



جامعة عجمان  
AJMAN UNIVERSITY

# UNDERGRADUATE STUDENT CATALOG 2020-2021



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President of the United Arab Emirates



**His Highness Sheikh Humaid Bin Rashid Al Nuaimi**  
Member of the Supreme Council  
Ruler of Ajman Patron of Ajman University

## AU Cabinet Members

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Chancellor

**Abdulhaq Al-Nuaimi, PhD**

Vice Chancellor for Communication and Community Affairs

**Khaled Assaleh, PhD**

Vice Chancellor for Academic Affairs

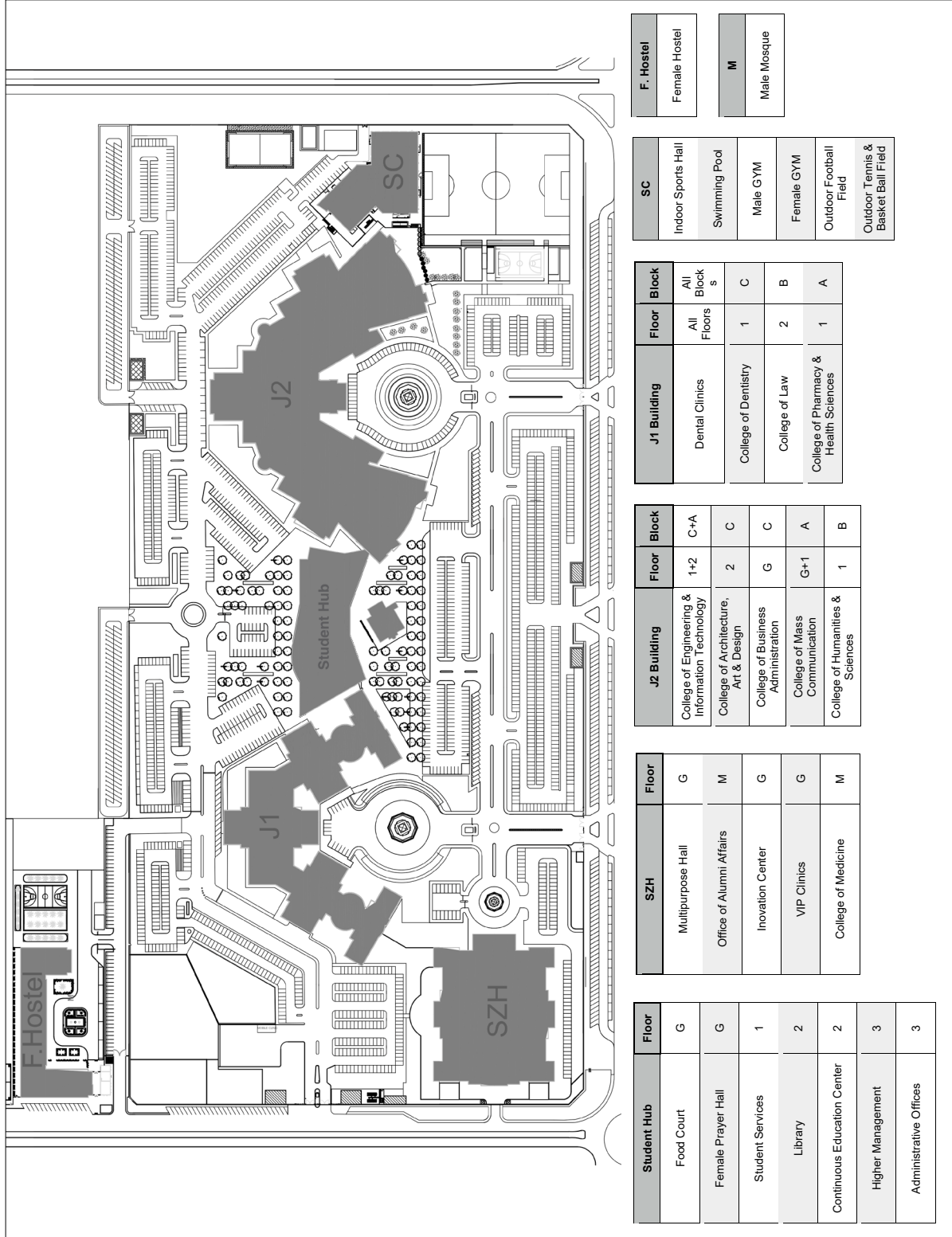
**Mustahsan Mir, PhD**

Executive Director of Institutional Planning and Effectiveness

**Rabi Al Khofash**

Chief Operating Office

# AU CAMPUS MAP



# AU DIRECTORY

www.ajman.ac.ae

346- Al Jurf - Ajman

|   |  |             |
|---|--|-------------|
| Office of the Chancellor  | <a href="mailto:h.chafai@ajman.ac.ae">h.chafai@ajman.ac.ae</a>   | 06-705-6448 |
| Office of the Vice Chancellor for Academic Affairs              | <a href="mailto:dany@ajman.ac.ae">dany@ajman.ac.ae</a>   | 06-705-5152 |
| Office of the Vice Chancellor for Advancement and Communication | <a href="mailto:a.oudah@ajman.ac.ae">a.oudah@ajman.ac.ae</a>   | 06-705-6634 |
| Office of Chief Operating Officer                               | <a href="mailto:maya.haddad@ajman.ac.ae">maya.haddad@ajman.ac.ae</a>   | 06-705-6070 |
| Office of Institutional Planning and Effectiveness              | <a href="mailto:h.abuelhusain@ajman.ac.ae">h.abuelhusain@ajman.ac.ae</a>   | 06-705-6056 |
| College of Architecture, Art and Design                         | <a href="mailto:n.nasr@ajman.ac.ae">n.nasr@ajman.ac.ae</a>   | 06-705-6742 |
| College of Business Administration                              | <a href="mailto:m.sahaim@ajman.ac.ae">m.sahaim@ajman.ac.ae</a>   | 06-705-6536 |
| College of Dentistry  | <a href="mailto:h.araj@ajman.ac.ae">h.araj@ajman.ac.ae</a>   | 06-705-6295 |
| College of Engineering and Information Technology               | <a href="mailto:w.haddar@ajman.ac.ae">w.haddar@ajman.ac.ae</a>   | 06-705-6742 |
| College of Humanities and Sciences                              | <a href="mailto:a.hassouna@ajman.ac.ae">a.hassouna@ajman.ac.ae</a>   | 06-705-6504 |
| College of Law  | <a href="mailto:r.qtaishat@ajman.ac.ae">r.qtaishat@ajman.ac.ae</a>   | 06-705-6131 |
| College of Mass Communication                                   | <a href="mailto:m.omar@ajman.ac.ae">m.omar@ajman.ac.ae</a>   | 06-705-6535 |
| College of Medicine   | <a href="mailto:m.menon@ajman.ac.ae">m.menon@ajman.ac.ae</a>   | 06-705-6815 |
| College of Pharmacy and Health Sciences                         | <a href="mailto:z.ali@ajman.ac.ae">z.ali@ajman.ac.ae</a>   | 06-705-6206 |
| Deanship of Graduate Studies and Research                       | <a href="mailto:s.ali@ajman.ac.ae">s.ali@ajman.ac.ae</a>   | 06-705-6174 |
| Deanship of Student Services                                    | <a href="mailto:m.alaraj@ajman.ac.ae">m.alaraj@ajman.ac.ae</a>   | 06-705-6186 |
| Office of Admissions and Registration                           | <a href="mailto:f.almaazmi@ajman.ac.ae">f.almaazmi@ajman.ac.ae</a>   | 06-705-6543 |
| Office of Career and Placement Services                         | <a href="mailto:asma.o@ajman.ac.ae">asma.o@ajman.ac.ae</a>   | 06-705-6179 |
| Office of Community Engagement                                  | <a href="mailto:shadi@ajman.ac.ae">shadi@ajman.ac.ae</a>   | 06-705-6656 |
| Office of Development and Alumni Affairs                        | <a href="mailto:r.fawzy@ajman.ac.ae">r.fawzy@ajman.ac.ae</a>   | 06-705-6653 |
| Office of Finance   | <a href="mailto:a.saleh@ajman.ac.ae">a.saleh@ajman.ac.ae</a>   | 06-705-6151 |
| Office of Human Resources                                       | <a href="mailto:r.wilyo@ajman.ac.ae">r.wilyo@ajman.ac.ae</a>   | 06-705-5559 |
| Office of Information Technology                                | <a href="mailto:f.taha@ajman.ac.ae">f.taha@ajman.ac.ae</a>   | 06-705-6554 |
| Office of Internal Audit  | <a href="mailto:m.farag@ajman.ac.ae">m.farag@ajman.ac.ae</a>   | 06-705-6746 |
| Office of Legal Affairs   | <a href="mailto:e.essam@ajman.ac.ae">e.essam@ajman.ac.ae</a>   | 06-705-6220 |
| Office of Marketing and Communication                           | <a href="mailto:j.falah@ajman.ac.ae">j.falah@ajman.ac.ae</a>   | 06-705-6180 |
| Office of Procurement   | <a href="mailto:i.masood@ajman.ac.ae">i.masood@ajman.ac.ae</a>   | 06-705-6664 |
| Office of Scholarship and Financial Aid                         | <a href="mailto:a.aldalu@ajman.ac.ae">a.aldalu@ajman.ac.ae</a>   | 06-705-5973 |
| Office of Student Recruitment                                   | <a href="mailto:m.nizarudeen@ajman.ac.ae">m.nizarudeen@ajman.ac.ae</a>   | 06-705-6287 |
| Office of Student Life  | <a href="mailto:n.alasmar@ajman.ac.ae">n.alasmar@ajman.ac.ae</a>   | 06-705-5315 |
| Ajman University Innovation Centre                              | <a href="mailto:h.suleiman@ajman.ac.ae">h.suleiman@ajman.ac.ae</a>   | 06-705-6481 |
| Library (Male and Female Section)                               | <a href="mailto:a.eltahir@ajman.ac.ae">a.eltahir@ajman.ac.ae</a>   | 06-705-6188 |
| Documentation Centre  | <a href="mailto:m.aboobacker@ajman.ac.ae">m.aboobacker@ajman.ac.ae</a>   | 06-705-6622 |
| Hostel  | <a href="mailto:l.taifour@ajman.ac.ae">l.taifour@ajman.ac.ae</a>   | 06-705-6877 |
| Sheikh Zayed Centre for Exhibitions and Conferences             | <a href="mailto:h.almetnawy@ajman.ac.ae">h.almetnawy@ajman.ac.ae</a>   | 06-705-6258 |
| Continuing Education Centre                                     | <a href="mailto:j.matibag@ajman.ac.ae">j.matibag@ajman.ac.ae</a>   | 06-705-6004 |
| <a href="#">Emergency Contacts</a>                              |  |             |
| Security/General Services Unit                                  | <a href="mailto:m.alsmadi@ajman.ac.ae">m.alsmadi@ajman.ac.ae</a>   | 06-705-6738 |
| Transportation Unit   | <a href="mailto:g.hussein@ajman.ac.ae">g.hussein@ajman.ac.ae</a>   | 06-705-6571 |
| Office of Medical Services                                      | <a href="mailto:f.djessas@ajman.ac.ae">f.djessas@ajman.ac.ae</a><br><a href="mailto:medicalservices@ajman.ac.ae">medicalservices@ajman.ac.ae</a> | 06-705-6732 |

# ACADEMIC CALENDAR

## Academic Calendar for Fall Semester Academic Year 2020 – 2021

| Day               | Date                          | Description  |
|-------------------|-------------------------------|--|
| Sunday            | August 23, 2020               | 16:00 Convocation Ceremony for new students                                |
| Sunday            | August 23, 2020               | Faculty members report to work   |
| Sunday-Thursday   | August 23 - 27, 2020          | New Students' Orientation Week   |
|                   |                               | Course registration  |
|                   |                               | Examinations for incomplete removal  |
|                   |                               | Period for accepting credit transfer requests                              |
|                   |                               | Period for accepting changing major requests                               |
| Sunday            | August 30, 2020               | Beginning of classes   |
| Sunday-Thursday   | August 30 - September 3, 2020 | Add & drop period  |
| Thursday          | September 3, 2020             | Last date for dropping courses or registration suspension with 100% refund |
| Sunday - Thursday | September 6 - 17, 2020        | Period suspension of registration with 50% refund                          |
| Thursday          | September 24, 2020            | Last date for dropping courses   |
| Sunday-Thursday   | October 18 - 29, 2020         | Mid-term examinations period   |
| Sunday            | November 1, 2020              | Beginning of admission period for Spring semester 2020-2021                |
| Thursday          | November 19, 2020             | Last date for withdrawal   |
| Sunday-Thursday   | Nov. 22 –Dec. 10, 2020        | Period for course evaluation   |
| Tuesday           | December 1, 2020              | Early registration for spring semester 2020-2021                           |
|                   |                               | UAE Martyr's Day   |
| Wed-Thursday      | December 2 - 3, 2020          | UAE National Day holiday   |
| Wednesday         | December 9, 2020              | Last Day of Classes  |
| Thursday – Sunday | December 10 – 20, 2020        | Final examinations period  |
| Tuesday           | December 22, 2020             | Make-up Exam   |
| Thursday          | December 24 2020              | Submission of all results to the University Registrar                      |
| Sunday-Thursday   | Dec. 27, 2020-Jan. 7, 2021    | Fall-Semester vacation   |

\*Islamic holidays are tentative and are subject to moon sighting.

\*\* Commencement dates are tentative and are subject to change.



Academic Calendar for Spring Semester  
Academic Year 2020 – 2021

| Day                 | Date                     | Description  |
|---------------------|--------------------------|--|
| Sunday-Thursday     | January 10 - 14 , 2021   | New Students' Orientation Week   |
|                     |                          | Course registration for continuing & new students                          |
|                     |                          | Examinations for incomplete removal  |
|                     |                          | Period for accepting credit transfer requests                              |
|                     |                          | Period for accepting changing major requests                               |
| Sunday              | January 17, 2021         | Beginning of classes   |
| Sunday-Thursday     | January 17 - 21, 2021    | Add & drop period  |
| Thursday            | January 21, 2021         | Last date for dropping courses or registration suspension with 100% refund |
| Sunday-Thursday     | Jan. 24 – Feb. 4, 2021   | Period for suspension of registration with 50% refund                      |
| Thursday            | February 11, 2021        | Last date for dropping courses   |
| Sunday-Thursday     | March 7 - 18, 2021       | Mid-term examinations period   |
| Sunday-Thursday     | March 28 - April 1, 2021 | Spring semester vacation   |
| Sunday              | April 4, 2021            | Beginning of admission period for Fall semester 2021-2022                  |
| Thursday            | April 15, 2021           | Last date for withdrawal   |
| Sunday-Thursday     | April 18 – 29, 2021      | Period for course evaluation   |
|                     |                          | Early registration for Summer Semester 2020-2021                           |
| Sunday - Thursday   | May 2 - 13, 2021         | Early registration for Fall semester 2021-2022                             |
| Thursday            | May 6, 2021              | Last Day of Classes  |
| Thursday – Saturday | May 13 - 15, 2021        | Eid Al Fitr Al Mubarak   |
| Sunday – Saturday   | May 9 - 22, 2021         | Final examinations period  |
| Monday              | May 24, 2021             | Make-up Exam   |
| Wednesday           | May 26, 2021             | Submission of all results to the University Registrar                      |
| Tuesday – Wednesday | June 1 – 2, 2021         | Graduation ceremony 2020-2021  |
| Sunday              | June 13, 2021            | Beginning of Summer vacation   |

\*Islamic holidays are tentative and are subject to moon sighting.

\*\* Commencement dates are tentative and are subject to change.

### Academic Calendar for Summer-1 Semester Academic Year 2020 – 2021

| Day                  | Date               | Description                                       |
|----------------------|--------------------|---|
| Sunday               | June 6 , 2021      | Beginning of classes                              |
| Sunday - Monday      | June 6 - 7, 2021   | Course registration for registering late students |
|                      |                    | Add & drop period                                 |
| Sunday               | June 27, 2021      | Beginning of mid-term examinations                |
| Thursday             | July 8, 2021       | Last date for withdrawal                          |
| Saturday -<br>Sunday | July 17 - 18, 2021 | Final examinations period                         |

N.B: 2 hours per class session.

### Academic Calendar for Summer-2 Semester (Field training) Academic Year 2020 - 2021

| Day                  | Date               | Description                     |
|----------------------|--------------------|---------------------------------|
| Sunday               | July 18 , 2021     | Beginning of training           |
| Monday -<br>Thursday | July 19 - 22, 2021 | Arafat Day, Eid Al-Adha holiday |
| Thursday             | August 26, 2021    | End of 6 weeks training         |
| Thursday             | September 9, 2021  | End of 8 weeks training         |

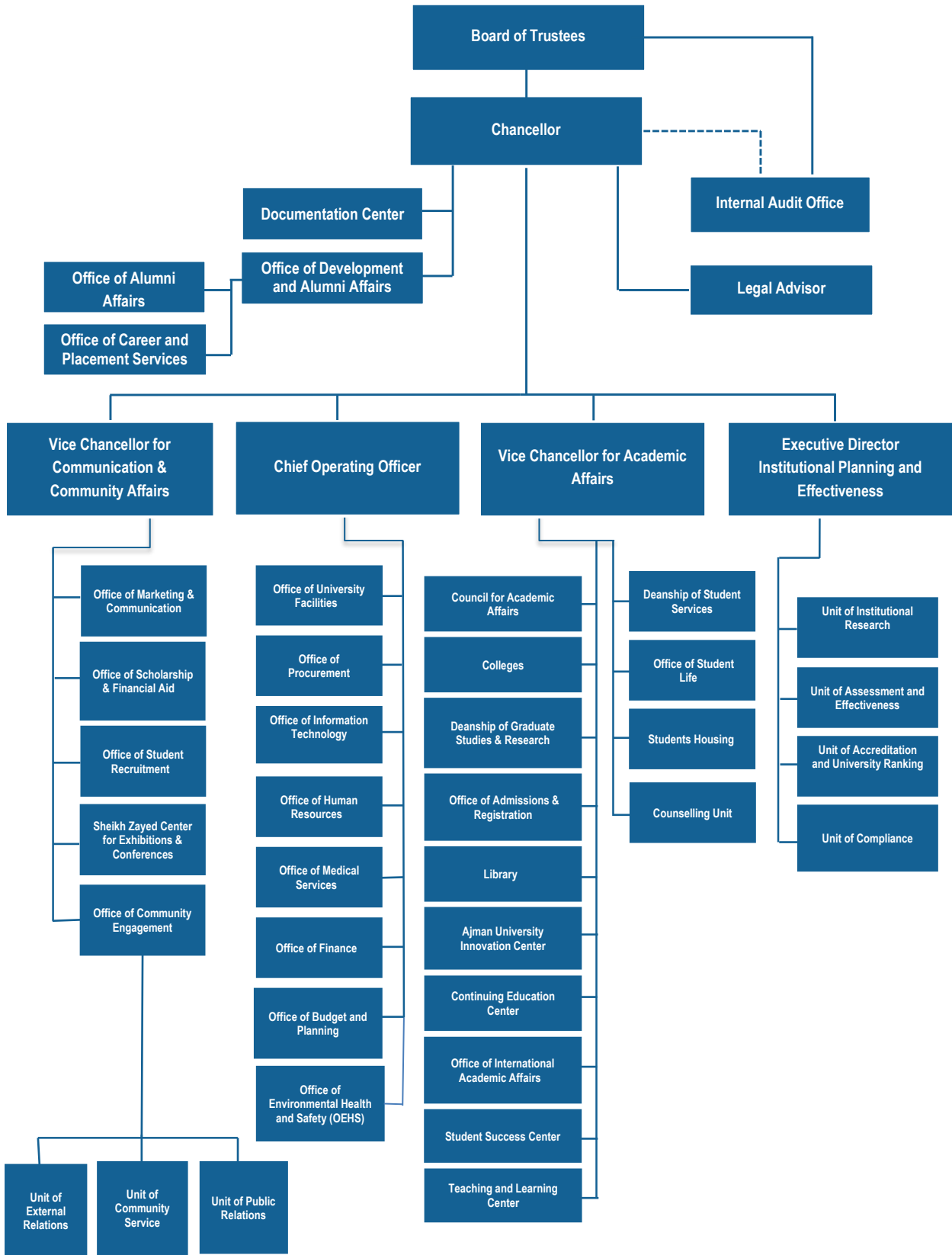
\*Islamic holidays are tentative and are subject to moon sighting.

\*\* Commencement dates are tentative and are subject to change.

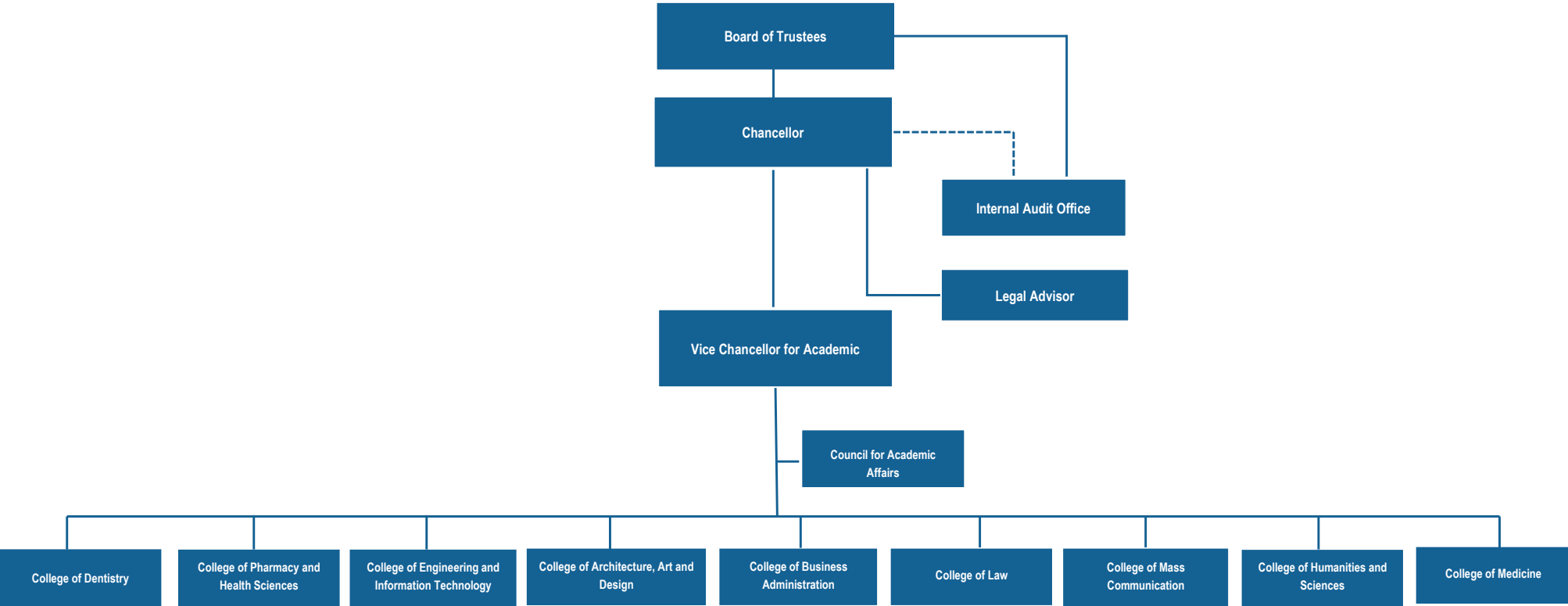
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# 1 Ajman University Organization Chart



# 2 Ajman University Colleges



### 3 Academic Partner Institutions

| Sr. No. | University Name                              | Region        | Country     |
|---------|--|---------------|-------------|
| 1       | Temple University                            | North America | USA         |
| 2       | New York University Abu Dhabi (NYUAD)        | Middle East   | UAE         |
| 3       | NOVA SBE                                     | Europe        | Portugal    |
| 4       | Chiba University                             | Asia          | Japan       |
| 5       | EAH Jena- University of Applied Sciences     | Europe        | Germany     |
| 6       | Kent State University                        | North America | USA         |
| 7       | Caucasus University                          | Europe        | Georgia     |
| 8       | American Academy of Implant Dentistry (AAID) | North America | USA         |
| 9       | O. P. Jindal Global University               | Asia          | India       |
| 10      | Ulster University                            | Europe        | Ireland     |
| 11      | Jordan University of Science and Technology  | Asia          | Jordan      |
| 12      | University of South Carolina                 | North America | USA         |
| 13      | Gulf Medical University                      | Middle East   | UAE         |
| 14      | American University in Cairo                 | Africa        | Egypt       |
| 15      | Holy Spirit University in Kaslik             | Asia          | Lebanon     |
| 16      | Rana University                              | Asia          | Afghanistan |
| 17      | University of North Carolina – Chapel Hill   | North America | USA         |
| 18      | Near East University                         | Europe        | Cyprus      |
| 19      | Saveetha University                          | Asia          | India       |
| 20      | Parthenope University of Naples              | Europe        | Italy       |

| Sr. No. | University Name                                  | Region        | Country  |
|---------|--|---------------|----------|
| 21      | Nuremberg Institute of Technology (NIT)          | Europe        | Germany  |
| 22      | Eastern Michigan University (EMU)                | North America | USA      |
| 23      | The University of Akron                          | North America | USA      |
| 24      | Jacksonville State University (JSU)              | North America | USA      |
| 25      | Zewail City of Science and Technology            | Africa        | Egypt    |
| 26      | UiTM   | Asia          | Malaysia |
| 27      | University of Malaya                             | Asia          | Malaysia |
| 28      | IQS Ramon LLULL University                       | Europe        | Spain    |
| 29      | Budapest Metropolitan University                 | Europe        | Hungary  |
| 30      | EPITA  | Europe        | France   |
| 31      | Zagreb School of Economics & Management (ZSEM)   | Europe        | Croatia  |
| 32      | University of Texas in Tyler                     | North America | USA      |
| 33      | IIT Guwahati                                     | Asia          | India    |
| 34      | Banasthali University                            | Asia          | India    |
| 35      | Management and Science University (MSU)          | Asia          | Malaysia |
| 36      | Holy Cross College                               | Asia          | India    |
| 37      | Mahendra Engineering College                     | Asia          | India    |
| 38      | Manipal University Jaipur                        | Asia          | India    |
| 39      | Princess Summaya University of Technology        | Asia          | Jordan   |
| 40      | University of Science and Technology of Fujairah | Middle East   | Fujairah |
| 41      | St. Kabir Institute of Professional Studies      | Asia          | India    |



| Sr. No. | University Name  | Regoin        | Country     |
|---------|--|---------------|-------------|
| 42      | American University of Madaba                            | Asia          | Jordan      |
| 43      | Ecole de Management de Normandie                         | Europe        | France      |
| 44      | City University College of Ajman                         | Middle East   | UAE         |
| 45      | Hassan II University of Casablanca<br>Kingdom of Morocco | North African | Morocco     |
| 46      | Hochschule Darmstadt                                     | Europe        | Germany     |
| 47      | Chung Hua University                                     | Asia          | Taiwan      |
| 48      | University of Bridgeport                                 | North America | USA         |
| 49      | Dhaanish Ahmed College of<br>Engineering                 | Asia          | India       |
| 50      | College of Lake County                                   | North America | USA         |
| 51      | Luxembourg School of Business (LSB)                      | Europe        | Luxembourg  |
| 52      | The Hague University of Applied<br>Sciences (THUAS)      | Europe        | Netherlands |
| 53      | Manipal Academy of Higher Education                      | Asia          | India       |
| 54      | Rutgers University                                       | North America | USA         |
| 55      | American University of Dubai                             | Middle East   | UAE         |



## 4 Message to AU Students

AU Undergraduate Student Catalog can be used as a reference guide to student life at AU as it provides answers to many of the questions students ask. It gives information about the university, the programs offered by each of the nine colleges, admission and registration procedures, and the key regulations that are relevant to students.

## 5 History of AU

Ajman University was founded in 1988 as a non-conventional private institution of higher education. The university was established by His Highness Sheikh Humaid Bin Rashid Al-Nuaimi, Member of the Supreme Council and Ruler of Ajman. On 17th June 1988, His Highness issued an Emiri Decree establishing Ajman University College of Science and Technology (AUCST), as AUST was then called, and the first intake of students commenced its learning journey at AUCST on 15th September that year. The Ministry of Education - Higher Education Affairs, decree No 54 of 1997, brought a name change to AUCST as it became Ajman University of Science and Technology (AUST). The name of the university has been changed from Ajman University of Science and Technology (AUST) to Ajman University (AU) starting from 26th of October 2016. AU offers 22 accredited undergraduate programs and 14 accredited graduate programs. The aim of these programs is to provide the community with competent graduates capable of using technology and its applications for the development of UAE society.

