the Instructor.

MECH 401   Final Year Project I   (0 crs)

A supervised project, normally in groups of three students, aimed at providing a practical experience in some aspects of mechanical engineering. Students are expected to complete a literature survey, project specification, critical analysis, and to acquire the necessary material needed for their intended end product.

MECH 402   Final Year Project II   (3 crs)

A course in which the students integrate their acquired knowledge and skills to deliver the product researched and planned in MECH 401. Prerequisite: MECH 401.

MECH 413   Air Conditioning   (3 crs)
This course covers the following: review of basic concepts and fundamentals of thermodynamics, psychrometry, human comfort, heat transfer in residential building, heating load calculations, cooling load calculations, required air quantities for cooling or heating. Prerequisite: MECH 275. Annually.

MECH 431   Mechanical Vibrations   (3 crs)
This course covers the response of discrete single, two- and multi-degree of freedom systems to vibration, free and forced vibration, response of damped and undamped systems to vibration, damping cases: underdamped, critically damped and overdamped systems, Lagrange's equation, base excitation, rotating imbalance, vibration Isolation, and introduction to human responses to vibration. Prerequisite: MECH 274, Co-requisite MATH 210. Annually.

Electives

MECH 314   Fluid Power   (3 crs)
This course covers the following topics: fundamental concept of fluid power transmission, properties of conventional fluid, control valves, positive and non positive displacement pumps, compressors, motors, cylinders, electro-hydraulic and pneumatic valves, graphical symbols, circuit and systems, compressible fluid properties, and applications of fluid power. Prerequisite: MECH 277.

MECH 410   PLC and Industrial Automation   (3 crs)
This course covers PLC operation, PLC memory, ladder logic; structured logic, flowchart-based, and state-based design, instruction list and structured text programming, Interface of sensors, actuators, and I/O devices, selecting PLC, projects. Prerequisite: MECH 374.

MECH 412   Internal Combustion Engines   (3 crs)
This course covers the fundamental principles underlying the theory and analysis of reciprocating internal combustion engines, fuels, carburetion, combustion, exhaust emissions, detonation, fuel injection, and factors affecting performance. Prerequisite: MECH 275.

MECH 414   Gas Turbines   (3 crs)
This course covers the thermodynamic and aerodynamic theory that forms the basis of gas turbine design: shaft power cycles; gas turbine cycles; turbofan and turbojet engines; design and analysis of centrifugal and axial flow compressors and turbines. Prerequisites: MECH 275 and MECH 277.

MECH 415   Steam Turbines   (3 crs)
This course covers the following topics: impulse and reaction steam turbines, steam turbine cycles, flow of steam in nozzles, design aspects of turbines, stage losses and efficiency, velocity diagrams; impulse and reaction blading velocities; nucleation, condensation and two-phase phenomena in flowing steam. Prerequisites: MECH 275 and MECH 277.

MECH 416   Fluids Engineering Application   (3 crs)
This course covers the following topics: potential flow and boundary layer analysis; lift and drag; flow separation; viscous internal channel flow and lubrication theory; compressible flow in nozzles and ducts; normal shock waves and channel flow with friction or heat transfer; fluid machinery including pumps and hydraulic turbines. Prerequisite: MECH 277.

MECH 417   Thermal Power Plant   (3 crs)
This course covers the fundamental principles, theory, design and operation of thermal power plants. It also covers available technologies behind the existing thermal power plants and the up-to-date technologies available for future plants. Topics covered include: thermodynamic power cycles, energy conversion, boilers and furnaces, energy economy and analysis and sustainable power generation. Prerequisites: MECH 275 and MECH 277.

MECH 430   Mechatronics and Intelligent Machines Engineering   (3 crs)
This course covers the following topics: electromechanical systems and mechatronics; data; numbering systems, microcontroller, assembly language programming, A/D and D/A conversion; parallel I/O, programmable timer operation, interfacing sensors and actuators, applications; design project and implementation of a mechatronics system. Prerequisite: MECH 374.

MECH 441   Mechanical Design II   (3 crs)
This course covers the design and selection of mechanical elements including gears,(spur, helical, bevel, and worm gears), springs, screws and fasteners, clutches and brakes, belts and chain drive. The course also includes practical sessions and team project. Prerequisite: MECH 373.

MECH 444   Environmental Impacts of Energy Systems   (3 crs)
This course talks about world energy resources and classifications. It covers sources and effects of air pollution, air quality modeling, Gaussian dispersion models, motor vehicles emissions and noise pollution, mitigation strategies, environmental impacts of electricity generation, pollution control systems, electromagnetic radiations. Prerequisite: ENGR 100..

MECH 450   Computer Applications in Mechanical Engineering   (3 crs)
This course teaches students how to use computer software to solve problems from various topics of mechanical engineering; topics may include but not restricted to stress analysis, vibration, heat transfer, and fluid flow. Computer applications may include but not restricted to the use of finite element method software, MATLAB and CFD. Prerequisite: EECE 130, and one of the following: MECH 277, MECH 371, MECH 373, MECH 431.

MECH 453   Robotics   (3 crs)
This course covers the following topics: introduction to robotics, coordinate systems, robot arms, end effectors, sensors, application of sensors in robots, programming of robots, safety considerations. Prerequisite: MECH 374.

MECH 454   Artificial Intelligence   (3 crs)
This course covers the following topics: introduction to artificial intelligence (AI), knowledge perception, predicate logic, machine learning, decision tree learning,

two and multiple layers artificial neural networks (ANN) , logic programming, genetic algorithms, genetic programming. Prerequisites: EECE 130 and MATH 335.

MECH 455   Hydraulics   **(3 crs)**

This course covers the fundamental and operating principles of hydraulics and pumps/turbines: applied principles and practical features of hydraulics and pumps/turbines, internal flow in conduits, turbo-machinery, classifications of pumps, Classifications of hydraulic turbines. Prerequisite MECH 277.

MECH 490   Renewable Energy   **(3 crs)**

This course covers the whole spectrum of renewable energy: wind, solar, tidal, biomass, etc. The course also covers hybrid system as well as nuclear energy and its role in the 21st century (and beyond) and how it fits in with other forms of "renewable energy". Prerequisite: MECH 275.

MECH 499   Special Topics in Mechanical Engineering   **(1-3 crs)**

This independent course will cover a particular topic, varying from semester to semester, in which there is a particular student or staff interest. Prerequisite: Permission of the Instructor and approval of the Department.

Laboratories

MECH 270L   Solid Mechanics Lab   **(# crs)**

This laboratory covers different experiments related to properties of materials; experiments include Hooke's law, tensile test, bending test, creep test, hardness test, impact test, torsion test, and fatigue test. Co-requisite: MECH 270.

MECH 274L   Mechanical Dynamics Laboratory   **(# crs)**

This laboratory covers the following experiments: falling objects, projectile motion, acceleration and force, Newton's third law, tension, conservation of momentum, conservation of energy: free fall, pendulum, spring, roller coaster; oscillation; rotational inertia. Prerequisite: MECH 274.

MECH 277L   Fluid Mechanics Laboratory   **(# crs)**

This laboratory covers different experiments that may include: measurement of flow rate, Bernoulli's theorem, centre of pressure, floatation characteristics, centrifugal pumps, cavitations in centrifugal pumps, characteristics of two pumps in series, pipe friction losses, friction in bends and fittings, momentum of flow, Pelton turbine, hydraulic Ram Pump, free and forced vortices. Co-requisite: MECH 277.

MECH 315L   Thermal Laboratory   **(# crs)**

This laboratory is meant to compliment the thermodynamics and heat transfer courses. Experiments include: linear heat conduction, radial heat conduction, combined convection and radiation, extended surface heat transfer, heat exchangers, saturation pressure, expansion processes of a perfect gas, steam power plant cycle. Co-requisite: MECH 371.

MECH 413L   HVAC and Refrigeration Laboratory   **(# crs)**

This laboratory covers the following experiments: different air conditioning

processes, sensible heating, sensible cooling, humidification, heating and humidification, cooling and dehumidification. It also covers experiments on the refrigeration cycle, cooling towers and small and ducted split systems. Prerequisite: MECH 413.

MECH 444L   Fuel Cell Laboratory   (# crs)
This laboratory covers the following experiments: the basic functions of the fuel cell system, the characteristic curve of a fuel cell, parameters influencing the characteristic curve, determination of the hydrogen current curve, efficiency of the fuel cell stack, set-up of a fuel cell power supply, efficiency of a fuel cell power supply, characteristic curves of the solar panel, solar power-fuel cell hybrid, parallel and series switching of fuel cells, and examples of fuel cell applications. Prerequisite: ENGR 100.

Mechatronics Engineering

Career Opportunities

The interdisciplinary nature of contemporary engineering systems opens up career opportunities for a mechatronics engineer in any engineering fields involving machinery and embedded intelligence. This includes but is not limited to: the electronics industry, automotive industries, forensic sciences, power generation industry, petrochemical industry, biomedical systems, the entertainment industry, media, forensic sciences, and so on.

Program Overview

The Mechatronics Engineering program offers two undergraduate degrees: the 2- year Diploma in Mechatronics Engineering degree and the 4- year Bachelor of Science (BS) in Mechatronics Engineering degree. The first common year with other engineering majors will allow students to switch between the engineering majors at the start of the second year of their study.

The curriculum is designed to comply with the requirements of the Accrediting Board of Engineering and Technology (ABET), which comprise at least 30 credit-hours of mathematics and basic sciences, at least 62 credit-hours of engineering sciences and engineering design, and at least 12 credit-hours of social sciences and humanities, excluding language and technical writing courses.

The university, college, and program requirements for the bachelor degree in mechatronics engineering are listed in the College introductory pages.

Study Plan

Year I		
Semester 1 (Fall)		**17 Credits**
Code	**Course Title**	**Credit Hours**
CMPS 100B	Introduction to Technical Computing for the Sciences	3
ENGL 101	Basic Academic English I	3
MATH 199	Calculus I	3

PHYS 170	Fundamentals of Physics I	3
ARAB 101	Academic Writing in Arabic	3
ENGR 105	Engineering Graphics	2

Semester 2 (Spring)		17 Credits
Code	**Course Title**	**Credit Hours**
MATH 120	Geometry and Trigonometry	3
EECE 210	Electric Circuits I	3
EECE 210L	Electric Circuits Laboratory I	1
ENGR 110	Engineering Workshop	1
ENGL 102	Basic Academic English II	3
ENGR 100	Introduction to Engineering	3
MATH 200	Calculus II	3
Year II		
Semester 3 (Summer)		**9 Credits**
Code	**Course Title**	**Credit Hours**
ENGL 203	Advanced Academic English I	3
MATH 205	Calculus III	3
SOCS 102	Omani Society	3
Semester 4 (Fall)		**16 Credits**
Code	**Course Title**	**Credit Hours**
EECE 130	Computers and Programming I	3
TRON 130L	Programming Laboratory	1
EECE 212	Electronics I	3
TRON 213	Digital Logic Fundamentals	3
MECH 272	Mechanical Statics	3
MECH 271	Industrial Maintenance	3

Semester 5 (Spring)		16 Credits
Code	Course Title	Credit Hours
TRON 214	Introduction to Mechatronics + Laboratory	3
TRON 274	Instrumentation and Measurements	3
TRON 274L	Instrumentation and Measurements Laboratory	1
MECH 274	Mechanical Dynamics	3
MECH 274L	Mechanical Dynamics Laboratory	1
MECH 276	Strength of Materials	3
MECH 279	CAD/CAM and CNC Machines	2
Semester 6 (Summer)		**3 Credits**
Code	Course Title	Credit Hours
MECH 299	Practical training for Diploma Students	0
MATH 210	Differential Equations (for BS students only)	3
Completion of the Diploma program in MTE: Total Credits 75		

Year III		
Semester 7 (Fall)		**15 Credits**
Code	Course Title	Credit Hours
ENGL 280	Business English	3
MATH 335	Math for Science and Engineering	3
TRON 310	Microcontroller Programming and Interface + Lab	3
TRON 312	Thermofluid Engineering	3
MECH 376	Kinematics of Mechanical systems	3
Semester 8 (Spring)		**15 Credits**
Code	Course Title	Credit Hours
ENGR 300	Engineering Economy	3
MECH 373	Mechanical Design I	3
TRON 311	Embedded Systems Design + Laboratory	3
SOCS 200	World Civilizations II	3
EECE 340	Signals and Systems	3

Year IV		
Semester 9 (Summer)		**0 Credits**
Code	Course Title	Credit Hours
TRON 400	Practical Training	0
Semester 10 (Fall)		**15 Credits**
Code	Course Title	Credit Hours
TRON 472	Control Systems + Laboratory	3
TRON 401	Final Year Project I	0
MECH 431	Mechanical Vibrations	3
TRON 410	PLC and Industrial Automation + Laboratory	3
TRON 313	Fluid Power	3
	Science Elective	3

Semester 11 (Spring)	15 Credits

Code	Course Title	Credit Hours
TRON 402	Final Year Project II	3
	Two TRON Technical Electives	6
	Free General Elective	3
ARAB 103	Communication skills in Arabic language	3
Completion of the BS program in MTE: Total Credits 138		

Course Description

Core Courses

MECH 271   Industrial Maintenance   (3 crs)
This course equips students with a variety of technical skill areas such as mechanical installation, power transmission, bearings, shaft alignment, lubrication, fluid power, piping systems, fasteners, and safety at the workplace. *Prerequisites: ENGR 100, ENGR 110*.

TRON 130L   Programming Lab   (1 crs)
This laboratory is meant to provide mechatronics students with hands-on experience in using important engineering software such as LabVIEW, MATLAB, SIMULINK, assembly language, and others. *Prerequisite: ENGR 100*.

TRON 213   Digital Logic Fundamentals   (3 crs)
This course deals with number systems and codes, combinational circuit analysis, synthesis and practices, minimization methods, sequential logic design principles, latches and flip-flops, synchronous circuits, state machines, and an introduction to VHDL. Co-*requisite: TRON 212. Annually.*

TRON 214   Introduction to Mechatronics + Lab   (2 cr. Lec. 1 cr. Lab)
This course covers the following topics: introduction to mechatronics, microcontrollers and event driven programming, nonlinear circuit elements, operational amplifiers, signal conditioning, and PID control, digital I/O, data acquisition systems, sensors, actuators, dc motors, stepper motors, motor sizing, power transmission, digital design and integrated circuits. *Prerequisites: TRON 212* and *TRON 213.*

TRON 274   Instrumentation and Measurements   (3 crs)
This course covers the whole spectrum of measurement and instrumentation concepts: sensor classification, calibration and characteristics; measurement chain and interfacing concepts; data acquisition, manipulation, transmission, and recording, measurement of various physical variables, and introduction to LabVIEW. *Prerequisites*: *EECE 210 and MATH 205.*

TRON 274L   Instrumentation and Measurements Laboratory   (1 crs)
This laboratory is offered to compliment the Instrumentation and Measurement course. It gives the students practical experience related to engineering measurements, measuring instrumentations and data acquisitions from all sort of sensors. *Co-requisite TRON 274*.

TRON 299   Practical Training, for Diploma students   (0 crs)
An 8-week professional training course in mechatronics engineering in an established firm or unit.

TRON 310   Microcontroller Programming & Interface + Lab   (Lec 2 Lab 1)
This course covers an overview of the HCS12 MCU, instruction set and addressing modes, programming using Assembly and C languages, parallel I/O, serial interface, timers, A/D and D/A, hardware/software development tools, wireless communications, projects. *Prerequisites: TRON 130L* and *EECE 130.*

TRON 311   Embedded Systems Design + Lab   (2 cr. Lec. 1 cr. Lab)
Embedded technologies; software/hardware platforms and peripherals; processors FPGAs, ASICs; programming models; VHDL; design technologies; Interfacing; control systems; case studies (digital camera, etc.); project. *Prerequisite: TRON 213*.

TRON 312   Thermofluid Engineering   (3 crs)
This course covers the fundamentals of thermodynamics, fluid mechanics and heat transfer: thermodynamics properties of substances, work and heat, closed and open systems, analysis of gas and vapor cycles; fluid at rest, dynamics of fluid flow, Bernoulli and energy equations. *Prerequisite: MECH 272.*

TRON 313   Fluid Power   (3 crs)
This course covers the following topics: fundamental concept of fluid power transmission, properties of conventional fluid and compressible fluid, valves, positive and non-positive displacement pumps, compressors, motors, cylinders, graphical symbols, circuit and systems. *Prerequisite: TRON 312.*

TRON 400   Approved Experience   (0 crs)
An 8- week supervised project/internship aimed at providing practical experience for MTE Engineering bachelor students.

TRON 401   Final Year Project—Design I   (0 crs)
A supervised project, normally in groups of three students, aimed at providing practical experience in some aspects of mechanical, computer, communications, and electrical engineering. Students are expected to complete a literature survey, project specification, critical analysis, and to acquire the necessary material needed for their intended end product.

TRON 402   Final Year Project—Design II   (3 crs)
In this course, the students integrate their acquired knowledge and skills to deliver the product researched and planned in TRON 401. *Prerequisite: TRON 401.*

TRON 410   PLC and Industrial Automation + Lab   (2 cr. Lec. 1 cr. Lab)
This course covers PLC operation, PLC memory, ladder logic; structured logic, flowchart-based, and state-based design, instruction list and structured text programming, Interface of sensors, actuators, and I/O devices, selecting PLC, projects. *Prerequisite: MECH 374*.

TRON 472   Control Systems + Lab   (2 cr. Lec. 1 cr. Lab)

This course covers the basic concepts of control theory: plant, controller, process, open-loop, feed-back control; Laplace transform; mathematical modeling of dynamic systems; state-space; linearization; transient and steady-state responses; stability; frequency-response analysis: bode diagram, Nyquist plots; lab may include software application (e.g. MATLAB or LabVIEW) and/or hardware equipment (inverted pendulum, level, pressure, temperature, motor speed control, etc.). *Prerequisite: MATH 210. Annually.*

TRON 499   Special Topics in Mechatronics Engineering   (1-3 crs)
This independent course will cover a particular topic suggested by a faculty member in the program and conducted by a student having the required pre-requisites. *Prerequisite: Permission of the Instructor, and approval of the Department.*

Major Electives

TRON 411   Technopreneurship   (3 crs)
Technology Entrepreneurship and opportunity; technology ventures; business model; business plan; product design; product planning and development; marketing and risk analysis; practical project.

TRON 452   Microprocessor Systems   (3 crs)
Microprocessor design principle including operation of machines and instruction cycles, internal CPU architecture including internal register organization, interfacing techniques including main memory and I/O design. *Prerequisite: TRON 213.*

TRON 453   Robotics   (3 crs)
This course covers an introduction to robotics, coordinate systems, robot arms, end effectors, sensors, application of sensors in robots, programming of robots, safety considerations. *Prerequisite TRON 214.*

TRON 454   Artificial Intelligence   (3 crs)
This course covers an introduction to Artificial Intelligence (AI), Knowledge perception, predicate logic, machine learning, decision tree learning, two and multiple layers artificial neural networks (ANN), logic programming, genetic algorithms, genetic programming. *Prerequisites: EECE 130 and MATH 335.*

TRON 455   Intelligent Systems   (3 crs)
This course covers the theory behind different intelligent systems. Comparison of conventional and fuzzy logic, fuzzy set theory, fuzzy logic control systems, fuzzy logic and approximate reasoning, artificial neural networks, feed forward networks and supervised learning, single layer feedback networks, unsupervised learning networks, applications of neural networks in control systems, sensor processing and communications, fuzzy neural integrated systems. *Prerequisites: EECE 130 and MATH 335.*

TRON 456   Computer Integrated Manufacturing   (3 crs)
This course covers automation principles and strategies, manufacturing operations, production concepts and mathematical models, material handling, transport, automated storage and retrieval systems, automatic data capture,

flexible manufacturing system, automated assembly systems, process planning and concurrent engineering. *Prerequisite: MECH 279*.

TRON 457   Power Electronics and Drives   (3 crs)
This course covers the following topics: power semiconductors devices, communication, power converters and control, adjustable speed dc and ac motor drives, applications of microprocessor and digital signal processor in power electronics. *Pre-requisite: TRON 212.*

TRON 458   Micro-electromechanical Systems   (3 crs)
This course covers introduction to micro-electromechanical systems (MEMS), materials, lithographic and atomically precise processes, MEMS-based sensors, microactuators, sensor-circuit integration, MEMS design techniques and applications. *Prerequisite: MECH 374*.

TRON 459   Applied Digital Signal Processing   (3 crs)
This course covers time-domain and frequency-domain analysis of discrete-time signal systems, FIR and IIR filter design, discrete Fourier transform and FFT algorithms, random signals, digital spectral analysis, system identification technique, DSP-based controller design and industrial analysis techniques. *Prerequisite: MATH 335.*

DEPARTMENT OF GRAPHIC DESIGN AND INTERIOR ARCHITECTURE ENGINEERING

Personnel

Department Chairperson: Cazacova, Liudmila
Assistant Professor: Cazacova, Liudmila
 Abdul Jabbar, Mohammed
 Eldin, Magdi
 Osmen, Wafa
 Werner, Astrid
 Hussein, Ghada
 Yapicioglu, Balkiz
Lecturer: Adam, Khaled;
 Vamanchery, Sanu
 Khan, Yawar
Laboratory Technician: Mustafa Mohammed, Laila
 Marwan Ahmed Bait Farhan

Mission

To provide students with a comprehensive education of professional quality that combines studio courses with design theory, history, digital media, and presentation skills. Students will be prepared to develop an active role in the community. The GDIA programs aim to apply international standards combined with awareness of professional ethics and social responsibilities to become cutting edge designers/interior architects, researchers and leaders in their field.

Degrees Offered

The Graphic Design and Interior Architecture offers the following degrees:

- Diploma in Interior Architecture Engineering
- Bachelor of Interior Architecture Engineering

Bachelor of Interior Architecture Engineering

Program Overview

The IAE Bachelor Program is designed to meet the Foundation for Interior Design Education Research (FIDER) standards for professional undergraduate degree programs. Most credits (at least 65 percent) are dedicated to studies in design, design history, art and design related areas while the remainder is taken in the liberal arts that support studies in Interior Architecture.

Interior Architecture Engineering combines art and science to create a distinct, functional, and eco-friendly living and working space. It seeks to improve the

human condition by focusing on people lifestyle, culture, comfort, health and safety. In a contemporary world, people's living space extends beyond home into the office, library, museum, airport, train station, or even a shopping center. Central to the IAE activities are drawing up interior elevators, working with lighting plans, furniture selection and layout, material specifications, scheduling, color schemes and space efficiency to maximize comfort, functionality, and aesthetic of the living space in the context of culture, anthropometrics, ergonomics and more.

To graduate with a Bachelor Degree in Interior Architecture Engineering, students must satisfactorily complete 137 credits taken over eleven semesters within four academic years, with an overall minimum average of 65 percent, and a cumulative average of 70 percent in the major courses.

The university, college, and program requirements for this program are listed in the College introductory pages.

Program Objectives

The objectives of the program are to:
- Provide students with solid, up-to-date information, professional experience and practice in the discipline.
- Develop creative designers/interior architects who are able to formulate, propose, and carry out design solutions relevant to the needs of people and the environment.
- Encourage research and creative thinking to identify and solve problems in response to user needs.
- Prepare students to play an active role in the community.
- Qualify graduates to work with competence and esthetical professionalism in the field.
- Equip students with the academic tools necessary to pursue a graduate degree in international academic institutions.

Program Learning Outcomes

Each student graduating from the Interior Architecture Engineering program will have:
- Identify design issues, to conduct research, and to provide solutions.
- Deal with a large scope of design projects, and to understand the different materials and technologies.
- Demonstrate creative and technical abilities for problem solving, and the capacity for critical thinking.
- Apply skills and knowledge in a studio area of concentration with an original creative concept brought into visual form with effective presentation.
- Define and integrate an understanding of the roles graphic designers/interior architects have in today's world.
- Practice graphic design / interior architecture in various contexts and cultures.
- Operate in a multidisciplinary environment.

- Serve the community in organizations in or within both the public and private sectors

Career Opportunities

Graduates of the Interior Architecture Engineering (IAE) program can expect to find employment in a wide range of industries and commercial enterprises, including design and construction firms, ministries and governmental agencies, furniture factories and showrooms, educational institutes, television stations, museums, airports, and cultural centers.

Study Plan: Diploma in Interior Architecture Engineering

Year I		
Fall Semester		**18Credits**
Code	**Course Title**	**Credit Hours**
INTA 130	Architectural Drawing I	3
ENGL 101	Basic Academic English I	3
GRDS 130	Basic Drawing	3
GRDS 131	Color Fundamentals	3
INTA 150	History of Architecture & Interior Design I	3
CMPS 100B	Introduction to Technical Computing for the Sciences	3
Spring Semester		**17 Credits**
Code	**Course Title**	**Credit Hours**
INTA 151	History of Architecture & Interior Design II	3
ENGL 102E	English for Engineering and Sciences I	3
INTA 131	Architectural Drawing II	3
INTA 201	Interior Architecture Foundation Studio I	5
INTA 220	Introduction to Computer Aided Drawing	3
Summer Semester		**9Credits**
Code	**Course Title**	**Credit Hours**
SOCS 102	Omani Society	3
ENGL 203E	English for Engineering and Sciences II	3
MATH 199	Calculus I	3

Year II		
Fall Semester		**15Credits**
Code	**Course Title**	**Credit Hours**
ENTR 200	Introduction to Entrepreneurship	3
INTA 202	Interior Architecture Studio II	5
INTA 202A	Design Theories I	1
INTA 221	Advanced Computer Aided Drawing	3
INTA 240	Interior Construction	3
Spring Semester		**15Credits**
Code	**Course Title**	**Credit Hours**
INTA 203	Interior Architecture Studio III	5
INTA 203A	Design Theories II	1
INTA242	Professional Practice for Interior Architecture	3
INTA 234	Modeling & Rendering	3
INTA 250	Environmental Control System in Interiors	3
Summer Semester		**0 Credits**
Code	**Course Title**	**Credit Hours**
INTA 299	Practical Training	0
Completion of Diploma Degree in Interior Architecture Engineering: Total Credits: 74		

Study Plan: Bachelor of Interior Architecture Engineering

Year I		
Fall Semester		**18 Credits**
Code	**Course Title**	**Credit Hours**
INTA 130	Architectural Drawing I	3
ENGL 101	Basic Academic English I	3
GRDS 130	Basic Drawing	3
ARAB 101	Academic Writing in Arabic	3
GRDS 131	Color Fundamentals	3
CMPS 100B	Introduction to Technical Computing for the Sciences	3
Spring Semester		**17 Credits**
Code	**Course Title**	**Credit Hours**
INTA 150	History of Architecture & Interior Design I	3
INTA 220	Introduction to Computer Aided Drawing	3
ENGL 102E	English for Engineering and Sciences I	3
INTA 131	Architectural Drawing II	3
INTA 201	Interior Architecture Foundation Studio I	5
Summer Semester		**9Credits**
Code	**Course Title**	**Credit Hours**
SOCS 102	Omani Society	3
ENGL 203E	English for Engineering and Sciences II	3

Code	Course Title	Credit Hours
MATH 199	Calculus I	3

Year II		
Fall Semester		**15 Credits**

Code	Course Title	Credit Hours
INTA 151	History of Architecture & Interior Design II	3
INTA 202	Interior Architecture Studio II	5
INTA 202A	Design Theories I	1
ENGL 204	Advanced English for Academic Purposes and Research	3
INTA 221	Advanced Computer Aided Drawing	3

Spring Semester		**15Credits**
Code	Course Title	Credit Hours
INTA 203	Interior Architecture Studio III	5
INTA 203A	Design Theories II	1
ENTR 200	Introduction to Entrepreneurship	3
INTA 234	Modeling & Rendering	3
INTA 240	Interior Construction	3

Year III		
Fall Semester		**16 Credits**

Code	Course Title	Credit Hours
INTA 304	Interior Architecture Studio IV	5
INTA 304A	Design Theories III	1
INTA 235	Color & Light	3
INTA 241	Materials in Interior Design	2
INTA 232	Visual Presentation Technique	2
INTA 250	Environmental Control System in Interiors	3

Spring Semester		**15 Credits**
Code	Course Title	Credit Hours
INTA 305	Interior Architecture Advanced Studio V	5
INTA 305A	Design Theories IV	1
INTA242	Professional Practice for Interior Architecture	3
INTA 344	Advanced Detailing	3
INTA 335	Modern Practices in Interior Design	3

Summer Semester		**3 Credits**
Code	Course Title	Credit Hours
INTA 400	Practical Training	0
ENGL 305	Advanced English Language and Communication Skills	3

Year IV		
Fall Semester		**15 Credits**

Code	Course Title	Credit Hours
INTA 406	Interior Architecture Advanced Studio VI	5
INTA 406A	Design Theories V	1
INTA 491	Final Year Project I	3
INTA 390	Exhibition Design	3
Code	INTA Elective	3

Spring Semester		15 Credits
Code	Course Title	Credit Hours
INTA 342	Furniture Design	2
INTA 492	Final Year Project II	5
INTA 445	Design Management	2
Code	INTA Elective	3
Code	INTA Elective	3
Completion of Bachelor of Interior Architecture Engineering :Total Credits: 137		

Technical Electives

The list of technical electives for students majoring in Interior Architecture Engineering (IAE) to choose from is given below.

Course Electives

Code	Course Title	Credit Hours
INTA 450	Introduction to Building Information Modeling (BIM)	3
INTA 497	Special Topics in Interior Architecture	3
INTA 501	Identification and Evaluation of the Historic Built Environment	2
INTA 502	Environmental Design Research	2
INTA 504	Human Factors	2

Course Description

INTA 130   Architectural Drawing I   (3 crs)
The course will supply the students with basic skills in the graphic communication of visual expressions. Practice will be provided for the control of the line thickness in plans, elevations and sections drawing as well as for generating clarity in spacing and crossing of lines in defining planar elements. These skills will emphasize space geometry expression in two-dimensional drawings. Skills to be addressed include: orthographic and parallel lines drawing techniques as well as lettering.

GRDS 130   Basic Drawing   (3 crs)
Freehand drawing with emphasis on the development of skills in perceiving line, shape, form, proportions, shading and rendering techniques in various types of pencils, charcoal and ink. Material and methodology: still life, landscape and life drawing, along with basics in perspective drawing.

INTA 131   Architectural Drawing II   (3 crs)
This course deals with more complex exercises on parallel line and orthographic drawings as well as with interiors perspective drawings. The knowledge of understanding and use of international conventions of architectural drawing symbols will be given. Architectural drawing phases as well as their content will

be highlighted. Skills to be addressed include: orthographic and perspective drawing, interior architecture drawing symbols. Prerequisite: INTA 130.

GRDS 131   Color Fundamentals   (3 crs)
Fundamentals of color theory and its application for the graphic designer, class lectures and demonstrations followed with exercises in color perception, color mixing, and the use of color symbolism from different cultural perspectives. Application of traditional and digital media.

INTA 150   History of Architecture and Interior Design I   (3 crs)
This course provides an overview of architecture and interior design's history development as a collective expression of art, architecture, science and culture times and as a resource to stimulate new ideas of eras spanning from prehistoric times up to the end of the Gothic period. Awareness of design typology, specific elements of interior decoration and ornamentation, furniture design evolution, metal works, ceramic and textile.

INTA 151   History of Architecture and Interior Design II   (3 crs)
This course is an overview of architecture and interior design's history development from early Renaissance until the beginning of Industrial Revolution (18th Century). The course provides the students with comprehensive knowledge of Islamic Architecture and Interior Design's history as well as with awareness of design typology, specific elements of interior decoration and ornamentation, furniture design evolution, metal works, ceramic and textile. Prerequisite: INTA 150.

INTA 201   Interior Architecture Studio I   (5 crs)
 The course is designed to provide students with communication skills and visual studies through 2D and 3D drawings. A set of projects given during the course will provide students with basics knowledge of design elements such as concept, space, scale, proportion, movement, texture, color and light. Skills to be addressed: small scale residential buildings interiors design (spaces types and relationships, sizes and functions) projects; projects presentation; modeling. Prerequisites: INTA 130, GRDS 130.

INTA 202   Interior Architecture Studio II   (5 crs)
The course continues the content and purpose of INTA 201 and concentrates on students' design skills improvement. Skills to be addressed: medium scale residential buildings (two-three-four storied dwellings) interiors design projects, and projects visualization (including modeling). Prerequisite: INTA 201.

INTA   Design Theories I   (1 crs)
202A
The course is theoretical support to the course Interior Design Studio II and provides students with comprehensive knowledge required for studio projects implementations. Co-requisite: INTA 202.

INTA 220   Introduction to Computer Aided Drawing   (3 crs)
Provides training for basic CAD applications using the Windows operating system. Develops basic familiarities and proficiency with applications commonly encountered during professional training. Prerequisite: CMPS 100B.

INTA 240   Interior Construction   (3 crs)
Basic interior detailing, millwork and cabinetry elements. These elements must be developed and coordinated to construct interior space. Detailing, technical drawings, specifications and scheduling are therefore integral to design development. Prerequisites: INTA 201, INTA 131.

INTA 203   Interior Architecture Studio III   (5 crs)
Advanced concepts are used in the development and application of planning techniques and spatial concepts. Emphasis is on research and analysis of existing structures, contextual development of interior solutions, building constraints, accessibility standards and specialized product and materials specifications. The attention will be attracted to the space/form shaping and compositions within the limits of the built environment. Students will obtain skills in designing large-scale residential projects. Projects topics may include: large scale residences, blocks of flats, etc. Prerequisite: INTA 202.

INTA   Design Theories II   (1 crs)
203A
The course is theoretical support to the course Interior Design Studio III and provides students with comprehensive knowledge required for studio projects implementations. Co-requisite: INTA 203.

INTA 221   Advanced Computer Aided Drawing   (3 crs)
Computer-aided architectural design focuses on a variety of CAD applications in order to show the similarities (basic principles of CAD) and the idiosyncrasies of the individual applications, as well as modeling of existing interior spaces utilizing selected CAD applications. Prerequisite: INTA 220.

INTA 234   Modeling and Rendering   (3 crs)
Rationalized, geometrical approach to the perception and description of form. Selected examples of architectural form are first rigorously analyzed to re-derive their constructional logic and then are "built" as detailed electronic models. Students explore the potential of digital design technologies as instruments to achieve vivid, authentic, holistic simulations of architectural reality, appropriate to the testing of architectural ideas. Taught in a modified studio format. Prerequisites: INTA 220.

INTA 299   Practical Training   (0 crs)
Diploma students are required to undergo 8- weeks of professional training in Interior Architecture with a qualified firm.

INTA 232   Visual Presentation Techniques   (2 crs)
This course intends to emphasize the interior design visual communication as a range of styles and techniques. The students will be provided with up-to-date information of visual presentation techniques. Different phases of the design are studied in terms of connection between design process and presentation. Skills to be addressed: presentation of interior spaces in written and visual language; presentation technique tools and means including modeling. Pre-requisite: INTA 234.

INTA 235   Color and Light   (2 crs)

The fundamentals, principles and art of light and color, as well as their visual and physical effects in interior design are studied. The course explores light and color as important elements in interior space through the study of related perceptual and physical factors. It introduces relevant terminology to define light and color as attributes of architectural and interior space: illumination levels and temperatures, light sources, fixtures, materials, etc. Prerequisites: GRDS 131, INTA 201.

INTA 241   Materials in Interior Design   (2 crs)
The course introduces to the students the large range of materials used in interior architecture. The understanding of materials, furnishings and accessories' selection criteria and usage of them based on analyses of human factors will be introduced. The importance of using local and ecological materials in interiors as well as considering local market availability will be studied. Skills to be addressed: material for interiors (including ecological), materials selection criteria. Prerequisite: INTA 240.

INTA 242   Professional Practice   (3 crs)
This course prepares students for the professional world. Starting with self-promotion, resume writing, building up a portfolio then addressing ways to set up a professional practice, client handling, scheduling projects, writing estimates, billing, etc., while covering the basic knowledge of construction planning, and site inspection. The material is covered through lectures, discussions, assignments, field trips to Interior and/or Architectural agencies and construction sites.

INTA 250   Environmental Control Systems in Interiors   (3 crs)
Provides an integrated presentation of environmental control systems (lighting, heating, ventilating, air conditioning, sanitary and acoustics) with special attention to the needs of interior designers. Systems are presented as they influence one another and as they constrain interior space planning and design. Prerequisite: INTA 240.

INTA 304   Interior Architecture Studio IV   (5 crs)
The course continues the content and purpose of INTA 203 with a special emphasis on planning techniques and volumetric concepts for the design of large-scale buildings' interiors. Course components include research applied to selected client identities, design criteria for special population groups, building constraints and accessibility standards, modular design, project specifications and creative presentation methods. Projects topics may include: educational facilities, office buildings, shopping centers, etc. Prerequisite: INTA 203.

INTA   Design Theories III   (1 crs)
304A
The course is theoretical support to the course Interior Design Studio IV and provides students with comprehensive knowledge required for implementation of studio projects. Co-requisite: INTA 304.

INTA 342   Furniture Design   (2 crs)
Exploration of the basic function and design of furniture as it relates to human factors, such as anthropometrics and ergonomics. The course provides a link

between historical, theoretical and practical experience. It defines the elements of form, function and aesthetic by exploring experimental concepts and adopting alternative ways of thinking about the objects that surround us. Furniture models built to scale, or other presentation techniques, will be applied as needed to effectively support the evolution of new concepts. Prerequisite: INTA 240.

INTA 305   Interior Architecture Advanced Studio V   (5 crs)
A comprehensive design project management, integrating all aspects of design, theoretical, technological and representational, that allows students to perform various scales of investigation within one design problem. Students will obtain skills on working drawing's production. Projects topics may include: governmental facilities, small structural changes and additions to buildings, headquarters, T.V. studios, etc. Prerequisite: INTA 304.

INTA 305A   Design Theories III   (1 crs)
The course is theoretical support to the course Interior Design Studio IV and provides students with comprehensive knowledge required for implementation of studio projects. Co-requisite: INTA 305.

INTA 335   Modern Practices in Interior Design   (3 crs)
Focus on 19th and 20th century interior design theories and practices, exposing students to the various international schools of thought. Lectures and discussions focus on practitioners who have influenced contemporary practices worldwide. Prerequisite: INTA 151.

INTA 344   Advanced Detailing   (3 crs)
Development of a greater focus on holistic and sustainable approaches to design. Issues such as demand and supply of energy and water, and the generation of waste are covered. Principles of reduce, reuse and recycle are reiterated. Predominant emphasis is on practical strategies directly applicable in design. Material is presented as lectures and seminars, supplemented with readings. Students should present a detailed project at the end of the course. Prerequisite: INTA 240.

INTA 390   Exhibition Design   (3 crs)
Essential research, planning and design tools to prepare and produce persuasive exhibition and environments such as product shows, museums and gallery interiors. The course explores topics of planning, lighting, stagecraft, narrative composition and human perception. Prerequisites: INTA 344, INTA 305, INTA 235.

INTA 400   Practical Training   (0 crs)
Bachelor students are required to undergo eight-week of on-the-job experience with an approved professional firm. Prerequisite: INTA 305.

INTA 406   Interior Architecture Advanced Studio VI   (5 crs)
This is a research directed design studio. Students pursue directed research in support of a design investigation. It focuses on topics related the aspects of architectural design such as history/theory, technology, representation, and heritage resource management etc. Solutions for the problems in interior architecture related to the high levels of complexity, with emphasis on reuse and adaptabilities are covered. Project topics may include: leisure facilities buildings

and public spaces design.   Prerequisite: INTA 305.

INTA 406A   **Design Theories V**   **(1 crs)**

The course is theoretical support to the course Interior Design Studio VI and provides students with comprehensive knowledge required for studio projects implementations. Co-requisite: INTA 406.

INTA 491   **Final Year Project I**   **(3 crs)**

Students are required to choose a design topic with the guidance of a supervisor and approval of faculty. Each student prepares an individual program for INTA 492, concluding with a formal and bound document. Prerequisite: INTA 305.

INTA 492   **Final Year Project II**   **(5 crs)**

Involves individual design resolution based upon the research findings initiated in INTA 491. The final project is developed under the guidance and advice of a faculty supervisor and is presented and defended in a formal public jury. Prerequisite: INTA 491.

INTA 445   **Design Management**   **(2 crs)**

Principles and practices of the economic and commercial aspects of architectural and design practice in a global economy. Microeconomics theory as it applies to private enterprise: basic business economics, planning and management. Attention is also given to the processes and skills required in establishing an independent architectural office. Prerequisites: GRDS 340, INTA 406.

Electives

INTA 450   **Introduction to Building Information Modeling (BIM)**   **(3 crs)**

Building Information Modeling is a smart 3D model-based process that provides students with a wide range of skills for creating and manipulating building design projects faster, more economically, and with less environmental impact. Autodesk Revit will be used to develop building design, visualization, drawing sets, tables, and detailing.

INTA 497   **Special Topics in Interior Architecture**   **(3 crs)**

This independent course will cover a particular topic suggested by a faculty member in the program and conducted by a student having the required pre-requisites. Prerequisite: Permission of the Instructor, and approval of the Department.

INTA 501   **Identification and Evaluation of the Historic Built Environment**   **(3 crs)**

Methods, techniques and theories of researching, analyzing, documenting and evaluating the historic built environment. Includes architectural survey field methods, documentation techniques, archival research and approaches to evaluating historic significance. Prerequisite: INTA 151.

INTA 502   **Environmental Design Research**   **(3 crs)**

Advanced skills for identifying research questions and methods for accomplishing research in the environmental field. Design research project is planned. Emphasis

on research process including problem identification, literature review, data collection and analysis. Prerequisite: INTA 250.

INTA 504   Human Factors   **(3 crs)**
The psychology of the client or user is a crucial factor influencing the design of the environment and the practice of interior architecture. Facts will be gathered about the interaction of the environment and user's culture, gender, stage of life cycle and physical characteristics. Prerequisite: INTA 241.

GRADUATE STUDIES

GRADUATE STUDIES

Degrees Offered

Dhofar University (DU) offers eight graduate programs leading to:

- Master in Curriculum and Instruction: Teaching English Language (In English)
- Master of Business Administration (in English)
- Master of Arts in English (in English)
- Master of Science in Information Technology (in English)
- Master of Science in Electrical and Computer Engineering (in English)
- Master in Management (in Arabic)
- Master of Education in Counseling (in Arabic)
- Master of Education in Educational Administration (in Arabic)

Admission Requirements and Criteria

Students who are admitted to a graduate program are assigned to one of four categories:

- Admission on good standing
- Provisional Admission
- Admission on Probation
- Special Admission

Admission on Good Standing

For admission on good standing the applicant must fulfill the criteria as specified by each college. The detailed descriptive requirements are specified under each Master's program below.

Provisional Admission

Students who meet all the criteria for admission on good standing but did not complete their bachelor degree requirements at the time of registration may be offered provisional admission. Change of this status into the status of 'admission on good standing' requires satisfaction of all requirements for admission within one semester after registration.

Admission on Probation

Students who do not meet the admission requirements for a particular graduate program may be admitted on probation. The conditions for removal of probation shall be determined by the admission committee for that program. However, under no circumstances shall a student be admitted as a regular graduate student or a graduate student on probation if he/she does not hold a bachelor degree or its equivalent from a university or college recognized by MoHE.

Special Admission

Students who have a bachelor degree and wish to enroll in one or more courses without working for a master degree may be admitted as special students not working for a degree. If they later wish to work for a degree, they must make a formal application and meet all the admission requirements set by DU.

Approval of MoHE

All admissions to the graduate programs are provisional subject to final approval by MoHE.

Application Procedure

To apply for admission to a graduate program, the applicant must submit the following:

- A completed application form
- Two letters of recommendation
- Official transcripts for all undergraduate and/or graduate course work
- IELTS score or equivalent for applicants for the Master in Curriculum and Instruction: Teaching English Language (*validity of these tests is limited to two years from the date of taking the exam*).
- Application fee of RO 50.

The student is required to undergo an interview with the Graduate Studies Committee of the relevant college.

Deadlines for Applications

Applications should reach the Admission and Registration Department early so that the student has enough time to prepare himself/herself to join the University. The last dates for accepting applications for admission are the end of August for admission to the fall semester and the end of January for admission to the spring semester. No students are admitted to the summer session. Students applying through the Higher Education Admission Center should adhere to the requirements indicated on their web site: http://www.heac.gov.om/

Graduate Study by Faculty and Staff

Full-time faculty and staff, with the approval of their supervisors and the Board of Graduate Programs, can take up to 6 credit hours of graduate courses per semester. Their admission to a graduate program is subject to the admission requirements of that program. Such students will be obliged to complete all the requirements within the stipulated permissible time span.

Admission of University Employees

The University encourages its employees who aspire to raise their level of education to work towards completing higher degrees of education by taking courses while working in the University. The University extends its financial assistance to spouses of eligible faculty members and staff who are not working, but would like to study at the University. DU staff members may be allowed to take 6 credit hours of graduate courses per semester. However, they will be obliged to complete all the requirements within the stipulated permissible time span.

Academic Rules and Regulations

All academic rules and regulations for undergraduate studies apply to graduate studies, except where indicated otherwise.

Dropping and Adding Courses

After selecting a schedule, a student has the opportunity to make changes during the Drop and Add period, which is usually the first week of the semester, after which no changes are possible without the permission of the academic advisor and the approval of the Graduate Studies Committee of the college. A student should take care not to change all the courses he/she has previously chosen, but only one or two courses, if change is a must.

Academic Probation and Dismissal

A student working for a master degree may be placed on academic probation by the faculty graduate committee. A graduate student is placed on academic probation if he/she:

- Is admitted to graduate study on probation,
- Fails in any course taken for graduate credit, or
- Does not maintain a cumulative average of 75%

The college graduate committee may discontinue a master student from graduate study if:

- Probation status is not removed within a period of two semesters or two probations during his/her study
- The work of the student is deemed unsatisfactory by the department
- The student fails the comprehensive examination twice, or fails the project or thesis defense twice
- The student violates the laws of Oman or the student code of conduct including plagiarizing and cheating

Class Attendance and Absence Rules

Graduate students are expected to attend all classes, laboratory work or required field work. A student is responsible for the work that is done, and for any announcements that are made during his/her absence.

Students who, during a semester, miss more than one-fifth (20%) of the sessions of any course in the first fourteen weeks of the semester will be dropped from the course. (Summer semester option is not available to masters' students)

Students who withdraw from a course are given a grade of "W", but those who are forced to withdraw from a course will receive a grade of "WA".

Credit Load

The minimum course load in any one semester is 6 credit hours (for working students) and the maximum 9 credit hours (for full-time students).

Assessment and Examinations

The relevant rules and regulations for undergraduate programs also apply to graduate programs.

Missed Exams

Graduate students who miss an announced examination test or quiz or fail to submit a paper must present an excuse considered valid by the instructor of the course. The course instructor should then require the student to take a make-up examination or submit the missed paper within four weeks of the start of the next semester. Failure to do so will result in failing the course.

Failing Courses

If a graduate student fails a course, no re-examination is permitted. A student who fails a required course must repeat the course at the earliest possible opportunity. A student who fails an elective course may not have to repeat it as long as he/she can achieve the minimum cumulative average and the minimum number of credits required for graduation.

Repeating Courses

A student may repeat any course for which he/she received a grade of less than 75. A student who fails a course three times will be dropped from the program/major. When a course is repeated, the highest grade will be considered in the calculation of the cumulative average. All course grades will remain a part of the student's permanent record.

Passing Grade

The minimum passing grade for a graduate course is 70%. However, students in graduate study are required to maintain a cumulative average of at least 75% in all courses taken for graduate credit. Results of projects are reported as Pass (P) or Fail (F).

Incomplete "I" Work

The relevant rules and regulations for undergraduate programs also apply to graduate programs.

Residence Requirements

To meet the minimum residence requirements for the master degree, a student must register full time and be in residence as a graduate student for at least three semesters. (Summer semesters are not allowed as laid down in deadlines for applications section). The last semester may be exempted from the residence requirement for thesis writing.

All requirements for the master degree must be completed within a period of four years after admission to graduate study. Extension beyond the maximum allowed period of study requires the approval of the graduate studies committee of the college, which shall not exceed one year in any case.

Other Academic Rules and Regulations

Rules and regulations about the grading system, failing courses, repeating courses, student discipline, plagiarism, and smoking, dropping the semester, and withdrawal from the University are the same for undergraduate and graduate students. For details, read the relevant sections in this catalogue.

Graduate Student Supervision

During the first semester of graduate study, the department chair or program coordinator will assign an academic advisor to the student. The advisor will guide and help the student in planning a course of study. At a later date, each student will be assigned a project advisor who must be a full-time member of the faculty and who will serve as chairperson of the project committee. The project advisor should be of a professorial rank. (i.e. Professor, Associate Professor, or Assistant Professor)

The proposal of the master's project topic and the selection of the advisor and the members of the project committee should receive the approval of the college graduate committee and the Board of Graduate Programs.

Master's Project

A research project based on the results of original, independent research must be undertaken in partial fulfillment of the requirements for the master degree. The nature, scope, and content of the final project/thesis will be determined by the student in consultation with the project advisor. Students must follow APA style.

Copies of the project/thesis, bound, should be submitted by the student to the members of the project committee at least two weeks before the project defense. Two copies of the approved project/thesis should be deposited in the university library.

A student, who is not able to finish his/her project/thesis within one semester can register up to two additional times with the consent of his/her project advisor. The student will pay for the three credits project or 6 credits thesis on his/her first registration, but will not be billed for the two additional registration rounds. Normally students are only allowed a maximum of three registrations, taking into consideration that the master degree should be completed within four years.

Master's Thesis

A research thesis based on results of original, independent research must be undertaken in partial fulfillment of the requirements for the master degree. The nature, scope, and content of the final thesis will be determined by the student in consultation with the thesis advisor. Students must follow the form and style described in the latest edition of K. L. Turabian, Manual for Writers of Term papers, Theses, and Dissertations (University of Chicago Press), or any other form specified by the department or program.

Copies of the thesis bound, should be submitted by the student to the members of the thesis committee at least two weeks before the thesis defense. Two copies of the approved thesis should be deposited in the university library.

A student who is not able to finish his/her thesis within two semesters, with the consent of his/her thesis advisor, can register up to two additional times. The student will pay for the six credits thesis on his/her first registration, but will not be billed for the two additional registration rounds. Normally students are only allowed a maximum of three registrations, taking into consideration that the master degree should be completed within four years.

Tuition Fees for Graduate Programs

Tuitions fees are as follows:
- 110 Omani Riyals per credit hour for the Master of Education in Curriculum and Instruction: Teaching English Language.
- 125 Omani Riyals per credit hour for the Masters of Education in Education counseling and the Masters of Education in Educational Administration.

- 125 Omani Riyals per credit hour for the Master in Management.
- 150 Omani Riyals per credit hour for the Master of Electrical and Computer Engineering program, the Master of Arts in English program, and the Masters in Business Administration Program.
- Late payments can be settled during the first week of the semester with a charge of RO 50 as a late payment fee for graduate students, while undergraduate students pay RO 30. Any student who does not meet his/her financial obligations by the end of the first week of the semester will not be allowed to attend classes during that semester.

Fees are paid in full every semester before classes begin. Late payments can be settled during the first week of the semester with a charge of 50 OR as a late payment fee. Any student who does not meet his/her financial obligations by the end of the first week of the semester will not be allowed to attend classes during that semester.

Tuition Fee Refund

- Full tuition fee will be refunded only to students who withdraw from the semester before the end of the first week of classes.
- 50% of tuition fees will be refunded to students who withdraw before the end of the second week of classes.
- **NO REFUND** will be made to students who withdraw from the semester after the beginning of the third week of classes.

The above fees do not include books, transportation, and housing expenses.

Master of Education in Curriculum and Instruction: Teaching English Language

Objectives

The Master in Curriculum and Instruction: Teaching English Language at Dhofar University is a two-year program that aims to prepare effective teachers and practitioners according to international standards and contemporary thought in the field. In addition, the program aims to equip its graduates with the requisite skills and competencies for conducting action research as well as utilizing modern technology in their teaching and professional practice.

Graduates of the program will understand the theory and practice of language education pedagogy, curriculum planning and delivery, classroom supervision, materials and techniques, and student learning and assessment in language education.

Overview

The program of study consists of a series of specialization courses in language acquisition, second language teaching and learning, assessment and evaluation, and designing and producing educational materials. In addition, students are required to complete core courses in educational psychology, research design and methodology, and the foundations of language education. The program is composed of the following components:

Course Work

Students will follow the program of study that is described below under the supervision of their academic advisors. That program is made of a set of nine required courses and another set of elective courses from which the students should select two.

Field Experience

Students will be required to carry out field investigations, conduct interviews and have opportunities to discuss and apply the concepts covered during the course work. There are practical components in most courses which should take place in schools to get first hand experiences about designing and implementing lesson plans to teach the various skills of listening, speaking, reading, and writing as well as language rules and mechanics, as well as communicative English use.

Projects/Theses

The students should make field observations, collect, and analyze data from the field. The nature, scope, and content of the final project/thesis will be determined by the student in consultation with the faculty advisor. The project/thesis work should be presented in the form of a comprehensive report that follows international standards in reporting scientific research in human sciences.

Admission Requirements

Admission to the Master in Curriculum and Instruction: Teaching English Language is competitive and requires the candidate to:

1. Have a bachelor degree in English language, English literature, translation (English-Arabic), or Education (English emphasis) recognized by the Ministry of Higher Education; with a minimum average of 75/100 or equivalent.
2. Submit official transcripts for all undergraduate and/or graduate course work
3. Pass an English entrance exam that includes all English language skills, or present an official certificate of passing IELTS level 5.5 or higher, or a paper-based TOEFL score of 550 or higher, or equivalent.
4. Succeed in the admission interview conducted by the Graduate Studies Committee of the college

Course Load

It is preferred that students would follow the specified study plan, which distributes the courses on four semesters. However, students may select to take a reduced load of no less than six credits per semester if they are employed while studying. The maximum course load is 12 credits per semester.

Graduation Requirements

To graduate with a Master of Education in Curriculum and Instruction: Teaching English Language, a student must:

- Complete successfully the specified program of study with a minimum CGPA of 75%.

- Present official evidence of passing IELTS level 6.5, or TOEFL with a minimum score of 600, or equivalent.

- Complete a Master's project/thesis

Program

Required Courses:

This set consists of the following 9 courses encompassing 27 credit hours:

- EDUC 502: Advanced Topics in General Instructional Methods of Teaching

- EDUC 506: Instructional Methods in Teaching ESL/EFL

- EDUC 508: Computer Assisted Language Learning

- EDUC 585: Assessment and Evaluation in Teaching ESL/EFL

- EDUC 590: Research Methods in Education

- EDUC 605: Advanced Topics in Instructional Strategies in ESL/EFL

- EDUC 625: Curricula and Pedagogical Issues in Teaching ESL/EFL

- EDUC 690: Project/thesis (3 or 6 credit hours)

Elective Courses:

Two or three courses encompassing 6 or 9 credit hours are chosen from the following list (nine for project choice and six for thesis choice):

- EDUC 500: Learning and Developmental Psychology
- EDUC 504: Advanced Topics in Education Systems in Oman and the GCC Countries
- EDUC 505: Foundations of Education
- EDUC 530: Cross-Cultural Communication
- EDUC 550: Guidance and Counseling
- EDUC 557: Advanced Study of Educational Organization and Administration
- EDUC 570: Theories of Intelligence and Learning Styles
- EDUC 573: Instructional Design and Applications
- EDUC 587: Standardized Measures for English Language Skills
- EDUC 611: Models of Second Language Acquisition
- EDUC 615: Program Curriculum, Materials, and Syllabus Design
- EDUC 630: Designing Digital Media for Educational Applications
- EDUC 510: Statistical Analysis Methods for Research in Humanities

Study Plan

Year I		
Semester 1 (Fall)		**12 Credits**
Code	**Course Title**	**Credit Hours**
EDUC 502	Advanced Topics in General Instructional Methods of Teaching	3
EDUC 590	Research Methods in Education	3
EDUC 506	Instructional Methods in teaching ESL/EFL	3
Elective	Elective course	3
Total		12
Semester 2 (Spring)		**12 Credits**
Code	**Course Title**	**Credit Hours**
EDUC 585	Assessment and Evaluation in Teaching ESL/EFL	3
EDUC 508	Computer Assisted Language Learning	3
EDUC 605	Advanced Topics in Instructional Strategies in ESL/EFL	3
Elective		3
Total		12

Year II		
Semester 3 (Fall)		**6 Credits**
Code	**Course Title**	**Credit hours**
EDUC 625	Curricula and Pedagogical Issues in Teaching ESL/EFL	3
Elective	(for students selecting the project)	3
Semester 4 (Spring)		**6 Credits**
Code	**Course Title**	**Credit hours**
EDUC 690	Project/Thesis Implementation	(3 credits for project or 6 credits for thesis)
Total		33

Course Description

EDUC 500   Learning and Developmental Psychology   (3 credits)
The essential concepts of the theories which explain learning by humans such as behaviorism, cognitive learning, observational learning (modeling), and meta cognition. The general concept of developmental psychology with focus on the importance and relation to education. An introduction to individual differences among learners and learning styles.

EDUC 502   Advanced Topics in General Methods of Teaching   (3 credits)
Advanced study of cognitive learning and models of teaching, advantages of cognitive models over behaviorist models, instructional planning, teaching strategies, classroom management, and evaluation procedures. Detailed

discussion of essential thinking skills and the teaching of thinking with emphasis on conceptual understanding in teaching. Teaching/learning models such as: Social Interaction Model, Inductive Model, Interactive Model, Problem-based Learning Model, Cooperative Learning, differences and characteristics of Direct and Indirect models of instruction will be covered.

EDUC 504   Advanced Topics in Education Systems in Oman   (3 credits)
            and the GCC Countries
Study and analysis of the educational systems of the Sultanate of Oman and the GCC Countries along with comparisons with relevant international systems. Students' field trips to educational institutions will be organized and reports will be discussed in class. Course may be offered in Arabic.

EDUC 505   Foundations of Education   (3 credits)
Detailed study of the history and development of education and pioneers in education. Selected educators from Greece, Italy, China, Egypt, India, and the Islamic world will be studied and their theories will be analyzed with focus on their effect on the modern education.

EDUC 506   Instructional Methods in Teaching ESL/EFL   (3 credits)
A survey of the theoretical principles and techniques of various methods of Teaching English Language. Focus is on linking theory to practice through the preparation and implementation of instructional units and lesson plans both in simulated and actual classroom setting. The course includes practicum field experience of about 30 classroom sessions in schools.

EDUC 508   Computer Assisted Language Learning   (3 credits)
Study of the state-of-the-art of information and communication technologies (ICT) applications in enhancing language teaching and learning with focus on English language applications. Students will develop ESL/EFL teaching materials and conduct classroom activities using ICT with special attention to the use of the internet.

**EDUC 510   Statistical Analysis Methods for Research in   (3 credits)
            Humanities**

Coverage of data types, the statistical analysis methods that are commonly used in education such as descriptive statistics, tabulation methods, measures of central tendencies, correlation, and basic inferential statistics. Students

should practice data collection and perform statistical analysis for the collected data, and present the results to the class.

EDUC 530   Cross-Cultural Communication   (3 credits)

Study of social, ethical and cultural effects on oral and written communication across cultures. Topics include body language, stereotypes, titles and respect, turn taking, narrative structuring, intonation, request, disagreement and

criticism and their educational implications. Case studies of different speech communities will be discussed and compared with the Omani culture.

EDUC 550   Guidance and Counseling   (3 credits)

A study of the role of college and high school counselors in guiding and helping students academically and in all other areas affecting their academic and social life. Prerequisite: EDUC 500.

**EDUC 557   Advanced Study of Educational Organization and   (3 credits)
            Administration**

Study of the administrative and organizational theory and its application to the operation of educational organizations. The role, functions, and responsibilities of the educational administrator will be covered.

EDUC 570   Theories of Intelligence and Learning Styles   (3 credits)

This applications-focused course will be based on theories of intelligence, including those of Howard Gardner, Daniel Goleman, and other classroom based approaches for understanding intelligence from multiple perspectives.

The course will also help students to distinguish between knowledge domains (such Bloom's Taxonomy, as well as others that have been introduced in the last 20 years), learning styles, and concepts of intelligence, with an emphasis on how such distinctions can serve in the development and implementation of student-centered classroom activities.

EDUC 573   Instructional Design and Applications   (3 credits)

This course focuses on the application of instructional design principles to the development of instruction. Topics include issues, trends, foundations, instructional design stages, and technology. Students are expected to produce original samples to demonstrate the implementation of instructional design principles.

EDUC 585   Assessment and Evaluation in Teaching ESL/EFL   (3 credits)
Principles and procedures of assessment. Focus is on evaluating learning, and behavior changes among learners, observation techniques, and performance measures; alignment of assessment and instruction; norm- and criterion referenced assessment; standardized tests, current issues and controversies. Significant attention to applications in language skills and communication. The course includes practicum field experience of about 30 classroom sessions in schools.

**EDUC 587   Standardized Measures for English Language   (3 credits)
            Skills**
This course covers the history and application of standardized measures that are used to evaluate English language skills internationally such as TOEFL and IELTS with their variations. Students will have hands-on experience with those tests, analyze their components, discuss cultural significance of those tests, and produce reports about them with focus on the relation between cultural and linguistic issues.

EDUC 590   Research Methods in Education   (3 credits)
Coverage of the steps needed in planning for a research in education. The types of research design: quantitative versus qualitative research. Sampling techniques. Data collection methods. Designing data collection and measurement tools. Critical reading of empirical research in the varied areas of education. Students should produce samples of research designs for educational use and present them to the class.

**EDUC 605   Advanced Topics in Instructional Strategies in   (3 credits)
            ESL/EFL**
A study and application of the modern communicative approaches to the teaching of grammar, speaking, listening, reading, writing, culture, and testing. Students prepare instructional materials and complete a series of lesson plans and apply them to a teaching context. The course include practicum field experience of about 30 classroom sessions in schools. Pre-requisite: EDUC 507.

EDUC 611   Models of Second Language Acquisition   (3 credits)
This course introduces students to the study of second language acquisition and provides them with training in the collection, analysis, and interpretation of representative learner language data in second language contexts. Course topics include universals of language acquisition, major theoretical models of second language acquisition, and individual differences in second language acquisition. Implications for language teaching are also addressed.

**EDUC 615   Program Curriculum, Materials, and Syllabus   (3 credits)
            Design**
Basic competencies in curriculum planning, material adaptation, course development, task design, and lesson planning. Participants will design sample programs, instructional units, determine objectives, develop materials, and plan lessons and assessment tools.