### Licensure and Accreditation

#### Institutional

Ajman University, located at University Street, Al Jerf 1, Ajman, United Arab Emirates, P.O. Box: 346 is officially Licensed from 3 May 1994 to 31 May 2023 by the Ministry of Education of the United Arab Emirates to award qualifications in higher education.

Ajman University is globally accredited by the Quality Assurance Agency (QAA), the UK's independent body and a global leader in quality assurance for higher education.

#### Program

Ajman University, located at University Street, Al Jerf 1, Ajman, United Arab Emirates, P.O. Box: 346, has earned Accreditation through the Commission for Academic Accreditation of the Ministry of Education for all programs.

### Specialized Program Accreditation

| Program                                       | Award                               | Accrediting Body  |
|---|-------------------------------------|---|
| Bachelor of Science in Biomedical Engineering | Program Accreditation Certification | Engineering Accreditation Commission of ABET<br><a href="http://www.abet.org">www.abet.org</a>  |
| Bachelor of Science Electrical Engineering    |                                     |   |
| Bachelor of Architecture                      | Study Programme Validation          | International Union of Architects (UIA)<br><a href="https://www.uia-architectes.org/webApi/en/working-bodies/formation">https://www.uia-architectes.org/webApi/en/working-bodies/formation</a>  |
| Bachelor of Pharmacy                          | Program Accreditation Certification | Accreditation Council for Pharmacy Education (ACPE)<br><a href="https://www.acpe-accredit.org/international-services-program/">https://www.acpe-accredit.org/international-services-program/</a>  |
| Bachelor of Science in Accounting             | Program Accreditation Certification | Association of Chartered Certified Accountants (ACCA)<br><a href="https://www.accaglobal.com/us/en/learning-provider/learningproviders-exemptions/information-about-exemption-accreditation.html">https://www.accaglobal.com/us/en/learning-provider/learningproviders-exemptions/information-about-exemption-accreditation.html</a>            |
|   |                                     | CPA Australia (Certified Practising Accountant)<br><a href="https://www.cpaaustralia.com.au/">https://www.cpaaustralia.com.au/</a>  |
|   | Program Accreditation               | The Chartered Institute of Management Accountants (CIMA)<br><a href="https://www.cimaglobal.com/Starting-CIMA/Starting-CIMA/Exemptions/Exemption-Search/Ajman-University-14414/?qualification=1-55R8XFZ">https://www.cimaglobal.com/Starting-CIMA/Starting-CIMA/Exemptions/Exemption-Search/Ajman-University-14414/?qualification=1-55R8XFZ</a> |
| Bachelor of Law                               | Five-Year Unreserved Accreditation  | High Council for Evaluation of Research and Higher Education (HCERES)<br><a href="https://www.hceres.fr/en">https://www.hceres.fr/en</a>  |

## 6 Vision, Mission, Goals, and Core Values

### AU Vision

Ajman University aims to be internationally recognized as one of the leading universities in the Arab world in terms of cutting-edge learning, impactful research and responsible outreach and community engagement.

### AU Mission

Ajman University (AU) is a multicultural, dual gender, academic institution that offers a broad range of high quality and relevant undergraduate and graduate academic programs. The University strives to fulfil the needs of students, alumni, employers, and society through quality education, scholarship and community engagement. AU develops well-rounded graduates who are professionally competent, socially responsible, innovative and active contributors to sustainable development of the UAE and beyond.

### AU Goals

AU strive to achieve the following goals:

1. Ensuring excellence in teaching and learning
2. Enhancing the quality, relevance, and impact of research and intellectual contribution
3. Recruiting, supporting and fostering the development of a bright and diverse student body
4. Enhancing the visibility and the positioning of the University
5. Building impactful and long-lasting ties with the external communities
6. Promoting cutting-edge and innovative support services

### Core Values

|                               |  |
|-------------------------------|--|
| <b>Excellence:</b>            | All AU activities are conducted with strong emphasis on international quality standards.   |
| <b>Integrity:</b>             | AU adheres to the principles of honesty, trustworthiness, reliability, transparency and accountability.  |
| <b>Inclusiveness:</b>         | AU embraces shared governance, inspires tolerance, and promotes diversity.   |
| <b>Social Responsibility:</b> | AU promotes community engagement, environmental sustainability and global citizenship. It also promotes awareness of, and support for, the needs and challenges of the local and global communities. |
| <b>Innovation:</b>            | AU supports creative activities that approach challenges and issues from multiple perspectives in order to find solutions and advance knowledge.   |

## 7 Institutional Learning Outcomes

Institutional Learning Outcomes (ILOs) define the knowledge, skills and competencies that all graduates of Ajman University are expected to achieve and practice as a result of their total experience at the University. They encompass the learning outcomes of University's General Education (GE) program as well as discipline-specific learning outcomes.

Upon completion of their degree programs, Ajman University graduates will be able to:

**1. Knowledge & Skills:**

Apply discipline-specific knowledge and skills in their professional life.

**2. Critical Thinking:**

Investigate an issue by collecting and analyzing evidences and draw logical conclusions.

**3. Communication:**

Communicate effectively both orally and in writing.

**4. Information Proficiency:**

Acquire information from various sources, evaluate it appropriately, and use it effectively.

**5. Computation and Quantitative Reasoning:**

Apply quantitative techniques to analyze data, interpret it, and draw reasonable conclusions.

**6. Innovation:**

Relate the value of innovation to one's professional life and to overall development of society.

**7. Social Responsibility:**

Recognize the importance of social responsibility and its impact on society.

## 8 AU Graduate Profile

AU Graduates are expected to be:

- Knowledgeable:** Have in-depth discipline-specific knowledge and skills as well as broad knowledge about related fields that allow them to solve real-world problems.
- Critical Thinkers:** Think reflectively and investigate an issue by collecting and analyzing evidences and drawing logical conclusions.
- Professional and Ethical:** Conduct themselves in a professional and ethical manner.
- Creative and Innovators:** Formulate ideas and propose novel solutions to real-life problems.
- Lifelong Learners:** Adaptive, learn on their own, and continuously develop their professional knowledge and skills.
- Communicators:** Express ideas clearly and share knowledge effectively with diverse audiences, both orally and in writing.
- Team Players:** Actively contribute as team members, develop collaborative working relationships, and demonstrate emotional intelligence.
- Socially Responsible:** Act as socially responsible citizens.

## 9 System of Education and Programs Offered

Table 1: Accredited Degree Undergraduate Programs Offered

### كلية طب الأسنان College of Dentistry

| Degrees offered/ <i>Concentration</i><br>الدرجات العلمية المطروحة/<br>التخصصات | Years of Study<br>مدة<br>الدراسة | Total CrHrs<br>الساعات<br>المعتمدة | Certificate and percentage required for admission<br>الشهادة والنسبة المطلوبة للالتحاق  |
|--|----------------------------------|------------------------------------|---|
| <b>Doctor of Dental Surgery</b><br>طبيب جراحة الأسنان                          | 5                                | 199                                | Advanced Stream - MOE (80%) with minimum average score of (80%) in chemistry, Biology and physics / Grade 12. EmsAT English (1100) or its equivalent<br><br>مسار متقدم – وزارة التربية والتعليم (80%) مع اجتياز مواد الكيمياء و الأحياء والفيزياء في الصف الثاني عشر بمعدل لا يقل عن (80%). امسات في اللغة الإنجليزية (1100) أو ما يعادله |

### كلية الطب College of Medicine

| Degrees offered/ <i>Concentration</i><br>الدرجات العلمية المطروحة/<br>التخصصات              | Years of Study<br>مدة<br>الدراسة | Total CrHrs<br>الساعات<br>المعتمدة | Certificate and percentage required for admission<br>الشهادة والنسبة المطلوبة للالتحاق  |
|---|----------------------------------|------------------------------------|---|
| <b>Bachelor of Medicine and Bachelor of Surgery (M.B.B.S)</b><br>بكالوريوس في الطب والجراحة | 6                                | 224                                | Advanced Stream - MOE (90%)<br>Pass EmsAT English or its equivalent as in table 3 & 4<br>Pass the admission tests in scientific subjects (Chemistry, Biology and Physics)<br>Pass the personal interview<br><br>مسار متقدم – وزارة التربية والتعليم (90%) اجتياز امسات في اللغة الإنجليزية أو ما يعادله كما هو في الجدول 3 & 4<br>اجتياز اختبارات القبول في المواد العلمية ( الكيمياء و الأحياء و الفيزياء )<br>اجتياز المقابلة الشخصية |

College of Pharmacy & Health Sciences كلية الصيدلة والعلوم الصحية

| Degrees offered/ Concentration /<br>الدرجات العلمية المطروحة/<br>التخصصات | Years of Study<br>مدة<br>الدراسة | Total CrHrs<br>الساعات<br>المعتمدة | Certificate and percentage required for admission<br>الشهادة والنسبة المطلوبة للالتحاق   |
|---|----------------------------------|------------------------------------|--|
| <b>Bachelor of Pharmacy</b><br>بكالوريوس الصيدلة                          | 4                                | 160                                | Advanced Stream - MOE (85%).<br>EmSAT English (1100) or its equivalent<br>Pass the personal interview<br>Pass the admission tests in Chemistry,<br>Biology, Physics & Mathematics<br><br>مسار متقدم – وزارة التربية و التعليم (85 %).<br>امسات في اللغة الإنجليزية (1100) أو ما يعادله<br>اجتياز المقابلة الشخصية<br>اجتياز اختبارات القبول في الكيمياء و الأحياء والفيزياء و<br>الرياضيات |

College of Engineering & Information Technology كلية الهندسة وتكنولوجيا المعلومات

| Degrees offered/ Concentration /<br>الدرجات العلمية المطروحة/<br>التخصصات   | Years of Study<br>مدة<br>الدراسة | Total CrHrs<br>الساعات<br>المعتمدة | Certificate and percentage required for admission<br>الشهادة والنسبة المطلوبة للالتحاق   |
|---|----------------------------------|------------------------------------|--|
| <b>B. Sc. in Electrical Engineering /<br/>Instrumentation and Control</b><br>بكالوريوس العلوم في الهندسة<br>الكهربائية/ أجهزة القياس والتحكم      | 4                                | 142                                | Advanced Stream - MOE (70%) with average<br>of (70%) in Math and physics in Grade 12.<br>General Stream – MOE (90%) with minimum<br>score of (90%) in Math and Science in Grade<br>12, with studying a foundation course in<br>physics at AU.<br>Technical / Industrial with minimum score of<br>(80%) with Physics and Mathematics<br>average 70%.<br>EmSAT English (1100) or its equivalent<br><br>مسار متقدم – وزارة التربية و التعليم (70 %)<br>مع اجتياز مواد<br>الرياضيات و الفيزياء بمعدل لا يقل عن (70%).<br>مسار عام – وزارة التربية و التعليم (90%)<br>مع اجتياز مواد<br>الرياضيات والعلوم في الصف الثاني عشر بمعدل لا يقل عن (90% )<br>مع دراسة مساق فيزياء تأهيلي في الجامعة؛<br>- المسار المهني/ الصناعي بمعدل لا يقل عن 80% مع اجتياز مواد<br>الرياضيات و الفيزياء في الصف الثاني عشر بمعدل لا يقل عن (70%). |
| <b>B. Sc. in Electrical Engineering/<br/>Electronics and Communication</b><br>بكالوريوس العلوم في الهندسة<br>الكهربائية/ الإلكترونيات و الاتصالات |                                  |                                    |  |
| <b>B. Sc. in Electrical Engineering/<br/>Power and renewable Energy</b><br>بكالوريوس العلوم في الهندسة<br>الكهربائية/القوى والطاقة المتجددة       |                                  |                                    |  |
| <b>B. Sc. in Biomedical Engineering</b><br>بكالوريوس العلوم في هندسة المعدات<br>الطبية  | 4                                | 141                                |  |
| <b>B. Sc. in Computer Engineering</b><br>بكالوريوس العلوم في هندسة الحاسوب  | 4                                | 140                                |  |
| <b>B. Sc. in Civil Engineering</b><br>بكالوريوس العلوم في الهندسة المدنية   | 4                                | 141                                |  |
| <b>B. Sc. in Mechanical Engineering</b><br>بكالوريوس العلوم في الهندسة<br>الميكانيكية   | 4                                | 141                                |  |



|   |   |     |   |
|---|---|-----|---|
| <b>B. Sc. in Information Systems\</b><br><i>Project Management</i><br>بكالوريوس العلوم في نظم المعلومات /<br>إدارة مشاريع                                   | 4 | 123 | Advanced Stream - MOE (60%) / General Stream – MO (70%)<br>EmSAT English (1100) or its equivalent<br><br>مسار متقدم – وزارة التربية والتعليم ( 60%) ؛ مسار عام – وزارة التربية والتعليم 70% ؛ امسات في اللغة الإنجليزية (1100) أو ما يعادله   |
| <b>B. Sc. in Information Systems\ E-<br/>Business Management</b><br>بكالوريوس العلوم في نظم المعلومات /<br>إدارة مشاريع إلكترونية                           | 4 | 123 | Advanced Stream - MOE (70%)<br>General Stream – MOE (80%)<br>EmSAT English (1100) or its equivalent<br><br>مسار متقدم – وزارة التربية والتعليم ( 70%) ؛ مسار عام – وزارة التربية والتعليم 80% ؛ امسات في اللغة الإنجليزية (1100) أو ما يعادله |
| <b>B. Sc. in Information<br/>Technology/ Networking and<br/>Security</b><br>بكالوريوس العلوم في تكنولوجيا<br>المعلومات /الشبكات وأمن المعلومات              | 4 | 123 | Advanced Stream - MOE (70%)<br>General Stream – MOE (80%)<br>EmSAT English (1100) or its equivalent<br><br>مسار متقدم – وزارة التربية والتعليم ( 70%) ؛ مسار عام – وزارة التربية والتعليم 80% ؛ امسات في اللغة الإنجليزية (1100) أو ما يعادله |
| <b>B. Sc. in Information<br/>Technology/ Databases and<br/>Web Systems</b><br>بكالوريوس العلوم في تكنولوجيا<br>المعلومات /قواعد البيانات وأنظمة<br>الإنترنت | 4 | 123 | Advanced Stream - MOE (70%)<br>General Stream – MOE (80%)<br>EmSAT English (1100) or its equivalent<br><br>مسار متقدم – وزارة التربية والتعليم ( 70%) ؛ مسار عام – وزارة التربية والتعليم 80% ؛ امسات في اللغة الإنجليزية (1100) أو ما يعادله |
| <b>Bachelor of Science in Data<br/>Analytics</b><br>بكالوريوس العلوم في تحليل البيانات  | 4 | 123 | Advanced Stream - MOE (70%)<br>General Stream – MOE (80%)<br>EmSAT English (1100) or its equivalent<br><br>مسار متقدم – وزارة التربية والتعليم ( 70%) ؛ مسار عام – وزارة التربية والتعليم 80% ؛ امسات في اللغة الإنجليزية (1100) أو ما يعادله |



كلية العمارة والفنون والتصميم College of Architecture, Art and Design

| Degrees offered/ <i>Concentration</i><br>الدرجات العلمية المطروحة/<br>التخصصات                               | Years of Study<br>مدة الدراسة | Total CrHrs<br>الساعات المعتمدة | Certificate and percentage required for admission<br>الشهادة والنسبة المطلوبة للالتحاق  |
|--|-------------------------------|---------------------------------|---|
| Bachelor of Architecture<br>بكالوريوس في العمارة   | 5                             | 170                             | Advanced Stream - MOE (70%)<br>General Stream – MOE (80%)<br>Industrial Stream with minimum score of (80%).<br>EmSAT English (1100) or its equivalent<br><br>مسار متقدم – وزارة التربية والتعليم (70%)<br>مسار عام – وزارة التربية والتعليم (80%) - المسار الصناعي بمعدل لا يقل عن 80%<br>امسات في اللغة الإنجليزية (1100) أو ما يعادله   |
| B.Sc. in Building Engineering & Construction Management<br>بكالوريوس العلوم في هندسة البناء وإدارة الإنشاءات | 4                             | 132                             | Advanced Stream - MOE (70%) with average of (70%) in Math and physics in Grade 12.<br>General Stream – MOE (90%) with minimum score of (90%) in Math and Science in Grade 12, with studying a foundation course in physics at AU.<br>Technical / Industrial with minimum score of (80%) with Physics and Mathematics average 70%.<br>EmSAT English (1100) or its equivalent<br><br>مسار متقدم – وزارة التربية والتعليم (70%) مع اجتياز مواد الرياضيات و الفيزياء بمعدل لا يقل عن (70%).<br>مسار عام – وزارة التربية والتعليم (90%) مع اجتياز مواد الرياضيات والعلوم في الصف الثاني عشر بمعدل لا يقل عن (90%) مع دراسة مساق فيزياء تأهيلي في الجامعة؛<br>- المسار المهني/ الصناعي بمعدل لا يقل عن 80% مع اجتياز مواد الرياضيات و الفيزياء بمعدل لا يقل عن (70%).<br>-امسات في اللغة الإنجليزية (1100) أو ما يعادله |
| Bachelor of Interior Design<br>بكالوريوس التصميم الداخلي   | 4                             | 134                             | Advanced Stream - MOE / General Stream – MOE (60%).<br>Industrial Stream with minimum score of (60%).<br>EmSAT English (1100) or its equivalent<br><br>مسار متقدم – وزارة التربية والتعليم ؛ مسار عام – وزارة التربية والتعليم ؛ (60%).<br>- المسار الصناعي بمعدل لا يقل عن 60%<br>- امسات في اللغة الإنجليزية (1100) أو ما يعادله  |

كلية إدارة الأعمال College of Business Administration

| Degrees offered/ <i>Concentration</i><br>الدرجات العلمية المطروحة/<br>التخصصات | Years of Study<br>مدة<br>الدراسة | Total CrHrs<br>الساعات<br>المعتمدة | Certificate and percentage required for admission<br>الشهادة والنسبة المطلوبة للالتحاق   |
|--|----------------------------------|------------------------------------|--|
| B. Sc. in Management<br>بكالوريوس العلوم في الإدارة                            | 4                                | 126                                | Advanced Stream - MOE / General Stream<br>– MOE / (60%)<br>EmSAT English (1100) or its equivalent<br><br>مسار متقدم – وزارة التربية والتعليم ؛ مسار عام – وزارة<br>التربية والتعليم ؛ (60%)<br>امسات في اللغة الإنجليزية (1100) أو ما يعادله |
| B. Sc. in Marketing<br>بكالوريوس العلوم في التسويق                             | 4                                | 126                                |  |
| B. Sc. in Finance<br>بكالوريوس العلوم في التمويل                               | 4                                | 126                                |  |
| B. Sc. in Accounting<br>بكالوريوس العلوم في المحاسبة                           | 4                                | 126                                |  |

College of Humanities & Sciences كلية الإنسانية والعلوم

| Degrees offered/ Concentration<br>الدرجات العلمية المطروحة/<br>التخصصات                      | Years of Study<br>مدة<br>الدراسة | Total CrHrs<br>الساعات<br>المعمدة | Certificate and percentage required for admission<br>الشهادة والنسبة المطلوبة للالتحاق   |
|--|----------------------------------|-----------------------------------|--|
| B. A. in Sociology and Social Work<br>بكالوريوس الآداب في علم الاجتماع والخدمة<br>الاجتماعية | 4                                | 126                               | Advanced Stream MOE / General Stream – MOE / (60%)<br>EmsAT Arabic (1000)<br>EmsAT English (950) or its equivalent   |
| B. A. in Psychology<br>بكالوريوس الآداب في علم النفس   | 4                                | 126                               | مسار متقدم – وزارة التربية والتعليم؛ مسار عام – وزارة<br>التربية والتعليم / (60%)<br>امسات في اللغة العربية (1000)<br>امسات في اللغة الإنجليزية (950) أو ما يعادله |

College of Mass Communication كلية الإعلام

| Degrees offered/ Concentration<br>الدرجات العلمية المطروحة/ التخصصات  | Years of Study<br>مدة<br>الدراسة | Total CrHrs<br>الساعات<br>المعمدة | Certificate and percentage required for admission<br>الشهادة والنسبة المطلوبة للالتحاق  |
|---|----------------------------------|-----------------------------------|---|
| B. A. in Mass Communication/ Public Relations and Advertising<br>بكالوريوس الآداب في الإعلام /العلاقات العامة<br>والإعلان | 4                                | 126                               | Advanced Stream - MOE /<br>General Stream – MOE / (60%)<br>EmsAT Arabic (1000)<br>EmsAT English (950) ) or its<br>equivalent<br><br>مسار متقدم – وزارة التربية والتعليم ؛ مسار<br>عام – وزارة التربية والتعليم (60%)<br>امسات في اللغة العربية (1000)<br>امسات انجليزي 950 أو ما يعادله |
| B. A. in Mass Communication/ Radio and Television<br>بكالوريوس الآداب في الإعلام /الإذاعة والتلفزيون                      |                                  |                                   |   |
| B. A. in Mass Communication/ Print and Electronic Press<br>بكالوريوس الآداب في الإعلام /صحافة مطبوعة<br>والإلكترونية      |                                  |                                   |   |
| B. A. in Mass Communication/ Graphic Design<br>بكالوريوس الآداب في الإعلام /التصميم الجرافيكي                             |                                  |                                   |   |

كلية القانون College of Law

| Degrees offered/ <i>Concentration</i><br>الدرجات العلمية المطروحة/<br>التخصصات | Years of Study<br>مدة<br>الدراسة | Total CrHrs<br>الساعات<br>المعمدة | Certificate and percentage required for admission<br>الشهادة والنسبة المطلوبة للالتحاق  |
|--|----------------------------------|-----------------------------------|---|
| Bachelor of Law<br>بكالوريوس في القانون  | 4                                | 132                               | Advanced Stream – MOE 75% / General Stream – MOE /80%<br>EmSAT Arabic (1000)<br>EmSAT English (950) or its equivalent<br>Pass the entrance test and personal interview<br><br>مسار متقدم – وزارة التربية و التعليم 75% ؛ مسار عام –<br>وزارة التربية و التعليم ؛ 80%<br>امسات في اللغة العربية (1000)<br>امسات في اللغة الإنجليزية (950) أو ما يعادله<br>اجتياز اختبار القبول والمقابلة الشخصية |

N. B.: Students who hold agricultural, industrial, technical, commercial, vocational & religious Secondary school certificates are eligible for admission to all degree programs offered to holders of literary secondary school certificates.

Table2: Minor Programs offered by the Colleges

| College  | Program  | Eligible Students (Major Programs)  |
|--|--|---|
| Engineering and Information Technology<br>الهندسة وتكنولوجيا المعلومات | Electrical Engineering   | Biomedical Engineering  |
|  |  | Computer Engineering  |
|  | Biomedical Engineering   | Electrical Engineering  |
|  |  | Computer Engineering  |
|  | Information Systems  | All programs at AU other than programs of Computer Engineering, Information Technology and Information Systems programs |
|  | Web Development  | All programs at AU other than programs of Computer Engineering, Information Technology and Information Systems programs |
|  | Information Technology   | All programs at AU other than programs of Computer Engineering, Information Technology and Information Systems programs |
|  | Computer Science   | All programs at AU other than programs offered by the Department of Information Technology                              |
| Networking and Security  | All major in an engineering discipline except Computer Engineering |   |
| Business Administration<br>إدارة الأعمال                               | Accounting   | College of Business Administration  |
|  |  | College of Information Technology   |
|  |  | College of Information Systems  |
|  | Marketing  | College of Business Administration  |
|  |  | College of Pharmacy   |
|  | Management   | College of Business Administration  |
|  |  | College of Engineering & IT   |
|  |  | College of Pharmacy   |
|  |  | Major of Architecture   |
|  | Finance  | College of Business Administration  |

## 10 Admission and Registration

Applications for admission should be submitted online at [apply.ajman.ac.ae](http://apply.ajman.ac.ae) or to the Office of Admissions and Registration prior to the beginning of each semester. To be eligible for admission, a student must have a secondary school certificate issued in the UAE, or its equivalent as approved by the UAE Ministry of Education.

The AU Council of Academic and Scientific Affairs determines the number of students to be admitted to each degree program each semester, according to the university's available resources.

### 10.1 General Admission Conditions

#### a. Holders of UAE Secondary School Certificate:

Holders of a Secondary School Certificate (SSC), Science Section, or Advance Stream are eligible for admission in any College of the university if they satisfy the minimum score requirement for the degree program.

#### General Stream

- General Stream (MOE) are eligible for admission for the following majors if they obtain Average (90%) with minimum score of (90%) in Math and Science in Grade 12, with studying physics as a foundation course in AU:
  - B. Sc. in Electrical Engineering
    - Instrumentation and Control
    - Electronics and Communication
    - Power and Renewable Energy
  - B. Sc. in Biomedical Engineering
  - B. Sc. in Computer Engineering
  - Bachelor of Science in Civil Engineering
  - Bachelor of Science in Mechanical Engineering
  - Bachelor of Science in Building Engineering & Construction Management
- General Stream (MOE) are eligible for admission for the following majors if they obtain average (80%) in Grade 12:
  - B. Sc. in Information Technology/ Networking and Security
  - B. Sc. in Information Technology/ Databases and Web Systems
  - **Bachelor of Science in Data Analytics**
  - Bachelor of Architecture
  - Bachelor of Law
- General Stream (MOE) are eligible for admission for the following majors if they obtain Average (70%) for the following majors:
  - B. Sc. in Information Systems\ Project Management
  - B. Sc. in Information Systems\ E-Business Management

- General Stream (MOE), with a minimum score of 60 percent, are eligible for admission to the following colleges:
  - Business Administration
  - Mass Communication

They are also eligible for admission to the following programs offered by other colleges:

- Bachelor of Arts in Sociology and Social Work
- Bachelor of Arts in Psychology
- Bachelor of Interior Design

The decision to admit a student is made on a competitive basis, taking into account the number of available places as determined by the individual college and the applicant's final secondary school examination score.

Applications made by holders of foreign secondary school certificates will be considered according to Circular No. (199) 2019 and CAA Standards 2019, issued by His Excellency the Minister of Education/Higher Education Affairs, UAE, as listed below:

#### **b. Holders of Foreign Secondary School Certificates (Except for College of Medicine)**

- **American Curriculum are eligible for admission if :**
  - The certificate is awarded after at least 12 years of schooling
  - Holder successfully passed the grades (tenth, eleventh, and twelfth). The number of subjects in each grade should be at least five, the minimum score of success in each subject must not be less than (D) or 60%. Islamic education and Arabic language are not counted
  - Holder passed (IBT) with minimum grade 61or (IELTS Academic) with minimum score 5 or (EmSAT Achieve- English) with minimum score 1100
  - Holder passed EmSAT Achieve - Mathematics not less than 500 or (SAT1-Math) with minimum score 450

UAE National applicants are required to obtain a minimum of:

- EmSAT Achieve English with a minimum score of 1100
- EmSAT achieve-Mathematics with a minimum score of 500

- **International Diploma**
  - The certificate is awarded after at least 12 years of schooling
  - The student must pass one of the two tracks:

***First track:***

Successful completion of the IB Diploma (Islamic education should not be counted among the subjects required for obtaining the Diploma).

***Second Track:***

The student must pass six IB subjects according to the following conditions

- The grade of any subject shall not be less than three
- The total number of points must not be less than 21
- The six subjects completed by the student in the IB should cover subjects of (English, mathematics and one subject of sciences) at the SL or HL

- Islamic education should not be counted among the six subjects required for the equivalency.

➤ **Holders of British System Certificates (IGCSE, GCSE, GCE)**

A holder of a British system certificate is eligible for admission if:

- Has completed 12 years of study by the time she/he has finished secondary education and must provide proof thereof.
- The highest 7 grades obtained will be considered as follows:
- A minimum grade of E in 5 O-Level subjects, and minimum grade of D in 2 AS-Level subjects or one A-Level subject( Islamic education and Arabic language are not counted).
- For an applicant to be considered as a graduate of the Science Track in secondary education she/he must have successfully studied at least 2 Science and one Mathematics subject at O-Level and AS-Level or A-Level.

➤ **Holders a certificate of one of French-Patterned Educational Systems as Lebanese, Moroccan, Tunisian, Algerian, French.**

A holder of a French certificate is eligible for admission if:

- Has completed 12 years of study by the time she/he has finished secondary education and must provide proof thereof.
- Obtain the French Baccalaureate in any of the three tracks: Literature, Economics & social, or Scientific with a minimum score of 11/20

➤ **Holders of Indian Boards**

- The certificate is awarded after at least 12 years of schooling
- Obtained of Minimum of 55% in the Senior Secondary School Certificate

➤ **Holders of Pakistani Boards**

- The certificate is awarded after at least 12 years of schooling
- Obtained of Minimum of 55% in the Senior Secondary School Certificate

### c. Applicants to the College of Medicine

The College offers a highly innovative 6-year full time program consisting of one year of Foundation and 5 years of medical studies leading to the award of the degree of Bachelor of Medicine and Bachelor of Surgery (MBBS)



## Requirements for Ajman University MBBS

## 1. Admission to the Foundation Year

Table 3: Entry Requirements for Ajman University MBBS Foundation Year

| Certificate type  | Entry requirement   | Minimum Score/grade |
|---|---|---------------------|
| UAE NATIONAL CURRICULUM                                 | High School 12 <sup>th</sup> Grade (Science Stream)   | 90/100              |
| AMERICAN CURRICULUM                                     | High School   | 90/100              |
|   | SAT I Test (before 2016)  | 1400/2400           |
|   | SAT I Test (After 2016)   | 1000/1600           |
|   | SAT II in 2 Subjects (Biology, Chemistry, Physics, and Math II)   | 550/800             |
| BRITISH CURRICULUM                                      | Applicant should obtain a 12th grade report card from the school  |                     |
|   | Two Subjects in A2 Level in Relevant subjects (Biology, Chemistry, Physics, and Math)   | B,B                 |
|   | <b>OR</b><br>Two Subjects in AS Level in Relevant subjects (Biology, Chemistry, Physics, and Math)  | A,B                 |
|   | Four Subjects in GCSE Level in Relevant subjects (Biology, Chemistry, Physics, and Math)  | B,B,B,B             |
| INTERNATIONAL BACCALAUREATE (IB)                        | Applicant should obtain a 12th grade report card  |                     |
|   | IB High Level (HL) in Three relevant subjects (Biology, Chemistry, Physics, and Math)   | 5,4,4               |
|   | IB Diploma Total  | 26                  |
| OTHER CURRICULA   | Students from other international systems can take any of the above listed system exams and submit documents that prove that they have finished 12 years of schooling in their home countries and have their high school documents' equalization completed in the UAE Ministry of Education. Students will be evaluated based on their high school performance. Students must also meet prescribed English language requirements. |                     |
| English Language Proficiency for ALL Curricula (One of) | <b>EmsAT English – Achieve</b>  | 1400+               |
|   | <b>TOEFL IBT</b>  | 60                  |
|   | <b>IELTS</b>  | 5.5                 |
|   | <b>Written Test</b>   | Pass                |
|   | <b>Personal Interview</b>   | Pass                |

## 2. Direct Entry Option

At the discretion of AUCom, exceptional students who meet the following requirements may be admitted directly into Year 1 (Phase I).

**Table 4: Direct Admission Requirements for Ajman University MBBS**

| Certificate type  | Entry requirement  | Minimum Score/grade |
|---|--|---------------------|
| UAE NATIONAL CURRICULUM                                 | High School 12 <sup>th</sup> Grade (Science Stream)  | 98/100              |
| AMERICAN CURRICULUM                                     | High School  | 98/100              |
|   | SAT I Test (before 2016)   | 1600/2400           |
|   | SAT I Test (After 2016 )   | 1200/1600           |
|   | SAT II in 2 Subjects (Biology, Chemistry, Physics, and Math II)  | 650/800             |
| BRITISH CURRICULUM                                      | Applicant should obtain a 12th grade report card from the school                                       |                     |
|   | Two Subjects in A2 Level in Relevant subjects (Biology, Chemistry, Physics, and Math)                  | A,A                 |
|   | <b>AND</b><br>Two Subjects in AS Level in Relevant subjects (Biology, Chemistry, Physics, and Math)    | A,A                 |
|   | <b>AND</b><br>Four Subjects in GCSE Level in Relevant subjects (Biology, Chemistry, Physics, and Math) | A,A,B,B             |
| INTERNATIONAL BACCALAUREATE (IB)                        | Applicant should obtain a 12th grade report card   |                     |
|   | IB High Level (HL) in Three relevant subjects (Biology, Chemistry, Physics, and Math)                  | 5,6,6               |
|   | IB Diploma Total   | 30                  |
| English Language Proficiency for ALL Curricula (One of) | <b>EmSAT English – Achieve</b>   | 1550                |
|   | <b>TOEFL IBT</b>   | 79                  |
|   | <b>IELTS</b>   | 6.5                 |
|   | <b>Written Test</b>  | Pass                |
|   | <b>Personal Interview</b>  | Pass                |

## 10.2 English Language Proficiency

Full admission to programs where the medium of instruction is English Except for Medicine (see Tables 3 & 4) is given only to applicants with a valid score of at least 500 in the TOEFL (paper-based test), 61 in TOEFL (iBT), Computer Based Test (CBT) 173, EmSAT Achieve English 1100, Band 5 in IELTS (Academic),

Full admission to the programs taught in Arabic is given only to applicants with a valid score of at least 450 in the TOEFL (paper-based test), EmSAT Achieve English 950, Band 4.5 in IELTS (Academic)

Institutional TOEFL score is considered only when the test is taken at an AMIDEAST UAE center.

## 10.3 Admission on Probation

Conditional admission is due to a defect in one or more of the admission requirements, and the student is conditionally accepted for maximum two-semesters during which he can register a maximum of 12 credit hours.

1. May Conditionally admitted student for a period of one semester for:
  - The applicant students to (B.Sc. in ECE, BME, CE) or (B.Sc. in IT) or (B. Sc. in Building Engineering and Construction Management) or(Bachelor of Pharmacy) programs in the event that the average in the high school (Advanced stream) is 5% lower than what is required in those majors
  - The applicant students to (B.Sc.in IS ) program in the event that the average in the high school (General stream) is 5% lower than what is required in this major
  - The applicant students to (Bachelor of Architecture) and( Bachelor of Law) program in the event that the average in the high school (Advanced stream ) and (General stream) is 5% lower than what is required in this major  
NB:  
These applicants must register for a maximum of 12 credit hours during the first semester and achieve at least a GPA of 2.5 at the end of the conditional admission period or they will be dismissed. (Note: For this group of students, the courses that have been completed in other universities will not be considered)
  
2. May Conditionally admitted Students who do not satisfy the minimum required English proficiency requirement for maximum two-semesters during which he/she can register a maximum of 12 credit hours.
  - may begin their studies with conditional admission. They must take English preparation course and sign an undertaking stating that they are aware that they will be dismissed from the program at the end of the probation period if they do not satisfy the condition.
  
3. May Conditionally admitted Students who do not satisfy the minimum required EmSAT Arabic for the programs taught in Arabic for maximum two-semesters during which he/she can register a maximum of 12 credit hours

- may begin their studies with conditional admission. They must sign an undertaking stating that they are aware that they will be dismissed from the program at the end of the probation period.

## 10.4 Documents Required for Admission

- UAE Secondary School Certificate, or its equivalent, and grade transcript. Certified copies are acceptable
- Grade 10,11,12 and diploma for American certificate
- Equivalency certificate issued by the ministry of education UAE for the holders of non UAE high school certificate
- Photocopy of valid passport & residency visa
- Photocopy of a valid Emirates ID Card
- Medical Checkup
- Status of UAE National Service for male students.
- Valid certificate of good conduct, issued by an official body
- Three passport-size photos
- A certificate of proficiency in English language
- EmSAT Arabic for programs taught in Arabic
- **N.B.:** Other Documents might be requested based on application's specific school system. A letter can be requested from the Ministry of Education in the Country of Study indicating that the student has successfully completed the high school diploma at a certain rate, as well as showing the possibility of the student being admitted to government universities in the country of study.

Applications will be processed by the Office of Admissions and Registration only after the payment of application and registration fees.

## 10.5 Re-Admission

1. New students who have missed two consecutive semesters of enrollment (excluding the summer semester) at the university shall apply for re-admission by completing the re-enrollment form available on the online registration system (ORS).

A new university ID will be issued and the student should pay the non-refundable fee for the application.

2. Former students who have missed more than four semesters of enrollment at the university may apply for re-admission and a new university ID will be issued, provided that they achieve the following:

- The required average in secondary school certificate.
- The CGPA is 2 or higher
- A valid English Proficiency Certificate with the required score.
- Availability of vacant seats in the major.
- Approval of the College Dean and the Registrar.
- Repayment of all debts.
- pay the non-refundable application fee

The College Dean and the Registrar acceptance is required to continue in the same major, the previous courses which the student has studied will be considered if they are included in the new study plan.

**N.B.:-**

- 1- If the student was warned, he/she must transfer to another program providing that his/her CGPA for the courses to be transferred is 2.0 or higher.
- 2- In special cases, if the student can graduate within the time allowed for completion of a degree program and study plan is still activated, re-enrollment of the student with the same ID & in the same program will be considered after the payment of the required fees of (300Dhs)

## 10.6 Transfer Students from Accredited Institutions

Students from accredited institutions of higher education may apply for admission to the AU program in the same field of study if they have been of good academic standing, i.e., their Cumulative Grade Point Average (CGPA) is at least 2.0 on a scale of 4.0 or the equivalent.

However, students who have not been of good academic standing but not dismissed (i.e. those with a CGPA of less than 2.0 on a scale of 4.0) will be allowed to transfer only to programs in a field distinctly different from the one in which they were enrolled at the institution they previously attended. And only the transfer of credited General Education courses may be considered.

**The transfer of accredited courses is considered if:**

1. The transfer student has not been subjected to academic or disciplinary dismissal.
2. The transfer student satisfies the conditions of AU general full admission, and does not allow, under any circumstances, transfer students to be admitted under the provisions stipulated for conditional admission;
3. For students who are transferring to a similar program to the one studied previously, their cumulative grade point average must be at least 2.0 on a scale of 4.0 or the equivalent.
4. The number of credit hours for the course is not less than that of the AU equivalent course.
5. The grade obtained on the previous course must have been at least C (2.0 on a 4.0 scale) irrespective of the course status (Satisfactory, Good, etc...), or the grade that corresponds to "Merit/Good" for institutions using a different grading scale.
6. The course content at the institution previously attended should be similar to that of the corresponding course offered at AU.
7. The transfer student has met the required score of the English proficiency test with a valid certificate.

**NB:**

- Only grades obtained from courses taken at AU will be considered in the calculation of a student's CGPA, i.e.: grades obtained from transferred courses at the previous institution will not be considered in the computation of the CGPA at AU.
- AU does not grant transfer students a degree unless they complete at least 50 percent of the credit hours of the program, including the majority of the last 30 credit hours of the program study plan at AU.

- The transfer of credits for clinical training is permissible only when done in the UAE or exceptional circumstances, upon review and approval of a waiver to this requirement by the CAA.
- The graduation projects and thesis are not subject to transfer.
- A transcript indicating the courses studied at the previous institution is required and it should be certified by MOE, Transfer credit hours will be reported on the AU Transcript only when the Office of Admissions and Registration receives the authenticity certificate of the transcript from the sending institution of the student.
- The equivalency certificate is required if the degree has been obtained outside UAE.
- A fee of AED 500 will be charged for the evaluation of courses to be transferred. The fee will be refunded if the student is admitted only

### English Language Proficiency requirements

- a. For the programs where the medium of instruction is English the required score of at least 1100 EmSAT Achieve English, 500 in the TOEFL (paper-based test), 61 in TOEFL (iBT), Computer Based Test (CBT) 173, or 5 in IELTS (Academic) Except for Medicine (EmSAT Achieve English 1400).
- b. For the programs where taught in Arabic the required score of at least 950 EmSAT Achieve English, 450 in the TOEFL (paper-based test), or 4.5 in IELTS (Academic).
- c. If the student was admitted at his/her previous university based on the Institutional TOEFL, he/she will be required to re-take the TOEFL test at AU.
- d. Institutional TOEFL score is considered only when the test is taken at an AMIDEAST UAE center.

### Evaluation and Award of Transfer Credit

AU's evaluation and award of transfer of credit ensure an appropriate determination of student's knowledge in required subject areas. In addition, AU provides ease of transfer of credits for students transferring from a higher education institution with an established articulation agreement with AU. A list of institutions with an articulation agreement with AU is made available on the AU's Admissions webpage.

AU ensures that there is a quality oversight of credits awarded and consideration for other accredited institutions. In coordination with the Office of Admissions and Registration, the concerned department representatives with subject matter specialists in making decisions regarding transfer admissions, transfer of credit and advanced standing determine the transfer of credit.

#### Documents Required for Course Credit Transfer Evaluation:

- A Certified copy of the Transcript
- A certified copy of the detailed course description of the course that includes the learning outcomes of the course and/or course information from the catalogs, course syllabi, and other materials sourced from direct communication between knowledgeable and experienced faculty and staff at AU and the sending institutions. Valid English Proficiency certification such as EmSAT, TOEFL, IELTS or other certification with required score.

The course transfer documents are reviewed by the evaluators of the respective Department. Acceptance of transfer of credit is not solely dependent on the accreditation status of the sending institution. Also, a credit will not be given twice for substantially the same course taken at two different institutions. AU may accept previous work, but may also determine previous work to have no

applicability to a specific degree at AU. AU will fully disclose the evaluation findings and its implications to the students before they decide to enroll. The course credit transfer evaluation takes seven (7) to ten (10) business days from receiving the request. Written notification will be sent to the student prior to admission of the transferability of credit, and how much the accepted credit will be applied to the degree program at AU. Records of all decisions and related documents are maintained by the Office of Admissions and Registration.

## 10.7 Prior Learning Assessment and Recognition (PLAR)

Ajman University shall recognize certified earlier learning of applicants which may lead to exemption from some University courses. This includes credit transfer of courses taken in an accredited program (formal learning) and non-formal learning.

PLAR policy and procedures:

1. An applicant shall complete a PLAR application form providing complete details of his/her Prior Learning Experience.
2. Submit it to the Office of Admissions and Registration after paying the fee to be re-sent to the designated colleges to do the necessary.
3. A maximum of 30 credit hours can be gained through PLAR. However, in all cases, credits granted through Recognition of Prior Learning (RPL) must not exceed 50% of the total completion requirements including credit transfer of formal learning.
4. For every course that has been successfully recognized against prior learning experience, a grade of 'S' (Standing) shall appear on the transcript. For all such courses, the course classification will be coded as 'PLAR'.
5. PLAR courses shall not be used in determining the cumulative GPA.
6. Unsuccessful applicants have the right of appeal to the College Dean who may submit it for review to the Appeal Committee whose decision shall be final.

## 10.8 Certification of Documents

Newly-admitted students are requested to have their documents certified before the end of the first semester of study; otherwise their registration will be suspended.

- Secondary school certificates obtained in the UAE must be certificated by the UAE Ministry of Education.
- Secondary certificates obtained abroad must be certificated by the Ministry of Education, and by the Ministry of Foreign Affairs of the country of origin and the UAE embassy in that country.

## 10.9 Seat Reservation

Students admitted to Medicine (MBBS Program), Dentistry, Pharmacy, programs are required to pay a seat reservation deposit. This deposit is non-refundable and non-transferable and must be paid before the deadline stated on the letter of admission. This deposit is deductible from the student's fee once the applicant joins Ajman University. If the student asks to defer admission to the following semester and the request is approved, the deposit will be applied to the following semester.

**Note:** In case of non-payment of seat reservation during the specified period in the acceptance letter, the acceptance will be canceled.

## 10.10 Course Registration for New Students

Newly-admitted students for programs taught in English who have a TOEFL score of at least 500 or its equivalent will be allowed to register for between nine and 20 credit hours according to their study plan.

Newly-admitted students for programs taught in Arabic who have a minimum TOEFL score of at least 450 or its equivalent will be allowed to register for between nine and 20 credit hours according to their study plan.

Newly-admitted students who have a TOEFL score less than the required will be allowed to register up to 12 credit hours according to their study plan, subject to concurrent registration in the English Proficiency Course

**Important:** Students are allowed to complete at most 12 credit hours (university requirements) before fulfillment of English Language Proficiency requirement.

If the student does not achieve the required score in the two semesters after his/her admission, the College Council may consider dismissal of the student from his/her program. In this case, the student may be allowed to transfer to another program if he/she satisfies its admission conditions.

Once a student's selected courses have been approved by the academic advisor, and on payment of the tuition fees, the student will obtain an online timetable which states the name of the courses, the schedule of classes, the name of the lecturer and the number of the classroom or the laboratory in which the course is held.

## 10.11 Course Registration for Continuing Students

Colleges encourage non-warned students (see Section 14 for an explanation of the academic warning system) to use the early registration period to select courses in consultation with their academic advisors. The early registration period is specified in the academic calendar. Warned students and students who did not benefit from the early registration can register during the registration week. See the academic calendar.

Registered AU students may take some courses outside AU provided that they obtain the prior approval of the Dean of the College. Acceptance of the transfer of external courses is conducted according to the criteria outlined in Section 6.6.

## 10.12 Adding and Dropping Courses

Students may add/drop courses only within the approved period. Students who add and drop courses during the approved period will not lose the fees paid for dropped courses. When adding/dropping courses, students should bear in mind that the minimum number of credit hours for which they may register is nine.

The academic calendar specifies the period allocated for dropping courses without affecting the student's academic record, but without refund of fees. The academic calendar also specifies the last date for withdrawal from a course with a "W" grade without refund of fees. In this case, the course appears in the transcript with the letter "W" with no effect on the computation of the semester Grade Point Average or the CGPA.



### 10.13 Study Load

A student's "study load" is the number of credit hours for which he or she is registered during the semester. For the fall and spring semesters, the full-time undergraduate student credit load is between 12 and 18 or 20 credits per regular semester (according to the study plan), the part-time undergraduate student credit load is less than 12 credits per regular semester, where one credit hour refers to one lecture hour or two hours of practical study per week, lasting for fifteen weeks. For summer semesters, the study load varies from three to six credit hours. (Exceptions to these limits can only be made for a maximum of an additional 3 credits for students in their final graduation semester).

Students may increase their study load to up to twenty-one credit hours in the fall and spring semesters in the following cases:

- Medicine and Dentistry students
- The student's CGPA was at least 3.6 in the preceding semester
- The student is expected to graduate at the end of the semester and his/her CGPA is at least 2.0

The study load of academically warned students is given in Section 13.

### 10.14 Time Allowed for Completion of a Degree Program

The maximum time allowed for a student in which he/she may complete a degree program is a maximum of double the regular number of required semesters. In other words, a four-year bachelor degree must be completed in a maximum of 16 regular semesters of enrolment in the program. The minimum time allowed to complete a degree for non-transfer students is a minimum of six regular semesters for four-year programs and eight regular semesters for five-year programs.

The maximum and minimum number of semesters of enrolment for transfer students is determined after the deduction of the number of earned/transferred semesters (15 credits correspond to one semester) from the above limits. Suspended semesters are not counted in the time allowed for students to complete their degree.

### 10.15 Suspension of Registration

The Suspension request should be applied online on the online registration system (ORS) and the college dean & the registrar approval are required.

Newly-admitted students can only submit a request to suspend their study in their first semester, if they paid the seat reservation deposit, and they have to register courses for the next semester. Otherwise, the student has to apply for new admission.

The total number of semesters for former students that can be suspended is four, approval of the College Dean and the Office of Admissions and Registration is required.

### 10.16 Right to Cancel Admission/Registration

The University reserves the right to cancel an offer of admission if the applicant fails to satisfy all requirements, or if it is found that admission was obtained through the use of incomplete, falsified, altered or embellished information. In the case of withdrawal of registration from a matriculated student, credits earned at AU will be withheld and no transcript will be issued to the student.

## 10.17 Student ID Card

Students will receive a university ID card containing their photograph, name, date of birth and AU ID number. The ID card should be carried at all times. It provides access to certain academic buildings and hostels. In addition, the card is required for admission to sports facilities, to sit university exams and to make use of computer facilities.

The loss of an ID card should be reported immediately to the Office of Admissions and Registration. Fraudulent use of an ID card shall result in disciplinary action.

## 11 Academic Advising

As part of its dedication to academic success, AU is committed to offering high quality academic advising in order to help students in the development and pursuit of academic objectives consistent with their life goals. Academic advising is an ongoing process that connects students to the university. We believe it is important to empower each student with knowledge, resources and skills that will lead to academic success and lifelong desire to learn inside and outside the classroom.

### 11.1 AU Advising Policy

AU advising policy postulates that:

- a) All students shall be informed of the advising policy and advising process during the initial orientation and be directed to an appropriate advisor;
- b) All students shall be assigned advisors;
- c) All students on probation must be given regular advising each semester;
- d) All students expected to graduate must be advised at least twice every semester of their final year;
- e) Career counseling and student counseling shall be made available to all students;
- f) Advising by faculty members for all new and continuing students shall be provided every semester;
- g) Assessment of department advising shall be carried out every semester as a part of the whole program assessment;
- h) Academic department advising shall be assessed and reviewed every year;
- i) Funding and resources shall be made available to all units to ensure effective and efficient advising at all levels;
- j) Training shall be provided for all advisors and peer mentors;
- k) Accurate information shall be posted and maintained on the University website.

### 11.2 The Goals of Academic Advising

The objectives of academic advising are:

1. to help students take the right decisions in choosing an appropriate course of study that is aligned with their interests, abilities and that meets their academic and life objectives;
2. to answer questions raised by students;
3. to ensure students are aware of the consequences of their choices;
4. to ensure that all students are aware of resources, services and educational opportunities at AU that may be pertinent to the student's educational goals;
5. to provide information on university policies and procedures;
6. to facilitate the resolution of academic problems, conflicts and concerns, as appropriate;
7. to refer students, as necessary, to other resources/departments/personnel;
8. to encourage students to be creative in their academic choices;
9. to provide a forum for interaction and guidance about life and academic matters;
10. to collect data about students' needs, expectations and aspirations.

## 11.3 Implementation of the AU Advising Policy

### University Responsibilities

- a) Provide resources for continuous training of advisors and peer advisors;
- b) Gather and disseminate appropriate academic advising materials to assist colleges;
- c) Act as a reference service and respond to questions from colleges and departments, as well as from faculty and students;
- d) Take a positive role in solving advising problems;
- e) Design advising programs for new faculty;
- f) Publish relevant and accurate information on academic advising in the student handbook, on the university website and other relevant publications.

### Colleges and Departments Responsibilities

Faculty members shoulder the responsibility of academic advising which should be part and parcel of the education process.

Departments, colleges, and the Office of Student Affairs have to:

1. Provide students with advising whenever they need it throughout the academic year;
2. Make all relevant information known to students.

The list below shows the relevant information that should be given to students:

- a. University rules, regulations, and procedures;
  - b. Support resources available on campus;
  - c. A copy of students' advising responsibilities;
  - d. Necessary forms and academic calendar;
  - e. Study plan;
  - f. Internship opportunities;
  - g. Projected course offerings by the department;
  - h. A standardized template for students' individual study plans; and
  - i. University catalogs.
3. Provide training to advisors and peer advisors in the following areas:
    - I. Learning principles applicable to advising including -
      - a. University rules, regulations, and procedures;
      - b. Support resources available on campus;
      - c. A copy of students' advising responsibilities;
      - d. Necessary forms and academic calendar;
      - e. Graduate programs at AU;
      - f. Training opportunity;
      - g. Major /program requirements;
      - h. Projected course offerings by the department;
    - II. Appropriate personal and occupational choices for their advisees
    - III. Academic advisors need to have up-to-date knowledge of current affairs outside AU if they are to give meaningful advice to students;
    - IV. Advisors must be trained to relate students' abilities to requirements of their module/course selections;
    - V. Technical requirements for the university requirements general education and major courses;
    - VI. Resources available on campus.

### Advisor Responsibilities

Advisors are required to:

1. Maintain the primary advising file for each advisee. At a minimum, these files shall contain:
  - a. A written record of advising session;
  - b. A copy of the advisee study plan;
  - c. Copies of advisee transcripts;
  - d. Copies of advisee current semester timetable;
  - e. A semester-by-semester graduation study plan for each advisee.
2. Listen to advisee concerns and respect their individual values and choices.
3. Understand and effectively communicate all university and college academic policies and procedures.
4. Refer advisee to appropriate resources for both academic and non-academic concerns
5. Cooperatively evaluate and assess your academic performance and areas of strength while assisting in selecting courses.
6. Encourage advisees' participation in co-curricular activities.
7. Ensure that advisees are aware of opportunities and benefits available at AU.
8. Maintain confidentiality.
9. A graduation progress check sheet for each advisee.

### Peer Advisor Responsibilities

AU peer advisors are continuing senior students who work primarily with students on probation. They are chosen from a select group of students and complete an interview and training process.

Peer advisors are entrusted with:

- I. assisting students in choosing courses;
- II. familiarizing students with academic policies and regulations;
- III. showing students the resources on campus;
- IV. offering advising based on their own experience.

Peer advisors serve six purposes, as they:

- I. Help new students and students in probation at AU;
- II. Help advisees master basic academic processes;
- III. Teach students skills for success (i.e. time management, study skills, etc...);
- IV. Act as referral source;
- V. Offer an alternative point of view to staff/faculty advisors;
- VI. Set examples of successful students.

### Student Responsibilities

The advising process depends on the thoughtful participation of students. Students must assume the following responsibilities:

1. Become familiar with their advisors and advisor offices by initiating contact and seeking assistance on a regular basis through email, phone, and individual appointment.
2. It is the student's responsibility to know the terms, conditions dates, and deadlines in the student Undergraduate and Graduate Catalogs, as well as the student Handbook; and upon receipt of the university ID, the student agrees to the terms and conditions outlined in the Catalogs and Handbook.

3. Come prepared and on time to meetings with their advisor.
4. Come prepared and on time to meetings with their advisor.
5. Ask for clarification if the advisor fails to explain an issue or concern in a way that makes sense to the student.
6. Read all email communication from the advisor and other AU departments.
7. Inform their advisor of problems and concerns which may impact their academic performance as soon as possible.
8. Familiarize themselves with requirements for graduation and other requirements, published through different media.
9. Maintain their own advising folders and take them to every advising session. For undergraduate students, the folder should include:
  - Copies of prior university transcripts;
  - Transcripts;
  - Current semester timetable;
  - An individual study plan;
  - Previous advising notes.
10. Seek academic advising whenever it is needed.
11. Develop an individual study plan. The individual study plan must be approved by the student's appropriate advisor.
12. Be responsible for choosing their own classes on the basis of their decisions as well as the academic advice that has been given.
13. Feel free to evaluate the academic advising program and their academic advisors by filling in a feedback form.
14. Meet with their advisor on a regular basis if they are on academic warning or probation.

### **Peer Mentoring of Students on Probation**

Students with CGPA below 2.0 are considered on probation. The advisor shall advise the student to repeat courses with low performance grades (i.e. "F", "D", and "D") in order to improve the CGPA. Each advisor will provide mentoring for a group of students on probation within his/her department. Mentoring includes peer mentoring, monitoring and progress reporting. The plan for helping students on probation includes:

At the beginning of each semester, a list of students on probation is requested by the Deans of Colleges from the Registrar's Office. The Deans will advise Heads of Department to draw corrective actions.

This plan is executed at the departmental level and would include:

1. Holding regular individual meetings with students on probation.
2. Advising students on probation to repeat courses with grades below "C" prior to registering for any further courses.
3. Request students on probation to visit instructors frequently during office hours.
4. Provide students on probation with peer mentoring from senior students.
5. Request students on probation to meet their peer mentor on a regular basis.

The Head of Department will request a feedback report on the performance record of each student on probation from course instructor(s). Each student's progress is monitored through special forms maintained in the Department. The Department Council will discuss the progress of students on probation in each of its regular meetings. Progress reports will be sent to the Dean.

## 12 Change of Major

### 12.1 New Students

First-semester students may apply to transfer from one major to another within the university during the add/drop period. The application is processed through the Office of Admissions and Registration provided that:

- a. The applicant meets the admission requirements of the degree program to which he/she is applying
- b. There is availability of seats
- c. Approval of the deans of both colleges concerned is obtained, along with approval from the registrar.

### 12.2 Transfer between Programs

Students may transfer from one program to another within the university provided that they satisfy all condition of section above. In addition, they must satisfy the following:

1. The applicant meets the admission conditions of the program to which he/she is applying
2. The preceding semester's Grade Point Average should be equivalent to that required by the new program;
3. The request for transfer should be submitted within the period specified in the academic calendar.

## 13 Academic Evaluation and Assessment

### 13.1 Course Assessment

In each registered course, a student's performance is assessed according to a procedure established by the college concerned, and explained in the course plan. The overall score is normally distributed as follows:

- Semester tests and activities 30 percent
- Mid-Semester examination 30 percent
- Final examination 40 percent

The score for semester tests and activities includes marks for tests, quizzes, assignments, research and laboratory work. The pass mark in each course is sixty percent.