**EDUC 625   Curricular and Pedagogical Issues in Teaching   (3 credits)
             ESL/EFL**

Critical exploration of current issues in Teaching English Language curricula and pedagogy. Students explore, conceptualize, and formulate informed positions regarding current issues in curriculum design and implementation, teaching and assessment of learning, psycholinguistics, sociolinguistics, and language and communication more generally.

**EDUC 630   Designing Digital Media for Educational   (3 credits)
             Applications**

This course focuses on the study and application of instructional design principles to the development of multimedia materials. Students are expected to design and develop a multimedia project using the discussed techniques.

EDUC 690   Project/Thesis Implementation   (6 or 3 credits)

Students implement the design of their final projects that were developed in EDUC 590. They should demonstrate abilities to conduct and report research about teaching English language in an Omani educational institution. The completed project/thesis should be presented to a special panel of experts. The project work should be presented in a standard research report format that includes sections about definition of the problem, literature review, research design, study implementation, results, data analysis, discussion, and conclusion. Pre-requisite: All core and elective courses.

Master of Education in Educational Administration

Program Objectives

The Master in Educational Administration at Dhofar University is a two-year program that aims to prepare effective educational administrators and practitioners according to international standards and contemporary thought in the field. In addition, the program aims to equip its graduates with the requisite skills and competencies for conducting action research as well as utilizing modern technology in their administrational and professional practice.

Graduates of the program will understand the theory and practice of educational administration aspects such as plan.

Graduates of the program will be able to manage daily activities and oversee a variety of educational institutions, including, schools and colleges and universities. They set educational standards and goals and set up procedures and policies to accomplish them. They oversee teachers, librarians, counselors, coaches, managers and support staff.

Program Overview

The program of study consists of a series of specialization courses in educational administration to qualify the graduates to create an educational program, train and inspire teachers and staff, monitor the overall school students' achievement progress, prepare school, institutional budgets and manage records, career counseling and other student services.

Course Work

Students will follow the program of study that is described below under the supervision of their academic advisors. That program is made of a set of seven compulsory courses and another set of elective courses from which the students should select two (In the case of thesis) or 3 credit hours in the case of project.

Professional Portfolio

All through the program the students will collect the materials that were developed during the course work and that attest to the student's convictions, accomplishments, and experiences. Students will also identify personal strengths, limitations, and develop goals for their on-going professional development.

Learning Outcomes

The Master in Educational Administration program aims to produce graduates who:

- Are well prepared in educational thought, scientific research methodology, decision making, dealing with all educational issues.
- Understand the various types of supervision, planning, educational economics, professional development and educational administration.

Admission Requirements

Admission to the Master of Education in Educational Administration program is competitive and requires the candidate to:

1. Have a bachelor degree recognized by the Ministry of Higher Education in any field of study.
2. Success in the admission interview conducted by the University.

Graduation Requirements

To graduate with a Master's degree in Educational Administration, a student must:

- Satisfactorily complete 33 credits with a cumulative average of no less than 75%. The passing grade in a graduate course is 70%.

- Complete a master's project/thesis

Program Overview

The program consists of 33 credit hours distributed as follows:

- 21 credit hours of required core courses
- 6 credit hours of elective courses for the thesis choice or 9 for the project stream.
- 3 credit hours of research project -or 6 credit hours for the thesis stream.

Required Courses

- EDUC 591   RESEARCH METHODS IN EDUCATION
- EDUC 670   EDUCATIONAL ADMINISTRATION
- EDUC 671   EDUCATIONAL PLANNING
- EDUC 672   EDUCATIONAL SUPERVISION
- EDUC 673   MODERN TECH IN EDUCATION
- EDUC 674   READINGS IN ED. ADM IN ENGLISH
- EDUC 675   ECONOMICS OF ED.
- EDUC 695   THESIS (6CREDITS) OR EDUC 692 PROJECT (3 CREDITS)

Elective Courses

- EDUC 525   ORGANIZATION BEHAVIOUR
- EDUC 555   PERSONNEL MANAGEMENT
- EDUC 677   PROFESSIONAL DEVELOPMENT IN EDUCATION
- EDUC 635   EFFECTIVE TEACHING
- EDUC 680 CURRICULUM
- EDUC 678 STATISTICAL ANALYSIS IN EDUCATION
- MNGT 460 PERFORMANCE APPRAISAL
- MNGT 457 SERVICE MANAGEMENT

Study Plan

Year I		
Semester 1 (Fall)		**12 credits**
Code	**Course title**	**Credit hours**
EDUC 670	Educational Administration	3
EDUC 671	Educational planning	3
EDUC 591	Research Methods and Statistics in Education	3
Elective	Elective course	3
Total		**12**
Semester 2 (spring)		**12 credits**
EDUC672	Educational Supervision	3
EDUC 673	Technology of Education	3
EDUC 675	Economics of Education	3
Elective	Elective Course	3
Total		**12**

Year II		
Semester 3 (Fall) **3 credits hours (thesis stream) 6 credit hours (project stream)**		
Code	**Course title**	**Credit hours**
EDUC 674	Reading Educational Administration in English	3
Elective	Elective course (in case project track)	3
Total		**6**
Semester 4		
Code	**Course title**	
EDUC 695 OR EDUC 692	Thesis (6 credit hours) Project (3 credit hours)	

For course descriptions, see the Arabic version of the program.

Master of Arts in English (Three Concentration Track Program)

Objectives

- Consistent with its aims, the course in MA in English has the following objectives:
- To introduce key concepts and findings in a range of literary, linguistic and translation studies
- To introduce issues suitable for literary, linguistic and translation research and also applied research in these areas
- To expose students to the key works related to their study in literature, linguistics and translation
- To expose students to the features of well-known literary translations and enable them to exhibit such or similar qualities in their own translation
- To develop methodological and analytical understanding and expertise in literature, linguistics, translation and applied linguistic procedures (Note: The term 'applied' is understood here in the broad sense of linguistic, literary and translation theories and frameworks being applied to a wide range of data, texts and contexts)
- To integrate linguistic, literary and translation theories with practice and offer a choice of specialism within the program
- To raise students' awareness of interdisciplinary aspects in the courses and develop their analytical abilities of examining/investigating cross-cultural perspectives
- To prepare students for, and ensure their active participation in, literary, linguistic and translation activities of, and for, the community
- To provide the foundation for further research in literature, linguistics, and translation at Ph D level
- To prepare linguistics, literature and translation experts for careers such as professional language/linguistics/literature/translation teachers, and translators/interpreters, materials writers, research assistants, etc.

Concentration Tracks

The MA in English program is offered in the following **THREE** concentration tracks:
- Linguistics Track
- Literature Track
- Translation Track

The candidate enrolling for the MA in English program has the option of choosing any ONE of the three tracks according to his/her academic background and inclination.

Intended Learning Outcomes:

After successfully completing the course, the students will be able to:
- Demonstrate the knowledge of the informed use of linguistic, literary and translation terms and concepts.
- Identify the issues suitable for linguistic, literary and translation research and carry out theoretical and/or applied research in one of these areas.
- Construct the knowledge of key works and research being carried out in different areas of linguistics, literature and translation.
- Analyze linguistic, literary and translation data from English and other languages using existing models and frameworks or by evolving one's own framework.
- Demonstrate the knowledge and skills of researching and presenting assignments and projects.

Admission Requirements

Admission to the Master of Arts in English is competitive and requires the candidate to:
- Have a bachelor degree recognized by the Ministry of Higher Education in English Language, Linguistics, Translation or related field.
- Have a score not less than the average of 'Good', i.e. 75-79%, or a GPA of 2.5 out of 4.0 or a cumulative grade letter of C+.
- Have IELTS with minimum band 6 or its equivalent.
- Succeed in the admission interview conducted by the University.

Program Requirements
The MA in English program is offered in TWO modes:
(A) Thesis Option
(B) Comprehensive Examination Option

(A) The Thesis Option requires the completion of 36 credit hours consisting of the following:
- Core courses
- Concentration track elective courses
- Master Thesis

(B) The Comprehensive Examination Option requires the completion of 36 credit hours consisting of the following:
- Core courses
- Concentration track elective courses
- Comprehensive Examination
- Research Paper

Graduation Requirements
Graduation Requirements: Thesis Option

A student is required to successfully complete the following:
- Completion of 30 credit hours of course work, with a minimum required score of 70 % in individual subjects and a cumulative average of 75 %, distributed as follows:
  - A: 21 credit hours of compulsory courses
  - B: 9 credit hours of elective courses (Students will be required to choose 2 elective courses from his or her choice of track plus 1 elective course from any of the other two tracks.)
- Submission and successful defense of a thesis of 10,000-12,000 words, which is worth 6 credit hours (ENGL 636: Master Thesis).

Graduation Requirements: Comprehensive Examination Option

A student is required to successfully complete the following:
- Completion of 36 credit hours of course work, with a minimum required score of 70 % in individual subjects and a cumulative average of 75 %, distributed as follows:
  - A: 21 credit hours of compulsory courses
  - B: 12 credit hours of elective courses (Students will be required to choose 3 elective courses from his or her choice of track plus 1 elective course from any of the other two tracks.)
- Passing a Comprehensive Examination
- Submission and presentation of a research paper of approximately 4000 words in literature/linguistics/translation in accordance with the choice of concentration track worth 3 credit hours (ENGL 635: Research Paper)

Medium of Instruction
Medium of Instruction for this program is ENGLISH language.

Program Tuition Fees
The program tuition fees will be RO 125 per one credit hour. This fee is subject to change as per the decision of the university from time to time.

Total Credits
Total credits for the program is 36 credit hours.

Detailed Semester-wise Courses and Plan of Study: Thesis Mode

M. A. in English - The Linguistics Track (Thesis Mode-Plan of Study A1)		
Year I		
Semester 1 (Fall)		**9 credits**
Code	**Course title**	**Credit hours**
ENGL 610	Research Methodology	3
ENGL 613	Modern Linguistics	3
Elective	1 Linguistics Track Elective Course	3
Total		**9**
Semester 2 (spring)		**9 credits**
ENGL 611	Renaissance Literature	3
ENGL 615	Translation Techniques	3
Elective	1 Linguistics Track Elective Course	3
Total		**9**

Year II		
Semester 3 (Fall)		
Code	**Course title**	**Credit hours**
ENGL 612	Studies in Victorian and Modern Literature	3
ENGL 614	Phonetics and Phonology	3
ENGL 616	Translation Theory and Practice	3
Total		**9**
Semester 4 (spring)		
Code	**Course title**	
Elective	1 Linguistics Track Elective Course	3
ENGL 636	Master Thesis	6
Total		**9**

Elective Courses

- ENGL 623   Phonology and Morphology
- ENGL 624   Applied Linguistics
- ENGL 625   Semantics and Pragmatics
- ENGL 626   Sociolinguistics
- ENGL 627   Discourse Analysis
- ENGL 628   Special Topics in Linguistics

M. A. in English - The Literature Track (Thesis Mode-Plan of Study A2)	
Year I	

Semester 1 (Fall)	9 credits
Code **Course title**	**Credit hours**
ENGL 610 Research Methodology	3
ENGL 613 Modern Linguistics	3
Elective 1 Literature Track Elective Course	3
Total	**9**
Semester 2 (spring)	**9 credits**
ENGL 611 Renaissance Literature	3
ENGL 615 Translation Techniques	3
Elective 1 Literature Track Elective Course	3
Total	**9**

Year II	
Semester 3 (Fall)	
Code **Course title**	**Credit hours**
ENGL 612 Studies in Victorian and Modern Literature	3
ENGL 614 Phonetics and Phonology	3
ENGL 616 Translation Theory and Practice	3
Total	**9**
Semester 4 (spring)	
Code **Course title**	
Elective 1 Literature Track Elective Course	3
ENGL 636 Master Thesis	6
Total	**9**

Elective Courses

- ENGL 617   Nineteenth-Century poetry
- ENGL 618   Nineteenth-Century Novel
- ENGL 619   Modern Novel
- ENGL 620   Modern Drama
- ENGL 621   Modern Poetry
- ENGL 622   Special Topics in Literature
- ENGL 640   Postcolonial Literature

M. A. in English - The Translation Track (Thesis Mode-Plan of Study A3)	
Year I	

Semester 1 (Fall)	9 credits
Code **Course title**	**Credit hours**
ENGL 610 Research Methodology	3
ENGL 613 Modern Linguistics	3
Elective 1 Translation Track Elective Course	3
Total	**9**
Semester 2 (spring)	**9 credits**
ENGL 611 Renaissance Literature	3
ENGL 615 Translation Techniques	3
Elective 1 Translation Track Elective Course	3
Total	**9**

Year II	
Semester 3 (Fall)	
Code **Course title**	**Credit hours**
ENGL 612 Studies in Victorian and Modern Literature	3
ENGL 614 Phonetics and Phonology	3
ENGL 616 Translation Theory and Practice	3
Total	**9**
Semester 4 (spring)	
Code **Course title**	
Elective 1 Translation Track Elective Course	3
ENGL 636 Master Thesis	6
Total	**9**

Elective Courses

- ENGL 629   Advanced Lexicography and Terminology
- ENGL 630   Advanced Scientific and Technical Translation
- ENGL 631   Literary Translation and Cross-Cultural Pragmatics
- ENGL 632   Legal Translation
- ENGL 633   Consecutive and Simultaneous Interpreting
- ENGL 634   Special Topics in Translation

Detailed Semester-wise Courses and Plan of Study: Comprehensive Exam Mode

M. A. in English - The Linguistics Track (Comprehensive Exam Mode - Plan of Study B1)		
Year I		
Semester 1 (Fall)		**9 credits**
Code	**Course title**	**Credit hours**
ENGL 610	Research Methodology	3
ENGL 613	Modern Linguistics	3
Elective	1 Linguistics Track Elective Course	3
Total		**9**
Semester 2 (spring)		**9 credits**
ENGL 611	Renaissance Literature	3
ENGL 615	Translation Techniques	3
Elective	1 Linguistics Track Elective Course	3
Total		**9**

Year II		
Semester 3 (Fall)		
Code	**Course title**	**Credit hours**
ENGL 612	Studies in Victorian and Modern Literature	3
ENGL 614	Phonetics and Phonology	3
ENGL 616	Translation Theory and Practice	3
Total		**9**
Semester 4 (spring)		
Code	**Course title**	**Credit hours**
Elective	2 Linguistics Track Elective Course	6
ENGL 635	Research paper	3
	Comprehensive Exam	0
Total		**9**

Elective Courses

- ENGL 623   Phonology and Morphology
- ENGL 624   Applied Linguistics
- ENGL 625   Semantics and Pragmatics
- ENGL 626   Sociolinguistics
- ENGL 627   Discourse Analysis
- ENGL 628   Special Topics in Linguistics

Elective Courses

M. A. in English - The Literature Track (Comprehensive Exam Mode-Plan of Study B2)	
Year I	

Semester 1 (Fall)	**9 credits**
Code **Course title**	**Credit hours**
ENGL 610 Research Methodology	3
ENGL 613 Modern Linguistics	3
Elective 1 Literature Track Elective Course	3
Total	**9**
Semester 2 (spring)	**9 credits**
ENGL 611 Renaissance Literature	3
ENGL 615 Translation Techniques	3
Elective 1 Literature Track Elective Course	3
Total	**9**

Year II	
Semester 3 (Fall)	
Code **Course title**	**Credit hours**
ENGL 612 Studies in Victorian and Modern Literature	3
ENGL 614 Phonetics and Phonology	3
ENGL 616 Translation Theory and Practice	3
Total	**9**
Semester 4 (spring)	
Code **Course title**	
Elective 2 Linguistics Track Elective Course	6
ENGL 635 Research paper	3
Comprehensive Exam	0
Total	**9**

- ENGL 617   Nineteenth-Century poetry
- ENGL 618   Nineteenth-Century Novel
- ENGL 619   Modern Novel
- ENGL 620   Modern Drama
- ENGL 621   Modern Poetry
- ENGL 622   Special Topics in Literature
- ENGL 640   Postcolonial Literature

M. A. in English - The Translation Track (Comprehensive Exam Mode-Plan of Study B3)		
Year I		
Semester 1 (Fall)		**9 credits**
Code	**Course title**	**Credit hours**
ENGL 610	Research Methodology	3
ENGL 613	Modern Linguistics	3
Elective	1 Translation Track Elective Course	3
Total		**9**
Semester 2 (spring)		**9 credits**
ENGL 611	Renaissance Literature	3
ENGL 615	Translation Techniques	3
Elective	1 Translation Track Elective Course	3
Total		**9**

Year II		
Semester 3 (Fall)		
Code	**Course title**	**Credit hours**
ENGL 612	Studies in Victorian and Modern Literature	3
ENGL 614	Phonetics and Phonology	3
ENGL 616	Translation Theory and Practice	3
Total		**9**
Semester 4 (spring)		
Code	**Course title**	
Elective	2 Linguistics Track Elective Course	6
ENGL 635	Research paper	3
	Comprehensive Exam	0
Total		**9**

Elective Courses

- ENGL 629   Advanced Lexicography and Terminology
- ENGL 630   Advanced Scientific and Technical Translation
- ENGL 631   Literary Translation and Cross-Cultural Pragmatics
- ENGL 632   Legal Translation
- ENGL 633   Consecutive and Simultaneous Interpreting
- ENGL 634   Special Topics in Translation

Course Descriptions: Compulsory Courses

ENGL 610: Research Methodology   **3 Credits**
This course is essential preparation for undertaking the research involved in the course work, assignments, and dissertation and is taken by all students. It deals with theoretical, ethical and methodological issues central to research in linguistics and aims to provide support for any postgraduate student undertaking research. Focusing upon the scientific method the course on research methodology teaches students how to state a problem and the purpose of the study, to formulate hypotheses, to review related literature, to collect and analyze data, and develop critical perspectives in view of the findings and relevant research input and support. It also introduces students to the various types of research and research tools. Attention is also given to other areas of expertise such as descriptive and analytical bibliography; note-taking; editing of manuscripts; ethics of documenting; and effective use of library and the computer.

ENGL 611: Renaissance Literature   **3 Credits**
The course studies a variety of dramatic or non-dramatic genres and authors writing in the sixteenth and seventeenth centuries. It covers Elizabethan, Jacobean, and Caroline literature. Students are expected to develop close familiarity with the literary types and genres such as tragedy, comedy, satire, sonnet, epic, and metaphysical poetry. Major writers such as Shakespeare, Marlowe, Spenser, Sidney, More, Donne and Milton can be studied in depth. The course can focus on the works of one writer or single works by related writers.

ENGL 612: Studies in Victorian and Modern Literature   **3 Credits**
The course is a thorough study of a single writer, a group of writers, a literary genre or a literary trend of the period. Students will have a chance to analyze the historical transformations of literature and thought during nineteenth- and twentieth- centuries.

ENGL613: Modern Linguistics   **3 Credits**
This course aims at dealing with language, and its various aspects in details. In addition, it provides the phrase structure framework and transformational framework. Besides, it explores other alternative frameworks initiated by Firth, Halliday, and Fillmore. Further, it illustrates its applications in language teaching, contrastive analysis, error analysis, stylistics, and translation.

ENGL 614: Phonetics and Phonology   **3 Credits**
The Phonetics part of the course deals with articulatory, auditory and acoustic aspects of speech, anatomy and physiology of speech production, classification of sounds in various categories, other aspects of articulation such as segmental articulation and supra segmentals, etc. It also provides training in broad and narrow transcription. The Phonological component of the course involves studying various aspects of phonemic organization, phonological representations, and prosodic phonology.

ENGL 615: Translation Techniques   **3 Credits**

This course introduces general principles, parameters, and techniques of translation and provides students with training in translation of a variety of texts. Students will develop and strengthen methods and techniques to tackle challenging texts through annotated translations with commentaries, editing exercises, and textual analyses which will enable them to draw conclusions concerning the purpose of the original message and the role of a translator as communicator.

ENGL 616: Translation Theory and Practice   **3 Credits**

This course will introduce different theories of translation to students such as the theory of approximation, principle of translation equivalence, transliteration, transcreation, paraphrase and interpretation, etc. The course also focuses on providing students with skills and knowledge required to translate a variety of texts and to apply theoretical frameworks to translating and interpreting processes and to use appropriate meta language to analyze and evaluate aspects of practice.

Course Descriptions: Elective Courses (Literature Track)

ENGL 617: Nineteenth-Century poetry   **3 Credits**

The course studies the poetry of a single poet, a trend of poetry, or a selection of poems from the 19th-century. The literary works will be studied within the context of major literary and social developments in the century.

ENGL 618: Nineteenth-Century Novel   **3 Credits**

The course studies the works of a single novelist or a selection of novels from the 19th-century. The literary works will be studied within the context of major literary and social developments in the century. The works of major novelists like Dickens, Thackeray, the Brontes, Hardy, and George Eliot can be studied in the course.

ENGL 619: Modern Novel   **3 Credits**

The course studies twentieth –century novel in England and America. Major authors or novels from both sides of the Atlantic will be subject to study in the course. Writers like Joyce, Woolf, James, Dreiser, Fitzgerald, Hemingway, Faulkner, Steinbeck and Ellison, among others, can be dealt with in the course.

ENGL 620: Modern Drama   **3 Credits**

The course studies a selection of modern British and American plays, a school of drama, or the works of one major playwright. The course will address the major trends of modern drama as in the selection of plays chosen for study in the course. Major representative playwrights as O'Neill, Miller, Williams, Sheppard, Shaw, Eliot, Osborne, Pinter, Stoppard, and others can be given attention in this course.

ENGL 621: Modern Poetry   **3 Credits**

The course studies twentieth –century poetry in England and America. Major poets or poems from both sides of the Atlantic will be subject to study in the

course. Writers like Eliot, Pound, Stevens, Williams, Frost, Plath, Auden, Dylan Thomas, Kathleene Raine, Watkins, and Harwood, among others, can be dealt with in the course.

ENGL 622: Special Topics in Literature   **3 Credits**
The course studies one topic or theme across a number of works from the same or a different genre.

ENGL 640: Postcolonial Literature
The course studies a selection of Postcolonial writings by authors from countries that were subject to European colonization. The list of writers includes Edward Said, Joseph Conrad, J. G. Farrell, Gabriel José Garcia Marquez, Michael Ondaatje, and Amitav Ghosh. The course will address major topics and themes related to colonization and the dynamics of the discourse between the colonizer and the colonized best expressed in Conrad's The Heart of Darkness and best explained in Edward Said's Orientalism. The works selected are from different countries and express different experiences.

Course Descriptions: Elective Courses (Linguistics Track)

ENGL 623: Phonology and Morphology   **3 Credits**
Phonological part of the course revises issues in phonological representations and focuses on generative phonology. It also deals with providing practical exercises in phoneme analysis and the formulation of rules. And, the morphological part focuses on a general review of basic concepts involved in morphological studies and the study of word formation rules and their representations. It also deals with phonological changes involved in word formation processes and phonology-morphology and morphology-syntax interface.

ENGL 624: Applied Linguistics   **3 Credits**
This course basically deals with the fundamentals of theoretical and applied linguistics, application of linguistic analysis, errors and mistakes in L2 output, models and methods of language learning/acquisition and syllabus design. It also focuses on the basics of language testing and evaluation.

ENGL 625: Semantics and Pragmatics   **3 Credits**
The first part of the course deals with the study of those aspects of meaning that primarily depend on the linguistic aspects of language and involves the review of some basic concepts of meaning and sense relations. It further focuses on the semantic components of the lexicon, sentence meaning, and pragmatic meaning. The second part, i.e. Pragmatics begins with focusing on the relationship between semantics and pragmatics leading to the study of speaker intention and frameworks for describing speech acts. It further focuses on looking at hearer inferences and comprehension, and relevant frameworks, such as Grice's Cooperative Principles and the social dynamics of interaction considering politeness theories, the role of context and various ways of describing it. It also concerns the application of pragmatic theories of meaning to cross-cultural situations.

ENGL 626: Sociolinguistics   **3 Credits**

The course introduces the fundamental concepts involved in the study of the inseparable relationship between language and society. The students will learn about the main ways of language variation in terms of social, geographical and stylistic differences in spoken English. Further, the parallels between this type of variation and the use of two languages (bilingualism) and more languages (multilingualism) will be drawn. The methods of studying language in sociolinguistics will be introduced that link linguistic and social concerns.

ENGL 627: Discourse Analysis   **3 Credits**

Discourse is understood in Social Sciences and Humanities in many different ways. In this course we will approach discourse in two main ways. Firstly, discourse as structured use of language in which sense we will involve investigation of the ways in which words, phrases and sentences combine together and make sense. Here the linguistic descriptions are of social relevance. Secondly, discourse as large-scale ways of thinking, talking and relating to others in social contexts will focus on the relationship between patterns of linguistic use that are related and create contexts and genres. The course thus aims to familiarize students with the range of theories of discourse studies and methodologies for analyzing spoken, written and visual texts from different genres.

ENGL 628: Special Topics in Linguistics   **3 Credits**

This course introduces students to independent research on a linguistic topic decided in consultation with the professor. They will read key text(s) and research on important topics relevant to their research project, which is required to provide with a theoretical and analytical base for their investigations and explorations. The students will be required to complete their research project in about 5000 words and share the work with the class in the form of formal research papers and multimedia presentations.

Course Descriptions: Elective Courses (Translation Track)

ENGL 629: Advanced Lexicography and Terminology   **3 Credits**

The course focuses on the problems of proper equivalences and variability of terminology in translation and interpretation. The course aims to provide students with knowledge and skills of using advanced lexis and terminology used in higher level translation and interpretation. The phenomena of terminology banks and databases will also be studied, as well as the role of Arabic language academies in the creation and standardization of terminologies in Arabic. The knowledge and skills taught in this course will serve the students as a strong foundation on which they will build most efficiently translation and interpreting skills taught in other specific courses.

ENGL 630: Advanced Scientific and Technical Translation   **3 Credits**

The course provides students with practical experience in technical translation at professional translator level in technical fields such as information technology, science, engineering, medicine, etc. The course aims to help students to develop

and apply language-specific problem-solving techniques to overcome translation challenges involved in advanced scientific and technical translations.

ENGL 631: Literary Translation and Cross-Cultural Pragmatics   3 Credits
Students in this course will become aware of how translation is used both as a means of cross-cultural communication and as a mode of understanding, indigenous roots, multicultural evolution, and growing international cultural connections. Students will read and respond to translated literary texts and selected theoretical texts on translation theory, postcolonial studies and border writing.

ENGL 632: Legal Translation   3 Credits
Translation and interpreting in legal settings requires the acquisition of highly specialized knowledge related to the law, legal language and discourses. The course will introduce students to the contextual knowledge needed to operate in diverse legal settings such as the court room, tribunals and police investigations and will develop the translation and linguistic skills necessary to work as professional legal translator. This course exposes students to the vocabulary and terminology of legal register and gives them intensive training and practice in translating a variety of legal documents, including writ petitions, affidavits, police diaries, charge sheet, documents submitted as evidence, court judgements, byelaws of companies and institutions, different types of contracts, civil procedure, etc. Students will also translate proceedings of court hearings, which involve the recorded statements of the witnesses and the arguments of the advocates/lawyers (one for defense and one for prosecution) representing the case.

ENGL 633: Consecutive and Simultaneous Interpreting   3 Credits

The students in this course will be introduced to the skills of consecutive interpretation in various settings by studying the source language and the target language in depth. Simultaneously, they will be mastering the syntax and further strengthen vocabulary. They will also improve upon their note-taking skills. The course further provides training and practice in simultaneous interpretation in a variety of simulated and real settings. Practice in sharpening the skills of simultaneous interpretation will be provided in various national/international academic conferences, international business meetings, science and technology summits, invited talks, etc. Students will participate as interns in some of the actual conferences and summits and write reports on their experiences in simultaneous interpretation.

ENGL 634: Special Topics in Translation   3 Credits
This course introduces students to independent research on a translation topic decided in consultation with the professor. They will read key text(s) and research on important topics relevant to their research project, which is required to provide with a theoretical and analytical base for their investigations and explorations. The students will be required to complete their research project in about 5000 words and share the work with the class in the form of formal research papers and multimedia presentations.

Course Descriptions: Research Requirement

ENGL 635: Research Paper   **3 Credits**
The students of the comprehensive exam option will select and finalize a topic for research paper in literature, linguistics, or translation in consultation with the research supervisor, and work on it during the last semester leading to its production, submission and presentation.

ENGL 636: Master Thesis   **3 Credits**
The students of the thesis option mode will select and finalize a topic for research in literature, linguistics, or translation in consultation with the research supervisor, and work on it during the last semester leading to the production and submission of a thesis of 10,000 to 12,000 words.

Master of Business Administration

Program Overview

The Master of Business administration offered at College of Commerce and Business Administration (CCBA), Dhofar University. It is a two-year program that provides a solid foundation in business and management and an opportunity for experiences professionals to obtain a master degree in Business Administration on a schedule that minimizes disruption of work and personal pursuits. Such program includes a cohort class structure, planned curriculum in an executive setting. In other words, members of each class begin the program at the same point, move through the curriculum together, and complete the degree requirements for graduation as a group. MBA program students are required to complete their degrees in two years. During that period, they gain a wide range of new knowledge and sharpen their analytical abilities, develop leadership capabilities and improve strategic decisions making skills to drive results. However, MBA courses are enhanced by the extensive professional experience of the participants and are uniquely structured to teach a maximum amount of course material in an accelerated timetable. An MBA degree reflects a sophisticated level of knowledge and skills concerning a wide range of contemporary management topics.

Program Objectives

The Master of Business Administration program has the following objectives:

1- Provide the future managers and directors as well as practitioners with the concepts and advanced management skills that allow them to practice their work on the highest degree of professionalism and under the best performance standards applied nationally and internationally.
2- Strengthen the capacity of those involved in the program to diagnose management positions efficiently and to achieve the desired results at the best ways and lower costs. This includes certain aspects such as: decision-making, leadership, motivation, mobilization, follow-up, time management, change management, project management, and performance and so on.
3- Provide the participants with skills of self-learning and the exercise of personal and institutional renewal, through the strategic and operational planning, setting goals, the adoption of performance indicators and benchmarks and good resource management.
4- Contribute to the process of apprenticeship of administrative work in the Sultanate by linking a high level of educational attainment specialty in the fields of theory and practice.
5- Actively contribute to the process of institutional development through the provision of administrative leadership excellence to face future challenges.
6- Linking Dhofar University to the local and national business community, and opening to it new areas in scientific research, continuing education and interaction with various sectors.

Program Learning Outcomes

Develop a cross-sectional understanding of the key areas of business (Accounting and Finance, Management, Marketing, HRM and MIS).

1- Develop a conceptual framework to solve practical decision-making problems, both individually and as part of teams using techniques such as case analysis, projects, practical exercises and assignments.
2- Use information and knowledge effectively: Collecting and organizing data, synthesizing and analyzing in order to extract meaningful information, and to share knowledge.
3- Understand and interpret how global economic and technological influences shape the modern business world.
4- Understand the importance of key skills in management and their application in areas such as leadership, communication, presentation, data analysis and decision making.
5- A critical understanding of debates within key areas of research in management & related fields.

Admission Requirements

Admission to the Master of Business Administration is competitive and requires the candidate to:

1- Bachelor degree in business administration or a related discipline from a university recognized by the Ministry of Higher Education in Oman.
2- Have a minimum cumulative grade point average (CGPA) of 2.4 on a scale of 4 or its equivalent or 70% or a standing of Good
3- Minimum 2 years of management level leadership experience,
4- Have an IELTS score of 6.0, or a TOEFL score of 550
5- Undergo an Admission Interview.