### 13.2 Grading System

The university adopts the following grading system for all Undergraduate Programs and Medicine:

| Percentage   | All Programs |             |   | Medicine |             |   |
|--------------|--------------|-------------|---|----------|-------------|---|
|              | Grade        | Grade Point | Merit   | Grade    | Grade Point | Merit   |
| 90-100       | A            | 4           | Excellent   | A        | 4           | Excellent   |
| 85-89        | B+           | 3.5         | Very Good (High)                                    | B+       | 3.5         | Very Good (High)                                    |
| 80-84        | B            | 3           | Very Good   | B        | 3           | Very Good   |
| 75-79        | C+           | 2.5         | Good (High)   | C+       | 2.5         | Good (High)   |
| 70-74        | C            | 2           | Good  | C        | 2           | Good  |
| 65-69        | D+           | 1.5         | Pass (High)   | F        | 0           | Fail  |
| 60-64        | D            | 1           | Pass  |          |             |   |
| Less than 60 | F            | 0           | Fail  |          |             |   |
| N/A          | XF           | 0           | Fail (Academic Integrity Violation)                 | XF       | 0           | Fail (Academic Integrity Violation)                 |
| N/A          | T            | N/A         | Transfer  | T        | N/A         | Transfer  |
| N/A          | IP           | N/A         | In Progress   | IP       | N/A         | In Progress   |
| N/A          | I            | N/A         | Incomplete  | I        | N/A         | Incomplete  |
| N/A          | S            | N/A         | PLAR<br>(Prior Learning Assessment and Recognition) | S        | N/A         | PLAR<br>(Prior Learning Assessment and Recognition) |



### 13.3 Semester Grade Point Average

The semester GPA indicates student performance during the semester, and is calculated as follows: the total of the grade point of each course taken in the semester multiplied by its credit hours, divided by the total number of credit hours registered in the semester.

For example, if a student obtains the results as set out in the table given below, his/her semester grade point average will be computed as follows:  $GPA = (9+6+9+12+12+6)/18 = 54/18 = 3$

| Subject         | Credit Hours | Points | Product of Credit Hours by Point Grade |
|-----------------|--------------|--------|--|
| Mathematics 1   | 3            | 3      | 9                                      |
| Statistics      | 3            | 2      | 6                                      |
| Physics I       | 3            | 3      | 9                                      |
| Islamic Culture | 3            | 4      | 12                                     |
| Arabic Language | 3            | 4      | 12                                     |
| Psychology      | 3            | 2      | 6                                      |
| Total           | 18           |        | 54 points                              |

### 13.4 Cumulative Grade Point Average

The CGPA indicates the student's average performance overall semesters up to the final or current semester. It is calculated as follows: the total of the point grade of each course taken to date, multiplied by its credit hours, divided by the total number of credit hours taken.

If a student repeats a course in which he/she obtained an "F" grade, or does so in order to improve his/her CGPA, the last grade obtained will be considered in the calculation of the CGPA regardless of whether the last grade is higher than the original one or not. However, the original grade will continue to appear in the academic record without affecting the calculation of the CGPA.

The CGPA is also used for academic probation as follows: starting from the end of the second semester of study, if the student's CGPA is less than 2.0, he/she will be regarded as an "academically-warned" student and will be requested to improve his/her academic performance to raise the CGPA to 2.0 or higher. (See Section 13 for the policy regulating the study load of warned students).

A student will not be allowed to graduate unless his/her CGPA is at least 2.0, even if he/she has passed all required courses of the program of study. In this case, and in consultation with the academic advisor, the student must repeat a number of courses of the study plan in order to raise his/her CGPA to 2.0 as a minimum.

### 13.5 Incomplete Grade

If a student does not attend the final examination due to an emergency and he/she scored at least a total mark of 30 out of 70 in coursework (tests and midterm examination) the course may be considered as "incomplete." Acceptable evidence for failure to attend a final examination due to an emergency consists of the following:

- illness certified in a medical report approved by the University Clinic;
- death certificate of a first or second degree relative;
- arrest or summons before a court or other legal body;



- d. other excuses accepted by the College Council.

In these cases the student must submit an online request within three working days. He/she also must submit the relevant documents. Applications will be processed only if the student has no financial obligation to the university and has paid the fee for an “incomplete request.” Applications submitted by students with a 25 percent absence warning will not be accepted.

**Note:**

- It is the student’s responsibility to follow-up with the college to determine the date of the exam to remove the incomplete grades according to the date specified in the university calendar.
- A student whose course result is “incomplete” must take the final examination before the end of the first week of the following semester in which he/she registers, as shown in the academic calendar, otherwise grade (F) will be obtained.

## 13.6 Make-up Exam

Students who have two final exams scheduled at the same time or have three final exams scheduled on the same day, can request to sit for the make-up exam in accordance with the dates scheduled in the academic calendar.

## 13.7 Examination Re-sits

For a student who fail the last course (other than training and internships) in the program or miss the final exam and do not qualify for an incomplete grade, other than training and internships. He/she can take a re-sit exam if:

- He/she has attended at least 75% of the classes.
- He/she has attended all exams and submitted all assignments.
- he/she not subject to disciplinary penalties to academic violations in the course which he will sit for re-sit exam

**NB**

- The re-sit exam grade shall be out of 30 (as a regular final exam) for students who achieve a minimum grade of 42/70 in the semester work.
- Students who achieve a semester work grade below 42/70 would be allowed to sit for a comprehensive exam out of 100. The ceiling for the final grade in the course shall be “C”.
- Students with disciplinary penalties due to academic violations may not take a re-sit exam .

There is a charge of 50 percent of the course fees and the student must re-take the final examination before the beginning of the following semester.

## 13.8 Student Grade Appeal

The student appeal is a request for review of a decision made with respect to a student grade. IT applies to all student members enrolled at Ajman University, and provides a means to request reconsideration of the grade decision.

Grade Complaints concerning final examination results need to be submitted within 15 days following the announcement of examination results. Students may appeal a final grade after it has been posted through formal procedures. Students wishing to appeal a final examination grade result must adhere to the following steps:

#### **Grade Appeal Procedure**

1. the student must submit an online request Grade Appeal (complaint), which routed to the Office of Admission and Registration.
2. The Office of Admission & Registration will screen the form to verify that the intended course does not have a prohibited status (has not reached 25% absenteeism from class attendance).
3. Upon clearance and approval from Office of Admissions and Registration the request is routed to the Office of Finance for charges allocation.
4. The application is then routed to the concerned college where deliberations are conducted and the decision is taken.
5. In the event the appeal is rejected and included in the system, an automated email is sent to the student notifying him of the decision. The student can also access the online system to check online the Grade Appeal (complaint) status.
6. In the event the appeal is approved by the college, the decision will be routed to the Office of Admissions and Registration to reflect the approved grade change on the student academic record.
7. The student will receive an email notification on his university email that the request is completed and the changed has taken place. The student is able to verify the completed status of the request by accessing the online system.

## 14 Supervised Credit-Earning

Colleges may approve supervised credit-earning on selected courses designed for advanced undergraduates that have completed 50 percent of the required credits for graduation. The purpose of such courses is to make it possible to study all the units of a course under the supervision of a faculty member on a meeting session basis. The schedule of these meetings should not be less than 15 contact hours per semester.

The supervised work should cover all the content of the course and meet its objectives. The supervisor must ensure that the course is devoted to advancing students' knowledge and skills as required in the course outline.

Reasons why a student may wish to take a supervised study course include:

- a. To adjust his/her study plan by completing a specific course which is not offered in that semester
- b. To complete a course which is not offered but it is required for graduation during the final semester
- c. To gain additional knowledge and practical experience in designing, conducting, analyzing and documenting coursework

A maximum of nine credit-hours of supervised study can be taken during a student's undergraduate degree program. A student may not register for more than three credit hours of supervised study per semester.

The assessment of the course will be conducted as follows:

- a. Students will be required to sit for a written exam to be evaluated by the supervisor. This exam will be weighted at 20% of the final course mark;
- b. At the end of the semester, students will submit a written report to the supervisor detailing the work carried out. This report will be weighted at 40% of the final course mark;
- c. Students will present their work to an internal examiner who will not be the supervisor. The oral presentation will be weighted at 40% of the final course mark;

The student's final grade for the supervised study course will be determined by the student's supervisor and the internal examiner after evaluation of the student's work, written report, oral presentation and response to questions.

## 15 Attendance Policy

Attending classes is compulsory for all courses. A student will not be allowed to take the final examination if he/she has missed 25 percent of the classes in a given semester. Absence warning policies are set out below:

- If a student is absent for 10 percent of theoretical and practical class hours, the lecturer will issue a 10 percent absence first warning.
- If a student is absent for 20 percent of theoretical and practical class hours, the lecturer will issue a 20 percent absence second warning.
- If a student is absent for 25 percent of theoretical and practical class hours, the lecturer will issue a 25 percent absence warning and the student will receive the grade of "F."

The Council of Academic and Scientific Affairs may consider a student's withdrawal from the course if sufficient and convincing reason for the absence is submitted to it by the Office of Admissions and Registration.

## 16 Academic Probation

If a student's CGPA falls below 2.0 in any regular semester, starting from his/her second semester at the university, he/she will receive an academic warning. The Academic Advisor will notify students to submit a letter of undertaking to raise his/her CGPA to at least 2.0 in the following semester.

A student on probation must raise his/her CGPA to at least 2.0 within two semesters, not including the summer session.

The study load of warned students will be reduced, as follows:

1. First warning:

- a. a maximum of 15 credit hours of which three or six credit hours are repeated (the priority is to repeat all the courses with grade F, D or D+ then register for new courses) depending on the CGPA and the previous semester's GPA.
- b. If, following the first warning, the student has still failed to raise his/her CGPA to 2.0 or higher at the end of the following semester (excluding the summer semester), the second warning will be issued.

2. Second warning:

- a. a maximum of 12 credit hours of which six or nine credit hours are repeated (the priority is to repeat all the courses with grade F, D or D+ then register the new courses) depending on the CGPA and the previous semester's GPA.

- If a student having a second warning has failed to raise his/her CGPA to 2.0 or higher at the end of the following semester (excluding the summer semester), then the College Council will take one of the following actions:

1. Transfer the concerned students to another program if He/ She met the following criteria:
  - Accomplishing 35 credit hours or less during their study.
  - The CGPA shall not be less than (2.0) points when calculating the courses of General Studies for them.
  - Approval of the college to which they are going to transfer.
2. Allowing the concerned student to study outside the University for one academic year if He/ She met the following criteria and Regulations :
  - a. Criteria:
    - The completed hours should be more than 35 credit hours.
    - The maximum number of courses to be studied outside the university to recover from warnings is 6 courses.
  - b. Regulations:
    - The maximum period allowed to study outside AU is one academic year (including the summer semester).
    - Students are not allowed to register new courses other than the recommended courses to study outside of AU.

- The student acknowledges by a commitment that he/she is aware of removing the warning during one academic year only, and if he/she fails to do so, the university will dismiss him academically from the program to which he/she belongs.
3. dismissing the students concerned academically if :
- Credit hours completed 35 hours is or less, and the AGPA of the courses of General Studies is less than (2) points.
  - Credit hours completed is more than 35 credit hours, and cannot be recovered from the warnings even by studying 6 courses outside the university.

**NB:**

The student will be dismissed if he / she enters the third academic warning for the second time and will not be entitled to appeal against this decision.

## 17 Graduation Requirements

A student will be awarded a degree subject to fulfilling the following requirements:

- Completion of all courses of the academic program
- Completion of practical training as specified in the study plan
- A CGPA of at least 2.0

The merit of the degree is determined according to the following scale:

### Scaling System for Graduation

| Cumulative GPA            | Merit                | Cumulative GPA for Medicine | Merit for medicine   |
|---------------------------|----------------------|-----------------------------|----------------------|
| From 3.8 to 4.0           | Excellent with Honor | From 3.8 to 4.0             | Excellent with Honor |
| From 3.6 to less than 3.8 | Excellent            | From 3.6 to less than 3.8   | Excellent            |
| From 3.0 to less than 3.6 | Very Good            | From 3.0 to less than 3.6   | Very Good            |
| From 2.5 to less than 3.0 | Good                 | From 2.5 to less than 3.0   | Good                 |
| From 2.0 to less than 2.5 | Satisfactory         |                             |                      |

## 18 Minor

AU students are eligible to enroll for a minor while they are pursuing their major provided they fulfill the admission requirements of the minor. Also, their application for major/minor must be submitted prior to the specified deadline, which is the last day of the 12<sup>th</sup> week of the semester preceding their expected graduation semester. The approvals of both the Dean of the college offering the major and the Dean of the college where student is seeking minor are required for admission of student to the requested minor. The primary academic advisor of the student will continue to serve as advisor for both major and minor. However, the academic advisor may seek assistance and cooperation from the department or college offering the selected minor.

The completion requirements for the minor, including the prerequisites required to take the specified courses, are well defined for all minors offered by Ajman University. Students enrolled in major/minor must satisfy all the degree completion requirements of the major as well as all stated completion requirements of the minor.

The student's transcript and degree certificate will indicate both major and minor completed at the time of graduation. For graduation, the student must obtain a cumulative GPA of at least 2.0 in all subjects related to the major and minor, as per the approved study plan in subjects required.



## 19 Second Bachelor's Degree and Non-Degree

### 19.1 Second Bachelor's Degree

Applicants who have earned a Bachelor's degree from Ajman University or another accredited institution, recognized by the Commission of Academic Accreditation at UAE Ministry of Education – Higher Education Affairs, may be admitted to a second Bachelor's degree provided they fulfill all admission requirements of the second Bachelor's degree. The second program must have at least 30 credit hours of unique subject-area courses. The admitted students must satisfy all degree completion requirements of the second Bachelor's degree. However, General Education courses completed during their first Bachelor's degree may be counted toward the second Bachelor's degree provided they are the same or substantially equivalent to those required in the second degree. Similarly, students may not be required to repeat those courses in the second degree program that have nearly the same contents as in some equivalent courses in the first degree program. However, prior to starting their second degree, the student must obtain a list of required courses approved by the Dean of the college where the student is admitted for second degree. The cumulative GPA of student shall be determined based on the list of courses approved by the Dean for successful completion of the second degree program. A cumulative GPA of 2.0 is required before graduation.

### 19.2 Non-Degree

Graduates of a recognized program, with no current affiliation to an academic institution, interested in broadening their knowledge in a specific discipline, or upgrading their academic record without seeking formal admission to pursue a degree are offered by Ajman University (AU) the opportunity to enroll as non-degree students.

Approval for a non-degree status, shall be based on course space availability and criteria for admissions and registration. A non-degree student's credit-courses shall not count toward any degree and the non-degree student shall not qualify for any financial aid or scholarship

#### **Required documents:**

- The certificate degree awarded for high school and undergraduate or Graduate.
- Photocopy of valid passport & residence visa
- Photocopy of a valid Emirates ID Card
- Medical Checkup
- two passport-size photos
- A certificate of proficiency in the English language



### Conditions for Non-Degree Status

- The applicants should complete the non-degree online application form for admission and provide all required documentation and pay the application fee within the same deadline date published in the academic calendar set for degree seeking students.
- Registering courses under non-degree status requires compliance with all the course pre-requisites.
- Coursework grades for non-degree students shall not count toward or against the previously earned undergraduate or graduate CGPA.
- A college might cancel an initially offered course, at any time prior to the start of the semester, due to a minimum enrollment of students that has not been met.
- Courses completed successfully by a non-degree student shall not automatically provide an eligibility status for admission to a future degree program.
- There are limits to the number of courses and number of credit-hours that can be registered by a non-degree student.
  - Non-degree undergraduate students can only enroll for a maximum of two semesters, with (no more than 17 credit hours per semester).
  - Non-degree graduate students might enroll for a maximum of two semesters with a limit of total 12 credit hours (no more than 6 credit hours per semester).
- A non-degree student will not receive a degree.

## 20 Student Records

All documents submitted to the University in support of an applicant for admission become the property of Ajman University and, as such, become under the control of the Office of Admissions and Registration.

### 20.1 Digital student record file

#### a. Administrative documents

- Personal information including information about high school certificate.
- High School certificate, and grade certificate, equivalency certificate (when applicable)
- Passport's copy, Health certificate, Conduct certificate, and Photos
- Application form, any eventual undertaking.
- Address of the student
- Changing Personal Data

#### b. Academic documents

- Status of the student (regular, suspended, dismissed).
- Grade transcript for each semester and timetable of registered courses.
- Transfer credit information including names and dates of attendance at other post-secondary institutions, courses taken and credit hours and final grades earned, degrees, diplomas, and other awards, and related information.
- Degrees and awards earned including date awarded, degree, College, major(s) and minor(s) and CGPA.
- Academic disciplinary information, if applicable.
- Soft copy of requested transaction such as: form of transfer to another major, add and drop form, change section form, request of transfer form.
- All academic transactions:
  - Grades and registered courses in each semester
  - Grade Transcript
  - All financial transactions.
  - Registration Suspension
  - Re-enrollment
  - Grade Complaint, Incomplete request, Re-sit-Exam,
  - Course Equivalency

### 20.2 Confidentiality of the Records

- a. AU considers that student records are strictly confidential and disclosure of information from student's records shall only be possible with a prior written consent from the student.
- b. Transcripts and official documents will not be issued to any person other than the student unless they have a letter of authorization signed by the student and accompanied by a copy of the student's ID.

- c. The Office of Admissions and Registration will assist institutions when they request information on the authenticity of a copy of the transcript or a graduation certificate with the prior consent of the student.

## 20.3 Student Rights

Students have the right to:

- a. Inspect and review information contained in their education records.
- b. Request change or update of their personal data before graduation.

## 20.4 Student Record Retention and Disposal

- AU is committed to preserving and protecting the information and confidentiality of all documents received from enrolled students for a period of 5 years after graduation. Documents of none enrolled student shall be retained for a period of one year. Once the records reach the end of the scheduled retention period, they shall be disposed of.
- Beginning 202010 the Office of Admissions and Registration will stop accepting hard copies and will not keep any original certificate. All original certificates will be returned after verification.
- Starting 201820, graduating students or students submitting clearance to leave the University shall have their original certificates returned to them by the Office of Admissions and Registration.
- For all received documents from students, AU is committed to protecting the security and confidentiality of protected information created or received in the course of business. The University's Record Retention Schedule prescribes the length of time that records created or received by the University must be retained. Once the record reaches the end of the scheduled retention period, they should be disposed of. Records disposition is the final phase of a record's life cycle. This policy outlines the appropriate methods for disposing of University records slated for destruction.

## 21 Student Services

The subsequent student's services are discussed in more details in *the Student Handbook*.

### 21.1 Student Counseling Unit

Student Counseling is dedicated to helping students address personal or emotional problems that hinder them in achieving a fully beneficial experience at AU and realizing their full academic and personal potential. Student Counseling Services utilize a service system that emphasizes trust, respect, confidentiality, and compassion. Its overall goal is to maximize student success by attending to any emotional or personal needs which may impede learning. Through personal counseling, students learn to take charge of their lives, acquire skills necessary for adjusting to the demands of university life, and overcome difficulties that may prevent them from meeting their academic and career goals (refer to Student handbook for policy details).

### 21.2 Orientation program for new students

AU gives special attention and assistance to new students to ease the transition between life at high-school and the university. For this purpose, a special program has been designed and run a number of time throughout the academic year at the department level to familiarize students with the curricula, facilities, department activities, future opportunities, etc... Departments are required to engage the Deanship of Student Services (DSS) in at least one of these activities in order to provide students with more focused details about student life, clubs, student counseling, career and other services. Senior students trained by the DSS may as well be engaged as advisers on non-academic issues.

### 21.3 Student Activity

The Office of Student Life (OSL), at Ajman University is designed to complement the academic experience and enhance the student experience through a wide range of co-curricular activities, programs, and services. This Office organizes many activities that span a wide range of interests, covering social issues, culture, art and sport. It also acts as the central support for the numerous student societies. Refer to the Student Handbook for further details on social, cultural, art and athletics activities provided and organized by OSL.

### 21.4 Students Role in Institutional Decision Making

Ajman University considers its students to be an important element of its operations and events and values their opinions and suggestions. Students can submit their written concerns/suggestions to the Dean of Student Services, the Vice-Chancellor or to the Chancellor via the appropriate channels.

### 21.5 Student Council

Student Councils represents the voice of the students and provide leadership in assisting and organizing activities for all students. There are opportunities for any student to serve as a member of the Council. Those interested in being considered for membership on the Student Council, should apply to the Deanship of Students Affairs.

AU recognizes two single-gender student councils for male and female students. Each student council consists of 15 members, where (10) members are nominated by schools and colleges while the rest (5) members are chosen through campus-wide elections. The Student Council mission is to represent the students and give them the opportunity to communicate their views and concerns. It provides resources for the various student organizations and clubs, offering guidance and support in an attempt to build a generation that is established on the notions of teamwork, dedication and responsibility.

## 21.6 Student Societies

A student society is a body elected by AU students; society activities are supported by the DSS. There are also academic societies in each college. The goals of these societies are to:

- a. Encourage student participation in a variety of activities
- b. Promote the spirit of cooperation among students, and encourage them to take on responsibility
- c. Provide support to new students by advising them and helping them in their new academic life
- d. Obtain student input regarding needs and wishes, and pass the information obtained to the DSS
- e. Act as a liaison between students and DSS supervisors
- f. Meet with DSS members on a regular basis
- g. Arrange for “acquaintance” meetings among students in order to break down the barrier between new students and the new academic society
- h. Promote study ethics among students and encourage them to abide by the rules and regulations of the university
- i. Urge students to abide by the morals, principles and doctrines required by Islam

In line with the vision and philosophy of the AU, the DSS arranges a series of developmental, educational and cultural courses for student leaders, with the aim of improving their performance and developing their leadership skills.

## 21.7 Student Media

The university has varied media channels which reflect its noble mission and ensure effective communication with its population. Also these channels are used for training its students in a professional and credible manner. This is actually done under the supervision of highly qualified faculty who are members of the college of Mass Communication.

## 21.8 Health Services

The University Health Clinics seek to complement the academic mission of AU and are dedicated to providing educational, supportive, consultative healthcare services to students, staff, faculty and eligible dependents. In doing so, the Health Clinics strive to make the campus a healthy and safe place to study, work and live.

## 22 The Career Counseling Center

### Mission

The **Career Counseling Center** endeavors to serve AU students and alumni by educating them to successfully identify, plan and pursue their career goals. The center supports the mission of the university in its three dimensions - education, information and investment - by providing quality services which will enhance clients' employment potential, and by liaising with prospective employers. To achieve its mission, the Center is assisted by AU Alumni Association, a non-profit organization which aims to enhance interaction between alumni, students, the university and the community.

### Objectives

The Career Counseling Center aims to:

1. Help new students to select courses appropriate to their career interests and aspirations
2. Help students and graduates in decision-making, goal setting and planning for their careers
3. Offer guidance to students and graduates regarding the skills necessary to meet evolving job requirements
4. Help students and graduates acquire effective job search skills
5. Signpost students and graduates to job search resources
6. Provide AU with job-market information to aid academic planning
7. Seek recruitment, internship and voluntary or part-time opportunities for students and graduates through liaison with businesses, governmental bodies and organizations
8. Establish a plan for assessing the performance of career services and activities
9. Establish and foster lifelong professional and personal relationships between the university and its alumni
10. Promote communication between alumni, and between alumni and the university
11. Promote the Alumni Association within the university and engender goodwill, understanding and support for the university in the wider community
12. Offer alumni opportunity to contribute to and participate in the university's decision-making processes
13. Establish fundraising mechanisms for the Alumni Association

### Services

The work of the Career Counseling Center includes: Organizing:

- Career days
- Social and cultural events
- Alumni clubs and forums

Providing services

- Career guidance
- Group and individual counseling
- Employability skills development
- Psychometric tests
- Informing:
  - Posting job advertisements electronically and on campus notice boards
  - Employer portal

- Job seeker portal
- Classified jobs

**Registration Process:** students must register with the CCC in order to receive job notifications and event invitations.

## 23 Student Success Center

The Student Success Center (SSC) offers a variety of student-centered services to ensure academic excellence. From free tutoring, individualized academic coaching to tailored workshops, the Center will provide the tools and resources necessary to achieve its mission. The SSC has a mandate that goes beyond employment training and deep into producing competent, confident, and capable professionals who will contribute in developing their society.

The SSC will help students reach their full academic potential and thrive during their University years through early identification of students at need for academic support and through providing comprehensive support tailored to the needs of the student to help develop capable and well-rounded graduates who will enter the work force and help foster a forward thinking and progressive society.

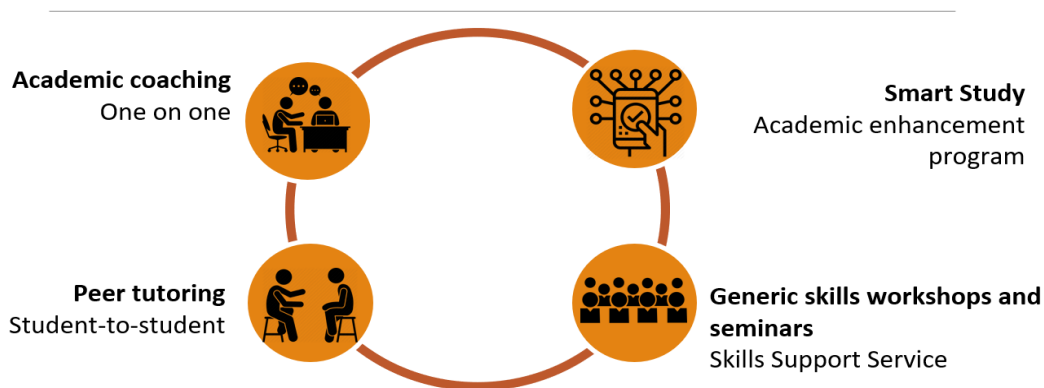
### 23.1 Objectives

With close liaison with college Deans, faculty, managers and students at AU, the SSC will:

1. Conduct needs assessment surveys to explore the students' academic challenges and weaknesses that are in most need for addressing through the SSC.
2. Identify students in need for academic support and provide the needed mentoring through different strategies to ensure that the students excel in their academic performance.
3. Deliver a series of workshops, seminars, tutorials and other activities that assist in enhancing a range of skills needed for a successful academic performance.
4. Conduct regular reviews to assess its effectiveness and ways to improve its functions.

### 23.2 Support provided by the SSC

The SSC will provide a range of personalized student-tailored services as shown in Figure 1.





## 24 Continuing Education Center

Continuing Education Center (CEC) is a leading provider of training and professional development programs for individuals and corporate groups in UAE and Gulf. The training unit offers a wide range of courses in the fields of Dentistry, IT, Business, Project Management and English. Ajman University is sanctioned from well-known global training and testing organizations, such as Project Management Institute (PMI), Wiley for CPA and CFA and IMA for CMA

### 24.1 Training Methodology

1. **Training Needs Assessment:** shall be conducted upon clients request to Identify required courses that meet organization business objectives
2. **Pre-Assessment:** it is done to identify the gap between current and required skill set and knowledge
3. **Instructor-Led Training:** our Trainers uses various styles while delivering the training such as presentations, discussion boards, practical cases, labs and much more
4. **Post-Assessment:** To check the level of skills and knowledge gained after the training
5. **Trainer's Follow up:** trainees has the right to ask the trainer any question by phone or email after finishing the training up to 1 month.

### 24.2 Training Fields

- Business and Management
- Project Management
- Finance, Auditing and Accounting
- Information Technology
- Information Security
- Leadership and Soft Skills
- Strategic and Operational planning
- Innovation, Creativity and Entrepreneurship
- English as a foreign Language
- Arabic for Non-Arabs
- Special Education
- Dental Courses

## 25 Student Rights and Responsibilities

### 25.1 Student Rights

1. Every student enjoys all rights and freedoms recognized within the University by the Laws of the United Arab Emirates as long as this does not violate the Code of Student Conduct.
2. Every student has the right to fair equal treatment by the University. A student has a right to be free from discrimination based on ethnicity, color, religion, gender, marital status, nationality, language, or personal handicap. However, a distinction, exclusion, or preference based on relevant academic or physical aptitudes required and made in good faith is considered to be non-discriminatory.
3. All students have the right to have an environment supportive of the University's mission and their own educational goals.
4. Students can function in their daily activities safely and easily.
5. The university is committed to ensuring that adequate measures are taken to protect the security of students on the university campus.
6. AU respects the student's right to privacy of personal information. This implies that information disclosed by the student and for the student is considered to be personal; this information will not be disclosed to third parties without your consent. A permanent record for each student enrolled in the University is maintained by the Office of Admissions and Registration. The written consent of the student is officially required to disclose his/her academic record. Exceptions are made for parents, sponsors, authorized AU officials and in compliance with a judicial order.
7. AU shall make sure that students know their rights and responsibilities, as well as applicable University policies and procedures. The university's obligation under this section is fulfilled when the university makes copies (hard or on the university website) of the Student Handbook available to every student upon being admitted to and entering the university.
8. Students have access to help them in managing their own affairs, increasing self-awareness, career planning and personal decision making;
9. Students have access to established grievance procedures.
10. Students have access to various activities beyond the classroom, which support intellectual and personal development.
11. Students have access to excellent faculty, academic technology, classrooms, libraries, presentations and other resources necessary for the learning process.
12. Students have the right to get prompt and appropriate responses from the university's academic and administrative Offices.
13. Every student has the right to quality education.
14. Every student has the right to a fair and impartial assessment of his/her performance as a student.
15. AU shall furnish students with relevant course information to enable them to make informed course selection.
16. A student who is accused of a disciplinary offence has the right to present an appropriate defense.

## 25.2 Student Responsibilities

Students must behave in a manner that is civil and compatible with the university's function as an educational institution. Students are required to obey the rules and regulations of AU as laid out in the Student Handbook and University Catalog. In particular, students are expected to abide by all rules and regulations expressed in the Code of Student Conduct. Students are expected to familiarize themselves with these codes and their obligations and responsibilities toward the university, its faculty and staff, other students and visitors to the university. In AU's community of learning, disruption of the educational process, destruction of property, and interference with the orderly process of the university, or with the rights of other members of the community, cannot be accepted. In order to achieve its objectives and function properly, AU has the authority mandate to maintain law and order and to discipline those who are disruptive of the educational process.

## 26 Student Disciplinary and Academic Integrity Policy

The provisions of this policy shall apply to all students' violations, be they academic or non-academic, which expose students to the disciplinary penalties provided for in this policy whether the violation has been committed on campus, at the students' hostels, during training, at the host institution for students under exchange program, or events organized or sponsored by the university.

Except for cases of plagiarism, all cases of disciplinary violations, shall be considered by the University-level Student Disciplinary Committee (SDC). Only the plagiarism cases shall be considered by the College-level Student Plagiarism Committee (SPC).

Any breach of rules or regulations of the University or customs and traditions of the UAE shall be deemed a violation that warrants disciplinary action, including but not limited to the following:

### 26.1 Violation of the Code of Public Conduct

All members of AU are expected to conduct themselves in accordance with the regulations of the university, and the laws of the UAE. In particular, AU students are requested to play an exemplary and positive role in enhancing the reputation of the university:

1. Any act that violates the rules and regulations of the university or the units affiliated to it, or disrupts the requirements of the educational process on campus or off-campus.
2. Failure to abide by the dress code and public appearance code which are consistent with public morality.
3. Failure to comply with the instructions of the university security personnel or any of the university officials while performing their duties, such as student's refusal to prove his/her identity when so required.
4. Any acts or statements or hints, expressed in person or via a social media outlet on-campus or off-campus, which constitute an insult to honor or dignity, or viewed as contrary to good conduct or might bring the university or its employees to disrepute.
5. Disrupting or causing disturbance to lectures, events, conventions organized inside or outside of the university, including online class sessions, events, activities, or proceedings by whatever mean(s) or incitement to do so.
6. There will be disciplinary action if students violate the safety rules and guidelines specified by the University regarding Covid-19. These include, but not limited to, wearing of masks on campus and the not disturbing the spacing of chairs in classrooms, etc...

7. Using the university buildings or its physical or academic assets for purposes other than those intended without obtaining a permission from the university, or attempting to damage those assets.
8. Presence in places where students are not allowed or failure to observe the time schedules for entry of students.
9. Distributing leaflets or issuing magazines without a prior written permission from the university management.
10. Placing posters in places other than the designated ones without a prior written permission from the university management, or writing on walls or furniture.
11. Misuse of any of the means of student transportation such as buses or other means of transportation.
12. Possession of devices, films, pictures, tapes, newspapers or magazines which contain materials incompatible with morality and decency within the university and its facilities, including the university residence halls.
13. Filming and Taking of Photographs: Using cameras on-campus (be it via mobile phones, portable computers or any other electronic devices) in a way that has a negative effect on others and the standing and image of the university.
14. Smoking or using electronic cigarettes, etc. in enclosed areas on campus or at the university housing facilities.
15. Carrying firearm or white weapons or possessing inflammable or explosive materials; possessing, using or selling drugs; circulating counterfeit money, etc.
16. Raising funds or collecting signatures without permission from the concerned authorities at the university or abusing the permission granted in this regard.
17. Using words, signs, images, graphics or any other means that offend national or religious sentiments.
18. Any behavior involving discrimination against any student or member of the university community on the basis of gender, religion, age, disability, race, nationality, color or origin.
19. Committing or attempting to commit a crime of any kind, including theft, forgery of documents or using forged documents.
20. Stealing educational materials or tests, or illegally obtaining the same.
21. Unauthorized access to the website or electronic system of the university.
22. Altering of grades or any electronically stored data.
23. Knowingly providing false information to any of the university staff, faculty or administrative units.
24. Misuse of university records, documents, accounts, proofs of personal identity and computer software.
25. Causing material or moral damage to the University in whatever form it takes.
26. Possession, consumption, distribution of alcoholic drinks or material, or being under the influence of alcohol.

## 26.2 Violation for: Filming, taking pictures, and forms of unacceptable behavior in the classroom including online classes

1. Using cameras on-campus (be it via mobile phones, portable computers or any other electronic devices) in a way that has a negative effect on others and the standing and image of the university.
2. Making videos to record scenes of students attending online classes or taking their pictures as shown on the screen and sharing them through social media, email, websites, or any other public or private media platform.
3. Displaying or sending offensive messages, videos, or pictures.
4. Harassing, bullying, or annoying a participant in a classroom including online classes.
5. Using inappropriate language in an educational setting including online classes

## 26.3 Penalties for violations of Code of Public Conduct, Filming and Taking Photographs and Other Unauthorized behaviors

One of the following penalties shall be imposed on the student who violates the Code of Public Conduct, films and/or takes photographs, or commits other unauthorized behaviors including online class sessions, events, or activities:

1. Verbal warning.
2. Written warning.
3. Depriving the student of all or some of the privileges, services or extracurricular activities provided by the University for a period not exceeding two semesters with or without refund of fees.
4. Depriving the student of completing the course in which the violation is committed; awarding a failing grade on the course and obligating the student to pay the course fees.
5. Depriving the student of completing the whole semester in which the violation is committed; awarding a failing grade on all of the semester courses s/he is enrolled on and obligating him/her to pay the fees.
6. Suspension from study for one or more upcoming semester.
7. Expulsion of the student from University and awarding him/her a failing grade on all of the courses of the semester in which the violation is committed, with taking benefit from the academic records, and obligating him/her to pay the fees.
8. Expulsion of the student from University and awarding him/her a failing grade on all of the courses of the semester in which the violation is committed, without taking benefit from his/her academic records, and obligating him/her to pay the fees.

## 26.4 Violation of Academic Integrity – Plagiarism

1. An act of plagiarism is committed when one uses the ideas or work of other people and the representation as one's own original work. Ajman University deploys plagiarism detection software as well as other verification tools to detect any act of plagiarism.
2. Plagiarism encompasses a wide range of forms, such as:
  - Written research, books, articles, and theses.
  - Graphic illustrations, images, and motion pictures.



- Graphs, maps and models
  - Audiovisual material
  - Online material
3. The following are deemed an act of plagiarism:
- The submission of any work or academic activity, which is an identical copy of a section of someone else's work, without acknowledging the source and without quotation marks.
  - Submitting the same piece of work for assignments in different classes without previous permission from instructors involved. This also applies when a student submits own previous work, or combining parts of previous works with current work, without approval from all instructors involved.
  - Borrowing phrases from a source without using quotation marks, or finds synonyms for the author's language while keeping to the same general structure and meaning of the original.
  - Neglecting to cite sources, or misquotes of sources, or paraphrases a source by using similar words, groups of words, and/or sentence structure without acknowledging the source.
  - Asking or hiring others to conduct research or an academic activity on behalf of the student without prior written permission from the course instructor or supervisor of the research or academic activity in question.
  - The deliberate provision of invalid research data or false data related to an academic activity, a questionnaire, or statistical work, which the student has been assigned to do.
  - The false attribution of an innovation to one's self.
  - Copying the content of online blogs without crediting the source.
  - The use of audio-visual material without crediting the source.
  - The use of graphic illustrations, images, motion pictures, and representing them as one's own without crediting the source.
  - The translation of others' work to a different language and representing it as one's own without crediting the source.

### **Student Awareness or Author Responsibility**

Students in the University shall be made aware of the consequences that could lead to the allegation for suspected plagiarism. Students are required to:

- Acquire necessary academic writing skills.
- Know what are the possible violations that can result into plagiarism.
- Know the accepted citation style.

The University acknowledges the need to create appropriate student awareness regarding the subject and provide necessary support to deal with the situations that can result into student being alleged. The university aims to:

1. Educate the student community on the possible penalties involved in plagiarizing.
2. Educate students on using Turnitin or other available (free) resources to check their work, like, PapersOwl, Grammarly, Quetext etc.
3. Supporting faculties, colleges and departments to enlighten their students on the issue of plagiarism.
4. The coursework or assignment sheet should contain the University's stance on detected plagiarism and the related penalties.
5. Senior Librarian to provide guidance on citations and how can this lead to Plagiarism.

## 26.5 Disciplinary Penalties for violations of Academic Integrity

1. Faculty members are responsible for checking acts of plagiarism in their courses. If a faculty determines that an act of plagiarism has been committed, a report of the incident with supporting evidence shall be submitted to the Head of Department who in turn will forward the report to the College Dean for further action. The Dean shall refer the case file to the SPC. The SPC will take one of the following actions as appropriate:
  - 1.1. If the student has no previous record of plagiarism in any course, a zero grade is given to the submitted work.
  - 1.2. A student committing a second plagiarism offense in any course (not necessary the same course) will be awarded a failing grade on that course and shall pay the full course fees. The plagiarism offence shall be noted in the student's record of grades and marked with "XF".
  - 1.3. A student committing a third plagiarism offense in any course (not necessary the same courses) will be awarded a failing grade on all courses of the semester in which the student commits the violation and shall pay the fees for all courses. The plagiarism offence shall be noted in the student's grades record and be marked with the "XF" for all the courses taken in that semester.
  - 1.4. A student committing a fourth plagiarism offense in any course (not necessary the same courses) will be suspended from the University for two semesters, and will be awarded a failing grade on all courses of the semester in which the student commits the violation and shall pay the fees for all courses. The plagiarism offence shall be noted in the student's grades record and be marked with the "XF" for all the courses taken in that semester.
  - 1.5. A student committing a fifth plagiarism offense in any course will be expelled from the University, and will be awarded a failing grade on all courses of the semester in which the student commits the violation and shall pay the fees for all courses. The plagiarism offence shall be noted in the student's grades record and be marked with the "XF" for all the courses taken in that semester.
2. The student will have to pay the fees for all courses. However s/he can benefit from his/her academic record.
3. Upon a written request submitted by the student to the Office of Admissions & Registration, not before his/her last Semester at the University, the "XF" mark may be removed from his/her transcript if there is no more than one course marked with "XF" in the transcript.
4. The University may supplement its penalty with a decision to fully or partially ban the student from the privileges provided by the University for a maximum period of two semesters.

## 26.6 Violation of Examination Rules

1. Violation of examination regulations, non-compliance with instructions of the examination hall supervisor or any of the invigilators, disrupting the peace and quiet of the examination, and/or causing examination delays.
2. Committing or attempting to commit any kind of cheating in an examination or assisting another student to cheat in any shape or form.
3. Providing false personal information on answer sheets or attendance list.
4. Possession or use of any communication, storage or any other electronic devices. These include but not limited to: mobile phones, smart watches, and earphones even if switched off.



5. Possession of unauthorized academic materials related to the examination subject matter in any shape or form.
6. Writing notes related to the examination subject matter on the body, dress, wall, table or any other medium.
7. Refusal to hand over the answer sheet to the examination Committee's official or any of the invigilators before the student leaves the exam hall.
8. An act of impersonation by any person from inside or outside the University by sitting an examination or presenting an assessed academic activity on behalf of another student with or without his/her knowledge or consent.
9. Involvement in any illegal activity with regard to examinations such as the leakage, stealing, distribution, selling, and/or buying of an examination related content or material.
10. Physical or verbal assault of an invigilator, student, or any other person in the examination hall.
11. Cheating in online examinations, tests, quizzes, assignments, projects, or any other form of assessed academic activity. This may include but not limited to: collaborating with one or more students or individuals in conducting assessment activities, unlawful solicitation of assistance from other individuals, unlawful use of any electronic devices or software, unlawful communications with other students or individuals, impersonation, unlawful access into online examinations' sites or question banks, and any other act that violates the sanctity of fair online assessment. Proven cases are subject to the same penalties as for in-class and proctored assessment activities stipulated in section titled *"Disciplinary Penalties for Violation of Examination Rules"*.

## 26.7 Disciplinary Penalties for violations of Examination Rules

1. A written warning is issued for every student committing a violation as described in Section 22.6 Item 1. Subsequent repeats of the offense in future examinations result in a failing grade (grade X) for the course and the case shall be noted in the student's file and his/her transcript marked with "X" for that course.
2. A student committing one or more examination violation described in Section 22.6 Items 2, 3, 4, 5, 6, 7 and 11 for the *first time* will be awarded a failing grade (grade X) for the course in which the student committed the violation. The student shall pay the full course fee. The cheating case shall be noted in the student's file and his/her transcript marked with "X" for that course.
3. A student committing one or more examination violation described in Section 22.6 Items 2, 3, 4, 5, 6, 7 and 11 for the *second time* will be awarded a failing grade (grade X) for *all courses registered in the semester* in which the student commits the violation. The student shall pay the full course fee for all courses registered in the semester. The cheating case shall be noted in the student's file and his/her transcript marked with "X" for all the courses registered in the semester.
4. A student committing one or more examination violation described in Section 22.6 Items 2, 3, 4, 5, 6, 7 and 11 for the *third time* will be awarding a failing grade for *all courses registered in the semester* in which the student commits the violation and will be suspended for the following two semesters. The student shall pay the full course fee for all courses registered in the semester. The cheating case shall be noted in the student's file and his/her transcript marked with "X" for all the courses registered in the semester. If the student decides to transfer from



the University, the student can benefit from his/her academic record.

5. A student committing one or more examination violation described in Section 22.6 Items 2, 3, 4, 5, 6, 7 and 11 for the ***fourth time*** will be awarded a failing grade for ***all courses registered in the semester*** in which the student commits the violation and ***will be expelled from the University***. The student shall pay the full course fee for all courses registered in the semester. The cheating case shall be noted in the student's file and his/her transcript marked with "X" for all the courses registered in the semester. If the student decides to transfer from the University, the student can benefit from his/her academic record.
6. A student involved in an act of impersonation described in Section 22.6 Item 8 and 11 (as an impersonator or as the student being impersonated) will be awarded a failing grade for ***all courses registered in the semester*** in which the violation was committed and ***will be suspended from the University for one semester***. This penalty will apply if the impersonation offense is committed for the ***first time***. Both students shall pay the full course fee for all courses registered in the semester. The impersonation case shall be noted in each student's file and his/her transcript marked with "X" for all the courses registered in the semester. Any student involved who decides to transfer from the University can benefit from his/her academic record. The University may pursue other forms of legal action if the impersonator is not an Ajman University student (i.e. a person from outside the University or an employee of the University). ***A repeat of this offense will result in expulsion from the University*** and a failing grade awarded to all courses registered in the semester and marked with "X". The full course fee for all courses registered in the semester shall be paid. In addition, the student involved cannot benefit from his/her academic record when the offense is committed a second time.
7. Any student involved in the leakage, stealing, illegal distribution, selling, and/or buying of an examination related content or material will be awarded a failing grade for ***all courses registered in the semester*** in which the violation was committed and ***will be expelled from the University***. The cheating case shall be noted in the student's file and his/her transcript marked with "X" for all the courses registered in the semester. The student shall pay the full course fee for all courses registered in the semester. The student cannot benefit from his/her academic records. The University may take further legal action against any person involved.
8. In the case of physical or verbal assault by a student in an examination hall, one of the penalties mentioned in section 22.3 shall be imposed on the student.
9. Upon a written request submitted by the student to the Office of Admissions & Registration, not before his/her last Semester at the University, the "X" mark may be removed from his/her transcript if there is no more than one course marked with "X" in the transcript.

## 26.8 Appealing Against Disciplinary Decision or against SPC Decision

1. The student may appeal the disciplinary decision issued against him/her in a letter addressed to the Chancellor or his authorized representative. The student shall submit the letter within a maximum of seven working days of his/her being notified of the decision, in writing, as per the academic calendar, otherwise the decision shall be final and enforceable.
2. The appeal shall only be accepted on procedural grounds if it is lodged within the legal deadline and it involves one or more of the following:
  - Failure to observe the investigation procedures provided for in the University policies.
  - Emergence of previously unknown evidence which might have influenced the decision.
  - The disciplinary penalty is not commensurate with the violation.

3. If the Chancellor or his authorized representative accepts the appeal on procedural grounds, he shall refer the case to a different ad hoc committee for re-consideration.
4. Appealing a disciplinary decision shall not lead to the aggravation of penalty against the appellant.
5. A student has the right to file an appeal against the decision of the SPC to the Dean of the College. The decision of the Dean will be final, except in the case of suspension, expulsion, or awarding a failing grade on one or more courses. In these cases, the student may appeal to the Chancellor who shall refer the case to a different ad hoc committee for re-consideration. The decision of the Chancellor will be final.

## 27 Tuition Fees and Financial Regulations

Ajman University (AU) operates on a fully credit-based fee structure in addition to other fees.

The university may reserve the right to increase the tuition and other fees, up to 10% per academic year when deemed necessary.

All students who register for courses incur a financial obligation to AU. Students are responsible for all charges incurred at AU. Failure to attend classes does not constitute withdrawal from the institution or a class.

Students will only be permitted to register for a subsequent semester if they have paid all their financial obligations.

### 27.1 Application and Registration Fees

The application and registration fee for undergraduate programs and Professional Diploma in Teaching is AED 1,300. The fee should be paid in cash in one installment upon registration, and is not part of the tuition. The application and registration fee is non-refundable, except when the application is rejected in which case an amount of AED 1,000 will be refunded to the student.

A student who wishes to apply for transfer from another accredited institution will pay a non-refundable fee of AED 500. This fee shall be considered part of the application and registration fees if the student is admitted in Ajman University.

Students admitted to the Medicine, Dentistry, Pharmacy, Bachelor of Architecture and Doctorate of Business Administration are required to pay a seat reservation deposit as stated in the table below. This deposit is non-refundable and non-transferable and must be paid before the deadline stated on the letter of admission. This deposit is deductible from the student's tuition once the applicant joins the university. If the student asks to defer admission to the following semester and the request is approved, the deposit will be applied to the following semester.

| Program  | Deposit (AED) |
|--|---------------|
| DBA (Doctorate of Business Administration)             | 25,000        |
| Bachelor of Medicine and Bachelor of Surgery (M.B.B.S) | 25,000        |
| Doctor of Dental Surgery                               | 21,000        |
| Bachelor of Pharmacy                                   | 12,000        |

The application and registration fee for graduate programs is AED 2,000. The fee should be paid in cash in one installment upon registration, and is not part of the tuition. The application and registration fee is non-refundable, except when the application is rejected in which case an amount of AED 1,700 will be refunded to the student.

## 27.2 Tuition Fees

- Tuition fees for the Bachelor's programs offered at the university are as follows:

| College             |                 | Fees per year |
|---------------------|-----------------|---------------|
| College of Medicine | Foundation year | AED 75,000    |
|                     | Regular year    | AED 110,000   |

| College                                 |  | Fee per one credit hour |
|---|--|-------------------------|
| College of Dentistry                    |  | AED 2,100               |
| College of Pharmacy and Health Sciences |  | AED 1,575               |
| College of Mass Communication           |  | AED 1,100               |
| College of Law*                         |  | AED 1,200               |
| College of Engineering and IT           | B.Sc. in Biomedical Engineering  | AED 1,365               |
|   | B.Sc. in Civil Engineering   | AED 1,300               |
|   | B.Sc. in Mechanical Engineering  | AED 1,300               |
|   | B.Sc. in Electrical Eng. (Instrumentation & Control) *                                     | AED 1,365               |
|   | B.Sc. in Electrical Eng. (Electronics & Communication) *                                   | AED 1,365               |
|   | B.Sc. in Electrical Eng. (Power & Renewable Energy) *                                      | AED 1,365               |
|   | B.Sc. in Computer Engineering*   | AED 1,045               |
|   | B.Sc. in Information Systems*  | AED 1,045               |
|   | B.Sc. in Information Technology*   | AED 1,045               |
| College of Architecture, Art and Design | Bachelor of Architecture*  | AED 1,575               |
|   | Bachelor in Interior Design*   | AED 1,430               |
|   | Bachelor of Science in Building Engineering and Construction Management                    | AED 1,375               |
| College of Humanities and Sciences      | Bachelor of Education in Teacher Training Program in Arabic Language and Islamic Studies * | AED 1,045               |
|   | Bachelor of Education in Teacher Training Program in Mathematics and Science *             | AED 1,045               |

|                                     |   |           |
|-------------------------------------|---|-----------|
|                                     | Bachelor of Education in Teaching English as a Foreign Language * | AED 1,045 |
|                                     | Bachelor of Arts in Psychology                                    | AED 1,125 |
|                                     | Bachelor of Arts in Sociology and Social Work *                   | AED 1,125 |
| College of Business Administration* |   | AED 1,045 |
| General Education Program           |   | AED 1,250 |

*\* 20 % discount on tuition fees per semester.*

### c. Laboratory, Clinic and Studio Fees

Students registered in the programs offered by the College of Dentistry and College of Pharmacy & Health Sciences pay a flat semester fee for specialized laboratory sessions and clinics as shown in the table below:

| College | Dentistry     |                |                | Pharmacy  |
|---------|---------------|----------------|----------------|-----------|
|         | 1st -3rd year | 4th & 5th year |                |           |
| Fees    | AED 4,400     | Clinics        | Productive Lab | AED 2,860 |
|         |               | AED 6,600      | AED 3,300      |           |

This fee does not include the lab fees included in the study plan offered by other colleges.

- Students registered in the programs of Architecture and Interior Design will pay a studio fee of AED 1,650 per semester.
- Students registered in the program of Bachelor of Arts in Mass Communication will pay a studio fee of AED 1,100 per semester for each registered course having Radio/TV session.

## 27.3 Additional Fees

- Orientation Service Fee, provided during the first semester of enrolment: AED 1,250
- Additional lab fee for each registered course having lab sessions offered by colleges other than College of Dentistry and College of Pharmacy: AED 700
- Additional fee for courses having a tutorial sessions: AED 600
- Additional fee for graduation project courses at the College of Architecture, Art & design: AED 650
- Additional fee for graduation project courses at the College of Engineering & Information Technology: AED 650
- Additional fee for internship courses: AED 880

The university may and reserves the right to increase the tuition and other fees up to 10% per an academic year when deemed necessary.

5% VAT will be added to all the above fees as per Federal Law no. (8) of 2017 on Value Added Tax.

### Other AU Services:

- Student service fee per semester: AED 400
- ID card, per academic year: AED 35
- Application fee for an incomplete course: AED 500
- Grade grievance application: AED 200
- Extra copy of the academic transcript: AED 100
- Reference letter: AED 30
- Wall Certificate: AED 100
- Certification / Smart label: AED 250
- Graduation Regalia: AED 1000
- Financial Letter: AED 30
- Cheque Withdrawn Letter: AED 200
- Graduation Certificate Attestation: AED 100
- Locker Rent: AED 100
- ID Card Lost: AED 50
- Password Reset Fee: AED 20

## 27.4 Payment Terms for All Students – Semester Fees

In order to register in fall, spring and summer semesters, a student should pay an advance amount as follows:

| Colleges                         | Fall/ Spring | Summer    |
|----------------------------------|--------------|-----------|
| Medicine, Dentistry and Pharmacy | AED 10,000   | AED 3,000 |
| All other Colleges               | AED 6,000    | AED 3,000 |

Upon registration, students should pay the tuition fees in full in order to avoid the late payment fees or suspension of any or all AU services. The Office of Finance has the right to take any necessary action against any student who has not settled their due balance, including suspension of registration, dropping the registered courses, suspension of services, and ineligibility to attend exam sessions.

## 27.5 Fee Payment Deadlines and Late Payment Penalties

The following deadlines apply to the settlement of semester fees:

| Semester Payment  | Payment Deadline - A | Payment Deadline - B |
|-------------------|----------------------|----------------------|
| Fall Semester     | 5 October            | 5 December           |
| Spring Semester   | 5 March              | 5 May                |
| Summer Semester * | 5 July               |                      |

- **Late Payment Fee:** If payment is not completed by deadline A, a late payment fee of AED 500 will be charged.

- **Reinstatement fee:** If payment is not completed by deadline B, AU services will be suspended and only reinstated when the overall due balance is paid, **in addition to AED 1,500 reinstatement fee and the AED 500 late payment fee.**
- \* One final deadline applies to Summer Semester, in which case a late payment fee of AED 500 applies in case the above-mentioned payment deadline is exceeded.

**Note: The above-mentioned penalties will apply to any overdue balance, regardless of the amount, and will not be waived for any reason.**

## 27.6 Payment by Installments

If full fees cannot be paid immediately, installments can be arranged through post-dated cheques, which is subject to pre-approval of the Office of Finance, and as per the following due dates:

|           | Fall semester | Spring Semester |                              |
|-----------|---------------|-----------------|------------------------------|
| Due Dates | 5 September   | 5 February      | 25% of net remaining balance |
|           | 5 October     | 5 March         | 25% of net remaining balance |
|           | 5 November    | 5 April         | 25% of net remaining balance |
|           | 5 December    | 5 May           | 25% of net remaining balance |

- In case a student chooses to pay by installment plan, all cheques (dated as above and equivalent to the applicable percentages) must be submitted to the Office of Finance no later than 3 working days prior to the payment deadline A.
- Bounced Cheques are subject to a penalty of AED 500 fee per cheque.
- If student has two or more bounced cheques, then cheques are no longer a valid method of payments.
- Failure to attend a course does not result in a refund of applicable fees. Students not planning to attend any course must drop their registration during the add/ drop period.

For any related enquiries, please contact the Office of Finance as mentioned below:

| Section          | location                  | Time                 | Phone          | Email               |
|------------------|---------------------------|----------------------|----------------|---------------------|
| Student Accounts | Student Hub – First Floor | 8:00 am. To 4:00 pm. | +971-6-7056151 | finance@ajman.ac.ae |

## 27.7 Accepted Payment Methods

|  |  |
|--|--|
| <p><b>Online /<br/>Credit Cards</b></p>                        | <ul style="list-style-type: none"> <li>• Online through Banner system.</li> <li>• All major debit and credit cards are accepted for payment at the Cashier's Office.</li> </ul>  |
| <p><b>Cheques</b></p>  | <ul style="list-style-type: none"> <li>• Current and Post-dated cheques drawn on UAE Banks. Please include the student's name, University ID number and semester on the back of the cheque.</li> <li>• Acceptance of Post-dated cheques is subject to approval of the Office of Finance.</li> <li>• Cheques that do not clear for any reason are charged a penalty of AED 500 per cheque.</li> <li>• If two or more cheques do not clear, cheques are no longer accepted as a form of payment.</li> <li>• Cheque Withdrawal Fee of AED 200 will be charged per each withdrawn cheque.</li> </ul>   |
| <p><b>Cash Deposits<br/>through Al Ansari<br/>Exchange</b></p> | <ul style="list-style-type: none"> <li>• Deposits can be made at any branch of Al Ansari Exchange around UAE.</li> <li>• Deposits are accepted in the form of cash only.</li> <li>• Student's name and University ID number must be mentioned on the deposit instructions.</li> <li>• The deposit confirmation shall be scanned and emailed to <a href="mailto:finance@ajman.ac.ae">finance@ajman.ac.ae</a>.</li> </ul>  |
| <p><b>Bank Transfers/<br/>Deposits</b></p>                     | <p><b>Ajman Bank</b></p> <ul style="list-style-type: none"> <li>- Branch: Khalifa Branch - Ajman</li> <li>- Account Name: Ajman University of Science &amp; Technology</li> <li>- IBAN: AE720570000017482222011</li> <li>- SWIFT: AJMANAEAJ</li> </ul> <p><b>Mashreq Bank</b></p> <ul style="list-style-type: none"> <li>- Branch: Riqa Branch - Dubai</li> <li>- Account Name: Ajman University of Science &amp; Technology</li> <li>- IBAN: AE170330000010493141592</li> <li>- SWIFT: BOMLAEAD</li> </ul> <ul style="list-style-type: none"> <li>• Student's name and University ID number must be mentioned on all deposits and transfers.</li> <li>• The deposit slip or transfer confirmation shall be emailed to <a href="mailto:finance@ajman.ac.ae">finance@ajman.ac.ae</a>, or sent by fax to: +971 6 74 34 647.</li> </ul> |

## 27.8 Refund Policy

### a. Application and Registration fee

- The application and registration fee is not part of the tuition fees. It is non-refundable, except when the application is rejected. In this case, an amount of AED 1,000 will be refunded to the applicant.