Transfer from another University

A student may transfer from a Master's program from outside the University to MBA program if he/she satisfies admission conditions by a decision of the Dean upon a recommendation of the Graduate Program Committee and through regular admission procedures subject to the following:

1- The Graduate Studies Committee may recommend to the Dean that no more than 6 credit hours of corresponding courses be included provided that the student's grade therein is not less than Very Good or (C). Such grades shall not count in the student's new CGPA.
2- The student has not been expelled from the university he/she is transferring from.
3- One semester for each 6-9 hours shall be subtracted from the time limit for obtaining the degree.

Program Duration

The time limit set for the student to obtain the MBA degree shall be no less than four semesters and not more than eight semesters. The student may postpone or withdraw his/her study up to two academic semesters thus making the maximum time limit 8 semesters. The maximum time limit, however, in certain justified cases, and for the purposes of defending the thesis, may be extended up to only one semester, upon a recommendation from the supervisor, and after the approval of the College Advisory Committee and the University Council of DU.

Course Load

It is preferred that students would follow the specified study plan, which distributes the courses on four semesters. However, students may take a reduced load of no less than six credits per semester if they are employed while studying. The maximum course load is 09 credits per semester.

Withdrawal

The student is allowed to withdraw from one course or 3 credits from the second to the tenth week of any semester in accordance with the withdrawal Policy of DU, and a grade of (W) shall be recorded in the student's transcript. In no circumstances a student could withdraw for more than 3 credits in a semester.

Attendance Requirements

Attendance of all classes and course-related activities is obligatory. If a student's absence reaches more than 25% of the total number of teaching hours in the courses that demand attendance with a medical excuse or an excuse which is acceptable to the instructor and approved by the Dean, the student shall be deemed to have withdrawn from the course, and the word "Withdrawn- W" shall be entered in his/her record.

The following is the DU Rules for absences:

Percentage of absences	Warning Level
5%	First warning
15%	Second warning
25%	Withdrawal from course with grade "W"

Warning

The student shall be placed on Warning by the Graduate Program Committee in either of the following cases:

a. If he/she fails to obtain a CGPA of 65% at the end of any semester.
b. If the supervisor sees that the student has neglected his Master's thesis. If the student's CGPA falls below 65%, the Committee shall send him/her a warning of being on probation. It is must for the students to remove his/her probation in the following semester. If he/she fails in doing so, he/she shall will be dismissed from the program.

Dismissal and Exit Route
A student shall be dismissed from the program in any of the following cases:

1- Any students who fail to remove his probation after two successive semesters shall be dismissed from the program
2- If he/she withdraws from all courses in the first semester of study   If he/she fails in all the three courses of the semester
3- If he/she exceeds the maximum number of semesters set in these regulations or exceeds the period of postponement stated in these regulations.
4- If he/she fails, their thesis defence.

All students enrolled for the program, who successfully complete a minimum of 18 credit hours of course work, shall be awarded a Postgraduate Diploma in Business Administration if they choose to exit the program. Any students who wish to take the exit route could apply for the same to the convener of the graduate studies committee and after approval shall be allowed to exit the MBA program.

Performance Assessment

student's academic performance shall be assessed throughout the semester using various instruments such as assignments, exams, research papers, projects, practical work, case analysis, etc. The grading policy for each course may vary but shall be based on following general guidelines:

Method	Weight
Application Assignments, Projects, Term Papers, case analysis, presentation etc.	20%
Mid Term(s) Examinations	30%
Examinations (Mid Term(s) and Final)	50%

In a Master level program a 3 credit hour course means 3 contact hours per week for lectures. However, students shall be expected to complete a number of

homework assignments including problem solving, programming, course projects, course papers and theoretical issues. As a general rule, students are expected to work at least 3 hours of homework against each contact hour in the class, however, detailed work-load guidelines shall be provided in each course outline.

Incomplete Exam

If a student is absent from the final examination or any other semester work for a compelling reason or submits a medical report acceptable to the Dean in accordance with university regulations, a grade of "Incomplete" shall be recorded for the student on a special form prepared by the Committee. The student must complete this grade before the start of the following semester at the latest. Otherwise, the Admissions and Registration Office will change the 'I" grade to 'F" grade at the end of the period automatically.

Program tuition fees

The program tuition fees will be RO 150 per one credit hour. This fee is subject to change as per the decision of the university from time to time.

The Dean, upon a recommendation from the Graduate Program Committee, recommends a student to study pre-requisite courses to be taken in the first year of study. No pre-courses shall be counted in the calculation of the CGPA or the time limit set for graduation.

The course fee for pre-courses shall be RO 125 per one credit hour.

Graduation Requirements

To graduate with a Master's degree in Business Administration, a student must:

1- Satisfactorily complete 36 credits with a cumulative average of no less than 65%. The conditional passing grade in a graduate course is 60%.

2- Successful Defense of the Research Project/Master Thesis course work.

3- Students could only opt for master thesis if after completing 27 credits he/she has a CGPA of 75% or more.

Academic Advising

The convener of the Graduate Program Committee shall appoint an academic advisor from among the college faculty for each student enrolled for the program. The academic advisor shall prepare, jointly with the student, a study schedule or plan on a special form which will include compulsory, elective and prerequisite courses in accordance with the program study plan and the student's admission conditions. This plan will be reviewed every semester in order to follow up on the student's progress. The faculty advisor roles and responsibilities are as per the advising policy of DU.

Field Experience

Students will be required to carry out field investigations, conduct interviews and have opportunities to discuss and apply the concepts covered during the course work. There are practical components in most courses.

Projects/Theses

The students should make (field observations, collect, and analyze data from the field). The nature, scope, and content of the final project/thesis will be determined by the student in consultation with the faculty advisor. The project/thesis work should be presented in the form of (a comprehensive report that follows international standards in reporting scientific research).

Course Work

Students will follow the program of study that is described below under the supervision of their academic advisors. This program is made up of a set of eight required courses (24 credit hours) and another set of elective courses from which the students should select four (12 credit hours). However, in master thesis option the program is made of a set of eight required courses (27 credit hours) and another set of elective courses from which the students should select three (09 credit hours).

Required Courses:

This set consists of the following core courses encompassing *24or27** credit hours:

Course Code	Course Title
MBA 501	Managing and Leading In Organizations
MBA 502	Marketing Management
MBA 503	Financial and Management Accounting
MBA 504	Strategic Management
MBA 505	Financial Management
MBA 506	Management Information system
MBA 507	Research Methodology
MBA 508	*Research Project (Option-I)
MBA 509	**Master Thesis (Option-II)

Elective Courses:

A student should select 9 credits from the area of concentration and 3 credits from any other area. Three or four courses encompassing 9 or 12 credit hours are chosen from the following list:

Concentration Areas: Select 3 Courses or 9 Credit hours (Cr. hrs)

Finance

FINA 601	Investment and Portfolio Management	3 **Cr. Hrs**
FINA 602	Banking and Financial Services	3 **Cr. hrs**
FINA 603	Financial strategy and valuation	3 **Cr. hrs**
FINA 604	Islamic banking & finance	3 **Cr. hrs**

Marketing

MKTG 601	Integrated Marketing Communication	3 **Cr. hrs**
MKTG 602	Sales and Supply Chain management	3 **Cr. hrs**
MKTG 603	International Marketing	3 **Cr. hrs**
MKTG 604	Consumer behavior and Branding	3 **Cr. hrs**

General Management

GMNT 601	Entrepreneurship and small business	**3 Cr. Hrs**
GMNT 602	Project and Operations Management	3 **Cr. hrs**
GMNT 603	Total Quality Management	3 **Cr. hrs**
GMNT 604	Strategic Human Resources Management	3 **Cr. hrs**

(Research Project Option) - I

Term	Course	Tile	Cr	Pre-requisites
(1) **Fall**	MBA 501	Managing and Leading In Organizations	3	MNG T 500
	MBA 502	Marketing Management	3	MNG T 500
	MBA 503	Financial and Management Accounting	3	ECON 500
(2) **Spring**	MBA 504	Strategic Management	3	MBA 501
	MBA 505	Financial Management	3	MBA 503
	MBA 506	Management Information system	3	MBA 501
(3) **Fall**	MBA 507	Research Methodology	3	QTSA 500 & MBA 504
		Concentration Elective Course I	3	

Term	Course	Tile	Cr	Pre-requisites
		Concentration Elective Course II	3	
(4) Spring	MBA 508	Research Project	3	MBA 507
		Concentration Elective Course III	3	
		Elective Course from any concentration area	3	

(Master Thesis Option) - II

Term	Course	Tile	Cr	Pre-requisites
(1) Fall	MBA 501	Managing and Leading In Organizations	3	MNG T 500
	MBA 502	Marketing Management	3	MNG T 500
	MBA 503	Financial and Management Accounting	3	ECON 500
(2) Spring	MBA 504	Strategic Management	3	MBA 501
	MBA 505	Financial Management	3	MBA 503
	MBA 506	Management Information system	3	MBA 501
(3) Fall	MBA 507	Research Methodology	3	QTSA 500 & MBA 504
		Concentration Elective Course I	3	
		Concentration Elective Course II	3	
(4) Spring	MBA 509	Master Thesis	6	MBA 507
		Concentration Elective Course III	3	
		Elective Course from any concentration area	3	

Course Descriptions:

MBA - Core Courses

MBA 501   MANAGING AND LEADING IN ORGANIZATIONS   (3crs)
Production of goods, services delivery and management are performed within organizational structures that need to reflect the values of the specific profession. This course provides a theoretical orientation to the study of organizations and the leadership of organizations. It examines a range of organizational theories and their application to various systems, structures, and processes. Theories related to organizational change, organizational challenges, and organizational effectiveness are also explored. Organizational processes are directed by leaders. Leadership approaches and theories are studied within the context of social service organizations. Course readings are integrated through the use of case studies and students' experiences in work organizations. *Prerequisite: MNGT 500*

MBA 502   MARKETING MANAGEMENT   (3crs)
This course presents an overview of the nature and scope of the marketing function and its role in the organization and society. Special emphasis is laid on the relationships between marketing and overall company strategy, the development of a customer orientation, the integration of marketing throughout the organization and the implementation of systems for planning and controlling the marketing effort. Major topics covered include marketing strategy, customer behavior, segmentation, market research, product management, pricing, and promotion, channels of distribution, sales force management and competitive analysis. *Prerequisite: MNGT 500*

MBA 503   FINANCIAL AND MANAGEMENT ACCOUNTING   (3crs)
This course focuses on relevant topics within two of the functional areas in accounting: financial and management accounting. In the area of Financial Accounting, the student will provide the information of concepts, standards, and procedures that comprise external reporting process and includes the rules for the preparation of the basic financial statements. The financial accounting section will include topics such as: an overview of the financial reporting process including the objectives of financial reporting, the underlying concepts, principles and conventions governing the financial reporting process.

The section of Management Accounting deals with managers' skills to use of accounting information. The student will study topics such as the concepts and information of managerial accounting, the relationship between financial and managerial accounting, breakeven point, accounting information and short term decisions, budgets and capital budgeting and other topics to explain the uses of accounting information for decision making purposes. *Prerequisite: ECON 500*

MBA 504   STRATEGIC MANAGEMENT   (3crs)
The objectives of the course are to improve the student's ability to think strategically and to provide an intellectual framework that enhances understanding of the MBA program. The course focuses on relationships among

the firm, its strategy, and its environment; why firms choose certain businesses; which business strategies are successful; and how firms can change in response to a dynamic environment. Models for strategic formulation, implementation, and control are developed that facilitate an integrated understanding of the courses that comprise the MBA curriculum. Readings and lectures illustrate strategic management theories and frameworks while case discussions, experiential exercises, and team projects provide opportunities for application. *Prerequisite: MBA 501*

MBA 505   FINANCIAL MANAGEMENT   (3crs)
The objective of this course is to present and discuss the general nature of financial management and decisions in this area, concepts, techniques and tools. This course covers Financial Report Analysis, Company Financial Environment, and Fundamental Concept in Financial Management in term of risk and return, Portfolio Theory and Money Value over Time, Strategic Investment Decision, Capital Budgeting Process and Technique, Security and Company Evaluation, Strategic Marketing Decision, Capital Structure and Cost of Capital, Working Capital and cash Management and financing decisions and dividend policies. *Prerequisite: MBA 503*

MBA 506   MANAGEMENT INFORMATION SYSTEMS   (3crs)
This course is part of the MBA program, and MBA students will graduate being:

a) effective communicators; b) critical thinkers; c) able to analyze ethical problems; d) global in their perspective; and e) knowledgeable about the essentials of business. MIS contributes to these goals through its specific objectives and student learning outcomes. In today's increasingly electronic and global economy, many organizations are relying quite heavily on information technology (IT) and information systems (IS) to provide competitive advantages. These organizations need knowledge workers with the ability to utilize IT to help create and sustain value for the organization. This course introduces the various information and communications technologies. Students will research and practice using modern productivity applications. Students will examine how information systems are used to solve problems and make better business decisions and apply these concepts to analyze business cases. *Prerequisite: MBA 501*

MBA 507   RESEARCH METHODOLOGY   (3crs)
This course presents an overview of the nature of scientific research and its application in business and organizations. The objective of the course is to introduce students to the scientific methods in research and the concepts, stages, and skills related to the research process and its application in business and management. The course is designed as preparatory course for students to think in scientific way which enables them to conduct their graduation and further research in proper way. Topics include concept of scientific research, types of research, stages of scientific research, research design, types and sources of data, data collection methods, population and samples, variables and measurements, data analysis and hypotheses testing, presentation of results,

citations and references, preparation of research report. *Prerequisite: QTSA500 & MBA 504*

MBA 508   **RESEARCH PROJECT**   **(3crs)**
During this course the student shall investigate a practical and intriguing issue preferably from the organization he works for and the issue is also a subject of educational scope and documents this investigation in a report. The report shall fulfill the same demands formally as is case with a scientific report. The purpose of a course is to integrate and apply knowledge from earlier relevant courses in the program and to tackle unstructured problems. In addition to this, a project is mainly seen as a practice in applying scientific criteria on a project. *Prerequisite: MBA 507*

MBA 509   MASTER THESIS   (6crs)
During this course the student shall investigate an academic interesting problem in the chosen subject of educational scope and document this investigation in a report. The report shall fulfill the same demands formally as is case with a scientific report. The purpose of a thesis course is to integrate and apply knowledge from earlier relevant courses in the program and to tackle unstructured problems. In addition to this, a thesis is mainly seen as a practice in applying scientific criteria on a thesis. A thesis at the advanced levels is also seen as practice in scientific methods. After completion of this course, the student should be able to apply and integrate knowledge and skills in a systematic and critical way to develop results that are original and innovative within a research or professional context. *Prerequisite: MBA 507*

MBA - Elective Courses

FINA 601   INVESTMENT AND PORTFOLIO MANAGEMENT   (3crs)
This course is an advance course aimed to provide students' knowledge about the analysis of investment information, evaluation of risks and returns, and principles of portfolio selection in investment decisions. This course focuses on securities markets, investment risk-return tradeoff, asset pricing models, and stock price behavior in relation to capital market efficiency hypotheses. Particular emphasis is placed on stocks, bonds, mutual funds and financial futures and options contracts. Special prominence is given on the study of the operations of securities markets, investment policies, valuation of individual securities, and techniques of investing in securities. Topics covered include investment instruments and their characteristics, introduction to portfolio and capital market theory, theory of valuation of stocks, bonds and the term structure of interest rates, options, commodity and financial futures, investment companies and mutual funds, and international investments. *Prerequisite: MBA 505*

FINA 602   BANKING AND FINANCIAL SERVICES   (3crs)
This course is a study of the functions and operations of financial institutions and provides an overview of the financial services industry with an emphasis on banking sector. The course will give an insight about financial decision-making procedures and policies of commercial banks and other types of financial institutions. The focus of this course is on regulatory environment, applications

of financial engineering in risk management, and management of assets and liabilities of commercial banks, using the portfolio analysis approach and capital adequacy indicators. *Prerequisite: MBA 505*

FINA 603   FINANCIAL STRATEGY AND VALUATION   (3crs)
The focus of this course is on the possible financial strategies that could be adopted by the business organization for their future growth including the restructuring of the group companies, merger, acquisition and possible takeover options and valuation of companies. Topics discussed include discounted cash flow techniques and valuation using alternative valuation techniques such as price multiples. Emphasis is on developing the required information for valuation from financial statements and other information sources. The objective is to provide students with cutting-edge valuation tools based on the modern financial theory of value-based management and to sensitize them of culture, human and behavioral issues involved in restructuring of organizations. *Prerequisite: MBA 505*

FINA 604   ISLAMIC BANKING AND FINANCE   (3crs)
This course provides the students with a basic understanding of Islamic banking and finance and the legal and ethical frameworks within which it functions. The concepts, techniques, and products of Islamic banking and finance will be discussed. The course includes a comparative analysis of conventional and Islamic finance, nature of Islamic banking system. Students will also critically analyze some of Islamic financial and banking products. *Prerequisite: MBA 505*

GMNT601   ENTREPRENEURSHIP AND SMALL BUSINESS   (3crs)
**   MANAGEMENT**
Students learn the concepts to start and manage a small business including franchises. Topics include an overview of entrepreneurship, the aspects of launching a new venture including the business plan, legal aspects, marketing, financing and the problems connected with managing an ongoing venture such as accounting, computers, human relations, purchasing and inventories. *Prerequisite: MBA 504*

GMNT 602   PROJECT MANAGEMENT   (3crs)
The aim of this course is to provide student with necessary knowledge and skills in Project Management. This course deals with seeking new methods of planning, organizing, and controlling non-routine tasks which is differs in several ways from management of a typical enterprise. This course covers topics such Introduction- Projects & Project Management, Project Selection & Justification, Project Scheduling, Project Manager, Organization, Project Team, Project Planning, Project Monitoring & Control, Project Communications and Managing Conflicts in Project Environments and so on. *Prerequisite: MBA 504*

GMNT 603   TOTAL QUALITY MANAGEMENT   (3crs)
The aim of this course is to provide student with necessary knowledge and skills in quality management because it has become a key issue in the success of modern organizations, regardless of whether they engage in the provision of goods or services. This course covers topics such The Foundations of Total Quality Management, Key Aspects of the Quality System, TQM Tools and the

Improvement Cycle, Control of Quality Records, Internal Quality Audits, Quality and Business Process Re-engineering, Statistical Process Control and TQM Tools. *Prerequisite: MBA 504*

GMNT 604   STRATEGIC HUMAN RESOURCES MANAGEMENT   (3crs)
In the competitive business environment of the 21st century human resources have become key inimitable resources for change, innovation, and value generation. Unfortunately, few organizations successfully utilize HR as a strategic partner. This course will introduce HR's role in strategy development and implementation. Topics include aligning HR with environmental demands and business strategy, creating high performance work systems, implementing HR planning, and managing HR in contexts of downsizing, restructuring, mergers, acquisitions, globalization, and outsourcing. *Prerequisite: MBA 504*

MKTG 601   INTEGRATED MARKETING COMMUNICATION   (3crs)
The purpose of this course is to introduce graduate students to the principles and practices that constitute integrated marketing communication (IMC). IMC is a cross-functional and cross-channel communication process for creating and nourishing successful relationships with customers and other publics for the purpose of sending consistent, convincing, and compelling messages to these target groups and encouraging purposeful dialogue with each. This course will explain and investigate how all marketing communication elements (advertising, public relations, sales promotions, personal selling, direct marketing, etc.) within an organization can be effectively integrated, how each of the communication elements contributes to the IMC whole, and will learn how to recognize and assess the advantages of such integration. *Prerequisite: MBA 502*

MKTG 602   SALES AND SUPPLY CHAIN MANAGEMENT   (3crs)
Sales and supply chains represent crucial revenue-generating functions for any business organization that aims at establishing profitable relationships between the organization and its suppliers and customers. Therefore, care must be taken in designing, development, and execution of effective policies, strategies, and programs for the benefit of the organization, its suppliers and customers. The course consists of two parts. First it familiarizes the student with the concept and techniques of professional selling and sales management. The course illustrates the steps of effective selling and develops student skills in planning sales programs, organizing the selling effort and in recruiting, training, motivating, and controlling sales force. The second part of the course aims at providing the student with basic concepts, skills and techniques for designing, implementing, and controlling supply chains. Topics covered would be basic concepts of supply chain management and its importance, purchasing management, supplier relationship management, logistics management, customer service, supply chain performance and integration. The course delivery mechanisms will be integrated through the use of case studies and students' experiences in work organizations. *Prerequisite: MBA 502*

MKTG 603   INTERNATIONAL MARKETING   (3crs)
This course aims to provide student with concepts, theories, and tools to explore and understand marketing practices in a global environment. The course allow student to learn the scope and challenge of international marketing, the dynamics of international trade, the culture, political, legal, and business systems of global markets, global markets opportunities, and the ways to develop global marketing strategies. Student will also learn to develop global brands, segment international markets, and develop pricing, distribution, and communication strategies in global markets. This course is designed to provide students with a robust understanding of global issues, disciplines, competitions, and the necessary skills in making strategic decisions based on a global perspective. *Prerequisite: MBA 502*

MKTG 604   Consumer Behavior and Branding   (3crs)
This course examines the amalgam of marketing, psychology, sociology and cultural anthropology to determine the motivations for product purchases in prospective consumers. The course focuses on illustrating the use of behavioral science theory to create new products and promotional campaigns, explaining the consumers buying process, and internal and cultural factors that affect consumer buying decisions and thus in the creation of brands.

The course also introduces the concept of brand and steps involved in building strong brands and maximizing the value of existing brands. The course examines a framework for understanding when and why consumers care about brands, and introduces tools for measuring brand equity. The course illustrates also the business process of mission and strategy creation through brand and identity development and execution. *Prerequisite: MBA 502*

Registration of Thesis/Project

a.   Thesis shall be written in English in accordance with the Program guidelines.
b. A supervisor shall be appointed for the thesis from among the Program faculty, giving consideration to the student's selection as much as possible, by a decision of the Dean and upon a recommendation from the Graduate Program Committee.
c.   University theses shall be supervised by professors, associate professors and assistant professor rank faculty members only.
d. The maximum number of theses a supervisor may supervise at any one time/ semester will be no more than 3 theses.
e.   The Dean may increase the number of theses for each supervisor in accordance with the legitimate needs of the Program and with the approval of the Graduate Studies Committee in the College.
f.   The supervisor may be changed in justifiable circumstances, and with the same conditions for appointment of a supervisor.
g. A student could only opt for master thesis if after completing 21 credits he/she has a CGPA of 75% or more.

General Procedure

The following steps must be followed in thesis approval:

a. The student will submit an application along with the thesis proposal on a special form prepared by the Committee to the Convener of the Committee in accordance with the proposal guidelines the Committee prepares.
b. The Convener of the Committee will set a public date for the discussion of the proposal which will be attended by the supervisor, the faculty members in the Committee and the postgraduate students within one week from the date of submission.
c. d.   The Graduate Studies Committee will approve the proposal after discussion in the presence of the supervisor to ensure that modifications required in the discussion have been complied with.
d. The Dean will approve, return or propose changes to the thesis proposal within two weeks of receiving it.
e. The student through the supervisor shall submit a detailed progress report to the Convener of the Committee at the end of each semester and a copy of the report, signed by both of them, and should be forwarded to the Dean.
f. g.   The student is entitled to defend the thesis upon the completion of one semester following the approval of the thesis proposal semester.
g. h.   The thesis title and proposal may be modified if the need arises, and reasons for modification must be cited in the same manner in which it was initially approved.

Defense of the Thesis/ Project

a. The supervisor shall submit a recommendation to the Committee Convener when the student completes the thesis in accordance with proper academic principles and guidelines for the formation of the defense committee.
b. b) The thesis/project may not be discussed prior to the completion of all courses including prerequisites and any other admission conditions, completion 21 credit hours and obtaining a CGPA of 75%.
c. c)   The thesis/ project will be check with (TURNITIN) for similarity purposes. The maximum percentage of similarity is 20% for forming a defense committee.
d. d)   The defense committee shall be appointed and a date for it to convene shall be designated by a decision by the Dean upon a proposal from the supervisor, a recommendation of the Graduate Studies Committee in the Program. The student must submit the thesis/project to the committee members two weeks before the defense date.

The number of the committee members in forming the defense committee shall be as follows:

Thesis: The defense committee shall comprise of three members as follows: one the supervisor, two - an expert from outside the college and three - an expert from outside the university. Conditions for supervision must apply to them. The chair of committee shall be appointed by the dean of the college.

Project: The defense committee shall comprise of three members as follows: one the supervisor, two - an expert from outside the college and three - an expert from outside the university. Conditions for supervision must apply to them. The chair of committee shall be appointed by the dean of the college.

The committee decision shall be taken by the majority Votes. Procedures for thesis discussion shall be as follows:

a. The committee chair will moderate the discussions and introduce both the committee members and the student.
b. The student will introduce/make presentation in brief of the thesis for 20 minutes.
c. The chairman will give the floor to the committee members to examine the student.
d. The committee will withdraw to take its decision privately.
e. The committee will make one of the following decisions:
    i.   Pass without modifications.
    ii. Pass with minor modifications stated in the committee report and the student will be given a time-frame of about two weeks to submit the modifications.
    iii. Pass with major modifications stated in the committee report and the student will be given a time-frame of about three months to submit the modifications.
    iv. Repeat the thesis defense due to major modifications as stated in the committee report within a period of 6 months.
    v.   Fail and the committee will write a report explaining the reasons for failure. In this case, the students will take a chance to write a new thesis/ project within a period next two semesters, but within the time limit for completion of the entire program.
f. The committee will announce its decision publicly and in the presence of the student. The original report will be submitted to the Committee Convener who will forward it to the Dean for approval within two days of the defense date, and a copy of the report will be sent to the Office of Admissions and Registration.
g. After the student completes the modifications required by the committee, the modifications will be submitted to the committee so that they can sign the report in accordance with the special form prepared by the Committee. The report will be approved by the Committee Convener and the Dean; will furnish the Office of Admissions and Registration with a copy thereof in order to complete the grade of the thesis.

If the student fails to complete the thesis in accordance with the committee's report and within the time limit set thereby, he/she will be considered to have

failed and a decision to expel him/her from the program shall be issued by the Dean and communicated to the Office of Admissions and Registration, the student's the College and the Program. Regulations governing the award of the postgraduate diploma may apply in this case.

Master of Science in Information Technology (MS-IT)

Program Objectives

The primary aim of the program is to allow IT professionals an opportunity for professional upgrading or an extension of their qualifications and experience in order to develop to their full intellectual potential. It is a professional degree program, designed to provide candidates with appropriate practical understanding, life-long learning skills and knowledge for IT use, research, development and management and turn into competent and morally responsible professional individual to better serve the community. Having this knowledge, skills and practical understanding, graduates will be able to assume careers in research, development, operations and management of medium and large organizations, in all sectors, where IT is vital.

Learning Outcomes

The MS-IT program is designed to prepare professionals and recent graduates for work in the IT sector at the highest levels in today's thoroughly globalized and networked environment. It will provide the individual with the knowledge, understanding and skills to deal effectively with advanced applied and research issues in IT. Graduates of the course will possess a solid foundation that will allow them to maintain their skills as their specialized fields evolve.

Upon completion of the MS-IT program, graduates will be able to:

- Apply cutting edge technologies to real life business problems.
- Demonstrate teamwork abilities and outcome oriented deliverables.
- Explain and apply the core aspects of IT principles and tools, and manage their implementation in a business context.
- Understand and facilitate the strategic and operational aspects of business and technology applications.
- Manage complex IT projects with consideration of the human factors, business requirements, environmental aspects, risk management processes, and operational and policy implications.
- Understand the strengths and limitations of current technologies and apply them intelligently to meet the needs of each application.
- Apply their practical skills in IT projects developed for real world applications.
- Utilize high level interpersonal skills to negotiate and communicate effectively with both technical and non-technical stakeholders verbally and in writing.
- Possess advanced knowledge of the state of the art in research in specialist areas related to Information Technology.
- Have an understanding of research methodologies at a level that enables students to conduct research in the areas of information technology.

Graduate Attributes

- Practice life-long, self-dependent learning skills.
- Demonstrate the ability to act independently and creatively in analyzing problems.
- Demonstrate their knowledge and skills in the investigation of problems and development of solutions.
- Be able to make sound judgments on complex issues and communicate their conclusions effectively to specialist and non-specialist audiences.
- Own the responsibility for their own learning and future professional development.
- Be able to collaboratively work in identifying issues and resolving problems.
- Develop the culture of doing appropriate literature review before the start of any research project.

Teaching and Learning Strategies

The teaching and learning strategies designed to satisfy the graduate attributes of the program are:

- Students are expected to participate actively in class discussions and out-of-class assignments (i.e. via Forum on Moodle), and to contribute to the process of constructing knowledge.
- Students are expected to do independent reading, especially before the class period. They are encouraged to apply Students are expected to participate actively in class discussions and out-of-class assignments (i.e. via Forum on Moodle), and to contribute to the process of constructing knowledge.
- Students are expected to do independent reading, especially before the class period. They are encouraged to apply the SQ3R (Survey, Question, Read, Recite, Review) method and to reflect on the readings by writing a short report of what they have read.
- Students are encouraged to engage in critical thinking and to challenge ideas of others tactfully.
- Students will be required to analyze problems or write reports, and present their findings/work in class, workshops or seminars.
- Students are encouraged to visit instructors during office hours to ask questions, give feedback, or just chat about ideas related to the class.
- Faculty members are expected to provide real-life examples and application areas of the delivered concepts. Students are then provided problem sets the solution to which require additional reading and analytical skills.
- Students are expected to be engaged in individual and group projects whereby each student will be expected to contribute his own findings about a specific problem.
- Faculty members are expected to create opportunities in classrooms for students to demonstrate problem solving abilities through assignments, home works and projects.
- Students are expected to be engaged in appropriate literature review prior to commencement of any project assignment.

Admission Criteria

Applicants must have completed a Bachelor's degree in Computer Science, IT or a related discipline from a university recognized by the Ministry of Higher Education in Oman. Students with other majors are also eligible for admission subject to successful completion of a number of pre-requisite courses that will be determined by the department.

The student must have achieved a score not less than 75%, which is equivalent to a GPA of 2.4 out of 4.0 or a cumulative grade letter of C+. Graduates from other majors will be expected to have successfully completed introductory courses in the areas shown below, with a grade not less than B in each course. If not, they will have to complete at least 12 credit hours (4 courses), before they can be officially enrolled in the program. The exact entry requirements can only be determined after the qualifications of the student are observed and analyzed.

Graduates from other majors will be expected to have successfully completed introductory courses in the following areas:

- Data Structures
- Databases
- Networks and Security
- Programming
- Software Engineering

Program Curriculum Plan

The MS-IT program is offered in two tracks as follows:

1. Thesis option
2. Course work option

The thesis option consists of course work and a thesis, whereas, the course work option comprises of course work and a research project.

The University does not follow the notion of yearly education. The students are awarded the degrees on the basis of completion 36 credit hours with an overall GPA not less than 3.00 out of 4.00 (refer to DU Grading System where 3 GPA refers to 80%). However, the University has put forward a regulation that a student must complete minimum of 18 credit hours to be eligible for Master's thesis registration process.

The duration of the program is considered to be 24 months for full-time students. However, the students can extend the period of study up to a maximum of 4 years in order to acquire 36 credits. Additionally, a residency requirement of no less than 2 years and a maximum residency of 4 are also embedded in the regulations.

The courses are designed in accordance with the American system of higher education. A graduate course is worth 3 credit hours. Such a class would generally meet for 3 contact hours per week over a 15-week semester, totaling roughly 45

hours of "contact" with the instructor(s) per course. Such classes may meet 3x1 hour weekly (for example Sundays, Tuesdays and Thursdays from 0900-1000), or 2x1.5 hours weekly (for example Mondays and Wednesdays from 0800-0930).

The contact hours of a typical 3 credit course would comprise of lectures and/or class discussion and/or lab works/applications or other options. In addition to lectures, one or several textbooks would be required reading, and there would often be recommended supplementary reading as well. The students are expected to do 3-2 hours of self-study referring the reference materials available in the library or online resources to meet the learning outcomes of the course. Students shall also be expected to complete a number of homework assignments including problem solving, programming, course projects, course papers and theoretical issues. They are required to perform these tasks at their own time. The university is equipped with latest computers and software tools but many students may work from home. As a general rule, students are expected to work at least 3 hours of homework against each contact hour in the class, however, detailed work-load guidelines shall be provided in each course outline.

There are three exit routes from this program which are:

1. successful completion of the program and award of Master degree or

2. successful completion of all taught modules (thereby acquiring 30 credits in total) and award of a Postgraduate Diploma or

3. unsuccessful completion of the program and award of transcript showing a set of completed/attempted courses.

The breakdown of 36 credits is given below for both Thesis and Course Work options:

Thesis Option

- 15 credits of core courses
- 15 credits of technical electives, of which at least 6 credits must be chosen from level 600 or higher courses
- 6 credits of Master's Thesis

Important

- A student, who successfully completes 18 credits, shall be considered for the Master's Thesis option. The final decision shall be made by the department based on the student's grades and his/her ability to do research.
- A student shall be given up to three semesters to finish his/her thesis work. In case the student does not finish the thesis work on time, he/she must re-register for the thesis course CMPS 690.

Course Work Option

- 15 credits of core courses
- 18 credits of technical electives, of which at least 12 credits must be chosen from level 600 or higher courses.

- 3 credits of research project

List of Core Courses

- CMPS 500 Advanced Software Engineering
- CMPS 510 Computer Networks and Security
- CMPS 520 Research Methodology
- CMPS 530 Advanced Database Systems
- CMPS 540 Information Technology Project Management

List of Elective Courses

- CMPS 550 Advanced Artificial Intelligence
- CMPS 551 Intelligent Systems
- CMPS 552 Information Technology Entrepreneurship
- CMPS 553 Mobile Computing
- CMPS 554 Advance Programming Languages and Techniques
- CMPS 555 Strategic Information Systems Planning
- CMPS 556 Analysis and Design of Algorithms
- CMPS 557 Security in Networks
- CMPS 558 Advanced Web Development
- CMPS 559 Multimedia Applications
- CMPS 560 Object Oriented Software Development
- CMPS 600 Emerging Trends in Information Technology
- CMPS 601 Research Topics in Information Technology
- CMPS 602 Information Technology Auditing and Assurance
- CMPS 603 Knowledge Management
- CMPS 604 Research Project

Study Plan

Year I		
Semester 1 (Fall)	**09 Credits**	**(Both Course Work and Thesis Options)**
Course Code	**Course Title**	**Credit Hours**
CMPS 500	Advanced Software Engineering	3
CMPS 510	Computer Networks and Security	3
CMPS 520	Research Methodology	3
Semester 2 (Spring)	**09 Credits**	**(Both Course Work and Thesis Options)**
Course Code	**Course Title**	**Credit Hours**
CMPS 530	Advanced Database Systems	3
CMPS 540	Information Technology Project Management	3
CMPS 5XX	Elective*	3
*Elective courses ranging from CMPS 550 to CMPS 599		

Year II		
Semester 3 (Fall)	**09 Credits**	**(Both Course Work and Thesis Options)**
Course Code	**Course Title**	**Credit Hours**
CMPS 5XX	Elective*	3
CMPS 6XX	Elective**	3
CMPS 6XX	Elective**	3
*Elective course ranging from CMPS 550 to CMPS 599		
**Elective courses ranging from CMPS 600 to CMPS 689		
Semester 4 is offered into two different options: Thesis or Course Work (choose any one option)		

Semester 4		
(Spring)	**09 Credits** **(Thesis Option)**	
Course Code	**Course Title**	**Credit Hours**
CMPS 6XX	Elective**	3
CMPS 690	Master Thesis***	6
*** Subject to successful completion of 18 credit hours and CMPS 520 (Research Methodology) if deemed necessary by the advisor, followed by approval of the department.		
Completion of the "Master of Science in Information Technology (MS-IT)" program - Total Credits 36		

Semester 4		
(Spring)	**09 Credits** **(Course Work Option)**	
Course Code	**Course Title**	**Credit Hours**
CMPS 604	Research Project	3
CMPS 6XX	Elective**	3
CMPS 6XX	Elective**	3
**Elective courses ranging from CMPS 600 to CMPS 689		
Completion of the "Master of Science in Information Technology (MS-IT)" program - Total Credits 36		

Course Description

Core courses

CMPS 500   Advanced Software Engineering   (3 credits)

This course focuses on latest trends in architecture, process, framework, methodologies and tools used in software development. It emphasizes software metrics, quality, management, reliability, testing, integration, verification, validation, deployment, testing and maintenance.

CMPS 510   Computer Networks and Security   (3 credits)

The course covers theory and practice of computer security, focusing in particular on the security aspects of the web and Internet. It surveys cryptographic tools used to provide security, such as shared key encryption (DES, 3DES, RC-4/5/6, etc.); public key encryption, key exchange, and digital signature (Diffie-Hellmann, RSA, DSS, etc.). It then reviews how these tools are utilized in the internet protocols and applications such as SSL/TLS, IPSEC, Kerberos, PGP, S/MIME, SET, and others (including wireless). System security issues, such as viruses, intrusion, and firewalls, will also be covered.

CMPS 520   Research Methodology   (3 credits)

This course is designed to support postgraduate students in developing their research project and to assist them in defining their mode of enquiry. The course has been constructed to guide students through a range of issues and considerations which should inform their general approach to research. It will give students a general introduction to postgraduate research, its methodologies, its challenges and its organization, including in creative practice. Students will be introduced to a range of research tools and will be equipped to plan and organize their research, as well as to communicate their findings.

CMPS 530   Advanced Database Systems   (3 credits)

This course covers design principles and techniques for medium to very large databases. Topics include user database issues, concurrency control and recovery, query processing and optimization, transaction processing, object-relational databases, and data mining. Design and implementation issues related to multi-database systems are also discussed.

CMPS 540   Information Technology Project Management   (3 credits)

This course is designed to prepare students with project management skills needed to better manage IT projects. It covers detailed topics of the basic concepts of IT project management, including initiating, planning, controlling, executing, and closing projects. The course also shows how IT projects should be managed, from inception to post implementation review. The students who take this course will likely improve their management skills and abilities to define the project scope, create a workable project plan, and manage within the budget and schedule. *Prerequisite or Co-requisite: CMPS 500*

Elective courses

CMPS 550   Advanced Artificial Intelligence   (3 credits)

In this course we will start with the question like "What is intelligence", "What is not intelligent", "Can a machine mimic intelligent behavior". We will look at the history and philosophy behind different notions of intelligence developed so far. We will have an overview of streams of development leading to modern intelligent systems, knowledge based tools, expert systems, fuzzy logic, probabilistic methods, neural networks, and genetic algorithms.

CMPS 551   Intelligent Systems   (3 credits)

In this course we will study the design of computer systems that exhibit traits we normally associate with intelligence in human behavior, such as the ability to search and solve problems, the ability to understand natural language or to reason about the visual environment.

CMPS 552   Information Technology Entrepreneurship   (3 credits)

This course is designed to introduce students to the nature and different forms of IT entrepreneurship and entrepreneurial behavior. Taking an opportunity-based approach to entrepreneurship, the course covers the key areas of entrepreneurial process, including entrepreneurial motivation, new venture creation process, opportunity identification and development, environmental analysis, business planning, leadership and management of an enterprise, and sustainability and growth of an IT business.

CMPS 553   Mobile Computing   (3 credits)

This course discusses a balance mixed of topics related to mobile computing. Topics include mobile and wireless networking, operating systems and middleware, reliable distributed file systems, location discovery, wireless routing, and location management and prediction.

Prerequisite: CMPS510

**CMPS 554   Advanced   Programming   Languages   and   (3 credits)
                Techniques**

This course focuses on comparative study of programming languages from both theoretical and applied viewpoints. Typical issues include syntax and semantics, scope and binding times, storage allocation, parameter-passing techniques, control structures, run-time representation of programs and data. Detailed examples are from the imperative, functional, parallel, object-oriented and logical programming paradigms.

CMPS 555   Strategic Information Systems Planning   (3 credits)

The course builds on both the Management and Information Systems skills. It ties the study of management and computing together at the top level and focuses on issues that bring competitive advantage into modern and partially automated organizations.

CMPS 556   Analysis and Design of Algorithms   (3 credits)

The course will cover some of the core topics already studied in DU's undergraduate course on algorithms (or in some equivalent course at another university), but with more details and rigor. In addition, we will present a selection of advanced topics, mainly the theory of NP-completeness, the theory of fixed-parameter tractability, approximation algorithms, and algorithms for parallel computers.

CMPS 557   Security in Networks   (3 credits)

This course focuses on network security infrastructure technologies such as firewalls, Virtual Private Networks (VPN), Intrusion Detection and Prevention Systems (IDS/IPS), vulnerability assessment tools, as well as overall security infrastructure engineering and design.

Prerequisite: CMPS 510

CMPS 558   Advanced Web Development   (3 credits)

This course focuses on the design, development and implementation of Internet technologies. Students will design, build and place online a web site for a live client. Web server implementation, administration and ongoing support will also be discussed.

CMPS 559   Multimedia Applications   (3 credits)

This course provides students with the opportunity to train for a career in Multimedia and Web Development sector. It will focus on 3D animation, Digital Video processing, Game Design and Web Development.

CMPS 560   Object Oriented Software Development   (3 credits)

This course provides broad and coherent coverage of object–oriented technology, teaching object oriented design and development to the students. The course focuses on design and programming through the use of UML, design patterns and frameworks. Aspect and Extreme Programming, Reuse, and Refactoring of components in object-oriented technology will be the highlights of this course. The Class libraries and illustration of incremental software development is also covered.

Prerequisite: CMPS 500

CMPS 600   Emerging Trends in Information Technology   (3 credits)

This course focuses on new and emerging applications in information technology. Topics may include but not limited to such as platform architectures, social platforms, cloud computing, data privacy and security, user experience, and analytics. In addition it focuses on the new trends and disruptive technologies in IT. Emphasis will be given to the way technologies create a competitive edge and generate business value. There will be a broad range of views presented by different guest speakers, including entrepreneurs, analysts, and IT executives.
Prerequisite: Instructor's consent

CMPS 601   Research Topics in Information Technology   (3 credits)
This course offers the student the entry to self-directed scientific work. The student chooses a topic, does the literature review and presents his/her work in a written report along with a presentation. Topics would be chosen based on a literature review focused on emerging technologies in the field of IT not limited to such as Artificial Intelligence; Machine Learning; Human-Computer Interaction; Medical Informatics; Games; Networks & Communications; Image Processing; Simulation; Evolutionary Computation; Energy Informatics; Knowledge Management. *Prerequisite: Instructor's consent*

CMPS 602   Information Technology Auditing and Assurance   (3 credits)
This course introduces the fundamentals of IT auditing and assurance services, core reasons why IT auditing is a specialized area of auditing, evolution of IT assurance, and the principle objectives of IT auditing and assurance services.

CMPS 603   Knowledge Management   (3 credits)
This course covers the latest theory and practice of Knowledge Management (KM), with an integrated interdisciplinary presentation that makes sense of the confusingly wide variety of computer science and business KM perspectives arising simultaneously from artificial intelligence, information systems, and organizational behavior. It solidly covers the "hard" technical components of computer tools and technology for managing knowledge, without losing sight of the "soft" management needs and challenges in leveraging knowledge effectively within an organization. The course also critically evaluates the nature, computer representation, access, and utilization of knowledge versus information within a human context.

CMPS 604   Research Project   (3 credits)
This course requires students to develop a research project. It gives students the opportunity to obtain, develop and demonstrate research skills in Information technology and related areas. A diverse range of projects can be proposed and each will require and develop different research skills. Having successfully completed this course, students shall be better prepared to undertake further research projects or to apply their research skills in an industry context.

Prerequisite: Instructor's consent

CMPS 690   Master Thesis   (6 credits)
This course addresses research question(s) of interest to the student. It consists of an integrated piece of work, with critical analyses of approaches and results, a software implementation of the proposed system (if applicable), and a discussion of further works. *Prerequisite: Successful completion of 18 credit hours and CMPS 520 (Research Methodology) if deemed necessary by the advisor, followed by approval of the department.*

Master of Science in Electrical and Computer Engineering

Program Overview

The Master of Science in Electrical and Computer Engineering at Dhofar University is a two-year program that has the following options:
• ECE Thesis Program
• ECE Non-thesis Program

The Department offers Master of Science Program in Electrical and Computer Engineering with two minors:
1. Electrical Energy and Power Systems
2. Computer Networks and Security

Program Objectives

This program aims to

- Prepare enrolled students to be practitioner engineers by equipping them with electrical & computer engineering knowledge & concepts. This will allow them to practice their work on the highest degree of professionalism and under the best performance standards nationally and internationally.
- Produce postgraduates who can apply knowledge, and skills to the analysis of realistic engineering problems, to analyze and create specifications, to synthesize, design and test appropriate solutions.
- Produce postgraduates who have learnt to develop professional motivation and attitude to the practice of engineering and the use of professional standards in planning, executing, and presenting work.
- Strengthen the capacity of those involved in the program to diagnose engineering problems efficiently and to achieve the optimum desired results with respect to cost and methodology. This includes certain aspects such as: decision-making, leadership, motivation, mobilization, follow-up, project engineering, research work and performance, etc.
- Improve and renew the engineering knowledge of professional engineers in their area of electrical and computer engineering.
- Provide students with skills of self-learning and the exercise of personal and institutional renewal, through strategic and operational planning, setting goals, adoption of performance indicators and benchmarks, and good resource engineering.
- Actively contribute to the process of institutional development through the provision of excellence in administrative leadership to face future challenges.

Program Learning Outcomes

Intended learning outcomes
- To be able to demonstrate advanced knowledge in a specialized area consistent with the focus of their graduate program.
- To be able to demonstrate quantitative and qualitative skills in the use of data gathering methods and data analysis techniques used for typical analysis in conducting research that is consistent with the focus of their graduate program.
- Ability to design a system, component, or process to meet desired needs:
- Ability to function on multidisciplinary teams.
- To be able to conduct independent research resulting in an original contribution to knowledge in the focused areas of their graduate program.
- To be able to know and participate in the intellectual and organizational aspects of profession as applicable to the major area of study including the ethical conduct of research.
- To be able to produce written and oral communications of quality, as consistent with the focus of their graduate program.
- The broad education necessary to understand the impact of engineering solutions in a global and societal context.
- Recognition of the need for and an ability to engage in life-long learning.
- Knowledge of contemporary issues.
- Ability to use the techniques, skills and modern engineering tools necessary for engineering practice

Admission Requirements

Each applicant must satisfy the following requirements:
- A Bachelor degree in a relevant engineering discipline (e.g. Electrical, Electronics or Computer Engineering) from a reputed University.
- A minimum Cumulative Grade Point Average (CGPA) that is equivalent to 'Good (2.5/4)' grade.
- **Unconditional Admission**: An applicant for a M.Sc. program must have a minimum cumulative GPA of 2.75 on a 4-point scale or equivalent is required for admission.
- **Conditional Admission**:
  - An applicant with cumulative GPA of 3.00 on a 4 point scale, but deficient in pre-requisite courses needed for the program, may be considered for conditional admission into the M.Sc. by research program. Such pre-requisite courses are termed bridging courses and should be completed within one year of study as specified by the department.
  - An applicant with a cumulative GPA of 2.75 on a 4 point scale, but deficient in pre-requisite courses needed for the program, may be considered for conditional admission into the M.Sc. by course work, or course work and thesis options. Similarly, the bridging courses should be completed within one year of study.
  - An applicant whose cumulative GPA is between 2.74 and 2.50 may be considered for conditional admission into the M.Sc. by course work and

thesis options. In such cases, relevant work experience and any other academic activity beyond the first degree may be taken into consideration to access the applicant's potential to achieve at a high level in the selected field.

- A minimum IELTS score of 6.0, or a TOFEL score of 550.
- Pass an Admission Interview.
- A minimum of 2 years engineering experience is highly recommended.

Graduation Requirements

To graduate with a Master of Science Program in Electrical and Computer Engineering, a student must:

- Satisfactorily complete 30 credits with a cumulative average of no less than 65 %. The passing grade in a graduate course is 60% within the duration of M.Sc. Program as following:
    - o M.Sc. program to be completed within two years of fulltime enrolment. An extension of up to one semester may be approved by the Deanship of Postgraduate Studies on the recommendation of the supervisor and the College Dean.
    - o In case of part-time study, all degree requirements must be completed in three years. An extension of one semester may be approved by the Deanship of Postgraduate Studies on the recommendation of the supervisor and the College Dean.
    - o Note: The maximum period of registration is counted from the date of first registration, excluding any postponements granted throughout this period.
- Complete a master's project for Non-Thesis Option or master's Thesis for Thesis Option.
- Pass a comprehensive examination that includes a performance component and defend successfully the work on the master's project (or Thesis) in front of a panel of experts.

Course Load

It is preferred that students would follow the specified study plan, which distributes the courses on four semesters. However both full-time and part-time students are allowed to join the program with the following Course Load:

- The minimum course load for a full-time student is normally 9 credits, except when the student is registered for a thesis.
- The normal course load for a part-time postgraduate student is 6 credits, with 3 credits as the allowable minimum.

Field Experience

Students will be required to carry out field investigations, conduct interviews and have opportunities to discuss and apply the concepts covered during the course work. There are practical components in most.

Projects/Theses

The students should make (field observations, collect, and analyze data from the field). The nature, scope, and content of the final project/thesis will be determined by the student in consultation with the faculty advisor. The project/thesis work should be presented in the form of (a comprehensive report that follows international standards in reporting scientific research).

Course Work

Students will follow the program of study that is described below under the supervision of their academic advisors. That program is made of a set of 5 program core courses from which he should select four, another set of elective courses from which the students should select four and 3 credits for non-thesis option or 6 credit Thesis Course for thesis-option.

Required Courses:

This set consists of the following 5 courses encompassing 15 credit hours:
- EECE 603   Advanced Engineering Mathematics
- EECE 611   Advanced Power System Analysis
- EECE 613   Power Electronics Systems and Applications
- EECE 614   Renewable Energy Systems
- EECE 624   Electric Power Systems Stability and Control

Elective Courses:

Four or Five courses encompassing 12 or 15 credit hours are chosen from the following list:
- EECE 601   Advanced Engineering Management
- EECE 602   Advanced Engineering Probability & Statistics
- EECE 604   Digital Signal Processing
- EECE 605   Linear Systems Theory
- EECE 606   Advanced Modeling and Simulation
- EECE 612   Electrical Machines and Drives
- EECE 615   High Voltage Engineering and Technology
- EECE 616   Distributed Generation
- EECE 617   Smart Grid Systems
- EECE 621   Transmission and Distribution
- EECE 622   Energy Planning and Policy
- EECE 623   Power System Planning
- EECE 625   Energy Efficiency in the Power Sector
- EECE 626   Protection of Power Systems
- EECE 627   Environmental Aspects of Energy Systems
- EECE 628   Solar and Photovoltaic Power Systems
- EECE 630   Special Topics in Electrical Engineering

Study Plan

Year I		
Fall Semester		**9Credits**
Code	**Course Title**	**Credit Hours**
Code	Program Core I	3
Code	Program Core II	3
Code	Program Core III	3
Spring Semester		**9 Credits**
Code	**Course Title**	**Credit Hours**
Code	Program Core IV	3
Code	Elective I	3
Code	Elective II	3

Year II		
Fall Semester		**9Credits**
Code	**Course Title**	**Credit Hours**
Code	Elective III	3
Code	Elective IV	3
Code	Master Thesis Phase I (Thesis Option)	3
Code	Elective IV (Project Option)	3
Code	Research Project I (Project Option)	3
Spring Semester		**3 Credits**
Code	**Course Title**	**Credit Hours**
Code	Seminar (EEPS)	0
Code	Master Thesis Phase II (Thesis Option)	3
Code	Research Project II (Project Option)	3

Courses Description

EECE 601   Advanced Engineering Management   (3 credit)
Course is oriented for engineers or graduates who want to become technical specialists or managers in industrial and manufacturing companies. It increases career potential by improving knowledge and experience in engineering, technical and problem solving skills, management skills, ability to take on greater responsibility This course helps understand concepts and theories behind developing, manufacturing and managing engineering products and systems. This course provides learning to explore and apply developments in engineering and management academic thinking and industrial practice. Study involves two management, two technical and four optional modules. Wide range of optional modules including lean operations and six sigma, advanced manufacturing technology, applicable artificial intelligence, computer-aided design/computer-aided manufacture, advanced computer system architecture, Network applications.
The international product development module involves working in multidisciplinary teams to develop a new product in a global market. This allows student to develop much sought after advanced technical and business skills and

improves student's career prospects in engineering industry, and public service. Undertaking such a project also develops particular interest in a supported environment.

EECE 602   Advanced Engineering Probability & Statistics   (3 credits)
This module aims to provide statistical analysis and experimentation techniques for engineers. Topics include analysis of variance, regression analysis, factorial and fractional factorial designs, response surface methodology and non-parametric methods. The module is application oriented and examples drawn from industrial applications rather than mathematical development will be used wherever possible to introduce a topic. Besides evening lectures on the above topic, seminars on fundamental aspects of the subject matters will be conducted. Research papers will be reviewed during the seminars.

EECE 603   Advanced Engineering Mathematics   (3 credits)
Survey of advanced mathematics topics needed in the study of engineering. Topics include review of complex numbers, multivariate calculus and analytic geometry. Study of polar, cylindrical, and spherical coordinates, vector differential calculus, vector integral calculus, and vector integral theorems. Examples are provided from electromagnetic, fluid mechanics, physics and geometry.

EECE 604   Digital Signal Processing   (3 credits)
Discrete-time signals and systems, frequency response, group delay, z-transform, convolution, discrete Fourier transform (DFT), fast Fourier transform (FFT) algorithms, discrete Cosine transform (DCT), discrete Sine transform (DST), relationship between DFT, DCT, and DST; design of FIR and IIR filters, finite word length effects, Hilbert transform, Hilbert transform relations for causal signals, Introduction to DSP architecture - Harvard architecture - Dedicated MAC unit - Multiple ALUs, Advanced addressing modes, Pipelining, Overview of instruction set of any typical digital signal processor..

EECE 605   Linear Systems Theory   (3 credits)
Linear Algebra: Matrices- Determinants- System of Linear Equations- Eigenvalues and Eigenvectors - Diagonalization- Orthogonal and Symmetric Matrices. Some Engineering Applications.
Complex Analysis: Complex Numbers - Complex Variables -Differentiation of Complex Functions - Complex Integration -Singularities and the Residue Theorem and Some Applications of the Residue Theorem - Conformal Mappings. Implementing certain mathematical manipulations using a suitable software package (e.g. MATLAB)

EECE 606   Advanced Modeling and Simulation   (3 credits)
Introduce computer simulation technologies and techniques, provides the foundations for the student to understand computer simulation needs, and to implement and test a variety of simulation and data analysis libraries and programs. This course focuses what is needed to build simulation software environments, and not just building simulations using preexisting packages. Introduce concepts of modeling layers of society's critical infrastructure

networks. Build tools to view and control simulations and their results. In this course students will be able to conduct simulation study using any software for coding your models, and interpret simulation outputs. You are expected to perform a full-cycle simulation study on a real world problem using the knowledge gained throughout the course as a project. The students are directed to practical work concerning their specific field of research in their thesis..

EECE 611   Advanced Power System Analysis   (3 credits)
This course consists of theoretical and practical modules.
Theory: A course on optimal dispatch of generation, symmetrical components and unbalanced faults, transient stability
Practical: simulation and analysis of balanced and unbalanced faults. Simulation of power system for modeling and analysis of transient stability studies.

EECE 612   Electrical Machines and Drives   (3 credits)
This course consists of theoretical and practical modules.
Theory: Topics covered in the course include: Characteristics of DC Motors and AC motors, Slip power recovery scheme, characteristics of synchronous motors, Classification of Electric drives, Elements of electric drives, DC drives and applications, AC drives and applications, Control techniques of electric drives.
Practical: Microprocessor based control of electric drives.

EECE 612   Electrical Machines and Drives   (3 credits)
This course consists of theoretical and practical modules.
Theory: Topics covered in the course include: Characteristics of DC Motors and AC motors, Slip power recovery scheme, characteristics of synchronous motors, Classification of Electric drives, Elements of electric drives, DC drives and applications, AC drives and applications, Control techniques of electric drives.
Practical: Microprocessor based control of electric drives.

EECE 613   Power Electronics Systems and Applications   (3 credits)
This course consists of theoretical and practical modules.
Theory: A course that reviews converter topologies for AC/DC, DC/AC, and DC/DC; power supply applications; converter applications to motor drives; utility interface of distributed energy systems; static VAR systems; flexible AC transmission; high voltage DC; power quality control; active and passive harmonics compensation.
Practical: Design and implementation of simple Converters and invertors.

EECE 614   Renewable Energy Systems   (3 credits)
A course that covers the principles of renewable energy, solar radiation, solar water heating, building and other thermal applications, photovoltaic generation, wind power, fuel cells and the hydrogen cycle, biomass, and institutional and economic factors..

EECE 615   High Voltage Engineering and Technology   (3 credits)
Topics covered in the course include: over voltages in electrical power systems, Protection of transmission lines against over voltages. Insulation coordination,

electrical breakdown in gases, liquids, solids and composite dielectrics, Gaseous breakdown - uniform field – Townsend criterion, Streamer theory- Pachen's law - Non-uniform fields – Corona discharges – Vacuum breakdown - Conduction and breakdown in pure and commercial liquids – Breakdown mechanisms in solid and composite dielectrics. Generation of high voltages and high currents, Generation of High DC Voltages: Voltage doubler - -Cockcroft Walton, Voltage multiplier - Vande-Graff generator- Generation of high AC voltages: Tesla coil, Generation of Impulse voltage: multistage impulse generator - MARX circuit and generation of impulse current - Tripping and control of impulse generators. Measurement of high voltages and high currents, Measurement of High DC voltages- AC voltages: power frequency, high frequency and impulse - High DC currents- AC currents: power frequency, high frequency and impulse- PD Measurements – Digital Storage Oscilloscope for impulse voltage and current measurements. High voltage testing of electrical apparatus, Terminologies and Definitions - High voltage testing of electrical power apparatus as per standards.

EECE 616   Distributed Generation   (3 credits)
Topics covered in the course include Introduction. Definitions and terminology. Present state and development trends. Technologies: hydro power plants, biomass, wind turbines, photovoltaic generation. Technologies: cogeneration, reciprocating engines, steam and gas turbines, fuel cells. Connection of distributed generation into the network. Control of power production and voltage. Island operation. Energy flow measurements. Tariffs. DG in EU countries. Supply share of electricity and heat. Barriers and supporting mechanisms. Status of the DG in Croatia. Legal aspects. Technologies. Economic issues. Social perception. Potential and development perspectives of the DG in Croatia. Subventions. Credits. Purchase obligation. Barriers to DG in Croatia: institutional, market, technological, financial, technical. DG in various scenarios of Croatian power system development. Optimal configuration of the DG. Static and dynamic operational characteristics. DG perspectives in Croatia. Multicriterial analyses of sustainability.

EECE 617   Smart Grid Systems   (3 credits)
Topics covered in the course include introduction to smart grid, Technology Drivers, Smart energy resources, Smart substations, Substation Automation, Feeder Automation ,Transmission systems: EMS, FACTS and HVDC, Wide area monitoring, Protection and control, Distribution systems: DMS, Volt/VAr control, Fault Detection, Isolation and service restoration, Outage management, High-Efficiency Distribution Transformers, Phase Shifting Transformers, Plug in Hybrid Electric Vehicles (PHEV).Introduction to Smart Meters, ethical issues in smart metering: Privacy issues. Advanced Metering infrastructure (AMI) drivers and benefits, AMI protocols, standards and initiatives, AMI needs in the smart grid, Phasor Measurement Unit(PMU), Intelligent Electronic Devices(IED) & their application for monitoring & protection. Power quality management in smart grid, Power Quality Audit, and high performance computing application for smart grid applications.

EECE 621   Transmission and Distributions   (3 credits)

Energy Consumptions, Structure of power system, Parameters of resistance, inductance and capacitance calculations, single and three phase transmission lines, Phasor diagram, Classification of transmission lines, Transmission line parameters such as Corona, skin effect, sag and interference, Compensation of reactive power, Classification of insulators and cables, Major components of sub stations, AC and DC transmission and distribution.

EECE 622   Energy Planning and Policy   (3 credits)
This is a course that focuses on features of modern energy planning and policy. Topics covered include the interaction among the technological, economic, environmental, and sociopolitical aspects of energy supply and use; electricity, oil, and gas industries, and their market structures; elements of energy planning on the sector and national levels; energy decision making under conditions of uncertainty, risk management in energy planning; liberalization of energy markets; case studies.

EECE 623   Power System Planning   (3 credits)
The course investigates electric energy and peak demand forecasts using weather sensitive, time curve, autoregressive and causal models; generation reliability evaluation, loss of energy expectation, energy limited units, probabilistic production costing, generating capacity expansion analysis, and maintenance scheduling; operational planning, unit commitment, hydrothermal coordination; power system security classification, contingency analysis, external equivalents, optimal power flow; planning in a competitive electric power environment.

EECE 624   Electric Power Systems Stability and Control   (3 credits)
This course consists of theoretical and practical modules.
Theory: A course on synchronous machine modeling and simulation, response to small disturbances, and voltage instability. Topics include Park's transformation, flux linkage, voltage, and state space equations, sub transient and transient parameters, simplified models of the synchronous machine, and treatment of saturation, system reference frame, small-signal stability, and power system stabilizers.
Practical: Design, simulation and analysis of power system stabilizers.

EECE 625   Energy Efficiency in the Power Sector   (3 credits)
Topics covered in the course include: utility companies and energy supply, energy sustainability, cogeneration systems: combined heat and power (CHP) and combined cycle gas turbines (CCGT), reciprocating engines, distributed generation, demand side management, wastage of energy, energy audit: types and data analysis, monitoring and targeting of energy, energy-efficient rotating machines, design and performance optimization; and case studies.

EECE 626   Protection of Power system and Devices   (3 credits)
Topics covered in the course include: Relays and circuit breakers; Protection of generators; sequence filters; reverse, under frequency, loss of excitation; Rotor earth fault, pole slipping, protection of Turbine; Protection of Transformer; generalized differential protection, Protection due to switching; BUS and

substation protection; distance rely, characteristics and critical applications; power swing conditions; Static relays; current, voltage and impedance relays, A standard relaying ; Computer and microprocessor application in protection schemes; Numerical relays.

EECE 627   Environmental Aspects of Energy Systems   (3 credits)
A course that examines world energy resources and classifications; sources and effects of air pollution; air quality modeling, Gaussian dispersion models for pollution estimation; motor vehicle emissions and noise pollution; environmental impacts of electricity generation, pollution control systems, electromagnetic radiation, production and impacts in high-voltage applications; environmental impact assessment; basic concepts.