### b. Add/Drop Period

- During the add/drop period, students may add or drop courses without incurring charges. If a student withdraws from one or more courses during the add/drop period, the fees of the dropped course(s) will be credited to the student account for the following semester.
- A student may withdraw from one or more course(s) after the end of the add/drop period, provided s/he remains registered in at least three courses during that semester (nine credit hours). In this case, the student does not have the right to claim any refund for the fees of the withdrawn courses.

### c. Suspension of Registration

- During the add/drop period, a student may submit an application for suspension of registration for one or a maximum of two consecutive semesters. The application should be submitted to the Office of Admissions and Registration. In this case, the full amount of any fees paid shall be credited in full to the student's account for the following semester, or refunded two weeks after the submission of the refund application to the Student Account Officer (at the Office of Finance).
- If the student submits an application for suspension of registration for one or two semesters during the two weeks following the end of the add/drop period, he/she shall be entitled to only 50 percent of the tuition fees of the semester in which he/she submits the application for suspension.
- If the student submits an application for suspension of registration after the end of the two weeks following the add/drop period, he/she will not be entitled to claim a refund of any part of the tuition fees of the semester in which he/she submits the application for suspension.
- If a student wishes to reclaim any amount from a credit balance – in case of suspension only, he/she must fill in an Application for Refund Form and submit it to the Student Account Officer (at the Office of Finance) after the end of the add/drop period. A cheque payment will be prepared within two weeks from receiving the application. If the student fails to do this, the amount will be credited to the student balance for the following semester.

### d. Withdrawal from the University

- During the add/drop period, the student may submit an application for suspension of registration and withdrawal from the University. The application should be submitted to the Office of Admissions and Registration. In this case, the student is entitled to a full refund of tuition fees paid for the semester in which he/she submits the application for withdrawal. The



refund will be made within 1 week after the submission of the application for refund to the Student Account Officer (at the Office of Finance).

- If the student makes an application for suspension of registration and withdrawal from the University within the two weeks following the end of the add/drop period, he/she is entitled to a refund of only 50 percent of the tuition fees for the semester in which he/she submits the application.
- The student shall not be entitled to claim a refund of any part of the tuition fees if the application for suspension of registration and withdrawal from the University is made more than two weeks after the end of the add/drop period.

**e. Disciplinary Dismissal**

A student who is dismissed from the University for Disciplinary Reasons is not entitled to any refund of tuition fees of the semester of dismissal.

## 27.9 Tuition Fee Waiver and Scholarships

**a. New students**

1. New students are entitled to a waiver of 20 percent of their tuition in the first semester of their study, after fulfillment of the English proficiency requirement, if:
  - The student obtains a minimum grade of 95 percent in secondary school final examinations (for the College of Medicine and College of Dentistry)
  - The student obtains a minimum grade of 90 percent in secondary school final examinations (for all other colleges)
2. High School students achieving 99% or above can avail a 30% scholarship in all colleges except the College of Medicine.
3. Top five students achieving 99% or above can avail a 30% scholarship in the College of Medicine.
4. Fresh students of the General Certificate of Secondary Education (GCSE) shall be awarded a discount possibly up to a 40% on their tuition fees in any undergraduate majors in the first semester only, except the College of Medicine and the College of Dentistry.-Further requirements need to be met as follows:
  - Equivalency of GCSE certificate from the UAE Ministry of Education
  - Score (B) in four GCSE subjects, level (O)
  - Score (C) in one (AS) or (A) subject
5. Fresh students of the Central Board of Secondary Education (CBSE) shall be awarded a discount possibly up to a 40% on their tuition fees in any undergraduate majors in the first semester only, except the College of Medicine and the College of Dentistry. Further requirements need to be met as follows:
  - Equivalency of CBSE certificate from the UAE Ministry of Education
  - 60% in Indian or Pakistani CBSE

### b. Continuing Students

**Continuing students are entitled to a reduction of 20 percent** of their tuition in a regular semester if they have obtained a GPA of 4.0, and completed successfully at least 15 credit hours during the previous semester.

Continuing students are entitled to a reduction of 15 percent of their tuition in a regular semester if they have obtained a GPA of (3.8 to 3.99) out of 4.0, and completed successfully at least 15 credit hours during the previous semester

Continuing students are entitled to a reduction of 10 percent of their tuition in a regular semester if they have obtained a GPA of (3.6 to 3.79) out of 4.0, and completed successfully at least 15 credit hours during the previous semester.

The university reserves the right to amend the secondary school grade or semester GPA required by students to be entitled to tuition fee reduction.

### c. Relatives Fee Waiver

**All sibling students and first degree relatives (parents and full siblings)** registered in any undergraduate program are eligible for a fee waiver from 5% to 20% according to their order of registration in the same semester (excluding the summer session), after submitting a request with copies of their passports through the website <https://ors.ajman.ac.ae>.

This fee reduction is not subject to the AGPA condition. It is applicable as follows:

| Sibling          | Waiver Rate |
|------------------|-------------|
| First            | 5%          |
| Second           | 10%         |
| Third            | 15%         |
| Fourth and above | 20%         |

### d. Performance Fee Waiver

Exemptions from tuition fees shall be granted to the top three academically outstanding students in each college during each regular semester following their achievement as below:

- 100% for the first college honor student
- 75% for the second college honor student
- 50% for the third college honor student

### e. Top Secondary School Students Waiver

Top students in secondary schools around UAE AND the emirate of Ajman shall have the following scholarships throughout his/her study period:

- 100% First Top Student
- 75% Second Top Student
- 50% Third Top Student

**f. High school top student around some countries:**

The first Top student on all secondary schools around the following countries shall have a 100% scholarship throughout his/her study period:

|                      |               |                 |                 |
|----------------------|---------------|-----------------|-----------------|
| 1. Saudi Arabia      | 7. Jordan     | 13. Tunisia     | 19. Philippines |
| 2. Sultanate of Oman | 8. Lebanon    | 14. Morocco     | 20. Nigeria     |
| 3. Kuwait            | 9. Syria      | 15. Afghanistan | 21. Korea       |
| 4. Bahrain           | 10. Egypt     | 16. Pakistan    | 22. China       |
| 5. Iraq              | 11. The Sudan | 17. Kazakhstan  | 23. Kenya       |
| 6. Palestine         | 12. Algeria   | 18. India       | 24. Ghana       |

**g. Scholarships of Ajman Government**

Ajman University grants a number of scholarships and discounts to Ajman-based Emirati students as well as local and federal government employees in accordance with the terms and conditions specified in the Policy of Scholarships and Financial Aid.

**h. AU Staff Discounts:**

A permanent faculty member as well as the administrative/technical staff will be given a discount for his/her family) wife/Husband, Sons, Brothers/Sisters) as per the scholarship & discount regulations

**i. Discounts for Ajman University graduates:**

AU Graduates will be given a discount for him & his/her family) wife/Husband, Sons) from 10%-50% as per the scholarship & discount regulations

**j. Discounts for the Determined:**

Determined students shall be entitled to a discount throughout their study at the Ajman University. The discount spans all undergraduate majors. The amount of discount shall be approved by the AU Chancellor. The student must maintain an average CGPA of (2.00) or more. The student must visit the AU clinic and have his/her case approved.

**k. Referred friend:** Current AU students can earn a 20% Tuition Discount for referring New Students. To be eligible, a minimum of FIVE students must be referred and enrolled to AU:

- Share your AU story with a colleague, family member or a friend who may be interested in joining one of our academic programs.
- Once the new students enroll and completes one semester, you will receive your referral discount.
- In case the referred student has already applied to Ajman University, the referral will be disqualified.
- If the current student is a sibling, s/he cannot claim the referral discount.

**l. General provisions**

- Scholarships and discounts apply only to tuition and lab fees. Fees relating to registration, training, accommodation, transportation, textbooks, summer sessions and other administrative fees are not included.
- Scholarships/discounts apply only to fall and spring semesters. The summer session is not included.
- Scholarships/discounts do not cover the fees for failed courses or courses dropped beyond the add & drop deadline.

- Unless the student benefits from an external sponsorship as well as an AU discount, he/she may not combine two types of discounts at the same time. The highest discount is applied.
- The student may change his/her major within the same college. He/she shall bear the cost of all courses, which cannot be equated.
- The student is entitled to the discount only after submitting the English proficiency certificate and before the end of the Add & Drop period in the semester in which the scholarship/discount is granted after joining the University. The scholarship/discount may not be deferred to the following semester.
- All above-mentioned tuition fee reductions are subject to general eligibility conditions as specified in the University Policies & Regulations. For more details, please contact the Office of Scholarship and Financial Aid.

#### m. Financial aids

In May 2013, Ajman University established Thamer Fund for Educational Solidarity as a community initiative to help financially challenged students pursue their university studies.

#### Thamer Fund provides assistance to the following categories of students:

- Students who suspended their studies because of pending financial dues.
- Full-time students who have completed a minimum of 30 credit hours of study at Ajman University and whose academic progress is challenged by pending financial dues.

#### Eligibility

To be eligible for the Fund's support, the applicant:

- Should be enrolled at AU and should be eligible for financial support.
- Should not have been subject to a disciplinary penalty by AU Student Disciplinary Committee, except for verbal or written warnings.
- Should not be benefiting from an external aid or internal scholarship, except for discounts described in AU's relevant regulations.

#### How to apply

1. Submit Thamer Fund application through the website <https://ors.ajman.ac.ae> and follow up with Mr. Mahran Alturokmani. Phone: (06/7056906).
2. Provide the required information authenticated by the relevant AU Offices.
3. Fill out the Thamer Fund Form.
4. Provide the applicant's financial and academic records for data validation.
5. Provide the following duly attested and valid documents:
  - Passport copies of family members.
  - Tenancy contract with electricity and water bills.
  - Salary certificate of the breadwinner.
  - Breadwinner's bank statement for the last 6 months.
  - Other tuition bills, if any.

- Medical certificates, if any.
  - Death certificate of the breadwinner, if any.
  - All relevant supporting documents.
6. Incomplete applications are not considered.
  7. The Office of Scholarships and Financial Aid reviews the applications and supporting documents and submits them to the Executive Committee to take decisions thereon.
  8. The Executive Committee submits recommendations to the Fund's Council regarding each application.
  9. Applicants are notified of the Council's decision by SMS and email.

### **Books**

The university will supply course textbooks to students at reasonable prices. It should be noted, however, that a student in receipt of a fee exemption as listed above will pay the full prices for the books.

### **27.10 Books**

The university will supply course textbooks to students at reasonable prices. It should be noted, however, that a student in receipt of a fee exemption as listed above will pay the full prices for the books.

## College of Business Administration

College of Business Administration (CBA) is one of the most credible business colleges in the region that is committed to the development and enhancement of knowledge and business skills of its students to enable them to understand the modern business world, to achieve the highest levels of success in their professional careers, and to play effective leadership roles regionally as well as globally.

College of Business Administration (CBA) is committed to providing high-quality business education. The remarkable growth in economic and business activity in the world in general and Arabian Gulf region in particular, over the past decade, has greatly stimulated the demand for skilled and competent business graduates. Our competitive degree programs are, therefore, developed to offer both local and global perspectives as well encourage our students to think out of the box and innovatively so as to not only be equipped with the knowledge, skills and attitudes they need to effectively address the challenges and opportunities of today's internationalized and fast evolving business environment but also emerge as business leaders of tomorrow.

We strive to provide the best and most modern methods of instructions to our students. Our diligent and highly qualified faculty members ensure that our curriculum is consistently updated in order to reflect and keep up with the ever evolving trends and techniques of the contemporary business world.

Please browse our webpages to see the range of degree programs and courses that are offered at CBA.

### CBA Vision

To be the premier institution in the UAE providing cutting edge and socially responsible business education.

### CBA Mission

To provide a contemporary business education in a diverse and culturally sensitive environment that fosters community engagement and enhances employability.

### CBA Strategic Goals

1. Maintain and enhance a practice-oriented business curriculum that adheres to national and international quality standards.
2. Recruit, develop and maintain a qualified, productive and motivated faculty.
3. Promote research activities that apply business theory to a further understanding of the drivers and inhibitors in the practice of business.
4. Foster the development of a diverse student body in settings that respect our Arab heritage.
5. Develop strategic engagement initiatives that build sustainable ties with distinguished partners in the UAE and beyond.

### CBA Core Values

CBA core values have been developed to be consistent with AU's mission and values. The core values of the CBA are in line with that of AU as presented in table 1 below.

The College of Business Administration (CBA) vision, mission, and core values have been derived from that of Ajman University. The following core values guide the College of Business Administration in the performance of its mission.

**Excellence:** Commit to excellence in our teaching, research and community service.

**Student-Centered:** Provide an experiential learning environment that fosters strong relationships and student success.

**Diversity and Inclusion:** Accept and respect human, social and cultural differences.

**Social Responsibility:** Promote citizenship skills and sustainable practices in the use of economic, ecological and social resources.

**Continuous Learning:** Instilling students with a desire to become life-long learners.

**Integrity:** Commit to individual and institutional integrity; integrate the awareness of ethical issues into student learning activities.

## Academic Programs

The college offers four bachelor programs and three MBA tracks, providing students with the theoretical and practical backgrounds that form an excellent foundation for satisfying career requirements or for subsequent graduate degree. The department's undergraduate programs have been reaccredited by the UAE Ministry of Education – Higher education Affairs, and the MBA programs are also accredited.

The four bachelor degree programs, Management, Accounting, Marketing and Finance each require four years of study. The Master of Business Administration program has three tracks, each of which takes two years of study: HR Management, Financial Management and Marketing.

### CBA Undergraduate Programs

- Bachelor of Science in Accounting
- Bachelor of Science in Finance
- Bachelor of Science in Management
- Bachelor of Science in Marketing

### CBA Graduate Programs

- MBA in Human Resources Management
- MBA in Financial Management
- MBA in Marketing

### CBA Minors within the College of Business

- Minor in Accounting
- Minor in Finance
- Minor in Management
- Minor in Marketing

### CBA Minors for Other Colleges

- Minor in Management to the College of Engineering & IT.
- Minor in Accounting to the Department of IT.
- Minor in Marketing to the College of Pharmacy.

### CBA Departments

- Department of Accounting
- Department of Finance
- Department of Management
- Department of Marketing

### Facilities

The college's current physical facilities, which include offices, labs and teaching rooms, sports grounds, health club and swimming pool are fully equipped to adequately meet its needs and are regularly upgraded. The library is regularly updated with the latest books in multiple fields and disciplines for the benefit of students and college members. IT facilities include:

- wireless internet connection, available in the university campus
- Internet labs available 14 hours per day
- multimedia facilities provided in all labs
- more than 12 business programs installed in the labs
- college computers connected through local and wide area networks

## DEPARTMENT OF MANAGEMENT

The Department of Management offers a comprehensive and dynamic program leading to the Bachelor of Science in Management, which integrates multidisciplinary approaches to teaching and learning, utilizes the latest business and economic theories along with providing practical exposure to its students through real-life case studies and analysis of actual business data and presentations. The department focuses on building and enhancing students' essential skills, like, critical thinking, effective communication skills, business acumen and understanding of strategic models that are used in modern business world, in order to facilitate their entry into the global business arena as exceptional and professional managers and entrepreneurs.

### Bachelor of Science in Management

#### Vision

To be a highly reputable management program providing quality management education and practicable knowledge within the region.

#### Mission

To equip students with cutting-edge business education that prepares them to be innovative, ethical and competent in communication, problem-solving and decision-making, ready to contribute to the development of the region and beyond.



### Program Learning Outcomes (PLOs)

1. Demonstrate in-depth knowledge and understanding of theories, concept and principles used in business and management practices.
2. Apply concepts, techniques and ethical practices in decision-making and problem solving in business and management environment.
3. Acquire substantive management knowledge, and demonstrate competencies required by employers to practice quality management in different business types and functional area
4. Understand the fundamental concepts in business strategies, strategic management, innovation and global business management.
5. Apply and utilize information technology in managing different business sectors and enhancing organizational development and change
6. Develop critical thinking and innovative skills by applying business research concepts and processes into practice and writing research reports.

### Alignment of Management PLOs with the QF Emirates

| Program Learning Outcomes (PLOs)   | Knowledge | Skills | Aspects of Competence     |                 |                  |
|--|-----------|--------|---------------------------|-----------------|------------------|
|  |           |        | Autonomy & Responsibility | Role in Context | Self development |
| 1. Demonstrate in-depth knowledge and understanding of theories, concept and principles used in business and management practices.   |           | ✓      |                           | ✓               |                  |
| 2. Apply concepts, techniques and ethical practices in decision-making and problem solving in business and management environment.   | ✓         |        | ✓                         |                 | ✓                |
| 3. Acquire substantive management knowledge, and demonstrate competencies required by employers to practice quality management in different business types and functional area |           | ✓      | ✓                         | ✓               | ✓                |
| 4. Understand the fundamental concepts in business strategies, strategic management, innovation and global business management.  | ✓         | ✓      |                           | ✓               |                  |
| 5. Apply and utilize information technology in managing different business sectors and enhancing organizational development and change   |           | ✓      | ✓                         | ✓               | ✓                |
| 6. Develop critical thinking and innovative skills by applying business research concepts and processes into practice and writing research reports.                            | ✓         | ✓      |                           | ✓               | ✓                |

## Admission Requirements

The normal admission requirement for an applicant is the UAE Secondary School Certificate (both sections), or an equivalent qualification, with a minimum average grade of 60 percent, & TOEFL certificate with a minimum score of 500.

## Career Opportunities

Management is the art of getting things done by others. Hence, the need for future managers never stops, particularly for those who are equipped with the latest managerial knowledge skills and the ability to think analytically.

The Bachelor of Science in Management program has been carefully crafted to meet market demands qualitatively. The program is intended to produce graduates who will be efficient and effective managers able to achieve organizational objectives. AU management graduates have been well received in the job markets of the UAE and other Arabian Gulf countries for their outstanding teamwork, and creative and management leadership skills.

## Graduation Requirements

Students will be awarded the Bachelor of Science in Management degree upon fulfillment of the following requirements:

- Successful completion of 126 credit hours, which normally takes eight semesters.
- 8 weeks of industrial internship (after the completion of 96 credit hours including seven major courses).
- A minimum Cumulative Grade Point Average of 2.0.

## Degree Requirements

The BSc in Management degree requires the completion of 126 credit hours distributed according to the following plan:

| Type of Courses                                     | Credit Hours |
|---|--------------|
| <b>1. University General Education Requirements</b> | <b>24</b>    |
| (a) University Required Courses                     | 15           |
| (b) University Elective Courses                     | 9            |
| <b>2. College Requirements</b>                      | <b>66</b>    |
| (a) College Required Courses                        | 54           |
| (b) College Elective Courses                        | 12           |
| <b>3. Major Requirements</b>                        | <b>36</b>    |
| (a) Major Required Courses                          | 30           |
| (b) Major Electives Courses                         | 6            |
| <b>Total Credit Hours</b>                           | <b>126</b>   |

**(A) UNIVERSITY GENERAL EDUCATION REQUIREMENTS**
**(a) University Compulsory Courses (15 Credit Hours)**

| Course No. | Course Title  | Cr. Hrs. | Prerequisite        |
|------------|---|----------|---------------------|
| ARB 111    | Communication Skills in Arabic Language (For Arabs)     | 3        |                     |
| ARB 112    | Communication Skills in Arabic Language (For Non Arabs) |          |                     |
| ISH 211    | Islamic Civilization (Arabic)                           | 3        |                     |
| ISL 114    | Islamic Culture   |          |                     |
| ISL 112    | Islamic Culture (Non Arabs)                             |          |                     |
| INN 311    | Innovation and Entrepreneurship                         | 3        | Earning 60 Cr. Hrs. |
| COM 111    | IT Fundamentals   | 3        |                     |
| STA 111    | Statistics (Business)                                   | 3        |                     |

**(b) University Elective Courses (9 Credit Hours)**

| Course No. | Course Title                           | Cr. Hrs. | Prerequisite |
|------------|--|----------|--------------|
| ARB 113    | The Art of Written Expression (Arabic) | 3        | -            |
| LAW 111    | Legal Culture                          | 3        | -            |
| ART 111    | Introduction to Art (English)          | 3        | -            |
| ART 211    | Introduction to Digital Photography    | 3        | -            |
| ART 112    | Introduction to Aesthetics (English)   | 3        | -            |
| FRE 211    | French Language                        | 3        | -            |
| ISL 211    | Introduction to Hadeeth and Sunna      | 3        | -            |
| ENG 113    | Academic Writing (English)             | 3        | -            |
| ENG 211    | The Art of Public Speaking (English)   | 3        | -            |
| AST 211    | Astronomy                              | 3        | -            |
| PHY 111    | Physics                                | 3        | -            |
| ENV 111    | Environmental Science (English)        | 3        | -            |
| RES 211    | Research Methodology (English)         | 3        | -            |
| ISH 111    | History of Science in Islam            | 3        | -            |
| PIO 211    | Scientific Pioneering                  | 3        | -            |
| CHM 111    | General Chemistry                      | 3        | -            |
| NUT 111    | Fundamental of Human Nutrition         | 3        | -            |
| AID 111    | First Aid                              | 3        | -            |
| BIO 111    | General Biology                        | 3        | -            |

|         |                                |   |   |
|---------|--------------------------------|---|---|
| ENG 111 | English Communication Skills   | 3 | - |
| PSY 111 | General Psychology             | 3 | - |
| SOC 112 | Communication between Cultures | 3 | - |
| THI 211 | Critical Thinking (English)    | 3 | - |
| EMS 111 | Emirates Society (English)     | 3 | - |
| INF 113 | Library Information System     | 3 | - |

## (B) COLLEGE REQUIREMENTS (66 Credit Hours)

### a. College Compulsory Courses (54 Credit Hours)

|    | Course Title                   | Course Code | Prerequisites                         | Credit Hours |
|----|--------------------------------|-------------|---------------------------------------|--------------|
| 1  | Statistics for Business        | STA 231     | STA 111                               | 3            |
| 2  | Business Research Method       | MGT 312     | MGT 200 & STA 231                     | 3            |
| 3  | Principles of Accounting I     | ACC 200     | -                                     | 3            |
| 4  | Principles of Accounting II    | ACC 220     | ACC 200                               | 3            |
| 5  | Introduction to Management     | MGT 200     | -                                     | 3            |
| 6  | Fundamentals of Finance        | FIN 210     | ACC 200                               | 3            |
| 7  | Microeconomics                 | ECO 200     | -                                     | 3            |
| 8  | Business Communication         | MGT 311     | MGT 200                               | 3            |
| 9  | Principles of Marketing        | MKT 200     | MGT 200                               | 3            |
| 10 | Business Law                   | MGT 301     | MGT 200                               | 3            |
| 11 | Management Information Systems | MGT 401     | MGT 200 & INT 300                     | 3            |
| 12 | Organizational Behavior        | MGT 300     | MGT 200                               | 3            |
| 13 | Macroeconomics                 | ECO 210     | ECO 200                               | 3            |
| 14 | Data Base Management Systems   | INT 300     | COM 111                               | 3            |
| 15 | Quantitative Analysis          | ECO 310     | MTH 131 & STA 231                     | 3            |
| 16 | Supervised Training            | MGT 470     | 96 Cr. Hrs. including 7 Major Courses | 3            |
| 17 | IT in Business                 | INT 103     | COM111                                | 3            |
| 18 | Math for Management            | MTH 131     | -                                     | 3            |

**College Requirements: Elective Courses (12 Credit Hours)**

|   | Course Title                     | Course Code | Prerequisites     | Credit Hours |
|---|----------------------------------|-------------|-------------------|--------------|
| 1 | Enterprise Resource Planning ERP | ACC 250     | MGT 200 & ACC 200 | 3            |
| 2 | Business Ethics                  | MGT 323     | -                 | 3            |
| 3 | Economic Development of GCC      | ECO 320     | ECO 210           | 3            |
| 4 | Managerial Economics             | ECO 311     | ECO 210           | 3            |
| 5 | Public Relations                 | MGT 325     | MGT311            | 3            |
| 6 | Feasibility Studies & Proj Eval. | MGT 313     | ECO 200 & FIN 210 | 3            |
| 7 | Hospitality & Tourism            | MKT 413     | MKT 200           | 3            |
| 8 | Social Media                     | MKT 423     | MKT 200           | 3            |
| 9 | Business English                 | MGT 201     | -                 | 3            |

**MAJOR REQUIREMENTS (36 Credit Hours)**
**Major Obligatory Courses (30 Cr. Hrs.)**

|     | Course Title                         | Course Code | Prerequisites                    | Credit Hours |
|-----|--------------------------------------|-------------|----------------------------------|--------------|
| 1.  | Production and Operations Management | MGT 211     | MGT 200, STA231                  | 3            |
| 2.  | Human Resource Management            | MGT 202     | MGT 200                          | 3            |
| 3.  | Purchasing & Materials Management    | MGT 221     | MGT 211                          | 3            |
| 4.  | Management of Small Business         | MGT 212     | MGT 200                          | 3            |
| 5.  | Organization Theory and Design       | MGT 320     | MGT 300                          | 3            |
| 6.  | Total Quality Management             | MGT 321     | MGT 211                          | 3            |
| 7.  | Strategic Management                 | MGT 400     | MGT 300, MKT 200, FIN 210        | 3            |
| 8.  | International Business               | MGT 411     | MGT200, ECO 200                  | 3            |
| 9.  | Selected Topics in Management        | MGT 421     | MGT400                           | 3            |
| 10. | Graduation Project                   | MGT 402     | Completion 102 Cr. Hrs & MGT 312 | 3            |

### Major Elective Courses (6 Cr. Hrs.)

| No. | Course Title                        | Course Code | Prerequisites    | Credit Hours |
|-----|-------------------------------------|-------------|------------------|--------------|
| 1   | Project Management                  | MGT 422     | MGT 200          | 3            |
| 2   | Electronic Business                 | MGT 423     | MGT 200, COM 111 | 3            |
| 3   | Service Marketing                   | MKT 212     | MKT 200          | 3            |
| 4   | Personal Finance                    | FIN 322     | FIN 210          | 3            |
| 5   | Computer Applications in Management | MGT 322     | MGT 200, COM 111 | 3            |

### Study Plan

#### Semester 1

| Course No. | Course Title                            | Contact & Credit Hrs. |     |     |          | Prerequisite |
|------------|---|-----------------------|-----|-----|----------|--------------|
|            |   | Lec                   | Lab | Tut | Cr. Hrs. |              |
| ISL 114    | Islamic Culture                         | 3                     | 0   | 1   | 3        | -            |
| ARB 111    | Communication Skills in Arabic Language | 3                     | 0   | 0   | 3        | -            |
| STA 111    | Statistics                              | 2                     | 2   | 0   | 3        | -            |
| COM111     | IT Fundamentals                         | 2                     | 2   | 0   | 3        | -            |
| -          | University Elective - 1                 | 3                     | 0   | 0   | 3        | -            |
| Total      |   | 13                    | 2   | 1   | 15       |              |

#### Semester 2

| Course No. | Course Title               | Contact & Credit Hrs. |     |     |          | Prerequisite |
|------------|----------------------------|-----------------------|-----|-----|----------|--------------|
|            |                            | Lec                   | Lab | Tut | Cr. Hrs. |              |
| ECO 200    | Microeconomics             | 3                     | 0   | 0   | 3        | -            |
| MGT 200    | Introduction to Management | 3                     | 0   | 0   | 3        |              |
| ACC 200    | Principles of Accounting I | 3                     | 0   | 0   | 3        | -            |
| STA 231    | Statistics for Business    | 3                     | 0   | 0   | 3        | STA 111      |
| -          | University Elective - 2    | 3                     | 0   | 0   | 3        | -            |
| Total      |                            | 15                    | 0   | 0   | 15       |              |

**Semester 3**

| Course No. | Course Title                | Contact & Credit Hrs. |     |     |          | Prerequisite  |
|------------|-----------------------------|-----------------------|-----|-----|----------|---------------|
|            |                             | Lec                   | Lab | Tut | Cr. Hrs. |               |
| ACC 220    | Principles of Accounting II | 3                     | 0   | 0   | 3        | ACC200        |
| MGT        | Business Research Methods   | 3                     | 0   | 0   | 3        | STA231,MGT200 |
| MKT 200    | Principles of Marketing     | 3                     | 0   | 0   | 3        | MGT200        |
| FIN 210    | Fundamentals of Finance     | 3                     | 0   | 0   | 3        | ACC200        |
| -          | University Elective - 3     | 3                     | 0   | 0   | 3        |               |
| Total      |                             | 15                    | 0   | 0   | 15       |               |