EECE 628   Solar and Photovoltaic Power Systems   (3 credits)
Topics covered in the course include: Solar photovoltaic energy conversion and Principles, Physics and operation of solar cells, Classification of solar PV systems, Solar cell energy conversion efficiency, I-V characteristics, and effect of variation of solar irradiation and temperature, losses, control algorithms. MPPT algorithm, PV tracking options. Design of Solar PV power system.

EECE 630   Special Topics in Electrical Engineering   (3 credits)
This course will cover some topics suggested and conducted by a faculty member with required prerequisites.
Topics include: Generation Operation and Control, High Voltage DC Transmission Systems and Flexible AC Transmission Systems (FACTS).

Master of Education in Counseling

برنامج ماجستير التربية فى الإرشاد النفسى

رؤية البرنامج:

تقديم برنامج متميز في الإرشاد النفسى وفقاً لمعايير عالمية؛ يحظى باعتراف محلي ودولي للراغبين في متابعة تحصيلهم العلمي للحصول على درجة الدكتوراة.

رسالة البرنامج:

إعداد خريجين متخصصين في الإرشاد النفسى على أعلى المستويات الأكاديمية لتلبية حاجات سوق العمل في مجال الإرشاد النفسى والمدرسى والتدريس والبحث العلمي.

أهمية البرنامج:

- حاجة المجتمع الظفاري الماسة لمثل هذا البرنامج وذلك للموقع الجغرافي لمحافظة ظفار وبعدها عن محافظة مسقط.
- حاجة وزارة التربية والتعليم لمرشدين نفسيين في جميع مدارس السلطنة مما يتطلب إعداد مرشدين متخصصين في هذا المجال يحملون درجة الماجستير في التربية / تخصص الإرشاد النفسي.
- تقليل العبء المادي والجسدي والاجتماعي على العاملين بتلك المؤسسات حيث أنهم يتلقون محاضراتهم بالجامعة بعد الانتهاء من دوامهم اليومي، بدلاً من سفرهم إلى بلاد عربية أخرى مثل مصر والأردن للحصول على مثل هذا البرنامج.
- حرص جامعة ظفار على النهوض بالمستوى المنهجى والنفسى والإرشادى والتنظيمى بالمؤسسات التربوية بسلطنة عمان من خلال توفير برنامج يتماشى مع الإتجاهات العالمية الحديثة ، بما ينعكس بشكل إيجابي على المستوى التربوي بالسلطنة.
- إن خريجي هذا البرنامج ستكون لهم فرصة كبيرة إن لم تكن مضمونة في الحصول على وظائف في سوق العمل سواء في القطاع الحكومي أو الخاص.

أهداف البرنامج:

- إعداد كوادر مؤهله في تخصص الإرشاد النفسي لخدمة المؤسسات المختلفة في المجتمع المحلي، ومنها المؤسسات التعليمية.
- إكساب الدارسين الاتجاهات النظرية المختلفة والأسس التي يستند إليها الإرشاد النفسي .
- تمكين الدارسين من أساليب ومهارات الاتصال في الإرشاد النفسي وفنياته.
- تنمية وتطوير قدرة الدارسين على ممارسة مهارات وفنيات الإرشاد الجمعي وبخاصة في ديناميات الجماعة والقيادة.

- إكساب الدارسين مهارات إجراء البحوث في مجالات الإرشاد النفسي المختلفة بما يسهم في تطوير الخدمات النفسية في مؤسسات المجتمع المختلفة.
- تطوير اتجاهات إيجابية نحو المسترشدين، وتقبل مشكلاتهم، واحترام قدرتهم على اتخاذ القرار، وتحملهم المسؤولية وفق الميثاق الأخلاقي لمهنة الإرشاد النفسي.
- زيادة الوعي بأهمية ودور الإرشاد النفسي في تحقيق التوافق والارتقاء بالصحة النفسية للمجتمع العماني بأفراده وأسره.

مراجعة الأهداف السلوكية للبرنامج:

1. تتم مراجعة الأهداف السلوكية للبرنامج عند تعديل المقررات الدراسية، والتي تجري بشكل دوري و مستمر بمعدل مرة واحدة كل عامين، أو استدعاء ذلك من قبل الجامعة أو وزارة التعليم العالي.
2. يقوم القسم باستطلاع آراء المؤسسات التي يعمل فيها خريجو البرنامج للحصول على التغذية الراجعة وعلى ضوئها يعاد النظر في بناء البرنامج وأهدافه وأساليب تقييمه.

مخرجات تعلم البرنامج:

من المتوقع بعد نهاية البرنامج أن يكون الدارس قادراً على:
- توظيف المفاهيم النظرية وتطبيقاها في مجالات الإرشاد النفسي المختلفة.
- تطبيق مهارات، وفنيات الإرشاد النفسي، وتوظيفها في الخدمات الإرشادية المختلفة.
- تطبيق أدوات القياس في مجالات الإرشاد النفسي.
- تصميم، وتطوير برامج إرشاد نفسي مختلفة، وورش عمل في مجال الإرشاد النفسي.
- إدارة برامج الإرشاد النفسي ونقل الخدمات النفسية من مصادرها المختلفة.
- استخدام تكنولوجيا المعلومات، وتوظيفها في توثيق سجلات المسترشدين، والجلسات الإرشادية، والبرامج الإرشادية المختلفة.
- إدخال البيانات وتحليلها وفق برنامج SPSS.
- إجراء البحوث والدراسات في مجالات الإرشاد النفسي المختلفة.
- تقديم الإرشاد الفردي استناداً إلى كل من نظريات الإرشاد النفسي والعلاج النفسي ، وتطبيقاتها للتعامل مع المشكلات السلوكية والانفعالية والاجتماعية والمعرفية وغيرها.
- ممارسة الإرشاد الجمعي وديناميتة، وتطبيق نظرياته في مواقف الإرشاد النفسي المختلفة.
- وضع برامج في الإرشاد والتوعية النفسية خاصة بالآباء والأمهات تساعدهم في التعامل مع المشكلات السلوكية والانفعالية والاجتماعية والمعرفية المختلفة لدى أبنائهم.
- تقديم خدمات الإرشاد النفسي المتنوعة وفق مبادئ الميثاق الأخلاقي لمهنة الإرشاد النفسي.

عملية تصميم ومراجعة مخرجات التعلم للبرنامج:

1. يقوم أساتذة القسم بتصميم مخرجات تعلم البرنامج على مستوى القسم.

2. يقوم الأساتذة بمراجعة مخرجات التعلم ويقترحون التعديلات الضرورية لتجويد المخرجات.

3. تعاد صياغة مخرجات التعلم ويعتمدها القسم في اجتماع يخصص لذلك.

4. ترفع تلك المقترحات لعميد الكلية الذي يتولى اقرارها بعد مراجعتها مع أعضاء الهيئة الأكاديمية للقسم ويتولى عرضها على مجلس الكلية للاعتماد.

تقييم مخرجات التعلم:

يخضع البرنامج لتقييم أعضاء هيئة التدريس بالقسم، وذلك من خلال الاختبارات الفصلية والنهائية؛ بالإضافة إلى التقييم المباشر الذي يشارك فيه جميع أعضاء هيئة التدريس بالقسم من خلال " حلقة نقاش أسبوعية" يعرض فيها طلبة البرنامج مشاريعهم وخططهم الدراسية، ويتلقى الطلبة فوراً التغذية الراجعة على عروضهم للتأكد من مدى تحقق مخرجات التعلم. هذا فضلاً عن تقييم الطلبة للبرنامج من حيث الأهداف، والمحتوى، واستراتيجيات التدريس، وأساليب التقويم، والأساتذة المعنيين بالبرنامج وتأكد ما اكتسبوا من معارف ومهارات مما يعتبر مؤشراً داعماً لتقييم مخرجات التعلم.

شروط الالتحاق بالبرنامج:

1. أن يكون المتقدم للإلتحاق بالبرنامج حاصلاً على الدرجة الجامعية من جامعة معترف بها بمعدل لايقل عن جيد أو مايعادله من أنظمة القياس الأخرى لمعدلات الإنجاز .

2. يجوز للجامعة قبول طلبة من الحاصلين على درجة البكالوريوس فى تخصصات غير علم النفس، شرط أن يجتاز المقررات الإستدراكية والتى يحددها قسم التربية وفقاً لوضع الطالب.

ملحوظة: الحد الأدنى للمقررات الإستدراكية مقرر واحد، والحد الأقصى أربعة مقررات، وفقاً لوضع الطالب.

إجراءات الالتحاق بالبرنامج:

1. يقوم قسم التربية باستقبال الطلبة الراغبين في الالتحاق بالبرنامج ممن تنطبق عليهم شروط القبول، فيتولى إجراء المقابلات معهم كل على حدة.

2. بعد اجتياز الطلبة المقابلة يوجههم القسم إلى قسم القبول والتسجيل لتدقيق شهاداتهم ومستنداتهم، واستكمال جميع إجراءات التسجيل، وإصدار البطاقات الجامعية لهم.

3. يتوجه الطالب أيام تسجيل المقررات فى كل فصل دراسى للمرشد الأكاديمى لاختيار معه المقررات الدراسية التى يود الطالب دراستها فى هذا الفصل، ثم يتوجه لقسم المالية لدفع أو تسوية أموره المالية حسب عدد المقررات التى يختارها، ثم يتوجه للمرشد مرة أخرى لتسجيل مقرراته على النظام وإعطائه الجدول الدراسى.

4. يجوز للطالب أن يسجل مقرراته من خلال الإنترنت بشرط أن يكون دفع المبالغ المستحقة عليه أو تسويتها.

لغة الدراسة بالبرنامج: اللغة العربية.

الساعات المعتمدة:

- ينجز الطالب خلال مدة دراسته 33 ساعة معتمدة، بالإضافة إلى عدد ساعات المقررات الاستدراكية للطالب غير المتخصص فى التربية.

- يتوجب على الطالب تسجيل ما لا يزيد على 4 مساقات في الفصل الواحد.

نظام الدراسة:

- نظام الدراسة بالبرنامج يتطلب حضوراً إلزامياً.

- مدة الدراسة في هذا البرنامج سنتين من الدوام المسائي فى حالة الدوام الكلى وأربع سنوات فى حالة الدوام الجزئى.

- يوجد مساران للدراسة فى هذا البرنامج يختار الطالب فيما بينهما، المسار الأول مسار المقررات مع الاختبار الشامل، وفيه يدرس الطالب 11 مقرر (10 مقررات إجبارية، ومقرر واحد اختياري) بواقع 33 ساعة أكاديمية، ثم اختبار شامل. أما المسار الثانى فهو مسار المقررات مع رسالة الماجستير، وفيه يدرس الطالب 9 مقرررات (8 مقررات إجبارية، ومقرر واحد اختياري) بواقع 27 ساعة أكاديمية، ثم رسالة الماجستير بواقع 6 ساعات أكاديمية.

- يُدرس المساق 3 ساعات في يوم واحد بالأسبوع لمدة فصل كامل (ثلاث ساعات متواصلة تتخللها إستراحة).

الخطة الدراسية للبرنامج:

صمم البرنامج وفقا لإطار المؤهلات العلمية الوطنية بالسلطنة، و منسجماً مع معايير وزارة التعليم العالي، وكذلك مع قياس مرجعي لخطته مع العديد من الجامعات العربية والأجنبية. وبالتالي فقد خرج محتوى البرنامج مستوعباً لأهدافه ومخرجاته ومحققاً لمواصفات خريجي جامعة ظفار. وفيما يلى الخطة التفصيلية للدراسة.

أولاً: المقررات الاستدراكية التى يدرس من بينها الطالب غير المتخصص فى علم النفس:

المساقات ورموزها	حدود الساعات الاستدراكية	عدد الساعات المعتمدة	حدود الساعات الاستدراكية
EDUC700 مدخل الى علم النفس EDUC702 قياس نفسي EDUC703 علم نفس تربوي EDUC717 ارشاد ذوي الاحتياجات الخاصة EDUC718 صحة نفسية EDUC719 مشكلات الأطفال والمراهقين	**الحد الأعلى** 18 ساعة	EDUC700 مدخل الى علم النفس EDUC702 قياس نفسي EDUC703 علم نفس تربوي EDUC717 ارشاد ذوي الاحتياجات الخاصة	**الحد الأدنى** 12 ساعات

ثانياً: الخطة الدراسية الأساسية للبرنامج:

نوع المقرر		الساعات الأكاديمية	الساعات التدريسية	عنوان المقرر	رمز ورقم المقرر	الفصل الدراسي	السنة الدراسية
المتطلب السابق	إجبارى/ اختيارى						
–	إجبارى	3	3	الإرشاد النفسى (نظرياته–أساليبه)	EDUC 704	**الأول**	**الأولى**
–	إجبارى	3	3	مناهج البحث فى التربية	EDUC 705		
–	اختيارى	3	3	مساق اختيارى			
		9	**9**	**مجموع الساعات للفصل الأول**			
–	إجبارى	3	3	الإرشاد الجمعى	EDUC 706	**الثانى**	
–	إجبارى	3	3	الإرشاد المدرسى	EDUC 707		
–	إجبارى	3	3	المقابلة الإرشادية	EDUC 708		
		9	**9**	**مجموع الساعات للفصل الثانى**			
		18	**18**	**مجموع الساعات للسنة الأولى**			

–	إجبارى	3	3	مهارات الإرشاد النفسى	EDUC 709	الثالث	الثانية
–	إجبارى	3	3	إحصاء تربوى	EDUC 701		
–	إجبارى	3	3	تطبيقات ميدانية فى الإرشاد النفسى	EDUC 710		
		9	9	مجموع الساعات للفصل الثالث			
إجبارى أو إجبارى + إجبارى + إجبارى	6 أو 3 + 3 + 0	6 أو 3 + 3 + 0	رسالة الماجستير أو الإرشاد الأسرى + الإرشاد المهنى + اختبار شامل	EDUC 720 أو EDUC 712 + EDUC 711 + اختبار شامل	الرابع	
		6	6	مجموع الساعات للفصل الرابع			
		15	15	مجموع الساعات للسنة الثانية			
		33	33	مجموع الساعات للبرنامج ككل			

ثالثاً: المقررات الاختيارية التى يختار من بينها الطالب:

عدد الساعات الأكاديمية	عنوان المقرر	رمز ورقم المقرر	م
3	الإرشاد المهنى	EDUC 711	1
3	الإرشاد الأسرى	EDUC 712	2
3	قراءت في الإرشاد النفسي باللغة الإنجليزية	EDUC 713	3
3	تعديل السلوك	EDUC 714	4
3	الإرشاد النفسى ومراحل النمو	EDUC 715	5
3	علم نفس الشواذ	EDUC 716	6

أساليب واستراتيجيات التعليم والتعلم المتبعة فى البرنامج:
Instruction Teaching and Learning

تركز أساليب واستراتيجيات التدريس المتبعة في البرنامج والتي تهدف إلى تحقيق أهداف هذا البرنامج للمشاركين على مايلى:

- استخدام أساليب التدريس المتمركزة حول الطالب.
- مشاركة الطلبة في إعداد وتقديم الدروس تحت إشراف المعلم.
- المشاريع البحثية وأوراق العمل.
- الإعداد المسبق للدروس من قبل الطلبة من أجل مناقشتها في الصف.
- التدريب العملي ومناقشة الأمور والمشاكل الواقعية في مكان العمل.
- استخدام التكنولوجيا الحديثة في تقديم الدروس.
- دراسة الحالات.
- حلقات النقاش.
- الضيوف الزائرون من المتخصصين في المجالات المختلفة.
- الزيارات الميدانية.
- الابتعاد عن أسلوب المحاضرة التقليدي والاستعاضة عنه بأسلوب انخراط الطلبة الفعلي في عملية التعلم.
- تشجيع الطلبة على الاعتماد على النفس في التعلم والبحث عن المعرفة بشتى الطرائق الحديثة من مكتبات وإنترنت وكتابة البحوث المختلفة وغيرها.

أساليب التقييم المتبعة فى البرنامج: Assessmentt methods

تشتمل أساليب التقويم على العديد من الوسائل الحديثة وغير التقليدية مثل:

- تقديم الدروس من قبل الطلبة بعد إعدادها مسبقا تحت إشراف المعلم.
- كتابة البحوث وأوراق العمل.
- استخدام الملفات الطلابية (البورتفوليو) وتنظيم أنشطة المساق فيها وتقييمها من قبل المدرس باستمرار.
- التركيز في التقويم على الفهم والمناقشة والتحليل والاستيعاب في الاختبارات الصفية بدلاً من الحفظ المطلق.
- الإكثار من المتابعة الصفية والتقويم المستمر باستخدام الاسئلة التي تتطلب التفكير الدقيق والابداعية والتحليل.
- عمل المشاريع الواقعية المتعلقة بالمشاكل التربوية وتقديم الحلول المنطقية لها من الواقع.
- الاختبارات المختلفة.
- التركيز على التقويم الشامل الذى يغطى كافة جوانب الطالب والمستمر الذى يسير بشكل متزامن مع عملية التدريس   (قبلى، مرحلى، نهائى، تتبعى).

أما الكتب المقررة لكل مساق فسيتم تحديدها من قبل مدرس المادة وبالتنسيق مع رئيس القسم بحيث تحقق اللأهداف المرجوة من كل مساق وتتسم بالحداثة والدقة.

شروط التخرج من البرنامج:

يشترط في تخرج الطالب من البرنامج أن ينهى بنجاح دراسة جميع المقررات بمعدل عام لايقل عن 75%، وأن يجتاز الاختبار الشامل أو الرسالة وفق تقارير لجنة الممتحنين التي يحددها القسم لكل طالب.

مواصفات خريج البرنامج:

يحمل خريج البرنامج المواصفات الآتية:

- يمتلك قاعدة فكرية واسعة من خلال المناقشات والكتب الرئيسة ذات الثقافات المختلفة.
- يظهر القدرة على التعبير عن الذات، والتفكير النقدي، والإبداعي، و إمتلاك المهارات الفكرية.
- يمتلك المهارات التقنية الرئيسة ذات الصلة بمجال تخصصه، بما يتناسب مع مستوى البرنامج والأهداف.
- يمارس التسامح، والتواضع، واحترام اختلاف وجهات النظر، والالتزام بأخلاقيات المهنة.
- يمارس مهارات التعلم مدى الحياة.

أعضاء هيئة تدريس البرنامج:

(أ) الأعباء المهنية والأكاديمية لأعضاء هيئة التدريس:

- يكون العبء التدريسي لعضو هيئة التدريس هو 12 ساعة أسبوعياً لمن هو في درجة أستاذ أو أستاذ مشارك، 15 ساعة أسبوعياً لمن هو في درجة أستاذ مساعد.
- يكلف أعضاء هيئة التدريس بالإرشاد الأكاديمى لعدد من طلاب البرنامج وتوجيههم، والإشراف العلمى على رسائلهم ومشاريعهم البحثية.
- ينخرط أعضاء هيئة التدريس في البحث العلمي والتربوى، ويتجسد نشاطهم من خلال تقديم أوراق العمل في المؤتمرات العلمية المحلية والدولية، وكذلك عن طريق النشر العلمي في المجلات العلمية المحكمة العربية والأجنبية.
- يشارك أعضاء هيئة التدريس في تقديم ورش العمل، والبرامج التدريبية، ومحاضرات التوعية، والكتابة في الصحافة المحلية والالكترونية، وخدمة للمجتمع المحلي (مرفق السيرة الذاتية لكل عضو).
- يشارك أعضاء التدريس في القيام بالأعمال الإدارية المساندة وحضور الاجتماعات وتقديم الدعم والعون الذي يطلب منهم بما لا يخل بواجباتهم الأكاديمية.

(ب) تعيين أعضاء هيئة التدريس:

يتم تعيين أعضاء هيئة التدريس المتخصصين في مجال البرنامج عبر عدد من الخطوات:

1. حصر احتياجات القسم من أعضاء هيئة التدريس قبل نهاية شهر فبراير من كل عام.
2. يتم الإعلان عن الوظائف الشاغرة بالقسم في الصحافة المطبوعة والإلكترونية المحلية والدولية، وموقع الجامعة باللغتين العربية والأجنبية.
3. يتم فرز الطلبات وترتيب المتقدمين وفق معايير علمية، ثم إجراء المقابلات معهم.

4. بعد اجتياز المتقدم للمقابلة الشخصية واستيفائه لمتطلبات الوظيفة، يتم مباشرة إجراءات التعيين والاستقدام إلى السلطنة عبر الجهات المعنية بالجامعة.

(ت) نسبة عدد أعضاء هيئة التدريس والهيئة المعاونة إلى عدد الطلبة:

- نسبة أعضاء هيئة التدريس إلى عدد الطلبة: 1 : 20 .
- نسبة أعضاء الهيئة المعاونة للطلاب: 1 : 25 .
- عدد العاملين بالجهاز الإداري والخدمي: منسق واحد للقسم، بالإضافة إلى عامل مشترك للكلية.

(ث) توجيه ومتابعة أعضاء هيئة التدريس:

- يعقد عميد الكلية اجتماعاً عاماً موسعاً في مستهل كل فصل دراسي لجميع أعضاء هيئة التدريس بالكلية، يوضح من خلاله اللوائح والنظمة المعمول بها بالجامعة، ويتطرق إلى جميع الأمور الأكاديمية وثقافة المجتمع المحلي، وأهداف الجامعة، وذلك بهدف بناء وعي مهني وأكاديمي يساعد أعضاء هيئة التدريس على استيعاب ثقافة طلابهم ومتطلباتهم وظروفهم.
- يعقد القسم اجتماعات شهرية للتشاور والمتابعة والتوجيه في جميع الأمور التي تتعلق بتجويد البرنامج والتأكد من حسن سير تنفيذه.
- يشجع القسم المشاركة في حضور المحاضرات لتلقي التغذية الراجعة من الزملاء فيما يرتقي بالبرنامج.
- يعقد القسم العديد من الندوات التربوية المتعلقة بمخرجات التعليم ومواصفات الخريجين والموضوعات التربوية الأخرى.

Master in Management
برنامج الماجستير في الإدارة

الحاجة لبرنامج الماجستير في الادارة:

ان حاجة المجتمع الظفاري خصوصا والعماني بصورة اعم لمزيد من برامج بناء المهارات الإدراية المتقدمة يعتبر من الأولويات التي تحاول جامعة ظفار الوفاء بها وخصوصا ضمن اطار خطتها الإستراتيجية. وفكرة طرح هذا البرنامج بالذات باللغة العربية يهدف الى جعله في متناول العدد الأكبر من المديرين الممارسين الذين قد لا يجيدون اللغة الإنجليزية بدرجة كافية أولا يحتاجون اليها في مجال عملهم على صعيدي القطاعين العام والخاص على حد سواء.

ومن الطبيعي ان يصار الى استخدام اللغة الإنجليزية في البرنامج في مساقات محددة وبالنسبة لمفردات ومصطلحات تخصصية معينة وأينما تقتضى الحاجة العلمية لذلك.

أهداف البرنامج:

لبرنامج الماجستير في الإدارة استهدافات عدة من اهمها:

- تزويد مديري المستقبل وكذلك المديرين الممارسين بمفاهيم ومهارات إدارية متقدمة تتيح لهم مزاولة عملهم على اعلى درجات المهنية والإحتراف وبموجب افضل معايير الإداء المطبقة دولياً.
- تعزيز قدرة المنخرطين في البرنامج على صعيد تشخيص المواقف الإدارية والتعامل معها بكفاءة فنية ومهارة عالية وتحقيق النتائج المرجوّة بأفضل السبل واقل التكاليف. وهذا الجانب يشتمل على اوجه محددة منها: صنع القرار، والقيادة، والتحفيز، والتعبئة، والمتابعة، وادارة الوقت، وادارة التغيير وإدارة المشروعات، وتقويم الأداء والتخطيط والإدارة الاستراتيجية.
- إكساب المشاركين مهارات التعلم الذاتي وممارسة التجديد الشخصي والمؤسسي، عبر التخطيط الإستراتيجي والعملياتي ورسم الأهداف واعتماد مؤشرات ومقاييس الأداء وحسن ادارة الموارد.
- الإسهام في عملية تمهين العمل الإداري في السلطنة عن طريق ربطه بمستوى عال من التحصيل العلمي النوعي في مجال الإختصاص وفي مجالي النظرية والتطبيقية.
- الإسهام الفاعل في عملية التنمية المؤسسية لاكبرعدد ممكن من مؤسسات ظفار والسلطنة عبر تزويدها بالقيادات الإدارية المتميزة والقادرة على ارتياد المستقبل ومجابهة تحدياته بعلم ودراية عاليين.
- احكام ربط جامعة ظفار بمجتمع الأعمال محليا ووطنيا وفتح مجالات جديدة امامها على صعيد البحث العلمي والتعليم المستمر والتفاعل مع مختلف القطاعات.
- تزويد الخريجين بمنظور دولي عبر دراسة المشاكل الادارية الدولية والابعاد الدولية للتغييرات في مجال الادارة واتخاذ القرار والاستراتيجيات والنظم الاقتصادية والمؤسسية والثقافية.

مخرجات التعلّم المستهدفة من البرنامج:

أولاً: المعرفة: سيكون الخريجون قادرين على:

- تعريف وفهم العديد من جوانب الفكر الاداري كمنهجية البحث العلمي في مجال الادارة واساسيات السلوك التنظيمي، واتخاذ القرار وادارة التغيير والتعامل مع الزبائن المحليون والدوليون.
- فهم جوانب متعددة من التطور الاداري ومدارس الفكر الاداري المختلفة والمنظور المستقبلي في ضوء التطورات المحلية والاقليمية والدولية.
- فهم وادراك المحيط الذي تعمل فيه منظمات الاعمال والمؤسسات الحكومية والمتغيرات الاقتصادية والاجتماعية والثقافية والسياسية والتكنولوجية وتأثير هذه المتغيرات على اوضاع المنظمات الإدارية.
- تشخيص وفهم الطريقة التي تدار بها منظمات الاعمال والمؤسسات الحكومية وتأثير هذه الطريقة على عملية اتخاذ القرار واداء المنظمة.
- فهم دور ووظيفة المنظمة في المحيط الذي تعمل فيه.
- ربط الجوانب النظرية والمعرفية في الاطار الاستراتيجي بطريقة عمل المنظمة.
- ادراك الموجهات الاساسية لجوانب التغيير والتجديد في منظمات الاعمال والمؤسسات الحكومية

ثانياً: المهارات: سيكون الخريجون قادرين على:
- تحليل وتقييم الطرق والنماذج والاختلافات التنظيمية بين منظمات الاعمال بالتركيز على الدور الذي تلعبه المنظمة في اطار المجتمع.
- تطبيق المهارات التحليلية الاساسية لتحليل المشاكل التي تواجه المنظمة واقتراح الحلول المناسبة.
- توظيف مهارات التنظيم الاداري الحديث، هندسة الدوائر الادارية والعمليات واعادة هندستها، التدريب والتصنيف، ادارة الموارد البشرية والاستثمار في الرأسمال الفكري، تقنيات قياس العوائد على الاستثمارات في الرأسمال البشري، هندسة الوظائف، بناء نظم تقويم الاداء، منهجيات التقويم الحديثة مثل بطاقة الاداء المتوازن .
- تطبيق مهارات ادارية في ادارة منظمات الاعمال والمؤسسات الحكومية ومنها، تقنيات ادارة التغيير، وادارة التجديد، وادارة المشروعات، وادارة الوقت، ونظم المعلومات الادارية وتقنيات التحليل الكمي والنوعي، واجراء الدراسات المرتبطة باطلاق سلع او خدمات جديدة، واعادة هندسة العمليات" الهندسة الادارية او الهندرة"، والتنمية المؤسسية، وادارة الازمات وادارة التغيير، والارشاد والتوجيه، وتقنيات اجراء المقابلات والمفاوضات.
- التعامل بشكل مبدع مع المشاكل المعقدة في منظمات الاعمال والمؤسسات الحكومية وتطبيق الادوات والاساليب المناسبة لاتخاذ القرار بشأنها.
- اختيار وتشخيص المعلومات الكمية وغير الكمية لصياغة نموذج قرار يمكن من حل المشاكل المعقدة التي تمثل تحدي لعمل المنظمة.

ثالثاً: المهارات الفكرية: سوف يكتسب الطالب المهارات الاتية بعد دراسة البرنامج.
- القدرة على تحليل البدائل واختيار البديل الافضل في ضوء الظروف المحيطة.
- القدرة على التفكير التحليلي لاختيار الحلول المناسبة.
- القدرة على العمل بشكل فريق.
- القدرة على حل المشاكل.
- القدرة على التوصيل والتفاوض الفعال.

- القدرة على بناء الاحكام الشخصية.

رابعاً: المهارات العامة: سوف يكتسب الطالب المهارات الاتية بعد دراسة البرنامج:

- المهارات الكمية والتعامل مع الارقام.
- الاستخدام الفعال لتكنولوجيا المعلومات.
- الادراك الذاتي والادارة الذاتية وادارة الوقت.
- اختيار نمط القيادة المناسب ووضع الاهداف والرقابة والتحفيز .
- ربط النظرية بالتطبيق.
- التسبيب المنطقي واستخدام التسبيب الاخلاقي في تفسير طريقة عمل المنظمة.

المعلومات الأكاديمية:

- تقدم جامعة ظفار/كلية التجارة والعلوم الإدارية برنامج ماجستير في الإدارة يعتمد على النظام الأمريكي للتعليم العالي في التخصصات الإدارية وباللغة العربية.
- تطبق جامعة ظفار نظام الساعات المعتمدة (نظام المقررات) وتشمل السنة الدراسية أو العام الدراسي فصلين دراسيين(2 semesters) اجباريين، مدة الفصل الدراسي الإعتيادي 15 أسبوعاً، وفصل صيفي اختياري لا يقل عن 12 اسبوعاً.
- الساعات المعتمدة تحتسب على أنها 9 ساعة تدريس فعلية في الفصل الدراسي الواحد.
- الحد الأدنى للساعات المعتمدة المطلوبة للبرنامج 36 ساعة معتمدة تشمل 3 ساعات معتمدة لمشروع التخرج والباقي لدراسة المقررات او 6 ساعات معتمدة للرسالة العلمية والباقي لدراسة المقررات.
- لا تقل مدة الدراسة عن سنة ونصف ولا تزيد عن ثلاث سنوات.

شروط القبول لبرنامج ماجستير الإدارة

تعتمد شروط القبول الاتية:

- أن يكون المتقدم حاصلا على مؤهل بكلوريوس في تخصص إدارة الأعممال أو ما يعادلها من جامعة معترف بها في السلطنة.
- حصول المتقدم الذي لا يملك خبرة عملية على معدل تراكمي لا يقل عن 75% أي ما يعادل 2.5 بالنقاط.
- حصول المتقدم الذي يملك خبرة عملية (بشرط ألا تقل عن سنتين) على معدل تراكمي يقدر 70% أو ما يعادل 2.3 بالنقاط.
- أجتياز إختبار إختبار كتابي باللغة العربية
- إختيار المقابلة الشخصية
- سيتحدد اختيار الطلبة للقبول في البرنامج على أساس تنافسي في ضوء نتيجة أمتحان القبول.

الانتقال من كلية/جامعة أخرى معترف بها إلى جامعة ظفار :

يحق لأي طالب يدرس في جامعة أو كلية معترف بها من قبل وزارة التعليم العالي في السلطنة تقديم طلب الانتقال إلى جامعة ظفار ،برنامج ماجستير في الإدارة على أن يستوفي شروط القبول المطلوبه، وعليه أن ينال موافقة لجنة الماجستير في الكلية التي تقدم توصياتها لعميد الكلية الذي يحيلها، بدوره، بعد دراستها إلى مدير القبول والتسجيل.

1. يشترط لمعادلة أي مقرر دراسي أن يكون ضمن برنامج دراسي محدد.
2. لا تعتمد المواضيع ذات الساعات المعتمدة المساوية (صفر) (بدون وحدات).
3. يشترط لمعادلة أي مقرر دراسي أن تكون ساعاته الدراسية المعتمدة معادلة لتلك الموجودة في جامعة ظفار
4. يشترط لمعادلة أي مقرر دراسي وجود ما يماثله في جامعة ظفار من حيث العنوان والمفردات وعدد الساعات المعتمدة.
5. لايجوزمعادلة أي مقرر دراسي يتم إنجازه خارج الجامعة بعد التسجيل في الجامعة، إلا إذا حصل الطالب على موافقة مسبقة مكتوبة من الكلية ومن رئيس جامعة ظفار.
6. يجب أن لايتجاوز عدد الوحدات التي يمكن معادلتها عن 6 ساعات معتمدة.
7. تنظر لجنة الماجستير في الكلية في معادلة الطالب وتتطلب مصادقة العميد ومن ثم ترسل الى عمادة القبول والتسجيل.

مدة الدراسة والعبء الدراسي

مدة الدراسة:

بالدوام الجزئي	بالدوام الكامل
4 اعوام دراسية	عامان دراسيان
8 فصول بمعدل مساقين او أقل في الفصل الواحد	4 فصول بمعدل 3 مساقات في الفصل الواحد

العبء الدراسي:

يجب أن يسجل الطلبة المنتظمون في أي من فصلي الخريف أو الربيع، ساعات معتمدة أدناها 6 وأقصاها 9. أما الساعات المعتمدة للفصل الصيفي ، فيجب ألا تتعدى 3 ساعات معتمدة. وتتطلب أية حالات استثنائية موافقة لجنة الماجستير في الكلية أو موافقة العميد. ويخصص لكل مقرر خمسة عشر اسبوعاً دراسياً (45 ساعة معتمدة).

الحذف والإضافة:

الحذف:

يسمح للطالب، بعد موافقة مرشده الأكاديمي، بإجراء بعض التعديلات في برنامجه الدراسي (أي إضافة بعض المساقات وحذفها) خلال الأسبوع الأول من الفصل الدراسي . ولا يحق له إجراء اية تعديلات بعد انقضاء هذه المهلة دون الحصول على موافقة المرشد الأكاديمي وفي الكلية أو عميد الكلية. وعلى الطالب

أن يتنبه إلى عدم تغيير كل المساقات التي اختارها إذ يحق له تغيير مساق واحد أو مساقين فقط، في حال كانت هناك ضرورة تقتضي ذلك.

الإضافة:

يمكن للطالب اضافة أي مقرر بشرط:

- عدم تجاوز الحد الأعلى للعبء الدراسي المسموح به للتسجيل وهو 9 ساعات معتمدة في كل فصل دراسي.
- عدم وجود تعارض في الجدول الدراسي .
- وجود امكانية للتسجيل في إحدى شعب المقرر الدراسي المراد إضافته .

نظام الحضور والغياب :

- لايسمح لاي طالب التغيب عن المحاضرات اكثر من 25% من عدد الساعات الكلي للدراسة حيث يعتبر حضور جميع المحاضرات امر الزامي، و تكون الإجراءات المتبعة على النحو التالي:
  - o **الإنذار الأول 5%** = يتم ارسال انذار مبدئي الى إيميل الطالب كما سيتم اعلام الطالب شفهيا من قبل المدرس او المرشد الاكاديمي
  - o **الإنذار الثاني 15%** = سيتم ارسال انذار مبدئي عن طريق الايميل وسيتم اعلام الطالب شفهيا من قبل المدرس والمرشد الاكاديمي كما سيكون الطالب ملزما بتوقيع تعهد بعدم غيابه في المستقبل و سيكون مسؤولا عن ذلك اذا تجاوز غيابه 25%
  - o **الإنذار الثالث 25%** = انذار سوف يؤدي الى سحب الطالب من المقرر وتثبت له العلامة WA (يرسل الى الطالب عن طريق الايميل و اعلام الطالب شفهيا بذلك من قبل المدرس او المشرف الاكاديمي)
- لا يجوز فصل الطالب من مساق ما لأي سبب اذا كان ذلك سيؤدي الى انخفاض عبء الطالب الدراسي الى أقل من 6 ساعات معتمدة دون موافقة لجنة الدراسات الماجستير أو العميد. فإذا ما تمت الموافقة على سحب الطالب من المساق، ترسل رسالة بهذا الخصوص الى مكتب القبول والتسجيل لسحب الطالب.
- من يتغيب من الطلبة عن أي اختبار أو امتحان إلزامي يحصل على علامة صفر في ذلك الاختبار، إلا إذا قدم عذرا شرعيا وقبله مدرسه. وكذلك من يتغيب عن إختبار نهاية الفصل يحصل على علامة "صفر" ما لم يقدّم عذرًا شرعياً، يقبل به مدرسه ولجنة الماجستير في الكلية بعد الاقتناع بالأسباب الموجبة لهذا الغياب. فاذا حصل على الموافقة، يعطى الطالب علامة غير مكتمل "I" وتبقى علامة الطالب غير مكتمل "I" إلى أن يقدم الاختبار في الموعد المحدد، كما سيوضح لاحقا.

الانسحاب والرسوب والتأجيل والفصل وإعادة التسجيل

الانسحاب من المساقات:

- يحصل الطالب الذي ينسحب من أحد مساقاته، أو يلزم بذلك على علامة "W"

- لا يسمح للطالب أن ينسحب من أحد مساقاته أو أن يلزم بالإنسحاب إلا في المدة المحددة من تاريخ بدء الفصل الدراسي الاعتيادي، أوالأسبوع الرابع في الفصل الصيفي. وإذا تعدى المدة المحددة، يجب أن يحصل على موافقة لجنة الماجستير.

الرسوب في المساقات الدراسية:

في حال رسوب الطالب في أحد المساقات، لايسمح له أن يعيد الامتحان العائد لذلك المساق فقط. فالطالب الذي يرسب يجب أن يعيد المساق بالكامل عند طرحه.

إعادة المساقات :

يلزم للطالب بإعادة المساق ، ولا يسمح أن يعيد المساق نفسه أكثر من ثلاث مرات. وفي حال الإعادة، تحتسب العلامة الأعلى في حساب المعدل الإجمالي، إلا أن كل علامات المساق تسجل في سجل الطالب الدائم . ومن لا يحصل من الطلبة على معدل إجمالي أدناه 65% في حقل اختصاصه يطلب منه أن يدرس مساقات إضافية أو إعادة المساقات التي نال فيها علامة دون المستوى المطلوب.

الانسحاب من البرنامج:

يجوز للطالب أن يقدم طلبا للانسحاب من الجامعة في اي وقت يشاء، ولكن عليه ان يملأ طلبا مخصصا لهذا الغرض من مكتب القبول والتسجيل او من موقع الجامعة على الانترنت. وعلى الطالب الالتزام بسياسة الجامعة المتعلقة باسترداد الرسوم عند الانسحاب والمذكورة في فقرة استرداد الرسوم الدراسية. ولا يجوز للطالب أن ينقطع عن الدراسة مدة أكثر من فصلين متتاليين أو منفصلين. وعلى الطالب الذي يعود الى الجامعة بعد انقطاع أن يملأ طلبا بذلك. ويحتفظ الطالب بسجله الدراسي خلال مدة انقطاعه. وأما اذا تعدى انقطاع الطالب مدة فصلين دراسيين ، فعليه أن يقدم طلبا جديدا، ويجوز لعميد الكلية أن يسمح للطالب بالاحتفاظ بسجله الدراسي، والا اعتبر طالبا مستجدا.

التأجيل:

يسمح للطالب أن يتقدم بطلب لتأجيل الفصل خلال الأسابيع الأربعة الأولى على بدء الدراسة أو في أي وقت آخر على أن تكون بأعذار تقبل بها لجنة الماجستير أو عميد الكلية، ولا يمكن أن تزيد فترة التأجيل عن فصلين دراسيين متتاليين أو منفصلين، بما فيه الفصل الذي تم التأجيل فيه.

الانذار الأكاديمي والفصل من الجامعة:

الإنذار الاكاديمي

يوضع طالب الماجستير تحت الإنذار الأكاديمي في الحالات الآتية:

- **الإنذار الأكاديمي الأول:**   عندما يكون معدله التراكمي أقل من 65% في نهاية الفصل الدراسي الاول.

- **الإنذار الاكاديمي المشدد:** عندما يكون معدله التراكمي أقل من 65% في نهاية الفصل الدراسي الثاني.
- **الإنذار الاكاديمي النهائي:** عندما يكون معدله التراكمي أقل من 65% في نهاية الفصل الدراسي الثالث.

رفع الانذار الأكاديمي:

1- التخلص من الانذار الاكاديمي الاول: **على الطالب إتخاذ مايلي:**
- رفع المعدل إلى ما هو مطلوب (65%) والتخلص من الإنذار الأكاديمي خلال الفصل الدراسي الثاني
- في حال عدم رفع المعدل إلى ما هو مطلوب (65%) بنهاية الفصل الثاني، يحصل الطالب على الإنذار الأكاديمي المشدد ولا يحق له التسجيل للفصل الثالث إلا بعد رفع المعدل الى 65% .

2- **التخلص من الانذار الاكاديمي المشدد: على الطالب إتخاذ مايلي:**
- رفع معدل إلى ما هو مطلوب (65%) والتخلص من الإنذار الأكاديمي خلال الفصل الدراسي الثالث
- في حال عدم رفع المعدل إلى ما هو مطلوب (65%) بنهاية الفصل الدراسي الثالث، يحصل الطالب على الإنذار الأكاديمي النهائي ولا يحق له التسجيل للفصل الدراسي الرابع إلا بعد رفع المعدل الى 65% .

3- **التخلص من الانذار النهائي: على الطالب إتخاذ مايلي:**
- رفع المعدل إلى ما هو مطلوب (65%) والتخلص من الإنذار الأكاديمي خلال الفصل الدراسي الثالث

في حال عدم رفع المعدل إلى ما هو مطلوب (65%) بنهاية الفصل الدراسي الثالث، يحصل الطالب على الإنذار الأكاديمي النهائي ولا يحق له التسجيل للفصل الدراسي الرابع إلا بعد رفع المعدل الى 65%

الفصل من الجامعة :
يفصل الطالب من برنامج الماجستير للأسباب الآتية:
- إذا تعذر عليه أن يتخلص من الإنذار الأكاديمي النهائي خلال فصل اعتيادي واحد.
- إذا استمر على لائحة الإنذار الأكاديمي مدة فصلين دراسيين نظاميين، يمكن فصل الطالب من الجامعة حتى وإن كان في سنته الدراسية الأخيرة.
- إذا اعتبر غير مؤهل أكاديميا أو أخلاقيا لمتابعة الدراسة.

إعادة التسجيل:

يسمح للطالب الذي فصل أن يعاد تسجيله عند حصوله على سجل مقبول وتوصية من جامعة معترف بها إلتحق بها بعد فصله ودرس فيها على الأقل 12 ساعة معتمدة. ويستثنى الطالب الذي غادر الجامعة لأسباب شخصية أو صحية.

تحول الساعات المعتمدة بعد أن يقيم مسار عمل الطالب. ويجب على الطالب أن يحصل على علامة لا تقل عن 60% في جامعة ظفار وتتطبق هذه الأجراءات أيضاً على كل المساقات التي يود تحويلها.

الرسوم الدراسية:

- الرسوم الدراسية 125 ر.ع. للساعة المعتمدة الواحدة في برنامج ماجستير الإدارة.

تسدد الرسوم والأقساط كل فصل مقدما وذلك خلال فترة التسجيل التي تسبق تاريخ بدء الدراسة. يعتبر الأسبوع الدراسي الأول من كل فصل آخر فرصة لتسديد الأقساط المتأخرة ويتوجب على الطالب المتأخر في الدفع غرامة تأخير مقدارها 25 ر.ع.

الاختبارات والتقييم:

يقاس الأداء الأكاديمي للطالب خلال الفصل الدراسي بوسائل متنوعة منها: الامتحانات، التقارير، الأنشطة العملية وغيرها من الواجبات. ويكون لكل المساقات، عادة، امتحانات نهائية إجبارية. يعلم الأساتذة طلابهم بمسار الدراسة، منذ مطلع الفصل الدراسي، وذلك بتوزيع مخطط المساق وتاريخ الاختبارات والامتحانات، كي يعلم الطلبة بسياسة المساق ونتائجه وعلامات النجاح.

على الطالب الذي تعذر عليه حضور اختبار أو امتحان ما أن يقدم عذرا يقبله مدرس المادة. ولن تقبل سوى التقارير الطبية الموثقة من جهات رسمية.و إذا تخلف أحد الطلبة عن الامتحان النهائي، عليه ان يتقدم بطلب "غير المكتمل" "I"، بحسب ما هو موضح في الدليل تحت باب علامة "غير المكتمل" "I".

علامة غير المكتمل "I" :

ينال الطالب أحيانا علامة "I " دلالة على أن الواجبات المطلوبة للمساق غير مكتملة. ولا تعتبر هذه العلامة نهائية، إذ يتاح للطالب، فرصة إنهاء المهمات غير المكتملة وفق التوجيهات الآتية:

- يعطى للمساق غير المكتمل علامة "I" ملحقة بمجموع العلامات التي حصل عليها في هذا المساق لتاريخه، وهذا المجموع يعكس الواجبات التي قام بها. أما الواجبات التي لم يقم بها فإنه ينال عليها صفراً، شرط أن تكون العلامة عددا يقبل القسمة على خمسة.

- للحصول على حق إكمال مساق ما، على الطالب أن يقد م عذرا شرعيا مقبولا لمدرس المادة ولرئيس القسم ولجنة الماجستير خلال اسبوعين من تاريخ الامتحان النهائي للمادة . لذا يجب تقديم طلب مخصص للموافقة يوقّع عليه مدرس المادة ورئيس القسم المختص و لجنة الماجستير ، ولا تعطى الموافقة إلا بعد دراسة وافية للطلب والاقتناع بما ورد فيه.

- من يحصل على موافقة على إكمال مساق ما، يجب أن يكمله خلال أربعة أسابيع من بداية الفصل الدراسي الفعلي التالي، وقد توافق لجنة الماجستير ، في حالات استثنائية، على منح وقت إضافي .

- بعد أن ينهي الطالب العمل غير المكتمل، وينال علامة عليه، يملأ مدرس المادة طلبا خاصًا بتغيير العلامة، ويرفع إلى لجنة الماجستير على الوجه الذي تم ذكرها أعلاه .
- في حال لم يقدم الطالب عذرا يبرر عدم إكماله المساق، أو لم يستطع إكمال العمل خلال الفترة المحددة أعلاه، تسجّل له علامة "I" وتستبدل بمجموع العلامات المتوفرة للطالب، ويعتبر هذا المجموع العلامة النهائية للطالب في هذا المساق .
- يحسب مجموع العلامة مع المعدل العام للفصل ريثما يتم تعديل العلامة ويحتسب المعدل النهائي وفق الإجراءات المذكورة أعلاه.

نظام احتساب علامات الطالب:
- الحد الادنى لدرجة النجاح في المساق هو 60%.
- الحد الأدنى للمعدل التراكمي للتخرج هو 65%.
- نتيجة مناقشة بحث التخرج أو الرسالة العلمية اما أن تكون ناجح بعلامة (P) أو راسب بعلامة (F)
- تعتمد النقاط الاتية في تحديد معدلات التخرج:

نظام احتساب العلامات النهائية:
- امتحانات تجريبية 20%–30%.
- أعمال الفصل وتوزع كالآتي: حضور ومشاركة + تقارير صفية وحالات دراسية ومسائل رياضية وواجبات تحدد في كل مساق وفقاً لطبيعته 20%–30%
- يراعى ان تكون اعمال الفصل بما يعادل 40%.
- امتحان نهاية الفصل 60%.

إلتماس مراجعة العلامة:
يحدد مدرس المادة علامة الطلبة النهائية معتمداً على نتائجهم الأكاديمية خلال الفصل. و يسمح للطالب أن يقدم طلباً لمدرسه بتدقيق إجاباته. تعرض النتيجة على مدير البرنامج وعميد الكلية لغرض المصادقة، ويكون القرار نهائياً. وتكون إجراءات تقديم الطلب والحصول على النتيجية كالآتي:

1– يملئ الطالب استمارة إلتماس مراجعة العلامة (الدرجة) والمتوفرة لدى منسقة البرنامج.
2– يحدد موعد للطالب لمراجعة العلامة بالتنسيق مع أستاذ المقرر المعني.
3– يقوم أستاذ المقرر بالاجابة على الاستمارة وتسليمها الى مدير البرنامج لغرض المصادقة ومن ثم تعرض على عميد الكلية لغرض المصادقة النهائية.
4– ترسل نسخة من الاستمارة الى قسم التسجيل لغرض الحفظ أو/ و تعديل الدرجة (في حالة وجود تعديل في درجة الطالب).
5– يحصل الطالب على نتيجة الإلتماس بمراجعة مكتب عميد الكلية خلال 15 يوم عمل من تاريخ تقديم الإلتماس.

متطلبات التخرج:

على الطالب الراغب في الحصول على شهادة الماجستير اكمال ما لا يقل عن 36 ساعة معتمدة بمعدل عام لا يقل عن 65% مع الحصول على نتيجة ناجح في إعداد ومناقشة بحث التخرج او الرسالة العلمية. في حال أكمال الطالب فصلين دراسيين (18 ساعة معتمدة) بنجاح (60% فأكثر) ألا ان معدله التراكمي لم يصل الى 65% أو أنه رغب بترك البرنامج، شرط ان يكون قد إجتاز كافة المقررات الاجبارية في الفصلين الدراسيين بنجاح، فيمكنه الخروج من البرنامج بعد ان يقدم طلباً لذلك ويملىء الاستمارة الخاصة بطلب الخروج ويمنح شهادة الدبلوم العالي في الادارة.

الخطط الدراسية و هيكل البرنامج وتوصيف المقررات:

لبرنامج ماجستير في الإدارة باللغة العربية، خطة دراسية معتمدة من الجامعة تمت الموافقة عليها من قبل وزارة التعليم العالي في السلطنة. تحدد الخطة عدد الساعات التي يتوجب على الطالب اكمالها والمساقات التي يجب أن يأخذها مرتبة حسب تسلسل معين، ولا يستطيع الطالب أن يسجل مساق بحث التخرج قبل أن ينجز كل الساعات المعتمدة وفق خطة المساقات الموضوعة ويحصل على معدل تراكمي لا يقل عن 65% سواء في المساقات الاجبارية أو الاختيارية (مرفق الخطة الدراسية) ولا يستطيع الطالب ان يسجل الرسالة العلمية قبل ان ينجز كل الساعات المعتمدة وفق خطة المساقات الموضوعة ويحصل على معدل تراكمي لا يقل عن 65% سواء في المساقات الاجبارية او الاختيارية.

هيكل البرنامج

يقوم البرنامج على اساس تضمينه جزئين اساسين هما"النواة" وهي مساقات مشتركة لجميع الطلبة، والمواد الإختيارية التي تسمح للطلبة بالتركيز على جانب تخصصي محدد. ويبلغ مجموع الساعات المعتمدة المخصصة لهذه الدرجة 36 ساعة موزعة على الشكل التالي:

1– مسار البحث:

النواة/المساقات المشتركة الإلزامية للجميع	7 = 21 ساعة معتمدة

المساقات الإختيارية	4 = 12 ساعة معتمدة

المشروع البحثي   <u>1 = 3 ساعات</u>

36 ساعة معتمدة مطلوبة للتخرج

2– مسار الرسالة:

النواة/المساقات المشتركة الإلزامية للجميع	7 = 21 ساعة معتمدة
المساقات الإختيارية	3 = 9 ساعة معتمدة
الرسالة	<u>1 = 6 ساعات</u>

36 ساعة معتمدة مطلوبة للتخرج

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الخطة الدراسية (ماجستير الإدارة)
السنة الدراسية الأولى
الفصل الدراسي الأول

الساعات المعتمدة	المتطلب السابق	نوع المساق	عنوان المساق	رمز المساق
3	-	إجباري	الإدارة والسلوك التنظيمي	MNGT 508
3	-	إجباري	المحاسبة والتمويل للادارة	MNGT 509
3	-	إجباري	تحليل القرار الاداري	MNGT 516
9 ساعات معتمدة				

الفصل الدراسي الثاني

الساعات المعتمدة	المتطلب السابق	نوع المساق	عنوان المساق	رمز المساق
3	MNGT 508,509,516	إجباري	المالية العامة والموازنة	MNGT 517
3	MNGT 508,509,516	إجباري	إدارة الموارد البشرية	MNGT 501
3	MNGT 508,509,516	إجباري	الإدارة الإستراتيجية	MNGT 505
9 ساعات معتمدة				

السنة الدراسية الثانية
الفصل الدراسي الثالث

الساعات المعتمدة	المتطلب السابق	نوع المساق	عنوان المساق	رمز المساق
3	MNGT 517,501,505	إجباري	منهجيات البحث العلمي في الإدارة	MNGT 601
3	-	اختياري	مساق اختياري	
3	-	اختياري	مساق اختياري	
9 ساعات معتمدة				

الفصل الدراسي الرابع

الساعات المعتمدة	المتطلب السابق	عنوان المساق	رمز المساق
9	MNGT 601	المشروع البحثي + مساقين إختياريين	MNGT 620
أو			
9	MNGT 601	رسالة الماجستير + مساق إختياري	MNGT 640
9 ساعات معتمدة	يحق للطالب اختيار مسار رسالة الماجستير عند حصوله على معدل تراكمي ويقدر بـ 75 %		

إجمالي الساعات للبرنامج = 36 ساعات معتمدة
(21 ساعة مساقات إجبارية + 15 ساعة مساقات اختيارية)

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المتطلب السابق	الساعات المعتمدة	عنوان المساق	رمز المساق
المساقات الاختيارية			
MNGT 517,501,505	3	الإقتصاد الإداري	MNGT 511
MNGT 511,520	3	إدارة التغيير والتجديد	MNGT 512
MNGT 511,520	3	النظم والتقنيات الإدارية	MNGT 518
MNGT 511,520	3	إدارة المشروعات	MNGT 519
MNGT 517,501,505	3	قضايا معاصرة في الادارة	MNGT 520
MNGT 511,520	3	الإبداع و الريادية	MNGT 521
MNGT 511,520	3	القيادة في المنظمات	MNGT 522
MNGT 511,520	3	إدارة الخدمات في القطاع العام	MNGT 610
MNGT 511,520	3	نظم تقويم الأداء في القطاع العام	MNGT 611
MNGT 511,520	3	إدارة الجودة الشاملة	MNGT 515

الارشاد الاكاديمي والاشراف على البحث/ الرسالة

عندما يتم قبول الطالب في برنامج ماجستيرالإدارة، يعين له مرشد أكاديمي ، وتتحدد طريقة الاتصال مع المرشد في مكتبه بأوقات معينة. وفي كل فصل وقبل بدء عملية التسجيل يتصل الطالب بمرشده الأكاديمي ليعينه على اختيار المساقات التي ستصبح جدوله لذلك الفصل، ولا يجوز للطالب أن يجري أي تغيير أو تعديل في جدوله دون الحصول على موافقة مرشده الأكاديمية. ويستطيع الطالب أن يضيف أو يحذف مساقات خلال فترة الحذف والاضافة المحددة في التقويم الجامعي. ويتمثّل دور المرشد الاكاديمي في الاتي:

- مساعدة الطلبة في فهم المنهج ومسؤولياتهم الاكاديمية.
- تشجيع الطلبة على الالتزام باعلى المعايير الاخلاقية والمهنية.
- مساعدة الطلبة في التخفيف من مخاوفهم وحل المشاكل ذات الصلة عند حدوثها.
- حث الطلبة على معرفة وفهم والالتزام بتعليمات وقواعد الجامعة.
- مراقبة تقدم الطلبة اكاديمياً من اول يوم لغاية التخرج.
- مناقشة المشاكل مع الطلبة والتوصية بطرق لحل هذه المشاكل.
- توفير النصح والارشاد باختيار مشروع البحث او الرسالة العلمية
- الاحتفاظ بالملاحظات حول تقدم الطالب للاستفادة منها في تقديم النصح والارشاد في المستقبل
- التعرف على ومناقشة بعض الحالات غير العادية مثل الغيابات الزائدة عن الحد والعلامات المنخفضة.
- مساعدة الطلبة في فهم تعقيدات البيئة المحيطة
- مناقشة خطط وتوجهات الطلبة المستقبلية والمساعدة في تقديم النصح والارشاد

- تقديم النصح والارشاد حيثما يحتاج الطالب إلى ذلك وفي كافة المجالات.

الاشراف على البحث/ الرسالة العلمية

بعد ان يكمل الطالب 27 ساعة معتمدة (9 مقررات) وبمعدل تراكمي لا يقل عن 65% يمكنه ان يسجل مشروع التخرج، واذا حصل الطالب على معدل لا يقل عن 75% فيمكنه تسجيل رسالة علمية وكالاتي:

- تقوم لجنة البرنامج بتعيين مشرف على البحث او الرسالة عن طريق عقد اجتماع للجنة البرنامج حيث يتم الاعتماد على بعض المعايير منها توجه الطلبة العلمي والمهني وتوزيع عبء الاشراف.

- يختار الطالب موضوع للبحث او الرسالة على اساس خبرته ومجال عمله او بالتشاور مع مشرفه الذي يعين له حال تسجيله للبحث او الرسالة او على اساس الاختيار من بين مجموعة من العناوين التي تقترحها لجنة البرنامج.

- تقوم لجنة البرنامج بالاعلان عن المواضيع التي تم اختيارها من قبل الطلبة في لوحة الاعلانات لتجنب الازدواجية في اختيار العناوين.

- يقوم الطالب باعداد الخطة البحثية وفق النموذج المعد لذلك والمتوفر لدى لجنة البرنامج ومنسقة البرنامج ومن ثم يقوم بتسليم الخطة المقترحة الى منسق البرنامج لغرض تحديد موعد لاجراء (السيمنار) لمناقشة الطالب في خطته البحثية ومساعدته على تجاوز المشاكل والصعوبات التي قد تواجهه. يعقد السيمنار في اجتماع مفتوح يمكن لكافة الطلبة واعضاء الهيئة الاكاديمية حضوره.

- يقوم المشرف بلقاء طلبته اسبوعياً وفقاً لجدول مواعيد محدد مسبقاً حيث يوجه المشرف طلبته ويتابع المراحل التي وصلوا اليها في اعداد البحث او الرسالة وحل المشاكل التي تواجههم اثناء اعداد الرسالة او البحث.

- يقوم المشرف باعداد تقرير عن طلبته يقدم الى مديرالبرنامج.

- يحق لاعضاء هيئة التدريس الذين يحملون شهادة الدكتوراه مع مرتبة استاذ مساعد واستاذ مشارك واستاذ فقط الاشراف على بحوث ورسائل الطلبة.

- الحد الاعلى للاشراف على الرسائل العلمية وبحوث التخرج هو 10 طلبة ويجوز رفع العدد الى 12 بعد الحصول على موافقة لجنة البرنامج ومجلس الكلية.

- في حالات معينة، يمكن تعيين مشرف مساعد من الاقسام العلمية الاخرى في الجامعة اعتماداً على طبيعة البحث.

- اذا لم يكن المشرف مستعداً للاستمرار في الاشراف على الطالب لظروف خاصة ، تقوم لجنة الماجستير بتسمية مشرف بديل بعد استحصال موافقة العميد.

الفروق بين الرسالة العلمية وبحث التخرج:

هناك مسارين في برنامج ماجستير الادارة: مسار الرسالة العلمية ومسار بحث التخرج. على كل طالب في البرنامج ان يقوم باعداد بحث تخرج او رسالة علمية شاملة لاغراض التخرج. البحث هو تقصي مشكلة ادارية ذات طابع عملي واجراء دراسة تطبيقية حول هذه المشكلة لتوفير حلول عملية مع توصيات محددة بهذا الخصوص. على الطالب ان يقوم باعداد اطار نظري للبحث والرسالة يتوافق مع الاطار العام للمنهجية

المستخدمة في اعداده، ويتم اعداد هذا البحث او الرسالة تحت اشراف احد اعضاء الهيئة التدريسية كما تم بيان ذلك سابقاً. هناك عدة فروق شكلية وموضوعية بين الرسالة العلمية وبحث التخرج يمكن تلخيصها في الجدول الاتي:

بحث التخرج	الرسالة العلمية
يخصص للبحث 3 ساعات معتمدة	يخصص للرسالة 6 ساعات معتمدة
الحد الادنى للمعدل التراكمي المطلوب هو 65%	الحد الادنى للمعدل التراكمي المطلوب هو 75%
لا يشترط ان يكون البحث متمتعاً بالاصالة او الاضافة العلمية وانما يمكن ان يكون بحثاً تطبيقياً يعزز نتائج دراست وبحوث سابقة او يختلف عنها	يقوم الطالب باختيار موضوع يتميز بدرجة من الاصالة والحداثة و يقدم اضافة علمية جديدة لم يسبق تناولها
يخضع البحث للمناقشة العلنية من قبل لجنة مناقشة مكونة من ثلاثة اعضاء بضمنهم المشرف على ان يكون احد اعضاء اللجنة من خارج الجامعة	تخضع الرسالة العلمية للمناقشة العلنية من قبل لجنة مناقشة مكونة من اربعة اعضاء بضمنهم المشرف على ان يكون احد اعضاء اللجنة من خارج الجامعة
يقتصر الاطار النظري للبحث على عناوين محددة تتفق مع الاطار التطبيقي العملي ولا يشترط قيام الطالب بعمليات تحليل معقدة.	تمتاز الرسالة العلمية بوجود اطار نظري تحليلي يتمتع بالشمولية حيث يقوم الطالب بالتحليل المعتمد على الاسس العلمية المتبعة في البحث العلمي.
مواصفات اعداد البحث تختلف عن مواصفات اعداد الرسالة العلمية.	مواصفات اعداد الرسالة العلمية تختلف عن مواصفات البحث.

مواصفات اعداد الرسالة العلمية:

- رسالة الماجستير تمثل كتابات علمية ينبغي ان تتصف بمنهجية واضحة ومواصفات محددة وطريقة علمية في الكتابة.

- ينبغي ان تكون الرسالة مطبوعة بمسافات سطر ونصف للاسطر بحروف حجم 14 وبنوع Simplified Arabic على ورق قياس A4 والعناوين حجم 14 غامق ويكون عرض الحافات 2.5 سم عدا عند الحافة اليمنى (للغة العربية) فتكون 3.25 سم. وترقم الصفحات بالارقام العربية (1،2،3.....) في وسط اسفل الصفحة ابتداء من المقدمة وحتى النهاية. اما الصفحات التي تسبق ذلك (الخلاصة، المحتويات، الخ) فترقم بالأرقام العربية الهجائية (أ،ب،ج،.....).

- التحقق من خلو الرسالة من الاخطاء الطباعية وان تطبع على وجه واحد.

- عرض الرسالة على خبير في اللغة العربية لغرض تدقيق البحث من الناحية اللغوية، ويجب على الطالب الحصول على إقرار من الخبير بسلامة الرسالة من الناحية اللغوية وتضمين الاقرار في محتوى الرسالة.