**Semester 4**

| Course No. | Course Title         | Contact & Credit Hrs. |     |     |          | Prerequisite |
|------------|----------------------|-----------------------|-----|-----|----------|--------------|
|            |                      | Lec                   | Lab | Tut | Cr. Hrs. |              |
| MTH 131    | Math for Management  | 3                     | 0   | 2   | 3        | -            |
| MGT 301    | Business Law         | 3                     | 0   | 0   | 3        | MGT200       |
| INT 300    | DBMS                 | 2                     | 2   | 0   | 3        | COM111       |
| ECO 210    | Macroeconomics       | 3                     | 0   | 0   | 3        | ECO200       |
| INT 103    | IT in Business       | 2                     | 2   | 0   | 3        | COM111       |
| -          | College Elective – 1 | 3                     | 0   | 0   | 3        | -            |
| Total      |                      | 16                    | 4   | 2   | 18       |              |

**Semester 5**

| Course No. | Course Title                        | Contact & Credit Hrs. |     |     |          | Prerequisite     |
|------------|-------------------------------------|-----------------------|-----|-----|----------|------------------|
|            |                                     | Lec                   | Lab | Tut | Cr. Hrs. |                  |
| ECO 310    | Quantitative Analysis               | 3                     | 0   | 0   | 3        | MTH131, STA231   |
| MGT 211    | Production and Operation Management | 3                     | 0   | 0   | 3        | STA 111, MGT 200 |
| MGT 202    | Human Resource Management           | 3                     | 0   | 0   | 3        | MGT 200          |
| MGT 311    | Business Communication              | 3                     | 0   | 0   | 3        | MGT 200          |
| -          | College Elective – 2                | 3                     | 0   | 0   | 3        |                  |
| Total      |                                     | 15                    | 0   | 0   | 15       |                  |

### Semester 6

| Course No. | Course Title                        | Contact & Credit Hrs. |     |     |          | Prerequisite        |
|------------|-------------------------------------|-----------------------|-----|-----|----------|---------------------|
|            |                                     | Lec                   | Lab | Tut | Cr. Hrs. |                     |
| MGT 221    | Purchasing and Materials Management | 3                     | 0   | 0   | 3        | MGT 211             |
| MGT 411    | International Business              | 3                     | 0   | 0   | 3        | ECO 210, MGT 200    |
|            | College Elective - 3                | 3                     | 0   | 0   | 3        |                     |
| MGT 401    | MIS                                 | 3                     | 0   | 0   | 3        | MGT 200, INT 300    |
| MGT 300    | Organizational Behavior             | 3                     | 0   | 0   | 3        | MGT 200             |
| INN 311    | Innovation and Entrepreneurship     | 3                     | 0   | 0   | 3        | Earning 60 Cr. Hrs. |
| Total      |                                     | 18                    | 0   | 0   | 18       |                     |

### Semester 7

| Course No. | Course Title             | Contact & Credit Hrs. |     |     |          | Prerequisite             |
|------------|--------------------------|-----------------------|-----|-----|----------|--------------------------|
|            |                          | Lec                   | Lab | Tut | Cr. Hrs. |                          |
| MGT 400    | Strategic Management     | 3                     | 0   | 0   | 3        | FIN 210, MGT 300, MKT200 |
| MGT 321    | Total Quality Management | 3                     | 0   | 0   | 3        | MGT 211                  |
| MGT 470    | Supervised Training      | 3                     | 0   | 0   | 3        | Earning 96 Cr. Hrs.      |
| -          | College Elective - 4     | 3                     | 0   | 0   | 3        |                          |
| -          | Major Elective - 1       | 3                     | 0   | 0   | 3        |                          |
| Total      |                          | 15                    | 0   | 0   | 15       |                          |

### Semester 8

| Course No. | Course Title                   | Contact & Credit Hrs. |     |     |          | Prerequisite          |
|------------|--------------------------------|-----------------------|-----|-----|----------|-----------------------|
|            |                                | Lec                   | Lab | Tut | Cr. Hrs. |                       |
| MGT 320    | Organizational Theory & Design | 3                     | 0   | 0   | 3        | MGT 200, MGT 300      |
| MGT 402    | Graduation Project             | 3                     | 0   | 0   | 3        | 102 Cr. Hrs., MGT 312 |
| MGT 421    | Selected Topics in Management  | 3                     | 0   | 0   | 3        | MGT 400               |
| MGT 212    | Management of Small Business   | 3                     | 0   | 0   | 3        | MGT 200               |
|            | Major Elective - 2             | 3                     | 0   | 0   | 3        | -                     |
| Total      |                                | 15                    | 0   | 0   | 15       |                       |



## DEPARTMENT OF ACCOUNTING

Accounting, described as “The Language of Business”, is the study of the concepts and techniques used in reporting on matters related to an entity’s financial status and performance. Entities compete in both input and product markets that is why accounting information is essential for managers to plan and control business activities. Information generated through the accounting process helps in communication and analysis of financial reports that are required for business decision-making.

### Bachelor of Science in Accounting

#### Vision

To be a premier accounting program providing quality accounting education and practice in the UAE and beyond.

#### Mission

Provides rigorous accounting education and professional practice based on different skills, values, and competencies to enhance employability.

#### Program Learning Outcomes (PLOs)

1. Perform the steps of the accounting cycle, including preparing financial statements in accordance with international standards.
2. Acquire substantive accounting knowledge, and/or demonstrate competencies required by employers to ethically practice auditing and accounting in different functional areas.
3. Develop cost and managerial accounting information and use it to make decisions for internal company purposes and problem solving.
4. Prepare and communicate financial information for profit and not for profit organizations.
5. Apply and critically analyze accounting models to solve accounting problems through case analysis and writing research report.
6. Utilize information technology in making business decisions.

#### Alignment of Accounting PLOs with the QF Emirates

| Program Learning Outcomes (PLOs)  | Knowledge | Skills | Aspects of Competence     |                 |                  |
|---|-----------|--------|---------------------------|-----------------|------------------|
|   |           |        | Autonomy & Responsibility | Role in Context | Self development |
| 1. Perform the steps of the accounting cycle, including preparing financial statements in accordance with international standards.  |           | ✓      |                           | ✓               |                  |
| 2. Acquire substantive accounting knowledge, and/or demonstrate competencies required by employers to ethically practice auditing and accounting in different functional areas. | ✓         |        | ✓                         |                 | ✓                |

|   |   |   |   |   |   |
|---|---|---|---|---|---|
| 3. Develop cost other managerial accounting information and use it to make decisions for internal company purposes and problem solving. |   | ✓ | ✓ | ✓ | ✓ |
| 4. Prepare and communicate financial information for profit and not for profit organizations.   | ✓ | ✓ |   | ✓ |   |
| 5. Apply and critically analyze accounting models to solve accounting problems through case analysis and writing research report.       |   | ✓ | ✓ | ✓ | ✓ |
| 6. Utilize information technology in making business decisions.   | ✓ | ✓ |   | ✓ | ✓ |

### Admission Requirements

The normal entry requirement is the UAE Secondary School Certificate, or an equivalent qualification, with a minimum average grade of 60 percent, & TOEFL certificate with a minimum score of 500.

### Career Opportunities

A career in accounting offers the potential of a larger number of job openings than in many other disciplines. A qualification in accounting today opens the door to careers in business, NGOs and government units, preparing graduates for work in any of the following areas: financial reporting, public practice, strategic business planning, cost and management accounting, information systems, insolvency and reconstruction, accounting and finance consulting, and business analysis and evaluation. In addition to employment our graduates are equipped to pursue postgraduate study in accounting and finance as well as professional certification, for example CPA, CMA, CFA, ACCA and CIA.

### Graduation Requirements

Students will be awarded the Bachelor of Science in Accounting degree upon fulfillment of the following requirements:

- Successful completion of 126 credit hours, which normally takes eight semesters.
- 8 weeks of industrial internship (after the completion of 96 credit hours including seven major courses)
- A minimum Cumulative Grade Point Average of 2.0.

### Degree Requirements

The BSc in Accounting degree requires the completion of 126 credit hours distributed according to the following plan:

| Type of Courses                                     | Credit Hours |
|---|--------------|
| <b>1. University General Education Requirements</b> | <b>24</b>    |
| (a) University Required Courses                     | 15           |
| (b) University Elective Courses                     | 9            |
| <b>2. College Requirements</b>                      | <b>66</b>    |
| (a) College Compulsory Courses                      | 54           |

|                              |           |
|------------------------------|-----------|
| (b) College Elective Courses | 12        |
| <b>3. Major Requirements</b> | <b>36</b> |
| (a) Major Compulsory Courses | 33        |
| (b) Major Electives Courses  | 3         |
| Total Credit Hours           | 126       |

## (A) UNIVERSITY GENERAL EDUCATION REQUIREMENTS

### (a) University Compulsory Courses (15 Credit Hours)

| Course No. | Course Title  | Cr. Hrs. | Prerequisite        |
|------------|---|----------|---------------------|
| ARB 111    | Communication Skills in Arabic Language (For Arabs)     | 3        |                     |
| ARB 112    | Communication Skills in Arabic Language (For Non Arabs) |          |                     |
| ISH 211    | Islamic Civilization (Arabic)                           | 3        |                     |
| ISL 114    | Islamic Culture   |          |                     |
| ISL 112    | Islamic Culture (Non Arabs)                             |          |                     |
| INN 311    | Innovation and Entrepreneurship                         | 3        | Earning 60 Cr. Hrs. |
| COM 111    | IT Fundamentals   | 3        |                     |
| STA 111    | Statistics (Business)                                   | 3        |                     |

### (b) University Elective Courses (9 Credit Hours)

| Course No. | Course Title                           | Cr. Hrs. | Prerequisite |
|------------|--|----------|--------------|
| ARB 113    | The Art of Written Expression (Arabic) | 3        | -            |
| LAW 111    | Legal Culture                          | 3        | -            |
| ART 111    | Introduction to Art (English)          | 3        | -            |
| ART 211    | Introduction to Digital Photography    | 3        | -            |
| ART 112    | Introduction to Aesthetics (English)   | 3        | -            |
| FRE 211    | French Language                        | 3        | -            |
| ISL 211    | Introduction to Hadeeth and Sunna      | 3        | -            |
| ENG 113    | Academic Writing (English)             | 3        | -            |
| ENG 211    | The Art of Public Speaking (English)   | 3        | -            |
| AST 211    | Astronomy                              | 3        | -            |
| PHY 111    | Physics                                | 3        | -            |

|         |                                 |   |   |
|---------|---------------------------------|---|---|
| ENV 111 | Environmental Science (English) | 3 | - |
| RES 211 | Research Methodology (English)  | 3 | - |
| ISH 111 | History of Science in Islam     | 3 | - |
| PIO 211 | Scientific Pioneering           | 3 | - |
| CHM 111 | General Chemistry               | 3 | - |
| NUT 111 | Fundamental of Human Nutrition  | 3 | - |
| AID 111 | First Aid                       | 3 | - |
| BIO 111 | General Biology                 | 3 | - |
| ENG 111 | English Communication Skills    | 3 | - |
| PSY 111 | General Psychology              | 3 | - |
| SOC 112 | Communication between Cultures  | 3 | - |
| THI 211 | Critical Thinking (English)     | 3 | - |
| EMS 111 | Emirates Society (English)      | 3 | - |
| INF 113 | Library Information System      | 3 | - |

## (B) COLLEGE REQUIREMENTS (66 Credit Hours)

### a. College Compulsory Courses (54 Credit Hours)

|    | Course Title                   | Course Code | Prerequisites     | Credit Hours |
|----|--------------------------------|-------------|-------------------|--------------|
| 1  | Statistics for Business        | STA 231     | STA 111           | 3            |
| 2  | Business Research Method       | MGT 312     | MGT 200 & STA 231 | 3            |
| 3  | Principles of Accounting I     | ACC 200     | -                 | 3            |
| 4  | Principles of Accounting II    | ACC 220     | ACC 200           | 3            |
| 5  | Introduction to Management     | MGT 200     | -                 | 3            |
| 6  | Fundamentals of Finance        | FIN 210     | ACC 200           | 3            |
| 7  | Microeconomics                 | ECO 200     | -                 | 3            |
| 8  | Business Communication         | MGT 311     | MGT 200           | 3            |
| 9  | Principles of Marketing        | MKT 200     | MGT 200           | 3            |
| 10 | Business Law                   | MGT 301     | MGT 200           | 3            |
| 11 | Management Information Systems | MGT 401     | MGT 200 & INT 300 | 3            |
| 12 | Organizational Behavior        | MGT 300     | MGT 200           | 3            |
| 13 | Macroeconomics                 | ECO 210     | ECO 200           | 3            |
| 14 | Data Base Management Systems   | INT 300     | COM 111           | 3            |

|    |                          |         |                                   |   |
|----|--------------------------|---------|-----------------------------------|---|
| 15 | Quantitative Analysis    | ECO 310 | MTH 131 & STA 231                 | 3 |
| 16 | Supervised Training      | MGT 470 | 96 CH. including 7 Major Courses. | 3 |
| 17 | IT in Business           | INT 103 | COM111                            | 3 |
| 18 | Math for Management (GE) | MTH 131 | -                                 | 3 |

**College Requirements: Elective Courses (12 Credit Hours)**

|   | Course Title                     | Course Code | Prerequisites     | Credit Hours |
|---|----------------------------------|-------------|-------------------|--------------|
| 1 | Enterprise Resource Planning ERP | ACC 250     | MGT 200 & ACC 200 | 3            |
| 2 | Business Ethics                  | MGT 323     | -                 | 3            |
| 3 | Economic Development of GCC      | ECO 320     | ECO 210           | 3            |
| 4 | Managerial Economics             | ECO 311     | ECO 210           | 3            |
| 5 | Public Relations                 | MGT 325     | MGT311            | 3            |
| 6 | Feasibility Studies & Proj. Eval | MGT 313     | ECO 200 & FIN 210 | 3            |
| 7 | Hospitality & Tourism            | MKT 413     | MKT 200           | 3            |
| 8 | Social Media                     | MKT 423     | MKT 200           | 3            |
| 9 | Business English                 | MGT 201     |                   | 3            |

**(C) MAJOR REQUIREMENTS (36 Credit Hours)**

**Major Obligatory Courses (33 Cr. Hrs.)**

|   | Course Title                 | Course Code | Prerequisites | Credit Hours |
|---|------------------------------|-------------|---------------|--------------|
| 1 | Intermediate Accounting I    | ACC 310     | ACC 220       | 3            |
| 2 | Intermediate Accounting II   | ACC 320     | ACC 310       | 3            |
| 3 | Cost Accounting              | ACC 321     | ACC 310       | 3            |
| 4 | Managerial Accounting        | ACC 322     | ACC 220       | 3            |
| 5 | Computerized Acct. Inf. Sys. | ACC 311     | ACC 220       | 3            |
| 6 | Governmental Accounting      | ACC 312     | ACC 220       | 3            |
| 7 | Auditing                     | ACC 323     | ACC 310       | 3            |
| 8 | Accounting Theory            | ACC 420     | ACC 310       | 3            |
| 9 | Advanced Accounting          | ACC 410     | ACC 320       | 3            |

|    |                          |         |         |                        |   |
|----|--------------------------|---------|---------|------------------------|---|
| 10 | Financial Mgt. & Control | ACC 421 | ACC 410 | ACC 322                | 3 |
| 11 | Graduation Project       | ACC 422 | MGT 312 | 102 Cr. Hrs. & MGT 312 | 3 |

### Major Elective Courses (3 Cr. Hrs.)

| No. | Course Title                      | Course Code | Prerequisites    | Credit Hours |
|-----|-----------------------------------|-------------|------------------|--------------|
| 1   | Taxation Accounting               | ACC 412     | ACC 310          | 3            |
| 2   | Contemporary Issues in Accounting | ACC 423     | ACC 420          | 3            |
| 3   | Oil & Gas Accounting              | ACC 413     | ACC 310          | 3            |
| 4   | International Accounting          | ACC 414     | ACC 310          | 3            |
| 5   | Advanced Auditing                 | ACC 411     | ACC 311, ACC 323 | 3            |
| 6   | Islamic Accounting                | ACC 424     | ACC 310          | 3            |

### Study Plan

#### Semester 1

| Course No. | Course Name                             | Contact & Credit Hrs |     |     |          | Prerequisite |
|------------|---|----------------------|-----|-----|----------|--------------|
|            |   | Lec                  | Lab | Tut | Cr. Hrs. |              |
| ISL 114    | Islamic Culture                         | 3                    | 0   | 1   | 3        |              |
| ARB 111    | Communication Skills in Arabic Language | 3                    | 0   | 0   | 3        |              |
| STA 111    | Statistics                              | 2                    | 2   | 0   | 3        |              |
| COM 111    | IT Fundamentals                         | 2                    | 2   | 0   | 3        |              |
| -          | University Elective Course 1            | 3                    | 0   | 0   | 3        |              |
| Total      |   | 14                   | 2   | 1   | 15       |              |

#### Semester 2

| Course No. | Course Name                  | Contact & Credit Hrs |     |     |          | Prerequisite |
|------------|------------------------------|----------------------|-----|-----|----------|--------------|
|            |                              | Lec.                 | Lab | Tut | Cr. Hrs. |              |
| ECO 200    | Microeconomics               | 3                    | 0   | 0   | 3        |              |
| MGT 200    | Introduction to Management   | 3                    | 0   | 0   | 3        |              |
| ACC 200    | Principles of Accounting I   | 3                    | 0   | 0   | 3        |              |
| STA 231    | Statistics for Business      | 3                    | 0   | 0   | 3        | STA 111      |
|            | University Elective Course 2 | 3                    | 0   | 0   | 3        |              |
| Total      |                              | 14                   | 2   | 0   | 15       |              |

**Semester 3**

| Course No | Course Name                  | Contact & Credit Hrs |     |     |          | Prerequisite |
|-----------|------------------------------|----------------------|-----|-----|----------|--------------|
|           |                              | Lec                  | Lab | Tut | Cr. Hrs. |              |
| ECO 210   | Macroeconomics               | 3                    | 0   | 0   | 3        | ECO200       |
| ACC 220   | Principles of Accounting II  | 3                    | 0   | 0   | 3        | ACC 200      |
| INT 103   | IT in Business               | 2                    | 2   | 0   | 3        | COM 111      |
| MKT 200   | Principles of Marketing      | 3                    | 0   | 0   | 3        | MGT 200      |
| FIN 210   | Fundamentals of Finance      | 3                    | 0   | 0   | 3        | ACC 200      |
| -         | University Elective Course 3 | 3                    | 0   | 0   | 3        |              |
| Total     |                              | 15                   | 0   | 4   | 18       |              |

**Semester 4**

| Course No | Course Name               | Contact & Credit Hrs |     |     |          | Prerequisite |
|-----------|---------------------------|----------------------|-----|-----|----------|--------------|
|           |                           | Lec                  | Lab | Tut | Cr. Hrs. |              |
| MTH 131   | Math for Management       | 3                    | 0   | 2   | 3        |              |
| MGT 301   | Business Law              | 3                    | 0   | 0   | 3        | MGT 200      |
| ACC 310   | Intermediate Accounting I | 3                    | 0   | 0   | 3        | ACC 220      |
| MGT 312   | Business Research Methods | 3                    | 0   | 0   | 3        | STA 231      |
| MGT 311   | Business Communication    | 3                    | 0   | 0   | 3        | MGT 200      |
| -         | College Elective – 1      | 3                    | 0   | 0   | 3        |              |
| Total     |                           | 17                   | 2   | 2   | 18       |              |

**Semester 5**

| Course No | Course Name                   | Contact & Credit Hrs |     |     |          | Prerequisite        |
|-----------|-------------------------------|----------------------|-----|-----|----------|---------------------|
|           |                               | Lec                  | Lab | Tut | Cr. Hrs. |                     |
| ECO 310   | Quantitative Analysis         | 3                    | 0   | 0   | 3        | MTH 131 & STA 231   |
| ACC 320   | Intermediate Accounting II    | 3                    | 0   | 0   | 3        | ACC 310             |
| INT 300   | DBMS                          | 2                    | 2   | 0   | 3        | COM 111             |
| ACC 321   | Cost Accounting               | 3                    | 0   | 0   | 3        | ACC 310             |
| INN 311   | Innovation & Entrepreneurship | 3                    | 0   | 0   | 3        | Earning 60 Cr. Hrs. |
| -         | College Elective – 2          | 3                    | 0   | 0   | 3        | -                   |
| Total     |                               | 17                   | 2   | 0   | 18       |                     |

### Semester 6

| Course No | Course Name             | Contact & Credit Hrs |     |     |          | Prerequisite      |
|-----------|-------------------------|----------------------|-----|-----|----------|-------------------|
|           |                         | Lec                  | Lab | Tut | Cr. Hrs. |                   |
| ACC 322   | Managerial Accounting   | 3                    | 0   | 0   | 3        | ACC 220           |
| ACC 323   | Auditing                | 3                    | 0   | 0   | 3        | ACC 320           |
| ACC 312   | Governmental Accounting | 3                    | 0   | 0   | 3        | ACC 310           |
| MGT 401   | MIS                     | 3                    | 0   | 0   | 3        | MGT 200 & INT 300 |
| MGT 300   | Organizational Behavior | 3                    | 0   | 0   | 3        | MGT 200           |
| -         | College Elective – 3    | 3                    | 0   | 0   | 3        | -                 |
| Total     |                         | 18                   | 0   | 0   | 18       |                   |

### Semester 7

| Course No | Course Name                        | Contact & Credit Hrs |     |     |          | Prerequisite                              |
|-----------|------------------------------------|----------------------|-----|-----|----------|---|
|           |                                    | Lec.                 | Lab | Tut | Cr. Hrs. |   |
| ACC 410   | Advanced Accounting                | 3                    | 0   | 0   | 3        | ACC 320                                   |
| ACC 311   | Computerized Accounting Inf. Syst. | 3                    | 0   | 0   | 3        | ACC 310 & COM 111                         |
| MGT 470   | Supervised Training                | 3                    | 0   | 0   | 3        | 96 Cr. Hrs including 7 Accounting courses |
| -         | College Elective -4                | 3                    | 0   | 0   | 3        | -   |
| Total     |                                    | 12                   | 0   | 0   | 12       |   |

### Semester 8

| Course No | Course Name                | Contact & Credit Hrs |     |     |          | Prerequisite      |
|-----------|----------------------------|----------------------|-----|-----|----------|-------------------|
|           |                            | Lec.                 | Lab | Tut | Cr. Hrs. |                   |
| ACC 420   | Accounting Theory          | 3                    | 0   | 0   | 3        | ACC 310           |
| ACC 421   | Financial Mgt. and Control | 3                    | 0   | 0   | 3        | ACC 410 & ACC 322 |
| ACC 422   | Graduation Project         | 3                    | 0   | 0   | 3        | 102 Cr. Hrs.      |
| -         | Major Elective             | 3                    | 0   | 0   | 3        |                   |
| Total     |                            | 12                   | 0   | 0   | 12       |                   |



## DEPARTMENT OF MARKETING

According to statistics obtained from labor market research from around the world the field of marketing is expected to grow by more than 40 percent from 2010 to 2020. Employment growth will be managed by consistent use of data and market research across all industries in order to understand the needs and wants of customers and to measure the effectiveness of marketing and business strategies. The BSc Marketing degree program offered at AU provides education of international standard and caters to the needs of all the employment sectors locally, regionally and globally. The program provides students with a wide range of knowledge in the various functional areas of business, as well as prepares them with comprehensive knowledge of successful management of the marketing mix. This major not only produces capable individuals who can address the challenging issues of businesses and the dynamic market but it also equips students with the academic credentials required to pursue higher education in national and international universities.

### Bachelor of Science in Marketing

#### Vision

To be the most desirable program in UAE and Mena region in the field of Business.

#### Mission

The mission of the marketing department is to provide quality education i.e. providing an education process of having decided what are the major areas that the students should understand and be able to do and qualities they should develop to be efficient and effective in his/her job endeavors. Accordingly, both structure and curricula are designed to achieve those capabilities and qualities.

#### Program Learning Outcomes (PLOs)

1. Demonstrate knowledge of conceptual and theoretical frameworks of marketing.
2. Analyze environmental factors and their impact on marketing activities.
3. Identify and analyze marketing opportunities and challenges facing an organization.
4. Analyze an organization's marketing strategy and identify appropriate and inappropriate marketing alternatives.
5. Exhibit an ability to collect, process, and analyze consumer data to make informed marketing decisions.
6. Analyze cases related to marketing mix, consumer behavior, social media, international marketing, marketing strategy and marketing research and draw lessons for marketing managers in the Middle East.
7. Demonstrate professional ability to collaborate and to communicate foundation concepts in personal, group and mass communication contexts.
8. Write and present a marketing plan based on sound regulatory framework and business ethics.

### Alignment of Marketing PLOs with the QF Emirates

| Program Learning Outcomes (PLOs)   | Knowledge | Skills | Aspects of Competence       |                 |                  |
|--|-----------|--------|-----------------------------|-----------------|------------------|
|  |           |        | Autonomy and Responsibility | Role in Context | Self development |
| 1. Demonstrate knowledge of conceptual and theoretical frameworks of marketing.  | ✓         |        |                             |                 |                  |
| 2. Analyze environment and their Impact on marketing activities  |           |        |                             | ✓               |                  |
| 3. Identify and analyze marketing opportunities and challenges facing an organization.   |           | ✓      |                             |                 |                  |
| 4. Analyze an organization's marketing strategy and identify appropriate and inappropriate marketing alternatives.   |           | ✓      |                             |                 |                  |
| 5. Exhibit an ability to collect, process, and analyze consumer data to make informed marketing decisions.   |           |        | ✓                           |                 |                  |
| 6. Analyze cases related to marketing mix, consumer behavior, social media, international marketing, marketing strategy and marketing research and draw lessons for marketing managers in the Middle East. |           |        |                             | ✓               |                  |
| 7. Demonstrate professional ability to collaborate and to communicate foundation concepts in personal, group and mass communication contexts.  |           |        |                             | ✓               |                  |
| 8. Write and present a marketing plan based on sound regulatory framework and business ethics.   |           |        |                             |                 | ✓                |

#### Admission Requirements

The normal entry requirement is the UAE Secondary School Certificate, or an equivalent qualification, with a minimum average grade of 60 percent, & TOEFL certificate with a minimum score of 500.

#### Career Opportunities

Graduates of the BSc in Marketing degree program are equipped for employment in marketing departments in the following sectors: government, multinational subsidiaries, national companies (especially those operating in distribution), manufacturing, advertising marketing research and social media. In addition, there are employment opportunities in the banking and hospitality sectors, the travel industry, insurance companies, advertising agencies, the media and other organizations that have marketing departments.