- تكون محتويات الرسالة كالاتي:

أ - صفحة العنوان باللغة العربية بخط (Simplified Arabic)

ب - الاية القرآنية (ان وجدت)

ت - صفحة تواقيع لجنة المناقشة

ث - إقرار المشرف

ج - إقرار الخبير اللغوي

ح - الاهداء

خ - الشكر والتقدير ويكون مختصراً دون أي اسهاب او مبالغة.

د - الملخص باللغة العربية بما لا يزيد عن 350 كلمة. ويتضمن مقدمة تعريفية بالرسالة وهدفها والمشكلة وطريقة او منهج البحث واهم النتائج والتوصيات او المقترحات.

ذ - الملخص باللغة الانجليزية لا يزيد عن 350 كلمة ويوضع بعد صفحة العنوان باللغة الانجليزية ويوضع في نهاية الرسالة من جهة اليسار.

ر - صفحة العنوان باللغة الانجليزية (نوع الخط Times New Roman). ويوضع في اول صفحة من جهة اليسار.

ز - جدول المحتويات (ويشمل عناوين الفصول وعناوين محتويات الفصول وكذلك الجداول والاشكال والملاحق، وارقام الصفحات لكل منها).

س - الرموز المستخدمة

ش - المختصرات

ص - فصول الرسالة وتشمل:

أولاً. الاطار العام للدراسة ويشمل مقدمة عن موضوع الرسالة ومنظورها والهدف منها واطارها والمنهجية المتبعة، ومصطلحات الرسالة وفق الترتيب الآتي:

- المقدمة

- مشكلة الدراسة

- اسئلة الدراسة

- أهمية الدراسة

- هدف الدراسة

- فرضيات الدراسة

- نموذج ومتغيرات الدراسة

- مصطلحات الدراسة

- حدود الدراسة

- معوقات وصعوبات الدراسة (إن وجدت)

- نبذة تعريفية عن عينة الدراسة

ثانياً. الفصول الاخرى للرسالة وقد تختلف حسب طبيعة الموضوع ولكنها قدر الامكان تنتظم تحت خطوط عريضة تتمثّل في:

- الاطار النظري (يفضل ان لا يزيد عن 30% من عدد صفحات الرسالة)

- الدراسات السابقة
- الدراسة التطبيقية
- النتائج المستحصلة
- المناقشة والتحليل
- الاستنتاجات والتوصيات
- قائمة بالمصادر العلمية المستخدمة
- الملاحق (ان وجدت)

- يراعى ما جاء في أعلاه من ناحية ترقيم وتسلسل صفحات الرسالة ولون الرسالة الذي يكون أخضر غامق وأن يكون الجلاد من النوع الكارتوني السميك (Hard cover). تكون كتابة العنوان على الغلاف كما مبين في النموذج المرفق طيا (رقم 1– غلاف باللغة العربية) والنموذج المرفق (رقم 2– غلاف باللغة الانجليزية) وباللون الذهبي. يكتب على كعب الرسالة اسم الطالب و عنوان الرسالة والسنة ويترك مسافة 2 سم من أعلى واسفل الكعب وكما مبين في الملحق المرفق (رقم 3).

- أن لا يتجاوز عدد صفحات الرسالة 120 صفحة، ولا يقل عن 100 صفحة.

- الهوامش: يمكن للباحث استخدام الهوامش في الحالات الاتية:
  أ. شرح بعض المفردات أو مناقشة قضية.
  ب. تصحيح بعض أخطاء النصوص والتعليق أو الاقتراح عليها.
  ج. الإشارة إلى مراجع أخرى تعالج الفكرة نفسها.
  د. تقديم نبذة قصيرة عن حياة شخص له أهمية في البحث أو التعريف به.
  هـ. الدلالة على المصادر التي تتضمن أدلة تدعم أو تعارض رأيه.
  و. إحالة القارئ إلى مواد في مواضيع أخرى من البحث.

- يراعى عند توثيق المصادر في متن الرسالة استخدام طريقة اسم العائلة وكالاتي:
  (لقب الباحث، السنة: الصفحة) مثال (النابلسي، 2012: 14)

- تتبع طريقة APA لغرض التوثيق في متن البحث و قائمة المصادر بنهاية البحث.

- عند الاقتباس الحرفي من احد المصادر يوضع النص المقتبس بين علامتي التنصيص، ويراعى عدم المبالغة بنقل النصوص الحرفية الا عند الضرورة.

- يوضع رقم للجدول في أعلى الجدول وترقم الجداول بشكل متسلسل كما يوضع عنوان للجدول يبين محتواه .

- في حالة وجود الجدول ، فيتم استخدام حجم خط 12 و أن يكتب المصدر في أسفل الجدول ويكتب المصدر كما تمت الاشارة اليه في 8 اعلاه وفي حالة وجود جزء من الجداول من عمل الباحث ، فتضاف عبارة : أما النسب المئوية (مثلا) فقد احتسبت من قبل الباحث .

- في حالة وجود اشكال او رسوم او مخططات فتوضع ارقام لها اسفل الشكل او الرسم او المخطط مع عنوان واضح يبين مضمونه.

- في متن الرسالة يتم ترتيب فقرات الموضوع بالشكل الاتي (اولاً:، 1–، أ–، *– وهكذا). مع مراعاة ان تكون العناوين الرئيسية حجم 16 غامق والعناوين الفرعية حجم 14 غامق بنفس الخط المستخدم في كتابة الرسالة (Simplified Arabic).

مواصفات اعداد البحث:

- بحث التخرج هو بحث تطبيقي يعالج مشكلة عملية ذات طابع اداري.
- ينبغي ان يكون البحث مطبوعة بمسافات سطر ونصف للاسطر بحروف حجم 14 وبنوع Simplified Arabic على ورق قياس A4 والعناوين حجم 14 غامق ويكون عرض الحافات 2.5 سم عدا عند الحافة اليمنى (للغة العربية) فتكون 3.25 سم. وترقم الصفحات بالارقام العربية (1،2،3.....) في وسط اسفل الصفحة ابتداء من المقدمة وحتى النهاية. اما الصفحات التي تسبق ذلك (الخلاصة، المحتويات، الخ) فترقم بالأرقام العربية الهجائية (أ،ب،ج،.....).
- التحقق من خلو البحث من الاخطاء الطباعية وان تطبع على وجه واحد.
- عرض البحث على خبير في اللغة العربية لغرض تدقيق البحث من الناحية اللغوية، ويجب على الطالب الحصول على إقرار من الخبير بسلامة البحث من الناحية اللغوية وتضمين الاقرار في محتوى البحث.

- تكون محتويات البحث كالاتي
أ - صفحة العنوان باللغة العربية بخط (Simplified Arabic)
ب - الاية القرآنية(ان وجدت)
ت - صفحة تواقيع لجنة المناقشة
ث - إقرار المشرف
ج - إقرار الخبير اللغوي
ح - الاهداء
خ - الشكر والتقدير ويكون مختصراً دون أي اسهاب او مبالغة.
د - الملخص باللغة العربية بما لا يزيد عن 350 كلمة. ويتضمن مقدمة تعريفية بالبحث وهدفه والمشكلة وطريقة او منهج البحث واهم النتائج والتوصيات او المقترحات.
ذ - المخلص باللغة الانجليزية لا يزيد عن 350 كلمة ويوضع بعد صفحة العنوان باللغة الانجليزية ويوضع في نهاية البحث من جهة اليسار .
ر - صفحة العنوان باللغة الانجليزية (نوع الخط Times New Roman). ويوضع في اول صفحة من جهة اليسار .
ز - جدول المحتويات (ويشمل عناوين الفصول وعناوين محتويات الفصول وكذلك الجداول والاشكال والملاحق، وارقام الصفحات لكل منها).
س - الرموز المستخدمة
ش - المختصرات
ص - فصول البحث وتشمل:

أولاً.   الاطار العام للبحث ويشمل مقدمة عن موضوع البحث ومنظورها والهدف منها واطارها
والمنهجية المتبعة، ومصطلحات الرسالة وفق الترتيب الآتي:

- المقدمة
- مشكلة البحث
- اسئلة البحث
- أهمية البحث
- هدف البحث فرضيات البحث
- نموذج ومتغيرات البحث
- مصطلحات البحث
- حدود البحث
- معوقات وصعوبات البحث (إن وجت)
- نبذة تعريفية عن عينة البحث

ثانياً. الفصول الاخرى للبحث وقد تختلف حسب طبيعة الموضوع ولكنها قدر الامكان تنتظم تحت
خطوط عريضة تتمثل في:

- الاطار النظري (يفضل ان لا يزيد عن 30% من عدد صفحات البحث)
- الدراسات السابقة
- الدراسة التطبيقية
- النتائج المستحصلة
- المناقشة والتحليل
- الاستنتاجات والتوصيات
- قائمة بالمصادر العلمية المستخدمة
- الملاحق (ان وجدت)

- يراعى ما جاء في أعلاه من ناحية ترقيم وتسلسل صفحات البحث ولون البحث الذي يكون أخضر
وأن يكون الجلاد من النوع الكارتوني السميك (Hard cover). تكون كتابة العنوان على الغلاف
كما مبين في النموذج المرفق طيا (غلاف باللغة العربية – غلاف باللغة الانجليزية) وباللون الذهبي.
يكتب على كعب البحث اسم الطالب و عنوان البحث والسنة ويترك مسافة 2 سم من أعلى واسفل
الكعب وكما مبين في المرفق طياً.

- يفضل أن لا يتجاوز عدد صفحات البحث 100 صفحة، ولا يقل عن 70 صفحة.

- الهوامش: يمكن للباحث استخدام الهوامش في الحالات الاتية:
  - شرح بعض المفردات أو مناقشة قضية.
  - تصحيح بعض أخطاء النصوص والتعليق أو الاقتراح عليها.
  - الإشارة إلى مراجع أخرى تعالج الفكرة نفسها.

- تقديم نبذة قصيرة عن حياة شخص له أهمية في البحث أو التعريف به.
- الدلالة على المصادر التي تتضمن أدلة تدعم أو تعارض رأيه.
- إحالة القارئ إلى مواد في مواضيع أخرى من البحث.

- يراعى عند توثيق المصادر في متن البحث استخدام طريقة اسم العائلة وكالاتي:

-(لقب الباحث، السنة: الصفحة) مثال (النابلسي، 2012: 14)

- تتبع طريقة APA لغرض التوثيق في متن البحث و قائمة المصادر بنهاية البحث.
- عند الاقتباس الحرفي من احد المصادر يوضع النص المقتبس بين علامتي التنصيص، ويراعى عدم المبالغة بنقل النصوص الحرفية الا عند الضرورة.

- يوضع رقم للجدول في أعلى الجدول وترقم الجداول بشكل متسلسل كما يوضع عنوان للجدول يبين محتواه .
- في حالة وجود الجدول ، فيتم استخدام حجم خط 12 و أن يكتب المصدر في أسفل الجدول ويكتب المصدر كما تمت الاشارة اليه في 8 اعلاه وفي حالة وجود جزء من الجداول من عمل الباحث ، فتضاف عبارة : أما النسب المئوية (مثلا) فقد احتسبت من قبل الباحث .
- في حالة وجود اشكال او رسوم او مخططات فتوضع ارقام لها اسفل الشكل او الرسم او المخطط مع عنوان واضح يبين مضمونه.
- في متن الرسالة يتم ترتيب فقرات الموضوع بالشكل الاتي(اولاً:، 1-، أ-، *- وهكذا). مع مراعاة ان تكون العناوين الرئيسية حجم 16 غامق والعناوين الفرعية حجم 14 غامق بنفس الخط المستخدم في كتابة الرسالة (Simplified Arabic).

سلطنة عمان

جامعة ظفار   (شعار جامعة ظفار)

كلية التجارة والعلوم الإدارية

قسم الإدارة والتسويق

ماجستير إدارة (خط 14)

إدارة الوقت في إطار منظمات الاعمال (خط 18 غامق)

دراسة تطبيقية في الشركة العمانية الحديثة

إعداد

(اسم الباحث الثلاثي واللقب)

قدمت هذه الرسالة لاستكمال متطلبات الحصول على درجة الماجستير في الادارة

في كلية التجارة والعلوم الادارية بجامعة ظفار

إشراف

(اسم المشرف مع درجته العلمية)

التاريخ الهجري   التاريخ الميلادي

(جميع الفقرات خط Simplified Arabic 14)

صفحة العنوان باللغة الانجليزية

Sultanate of Oman
Dhofar University   (logo of
University)
 College of Commerce and Business Administration
Department of Management and Marketing

**Time Management in the Context of Business Organization
Analytical Study ……..**(18 bold)

(Name of Student)

Thesis submitted to College of Commerce and Business Administration
at Dhofar University as a partial fulfillment of requirements for the degree
of Master of Management

Supervisor
(Name of Supervisor)

Date

(Other titles 14)

كعب الرسالة

اسم الطالب

عنوان الرسالة

السنة

اجراءات تشكيل لجنة المناقشة

1- بعد ان ينهي الطالب كتابة بحثه/ رسالته يحصل على اقرار من المشرف بذلك.

2- تقوم لجنة الماجستير بفحص نسبة التشابه المرتبطه بالاقتباسات المشابهة في بحث/ رسالة الطالب بتقنية (Turnitin) ولا يتم تشكيل لجنة المناقشة الا بعد ان تكون نسبة التشابه بحدود 10% كحد أقصى.

3- يقدم الاقرار مع نتيجة الفحص و اربعة نسخ من البحث/ خمسة نسخ من الرسالة الى لجنة البرنامج حيث تقوم اللجنة بتحديد موعد المناقشة واسماء اعضاء اللجنة.

4- تتكون لجان المناقشة من عدد من الاعضاء كالاتي:

أ - بالنسبة لمشروع التخرج:

- عضو واحد من داخل الجامعة ممتحنا داخليا يمتلك خلفية اكاديمية في مجال التخصص ويحمل شهادة الدكتوراه على الاقل.

- عضو واحد من خارج الجامعة ممتحنا خارجيا يمتلك خلفية اكاديمية في مجال التخصص ويحمل شهادة الدكتوراه على الاقل.

- المشرف على البحث.

ب - بالنسبة للرسالة العلمية:

- عضو واحد من داخل الجامعة ممتحنا داخليا يمتلك خلفية اكاديمية في مجال التخصص ويحمل شهادة الدكتوراه على الاقل.

- عضو واحد من خارج الجامعة ممتحنا خارجيا يمتلك خلفية اكاديمية في مجال التخصص ويحمل شهادة الدكتوراه على الاقل.

- المشرف على الرسالة .

5- يقوم منسق البرنامج بارسال مقترح تشكيل اللجنة الى عميد الكلية لغرض المصادقة.

6- بعد استحصال الموافقة يتم اعلام الطالب بموعد المناقشة واسماء اعضاء اللجنة، حيث يقوم بتوزيع نسخ من بحثه/ رسالته على اعضاء اللجنة.

اجراءات المناقشة

1- يعلن رئيس اللجنة بدء المناقشة بقراءة السيرة الذاتية للطالب.

7- يقوم الطالب بعرض ملخص عن بحثه/ رسالته لمدة 15-20 دقيقة.

2- يكون رئيس اللجنة مسؤولاً عن ادارة المناقشة، ويحق لاعضاء الهيئة التدريسية الاخرين والطلبة حضور المناقشة.

3- تختلي لجنة المناقشة بعد الانتهاء من مناقشة الطالب لاتخاذ القرار المناسب والذي يتخذ بالاجماع او باغلبية اعضائها. ويتكون القرار من احدى الخيارات الاتية:

- قبول البحث بدون تعديلات.

- قبول البحث بتعديلات طفيفة ينجزها الطالب خلال فترة اقصاها شهر واحد، وأقلها اسبوعان.

- قبول البحث بتعديلات جوهرية ينجزها الطالب خلال فترة اقصاها شهرين، و أقلها شهر واحد.

- رفض البحث ويعطى الطالب فرصة اخرى لكتابة بحث جديد.

4- اذا تضمن قرار اللجنة قيام الطالب باجراء التعديلات اللازمة يقوم الطالب بعرض النسخة المعدلة من البحث/ الرسالة على اللجنة لغرض المصادقة على التعديلات .

5- اذا لم ينجز الطالب التعديلات اللازمة ضمن المدة المحددة يتم اتخاذ قرار باعادة المناقشة مرة اخرى.

6- اذا تضمن القرار رفض البحث/ الرسالة، تقوم لجنة البرنامج بتحديد موعد جديد لمناقشة الطالب على ان يقوم الطالب بانجاز البحث الجديد وفق قرار تتخذه لجنة البرنامج ، وفي كل الاحوال ينجز البحث الجديد نهاية الفصل الدراسي القادم لفصل المناقشة بالنسبة للبحث او نهاية فصلين دراسيين قادمين لفصل المناقشة بالنسبة للرسالة وعلى الطالب تسجيل المساق مرة أخرى.

7- اذا تم رفض البحث/ الرسالة الجديدة، يعتبر الطالب راسباً ويمنح شهادة الدبلوم العالي في الادارة أو يرقن قيده من الجامعة.

8- تكون نتيجة مناقشة البحث/ الرسالة ناجح او راسب.

9- يقوم مدير البرنامج بارسال قرار اللجنة حول البحث/ الرسالة الى عمادة القبول والتسجيل لغرض استكمال اوراق تخرج الطالب في حالة النجاح او ترقين قيده في حالة الرسوب.

شروط تسليم البحث/ الرسالة العلمية

على طلبة مرحلة الدراسات العليا تسليم الرسالة الجامعية/ بحث التخرج بشكلها النهائي الى المكتبة وذلك بتوفير نسختان ورقية وواحدة الكترونية على النحو التالي:

أ- **نسختان ورقية مجلدة:** تتضمنان قرار المناقشة (مختومتان من قبل الكلية).

ب- **نسخة من الرسالة على قرص مدمج CD بصيغة PDF** تنقسم الى أربعة ملفات كلاً على حده حسب الآتي:

1- ملف يتضمن **ملخص الرسالة بالعربية.**

2- ملف يتضمن **ملخص الرسالة بالانجليزية.**

3- ملف يتضمن الصفحات التالية: **(صفحة العنوان، صفحة الاهداء، صفحة الشكر والتقدير، صفحة قرار لجنة المناقشة مختومة من الكلية).**

4- ملف يتضمن **نص الرسالة** بداية من صفحة المحتويات والى نهاية الرسالة.

كما يجب على الطالب تعبئة نموذج تسليم الرسالة والمتوفر على موقع المكتبة الالكتروني وتقديمه مع نسخ الرسالة الى المكتبة، كي يستطيع أن يخلى طرفه من المكتبة وأن يستكمل إجراءات التخرج من القبول والتسجيل. وعلى الجهات ذات الاختصاص تنفيذ ذلك ومتابعته

توصيف المقررات

المقررات الاجبارية:

3 ساعات معتمدة   **الادارة والسلوك التنظيمي**   **MNGT508**

التوصيف: يهدف المقرر الى تعريف الطالب بماهية الادارة وأهم مبادئها ووظائفها: التخطيط والتنظيم
والتوجيه والرقابة.كما يتضمن تقديم معرفةأهم محددات السلوك الانسان، وفهم القواعد الأساسية للسلوك
كما يهدف المقرر الى تزويد الطالب بفهم القضايا المتعلقة بالسلوك الفردي داخل فريق. داخل المنظمة
العمل، وفهم كيفية تأثيرسلوك الفرد والجماعات داخل المؤسسة لغرض تطبيق هذه المعرفة في تحسين
المؤسسة.

3 ساعات معتمدة   **المحاسبة والتمويل لاغراض الادارة**   **MNGT 509**

التوصيف: يهدف المقرر الى تزويد الطالب بالمهارات الكمية ذات الطبيعة المالية في جانبي المحاسبة
والتمويل لاغراض تزويد متخذ القرار بما يحتاجه من معلومات مفيدة لمساعدته في اتخاذ القرار. يغطي هذا
المقرر جانبي المحاسبة والتمويل حيث يتم استعراض الاطار النظري للمحاسبة وأسس التمويل والكشوفات
المالية والتحليل المالي ومن ثم استعراض الجوانب المتعلقة بالاستثمار والعائد والمخاطرة ومن ثم الانتقال
الى الموازنة الرأسمالية.

3 ساعات معتمدة   **تحليل القرار الاداري**   **MNGT516**

التوصيف: يهدف هذا المساق إلى تزويد الطلبة بالمعرفة المتعلقة بتحليل المواقف والظروف المختلفة لصنع
القرار الاداري وتزويدهم بالمهارات اللازمة لاستخدام الأدوات و الأساليب الكمية في اتخاذ القرار. كما
تهدف المادة الي تعريف الطالب بماهية التحليل الكمي واستخداماته في المجال الاداري. اهم محاور هذا
المساق هي الخطية وصناعة القرارات في ظل حالات الطبيعة المتنوعة ونظرية القرارات وأسلوب النقل
وأسلوب التخصيص وشبكة بيرت وأسلوب المسار الحرج ونظرية الألعاب وصفوف الانتظار ونماذج الخزين
وأساليب التنبؤ، وموضوعات أخرى.

3 ساعات معتمدة   **المالية العامة والموازنة**   **MNGT514**

التوصيف: يهدف هذا المقرر الى تزويد الطالب بالمهارات والمعرفة اللازمة في مجال المالية العامة والنفقات
الحكومية والموازنة العامة للدولة وطريقة اعدادها ومداخل الموازنة التقليدية والحديثة. ومن ثم يستعرض
المقرر الضرائب وانواعها واثارها الاقتصادية في الدولة.

3 ساعات معتمدة.   **ادارة الموارد البشرية**   **MNGT 501ا**

التوصيف: يركز هذا المقرر على قضايا ومواضيع متعددة تتعلق بإدارة العنصر البشري وتطويره في
منظمات الأعمال. وسيتم التعريف بأهم وظائف إدارة الموارد البشرية وتفاعلها مع وظائف الإدارة الأساسية
الأخرى ، مع التركيز على المبادئ والمهارات ذات العلاقة بالتطبيقات الحديثة في مجال إدارة الموارد
البشرية. يتناول المساق مواضيع مثل أساسيات إدارة الموارد البشرية ومفهومها ،من تحليل ووصف للوظائف
والتدريب وكيفية استقطاب واختيار العاملين والتعيين في الموسسه ، بالاضافه الى تخطيط الموارد البشرية
وتحليل الوظائف وأنظمة الرواتب والاجور وحقوق العاملين كالتعويضات وتقويم أدائهم وتطوير المواقع

الوظيفية والموظفين يتم دراستها وتطبيقها من خلال تحليل الحالات العملية. بالإضافة إلى التعرف على أساليب استخدام أنظمة معلومات الموارد البشرية.

MNGT 505	**الإدارة الاستراتيجية**	**3 ساعات معتمدة.**

التوصيف: تناول تحليلي لأهم مفاهيم ومبادئ ومنهجيات وتقنيات الإدارة الاستراتيجية باعتبارها رسما طويل الأمد لأهم الخيارات المستقبلية للمؤسسة بهدف تعزيز موقفها التنافسي وفرصها في البقاء والإداء المتطور. أساسيات التحليل الاستراتيجي بما فيها تقنية سوات SWOT ، ومجموعة بوسطن للأستشارات BCG وغيرها، كيفية رسم وتنفيذ وتقييم الخطط الاستراتيجية مع إشارة إلى مستلزمات التخطيط الناجح، بيئة التخطيط الاستراتيجي في القطاعين الخاص والعام مع أمثلة عملية ودراسات حالة وتطبيقات في الواقع.

MNGT 601	**منهجيات البحث العلمي في الإدارة**	**3 ساعات معتمدة.**

التوصيف: طبيعة وأهمية البحث العلمي في الإدارة وخصوصاً في عملية صنع القرار، الوسائل التقنية في البحث العلمي الإداري كمياً ونوعياً، فهم أسس التطبيقات الاحصائية في الإدارة واستيعاب أهم اسهاماتها ومحدداتها، تطبيقات عملية وتمارين في واقع العمل المؤسسي مع إشارة خاصة إلى: تقويم الإدارة، صنع القرار ، بحوث التسويق، القياسات النفسية، مع تنويع بيئات العمل الإداري وخصوصاً بالنسبة للقطاعين العام والخاص.

المقررات الاختيارية:

MNGT 511	**الاقتصاد الإداري**	**3 ساعات معتمدة.**

التوصيف: دراسة تطبيق نظرية الإقتصاد الجزئي في الأعمال، واتخاذ القرارات في حالات عدم التأكد والمخاطرة، ويشمل هذا المقرر موضوعات أهداف الوحدة الإقتصادية، تحليل وتقدير الطلب، أساليب التنبؤ والقياس، نظرية الإنتاج، تقدير وتحليل التكاليف والسياسات السعرية من منظور هيكل السوق.

MNGT 512	**إدارة التغيير والتجديد**	**3 ساعات معتمدة.**

التوصيف: إعتماد البيروقراطية على الاستمرار ومناهضتها المبدئية للتغيير والتجديد كسبب من اسباب القصور فيها على المدى الطويل، الموقف السلبي من التغيير لدى أعلام الإدارة الأوائل. التغيير المتسارع كأحد ابرز معالم العصر الحديث، الخلفية الفكرية والاقتصادية والتكنولوجية "للتغيير بسرعه الضوء"، إدارة التغيير والتجديد كشرط اساس من شروط تنافسية المؤسسات وبالتالي قدرتها على البقاء، الأسس المؤسسية والتنظيمية والسلوكية لإدارة التغيير والتجديد، فهم عوامل المقاومة وعدم التعاون ومقاربتها بكفاءه، أنواع التجديد الإداري بما في ذلك العمليات، المخرجات والسلوكيات. دراسات حالة وتمارين عملية من بيئات إدارية مختلفة.

MNGT518	**النظم والتقنيات الادارية**	**3 ساعات معتمدة**

التوصيف: يهدف المقرر الى تمكين الطلبة من فهم وتحليل الأسس النظرية والتطبيقية للنظم والتقنيات الحديثة المستخدمة في الادارة. يغطي المقرر الاساليب الحديثة المستخدمة في تقييم المظمات بالاضافة

الى تطبيقات نظم المعلومات وتكنولوجيا المعلومات والاتصال والادارة الالكترونية والحكومة الالكترونية في المنظمات مع بيات تطبيقاتها في سلطنة عمان.

MNGT 519   **ادارة المشروعات**   **3 ساعات معتمد**

التوصيف: يهدف المقرر الى تزويد الطالب بالمعرفة والمهارات المتعلقة بأسس ادارة المشروعات من حيث طبيعة المشروعات– طبيعة ادارة المشروعات– وظائف ادارة المشروعات– مدير المشروع. كما يتم تزويد الطالب بالمعرفة المرتبطة بتخطيط المشروعات وتقييمها وتقدير الكلف الخاصة بها والمشاكل المرتبطة بها.

MNGT 520   **قضايا إدارية معاصرة**   **3 ساعات معتمدة**

التوصيف: يهدف المقرر الى تعريف الطلبة بالمفاهيم والنظريات المعاصرة في الادارة وكيف انها وصلت الى ماهي عليه حالياً خلال الحقب السابقة مع توضيحات وتعليلات للمؤثرات البيئية التي اكتنفت عملية التطور الفكري كذلك وبنفس الوقت يهدف المقرر الى توضيح وتحليل مزايا الادارة المعاصرة.

MNGT521   **الابداع والريادية**   **3 ساعات معتمدة**

التوصيف: يهدف المقرر الى توضيح معنى الابداعية في إطار الادارة الادارة وبيان مستلزمات ممارستها وأهمية فوائد ممارستة في الادارة وفي عالم اليوم. كما يهدف السماق الى بيان مضامين الريادية وعناصرها ومستلزمات اعتمادها في الادارة وفوائد ذلك في الادارة المعاصرة.

MNGT 522   **القيادة في المنظمات**   **3 ساعات معتمدة**

التوصيف: يهدف المقرر الى استعراض وتحليل مختلف انماط القيادة ومزايا وعيوب كل منها. كما يهدف الى توضيح التطورات التي مر بيها مفهوم القيادة وصولاً الى المفاهيم والنماذج القيادية المعاصرة. هذا ويتناول هذا المقرر الى استعراض وتحليل الانماط القيادية المعاصرة مثل القيادة التحويلية والقيادة الانتقالية وقيادة التعلم مع بيان اهميتها في عالم اليوم.

MNGT 610   **إدارة الخدمات في القطاع العام**   **3 ساعات معتمدة**

التوصيف: التحول المعاصر في مفهوم الخدمة المدنية من بيروقراطية تهدف الى السيطرة والضبط الى مقدم خدمات تكون حصرية احياناً وتتنافس مع القطاع الخاص في احيان اخرى وخصوصا في مجالات التربية والتعليم والصحة والاتصالات والطاقة وغيرها. مفهوم الخصخصة او التخصيص: الايجابيات والسلبيات والأطر التنفيذية والمخاطر والإحتمالات. تقنيات تحديد المسار الانسب لتقديم الخدمات في القطاع العام (الخدمة المدنية) مع اشارة خاصة الى اعادة هندسة العمليات، ورسم خرائط الإنسياب وادارة المشروعات وغيرها مع امثلة واقعية وتطبيقات عملية ومقارنات معيارية.

MNGT 611   **نظم تقويم الاداء في القطاع العام**   **3 ساعات معتمدة.**

التوصيف: يتناول المقرر اهمية التقويم الدقيق للأداء في المؤسسة العامة الحديثة، تقويم الاداء كمعيار ومؤشر الى مجمل النظام الاداري في المؤسسة العامة، الخيارات المختلفة في مجال تقويم الاداء في القطاع

العام، الانظمة ووسائل القياس والمتغيرات. كما يزود المقرر الطالب بطرق تقييم الاداء الوظيفي والمؤسسي سواء الطرق التقليدية أو الطرق الحديثة مع امثلة عملية وتطبيقات ومقارنات معيارية.

MNGT 515   **ادارة الجودة الشاملة**   **3 ساعات معتمدة.**

التوصيف: تطور الفكر والممارسات الإدارية في مجال قياس الجودة، مرحلة ضبط الجودة، مرحلة إدارة الجودة الكلية، مرحلة سيكُس سيغما (Six Sigma) وما بعدها. الجودة ضمن نسيج العلاقة بين المؤسسة وزبائنها الداخليين والخارجيين، إدارة الجودة في شتى انواع المؤسسات من عامة وخاصة، وصناعية وخدمية وعائلية وعملاقة وغيرها. امثلة وتطبيقات عملية من قطاعات مختلفة مع إشارة خاصة الى تحديات بناء ثقافة الجودة.

أعضاء لجنة الدراسات العليا بالكلية

الاسم	العنوان الوظيفي	الهاتف	الايميل
د.سيد احسن جميل	عميد الكلية	23237400	syed_jamil@du.edu.om
د.طارق محمد صالح	مدير برنامج ماجستير الادارة	23237474	tariqm@du.edu.om
د. أسد الرحمن	مدير برنامج ماجستير إدارة الاعمال	23237439	arehman@du.edu.om
د.طاهر البياتي	عضو هيئة تدريسية	23237424	talbayaty@du.edu.om
د.معاوية كريم العاني	رئيس قسم المحاسبة والتمويل	23237473	mawih@du.edu.om
د. معين الدين أحمد	رئيس قسم الادارة والتسويق	23237420	mahmad@du.edu.om
جميلة المهري	مسؤولة البرنامج	23237494	J_almahri@du.edu.om
نوال الكثيري	سكرتيرة البرنامج	23237431	nalkathiri@du.edu.om

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