### Graduation Requirements

Students will be awarded the Bachelor of Science in Marketing degree upon fulfillment of the following requirements:

- Successful completion of 126 credit hours, which normally takes eight semesters
- 8 weeks of industrial internship (after the completion of 96 credit hours including seven major courses).
- A minimum Cumulative Grade Point Average of 2.0

### Degree Requirements

The BSc degree in Marketing requires the completion of 126 credit hours distributed according to the following plan:

| Type of Courses                                     | Credit Hours |
|---|--------------|
| <b>1. University General Education Requirements</b> | <b>24</b>    |
| (a) University Required Courses                     | 15           |
| (b) University Elective Courses                     | 9            |
| <b>2. College Requirements</b>                      | <b>66</b>    |
| (a) College Required Courses                        | 54           |
| (b) College Elective Courses                        | 12           |
| <b>3. Major Requirements</b>                        | <b>36</b>    |
| (a) Major Required Courses                          | 30           |
| (b) Major Electives Courses                         | 6            |
| <b>Total Credit Hours</b>                           | <b>126</b>   |

### (A) UNIVERSITY GENERAL EDUCATION REQUIREMENTS

#### (a) University Compulsory Courses (15 Credit Hours)

| Course No. | Course Title  | Cr. Hrs. | Prerequisite        |
|------------|---|----------|---------------------|
| ARB 111    | Communication Skills in Arabic Language (For Arabs)     | 3        |                     |
| ARB 112    | Communication Skills in Arabic Language (For Non Arabs) |          |                     |
| ISH 211    | Islamic Civilization (Arabic)                           | 3        |                     |
| ISL 114    | Islamic Culture   |          |                     |
| ISL 112    | Islamic Culture (Non Arabs)                             |          |                     |
| INN 311    | Innovation and Entrepreneurship                         | 3        | Earning 60 Cr. Hrs. |
| COM 111    | IT Fundamentals   | 3        |                     |
| STA 111    | Statistics (Business)                                   | 3        |                     |

### (b) University Elective Courses (9 Credit Hours)

| Course No. | Course Title                           | Cr. Hrs. | Prerequisite |
|------------|--|----------|--------------|
| ARB 113    | The Art of Written Expression (Arabic) | 3        | -            |
| LAW 111    | Legal Culture                          | 3        | -            |
| ART 111    | Introduction to Art (English)          | 3        | -            |
| ART 211    | Introduction to Digital Photography    | 3        | -            |
| ART 112    | Introduction to Aesthetics (English)   | 3        | -            |
| FRE 211    | French Language                        | 3        | -            |
| ISL 211    | Introduction to Hadeeth and Sunna      | 3        | -            |
| ENG 113    | Academic Writing (English)             | 3        | -            |
| ENG 211    | The Art of Public Speaking (English)   | 3        | -            |
| AST 211    | Astronomy                              | 3        | -            |
| PHY 111    | Physics                                | 3        | -            |
| ENV 111    | Environmental Science (English)        | 3        | -            |
| RES 211    | Research Methodology (English)         | 3        | -            |
| ISH 111    | History of Science in Islam            | 3        | -            |
| PIO 211    | Scientific Pioneering                  | 3        | -            |
| CHM 111    | General Chemistry                      | 3        | -            |
| NUT 111    | Fundamental of Human Nutrition         | 3        | -            |
| AID 111    | First Aid                              | 3        | -            |
| BIO 111    | General Biology                        | 3        | -            |
| ENG 111    | English Communication Skills           | 3        | -            |
| PSY 111    | General Psychology                     | 3        | -            |
| SOC 112    | Communication between Cultures         | 3        | -            |
| THI 211    | Critical Thinking (English)            | 3        | -            |
| EMS 111    | Emirates Society (English)             | 3        | -            |
| INF 113    | Library Information System             | 3        | -            |

### (B) COLLEGE REQUIREMENTS (66 Credit Hours)

#### a. College Compulsory Courses (54 Credit Hours)

|   | Course Title             | Course Code | Prerequisites     | Credit Hours |
|---|--------------------------|-------------|-------------------|--------------|
| 1 | Statistics for Business  | STA 231     | STA 111           | 3            |
| 2 | Business Research Method | MGT 312     | MGT 200 & STA 231 | 3            |

|    |                                |         |                                       |   |
|----|--------------------------------|---------|---------------------------------------|---|
| 3  | Principles of Accounting I     | ACC 200 | -                                     | 3 |
| 4  | Principles of Accounting II    | ACC 220 | ACC 200                               | 3 |
| 5  | Introduction to Management     | MGT 200 | -                                     | 3 |
| 6  | Fundamentals of Finance        | FIN 210 | ACC 200                               | 3 |
| 7  | Microeconomics                 | ECO 200 | -                                     | 3 |
| 8  | Business Communication         | MGT 311 | MGT 200                               | 3 |
| 9  | Principles of Marketing        | MKT 200 | MGT 200                               | 3 |
| 10 | Business Law                   | MGT 301 | MGT 200                               | 3 |
| 11 | Management Information Systems | MGT 401 | MGT 200 & INT 300                     | 3 |
| 12 | Organizational Behavior        | MGT 300 | MGT 200                               | 3 |
| 13 | Macroeconomics                 | ECO 210 | ECO 200                               | 3 |
| 14 | Data Base Management Systems   | INT 300 | COM 111                               | 3 |
| 15 | Quantitative Analysis          | ECO 310 | MTH 131 & STA 231                     | 3 |
| 16 | Supervised Training            | MGT 470 | 96 Cr. Hrs. including 7 major courses | 3 |
| 17 | IT in Business                 | INT 103 | COM 111                               | 3 |
| 18 | Math for Management            | MTH 131 | -                                     | 3 |

**College Requirements: Elective Courses (12 Credit Hours)**

|   | Course Title                      | Course Code | Prerequisites     | Credit Hours |
|---|-----------------------------------|-------------|-------------------|--------------|
| 1 | Enterprise Resource Planning ERP  | ACC 250     | MGT 200 & ACC 200 | 3            |
| 2 | Business Ethics                   | MGT 323     | -                 | 3            |
| 3 | Economic Development of GCC       | ECO 320     | ECO 210           | 3            |
| 4 | Managerial Economics              | ECO 311     | ECO 210           | 3            |
| 5 | Public Relations                  | MGT 325     | MGT311            | 3            |
| 6 | Feasibility Studies & Proj. Eval. | MGT 313     | ECO 200 & FIN 210 | 3            |
| 7 | Hospitality & Tourism             | MKT 413     | MKT 200           | 3            |
| 8 | Social Media                      | MKT 423     | MKT 200           | 3            |
| 9 | Business English                  | MGT 201     |                   | 3            |

### (C) MAJOR REQUIREMENTS (36 Credit Hours)

#### Major Required Courses (30 Credit Hours)

|     | Course Title                   | Course Code | Prerequisites              | Credit Hours |
|-----|--------------------------------|-------------|----------------------------|--------------|
| 1.  | Consumer Behavior              | MKT 211     | MKT 200                    | 3            |
| 2.  | Service Marketing              | MKT 212     | MKT 200                    | 3            |
| 3.  | Personal Selling               | MKT 223     | MKT 200 , MGT 311          | 3            |
| 4.  | Advertising and Promotion      | MKT 311     | MKT 211                    | 3            |
| 5.  | Business to Business Marketing | MKT 312     | MKT 200                    | 3            |
| 6.  | Product and Brand Management   | MKT 326     | MKT 200                    | 3            |
| 7.  | Marketing Research             | MKT 411     | STA 231, MKT 200           | 3            |
| 8.  | International Marketing        | MKT 412     | MKT 200                    | 3            |
| 9.  | Marketing Management           | MKT 424     | MKT 211, MKT 411           | 3            |
| 10. | Graduation Project             | MKT 425     | Completion of 102 Cr. Hrs. | 3            |

#### Major Elective Courses (6 Credit Hours)

| No. | Course Title                       | Course Code | Prerequisites     | Credit Hours |
|-----|------------------------------------|-------------|-------------------|--------------|
| 1   | Computer Application in Marketing  | MKT 224     | MKT 200, COM 111  | 3            |
| 2   | Selected Topics in Marketing       | MKT 313     | MKT 200           | 3            |
| 3   | E-Marketing                        | MKT 314     | MKT 200           | 3            |
| 4   | Marketing Channels                 | MKT 325     | MKT 200           | 3            |
| 5   | Retail Marketing                   | MKT 327     | MKT 200           | 3            |
| 6   | Purchasing and Material Management | MGT 221     | MGT 200 & MKT 200 | 3            |

## Study Plan

### Proposed Sequence of Study

#### Semester 1

| Course No | Course Title                            | Contact & Credit Hrs |     |     |          | Prerequisite |
|-----------|---|----------------------|-----|-----|----------|--------------|
|           |   | Lec                  | Lab | Tut | Cr. Hrs. |              |
| ISL 114   | Islamic Culture                         | 3                    | 0   | 1   | 3        | -            |
| ARB 111   | Communication Skills in Arabic Language | 3                    | 0   | 0   | 3        | -            |
| STA 111   | Statistics (Business)                   | 2                    | 2   | 0   | 3        | -            |
| MGT 200   | Introduction to Management              | 3                    | 0   | 0   | 3        | -            |
|           | University Elective - 1                 | 3                    | 0   | 0   | 3        | -            |
| Total     |   | 14                   | 2   | 1   | 15       |              |

#### Semester 2

| Course No | Course Title               | Contact & Credit Hrs |     |     |          | Prerequisite |
|-----------|----------------------------|----------------------|-----|-----|----------|--------------|
|           |                            | Lec                  | Lab | Tut | Cr. Hrs. |              |
| COM 111   | IT Fundamentals            | 2                    | 2   | 0   | 3        | -            |
| ACC 200   | Principles of Accounting I | 3                    | 0   | 0   | 3        | -            |
| MKT 200   | Principles of Marketing    | 3                    | 0   | 0   | 3        | MGT 200      |
| STA 231   | Statistics for Business    | 3                    | 0   | 0   | 3        | STA 111      |
|           | University Elective - 2    | 3                    | 0   | 0   | 3        |              |
| Total     |                            | 14                   | 2   | 0   | 15       |              |

#### Semester 3

| Course No | Course Title                | Contact & Credit Hrs |     |     |          | Prerequisite      |
|-----------|-----------------------------|----------------------|-----|-----|----------|-------------------|
|           |                             | Lec                  | Lab | Tut | Cr. Hrs. |                   |
| ACC 220   | Principles of Accounting II | 3                    | 0   | 0   | 3        | ACC 200           |
| ECO 200   | Microeconomics              | 3                    | 0   | 0   | 3        |                   |
| MTH 131   | Math for Management         | 3                    | 0   | 2   | 3        |                   |
| FIN 210   | Fundamentals of Finance     | 3                    | 0   | 0   | 3        | ACC 200           |
| MGT 312   | Business Research Methods   | 3                    | 0   | 0   | 3        | STA 231 & MGT 200 |
| Total     |                             | 15                   | 0   | 2   | 15       |                   |

#### Semester 4

| Course No | Course Title               | Contact & Credit Hrs |     |     |          | Prerequisite |
|-----------|----------------------------|----------------------|-----|-----|----------|--------------|
|           |                            | Lec                  | Lab | Tut | Cr. Hrs. |              |
| MGT 301   | Business Law               | 3                    | 0   | 0   | 3        | MGT 200      |
| MKT 326   | Product & Brand Management | 3                    | 0   | 0   | 3        | MKT 200      |
| INT 103   | IT in Business             | 2                    | 2   | 0   | 3        | COM 111      |
| MGT 311   | Business Communication     | 3                    | 0   | 0   | 3        | MGT 200      |
| ECO 210   | Macroeconomics             | 3                    | 0   | 0   | 3        | ECO200       |
|           | College Elective – 1       | 3                    | 0   | 0   | 3        | -            |
| Total     |                            | 17                   | 2   | 0   | 18       |              |

#### Semester 5

| Course No | Course Title            | Contact & Credit Hrs |     |     |          | Prerequisite      |
|-----------|-------------------------|----------------------|-----|-----|----------|-------------------|
|           |                         | Lec                  | Lab | Tut | Cr. Hrs. |                   |
| ECO 310   | Quantitative Analysis   | 3                    | 0   | 0   | 3        | MTH 131 & STA 231 |
| MKT 211   | Consumer Behavior       | 3                    | 0   | 0   | 3        | MKT 200           |
| INT 300   | DBMS                    | 2                    | 2   | 0   | 3        | COM 111           |
| MKT 223   | Personal Selling        | 3                    | 0   | 0   | 3        | MKT 200 & MGT 311 |
|           | College Elective – 2    | 3                    | 0   | 0   | 3        | -                 |
|           | University Elective - 3 | 3                    | 0   | 0   | 3        | -                 |
| Total     |                         | 17                   | 2   | 0   | 18       |                   |

#### Semester 6

| Course No | Course Title                   | Contact & Credit Hrs |     |     |          | Prerequisite      |
|-----------|--------------------------------|----------------------|-----|-----|----------|-------------------|
|           |                                | Lec                  | Lab | Tut | Cr. Hrs. |                   |
| MKT 411   | Marketing Research             | 3                    | 0   | 0   | 3        | MKT 200 & STA 231 |
| MKT 311   | Advertising & Promotion        | 3                    | 0   | 0   | 3        | MKT 211           |
| MKT312    | Business to Business Marketing | 3                    | 0   | 0   | 3        | MKT 200           |
| MKT 212   | Service Marketing              | 3                    | 0   | 0   | 3        | MKT 200           |
| MGT 300   | Organizational Behavior        | 3                    | 0   | 0   | 3        | MGT 200           |
|           | College Elective – 3           | 3                    | 0   | 0   | 3        | -                 |
| Total     |                                | 18                   | 0   | 0   | 18       |                   |

#### Semester 7

| Course No | Course Title | Contact & Credit Hrs | Prerequisite |
|-----------|--------------|----------------------|--------------|
|-----------|--------------|----------------------|--------------|



| Course No |                               | Lec | Lab | Tut | Cr. Hrs. |                                    |
|-----------|-------------------------------|-----|-----|-----|----------|------------------------------------|
| MGT 401   | MIS                           | 3   | 0   | 0   | 3        | MGT 200 & INT 300                  |
| MKT 424   | Marketing Management          | 3   | 0   | 0   | 3        | MKT 411 & MKT 211                  |
| INN 311   | Innovation & Entrepreneurship | 3   | 0   | 0   | 3        | Earning 60 Cr.Hrs                  |
| MGT 470   | Supervised Training           | 3   | 0   | 0   | 3        | 96 Hours including 7 major courses |
|           | Major Elective -1             | 3   | 0   | 0   | 3        | -                                  |
| Total     |                               | 15  | 0   | 0   | 15       |                                    |

**Semester 8**

| Course No | Course Title            | Contact & Credit Hrs |     |     |          | Prerequisite                     |
|-----------|-------------------------|----------------------|-----|-----|----------|----------------------------------|
|           |                         | Lec                  | Lab | Tut | Cr. Hrs. |                                  |
| MKT 412   | International Marketing | 3                    | 0   | 0   | 3        | MKT200                           |
| MKT 425   | Graduation Project      | 3                    | 0   | 0   | 3        | Completion 102 Cr. Hrs & MGT 312 |
|           | College Elective – 4    | 3                    | 0   | 0   | 3        |                                  |
|           | Major Elective -2       | 3                    | 0   | 0   | 3        |                                  |
| Total     |                         | 12                   | 0   | 0   | 12       |                                  |

## DEPARTMENT OF FINANCE

The BSc. in Finance degree program is designed to develop students' technical and critical thinking and to provide them with an in-depth understanding of financial theory, analytical financial instruments, and dynamics of financial markets. This major aims at simultaneously imparting all-inclusive functional area knowledge of business firms, for example, management, marketing, accounting and finance. The program prepares students for careers in finance in public, private, as well as non-profit organizations.

### Bachelor of Science in Finance

#### Vision

To be the premier finance program providing quality finance education and practice in the UAE and beyond.

#### Mission

The mission of the B.Sc. in Finance program is to provide an educational experience that develops the student's global acumen related to finance and enhances critical thinking by integrating both quantitative and qualitative factors into business and financial decision making through community engagement.

#### Program Learning Outcomes (PLOs)

1. Apply principles of finance in decision-making.
2. Synthesize strands of knowledge for solving financial problems facing modern organizations.
3. Design and implement effective financial strategies for improving financial performance of organizations.
4. Critically analyze changing conditions of international environment and their impact on the design and implementation of financial strategies.
5. Apply ethics (including Islamic ethics) in financial decision-making.
6. Measure financial performance against the backdrop of ethical and professional standards.
7. Apply finance theory and principles in the Middle East situations through case studies and analysis.

#### Alignment of Finance PLOs with the QF Emirates

| Program Learning Outcomes (PLOs)   | Knowledge | Skills | Aspects of Competence       |                 |                  |
|--|-----------|--------|-----------------------------|-----------------|------------------|
|  |           |        | Autonomy and Responsibility | Role in Context | Self development |
| 1. Apply principles of finance in decision-making  |           | ✓      |                             |                 | ✓                |
| 2. Synthesize strands of knowledge for solving financial problems facing modern organizations. | ✓         |        | ✓                           | ✓               |                  |

|   |   |   |   |   |   |
|---|---|---|---|---|---|
| 3. Design and implement effective financial strategies for improving financial performance of organizations.                                      | ✓ | ✓ |   |   | ✓ |
| 4. Critically analyze changing conditions of international environment and their impact on the design and implementation of financial strategies. | ✓ |   | ✓ |   |   |
| 5. Apply ethics (including Islamic ethics) in financial decision-making   | ✓ |   | ✓ |   |   |
| 6. Measure financial performance against the backdrop of ethical and professional standards   | ✓ | ✓ |   | ✓ |   |
| 7. Apply finance theory and principles in the Middle East situations through case studies and analysis.   |   | ✓ |   |   | ✓ |

### Admission Requirements

The normal entry requirement for an applicant is the Secondary School Certificate, or an equivalent qualification, with a minimum average grade of 60 percent, & TOEFL certificate with a minimum score of 500.

### Career Opportunities

The degree in finance adequately qualifies graduates for various corporate, financial, and management positions in areas such as Financial Analysis, Capital Budgeting, Cash and Risk Management, Portfolio Management, and Bank Management. It also prepares entrepreneurs operating their own business.

### Graduation Requirements

Students will be awarded the Bachelor of Science in Finance degree upon fulfillment of the following requirements:

- Successful completion of 126 credit hours, which normally takes eight semesters.
- 8 weeks of industrial internship (after the completion of 96 credit hours including seven major courses).
- A minimum Cumulative Grade Point Average of 2.0

### Degree Requirements

The BSc degree in Finance requires the completion of 126 credit hours distributed according to the following plan:

| Type of Courses                                     | Credit Hours |
|---|--------------|
| <b>1. University General Education Requirements</b> | <b>24</b>    |
| (a) University Required Courses                     | 15           |
| (b) University Elective Courses                     | 9            |
| <b>2. College Requirements</b>                      | <b>66</b>    |
| (a) College Required Courses                        | 54           |
| (b) College Elective Courses                        | 12           |

|                              |           |
|------------------------------|-----------|
| <b>3. Major Requirements</b> | <b>36</b> |
| (a) Major Required Courses   | 30        |
| (b) Major Electives Courses  | 6         |
| Total Credit Hours           | 126       |

## (A) UNIVERSITY GENERAL EDUCATION REQUIREMENTS

### (a) University Compulsory Courses (15 Credit Hours)

| Course No. | Course Title  | Cr. Hrs. | Prerequisite        |
|------------|---|----------|---------------------|
| ARB 111    | Communication Skills in Arabic Language (For Arabs)     | 3        |                     |
| ARB 112    | Communication Skills in Arabic Language (For Non Arabs) |          |                     |
| ISH 211    | Islamic Civilization (Arabic)                           | 3        |                     |
| ISL 114    | Islamic Culture   |          |                     |
| ISL 112    | Islamic Culture (Non Arabs)                             |          |                     |
| INN 311    | Innovation and Entrepreneurship                         | 3        | Earning 60 Cr. Hrs. |
| COM 111    | IT Fundamentals   | 3        |                     |
| STA 111    | Statistics (Business)                                   | 3        |                     |

### (b) University Elective Courses (9 Credit Hours)

| Course No. | Course Title                           | Cr. Hrs. | Prerequisite |
|------------|--|----------|--------------|
| ARB 113    | The Art of Written Expression (Arabic) | 3        | -            |
| LAW 111    | Legal Culture                          | 3        | -            |
| ART 111    | Introduction to Art (English)          | 3        | -            |
| ART 211    | Introduction to Digital Photography    | 3        | -            |
| ART 112    | Introduction to Aesthetics (English)   | 3        | -            |
| FRE 211    | French Language                        | 3        | -            |
| ISL 211    | Introduction to Hadeeth and Sunna      | 3        | -            |
| ENG 113    | Academic Writing (English)             | 3        | -            |
| ENG 211    | The Art of Public Speaking (English)   | 3        | -            |
| AST 211    | Astronomy                              | 3        | -            |
| PHY 111    | Physics                                | 3        | -            |
| ENV 111    | Environmental Science (English)        | 3        | -            |
| RES 211    | Research Methodology (English)         | 3        | -            |

|         |                                |   |   |
|---------|--------------------------------|---|---|
| ISH 111 | History of Science in Islam    | 3 | - |
| PIO 211 | Scientific Pioneering          | 3 | - |
| CHM 111 | General Chemistry              | 3 | - |
| NUT 111 | Fundamental of Human Nutrition | 3 | - |
| AID 111 | First Aid                      | 3 | - |
| BIO 111 | General Biology                | 3 | - |
| ENG 111 | English Communication Skills   | 3 | - |
| PSY 111 | General Psychology             | 3 | - |
| SOC 112 | Communication between Cultures | 3 | - |
| THI 211 | Critical Thinking (English)    | 3 | - |
| EMS 111 | Emirates Society (English)     | 3 | - |
| INF 113 | Library Information System     | 3 | - |

## (B) COLLEGE REQUIREMENTS (66 Credit Hours)

### a. College Compulsory Courses (54 Credit Hours)

|    | Course Title                   | Course Code | Prerequisites                    | Credit Hours |
|----|--------------------------------|-------------|----------------------------------|--------------|
| 1  | Statistics for Business        | STA 231     | STA 111                          | 3            |
| 2  | Business Research Method       | MGT 312     | MGT 200 & STA 231                | 3            |
| 3  | Principles of Accounting I     | ACC 200     | -                                | 3            |
| 4  | Principles of Accounting II    | ACC 220     | ACC 200                          | 3            |
| 5  | Introduction to Management     | MGT 200     | -                                | 3            |
| 6  | Fundamentals of Finance        | FIN 210     | ACC 200                          | 3            |
| 7  | Microeconomics                 | ECO 200     | -                                | 3            |
| 8  | Business Communication         | MGT 311     | MGT 200                          | 3            |
| 9  | Principles of Marketing        | MKT 200     | MGT 200                          | 3            |
| 10 | Business Law                   | MGT 301     | MGT 200                          | 3            |
| 11 | Management Information Systems | MGT 401     | MGT 200 & INT 300                | 3            |
| 12 | Organizational Behavior        | MGT 300     | MGT 200                          | 3            |
| 13 | Macroeconomics                 | ECO 210     | ECO 200                          | 3            |
| 14 | Data Base Management Systems   | INT 300     | COM 111                          | 3            |
| 15 | Quantitative Analysis          | ECO 310     | MTH 131 & STA 231                | 3            |
| 16 | Supervised Training            | MGT 470     | 96 CH. including 7 major courses | 3            |

|    |                     |         |        |   |
|----|---------------------|---------|--------|---|
| 17 | IT in Business      | INT 103 | COM111 | 3 |
| 18 | Math for Management | MTH 131 | -      | 3 |

#### College Requirements: Elective Courses (12 Credit Hours)

|   | Course Title                     | Course Code | Prerequisites     | Credit Hours |
|---|----------------------------------|-------------|-------------------|--------------|
| 1 | Enterprise Resource Planning ERP | ACC 250     | MGT 200 & ACC 200 | 3            |
| 2 | Business Ethics                  | MGT 323     | -                 | 3            |
| 3 | Economic Development of GCC      | ECO 320     | ECO 210           | 3            |
| 4 | Managerial Economics             | ECO 311     | ECO 210           | 3            |
| 5 | Public Relations                 | MGT 325     | MGT311            | 3            |
| 6 | Feasibility Studies              | MGT 313     | ECO 200 & FIN 210 | 3            |
| 7 | Hospitality & Tourism            | MKT 413     | MKT 200           | 3            |
| 8 | Social Media                     | MKT 423     | MKT 200           | 3            |
| 9 | Business English                 | MGT 201     |                   | 3            |

#### (C) MAJOR REQUIREMENTS (36 Credit Hours)

##### Major Obligatory Courses (30 Cr. Hrs.)

|     | Course Title                    | Course Code | Prerequisites              | Credit Hours |
|-----|---------------------------------|-------------|----------------------------|--------------|
| 1.  | Corporate Finance               | FIN 220     | FIN 210                    | 3            |
| 2.  | Money and Financial System      | FIN 221     | ECO 210                    | 3            |
| 3.  | Financial Risk & Insurance      | FIN 321     | FIN 220                    | 3            |
| 4.  | Financial Planning and Control  | FIN 311     | FIN 220                    | 3            |
| 5.  | Commercial Banking              | FIN 324     | FIN 221                    | 3            |
| 6.  | Portfolio Management and Theory | FIN 420     | FIN 411                    | 3            |
| 7.  | Financial Markets               | FIN 411     | FIN 210 & FIN 324          | 3            |
| 8.  | International Finance           | FIN 320     | FIN 220                    | 3            |
| 9.  | Investments                     | FIN 410     | FIN 321                    | 3            |
| 10. | Graduation Project              | FIN 424     | 102 Credit Hours + MGT 312 | 3            |

**Major Elective Courses (6 Cr. Hrs.)**

| No. | Course Title                    | Course Code | Prerequisites     | Credit Hours |
|-----|---------------------------------|-------------|-------------------|--------------|
| 1   | Intermediate Accounting I       | ACC 310     | ACC 220           | 3            |
| 2   | Personal Finance                | FIN 210     | FIN 210           | 3            |
| 3   | Islamic Banking                 | FIN 421     | FIN 324           | 3            |
| 4   | Selected Topics in Finance      | FIN 422     | FIN 210           | 3            |
| 5   | Computer Application in Finance | FIN 423     | FIN 210 & COM 111 | 3            |

**Study Plan**
**Semester 1**

| Course No. | Course Name                             | Contact & Credit Hrs |     |     |          | Prerequisite |
|------------|---|----------------------|-----|-----|----------|--------------|
|            |   | Lec                  | Lab | Tut | Cr. Hrs. |              |
| ISL 114    | Islamic Culture                         | 3                    | 0   | 1   | 3        |              |
| ARB 111    | Communication Skills in Arabic Language | 3                    | 0   | 0   | 3        |              |
| STA 111    | Statistics                              | 2                    | 2   | 0   | 3        |              |
| MGT 200    | Introduction to Management              | 3                    | 0   | 0   | 3        |              |
| -          | University Elective Course 1            | 3                    | 0   | 0   | 3        |              |
| Total      |   | 14                   | 2   | 1   | 15       |              |

**Semester 2**

| Course No. | Course Name                | Contact & Credit Hrs |     |     |          | Prerequisite |
|------------|----------------------------|----------------------|-----|-----|----------|--------------|
|            |                            | Lec                  | Lab | Tut | Cr. Hrs. |              |
| ECO 200    | Microeconomics             | 3                    | 0   | 0   | 3        |              |
| COM 111    | IT Fundamentals            | 2                    | 2   | 0   | 3        |              |
| ACC 200    | Principles of Accounting I | 3                    | 0   | 0   | 3        |              |
| STA 231    | Statistics for Business    | 3                    | 0   | 0   | 3        | STA 111      |
| MGT 311    | Business Communication     | 3                    | 0   | 0   | 3        | MGT 200      |
| Total      |                            | 14                   | 2   | 0   | 15       |              |

**Semester 3**

| Course No | Course Name                 | Contact & Credit Hrs |     |     |          | Prerequisite      |
|-----------|-----------------------------|----------------------|-----|-----|----------|-------------------|
|           |                             | Lec                  | Lab | Tut | Cr. Hrs. |                   |
| ACC 220   | Principles of Accounting II | 3                    | 0   | 0   | 3        | ACC 200           |
| MGT 312   | Business Research Methods   | 3                    | 0   | 0   | 3        | STA 231 & MGT 200 |

|         |                         |    |   |   |    |         |
|---------|-------------------------|----|---|---|----|---------|
| FIN 210 | Fundamentals of Finance | 3  | 0 | 0 | 3  | ACC 200 |
| MKT 200 | Principles of Marketing | 3  | 0 | 0 | 3  | MGT 200 |
|         | University Elective – 2 | 3  | 0 | 0 | 3  | -       |
| ECO 210 | Macroeconomics          | 3  | 0 | 0 | 3  | ECO 200 |
| Total   |                         | 18 | 0 | 0 | 18 |         |

#### Semester 4

| Course No | Course Name                | Contact & Credit Hrs |     |     |          | Prerequisite |
|-----------|----------------------------|----------------------|-----|-----|----------|--------------|
|           |                            | Lec                  | Lab | Tut | Cr. Hrs. |              |
| INT 103   | IT in Business             | 2                    | 2   | 0   | 3        |              |
| FIN 220   | Corporate Finance          | 3                    | 0   | 0   | 3        | FIN 210      |
| MGT 300   | Organizational Behavior    | 3                    | 0   | 0   | 3        | MGT 200      |
| FIN 221   | Money and Financial System | 3                    | 0   | 0   | 3        | ECO 210      |
| MGT 301   | Business Law               | 3                    | 0   | 0   | 3        | MGT 200      |
| MTH 131   | Math For Management        | 3                    | 0   | 0   | 3        | -            |
| Total     |                            | 17                   | 2   | 0   | 18       |              |

#### Semester 5

| Course No | Course Name                     | Contact & Credit Hrs |     |     |          | Prerequisite        |
|-----------|---------------------------------|----------------------|-----|-----|----------|---------------------|
|           |                                 | Lec                  | Lab | Tut | Cr. Hrs. |                     |
| INT 300   | Database Management             | 2                    | 2   | 0   | 3        | COM 111             |
| ECO 310   | Quantitative Analysis           | 3                    | 0   | 0   | 3        | MTH 131             |
| FIN 324   | Commercial Banking              | 3                    | 0   | 0   | 3        | FIN 221             |
| FIN 311   | Financial Planning and Control  | 3                    | 0   | 0   | 3        | FIN 220             |
| INT 311   | Innovation and Entrepreneurship | 3                    | 0   | 0   | 3        | Earning 60 Cr. Hrs. |
| -         | College Elective – 1            | 3                    | 0   | 0   | 3        | -                   |
| Total     |                                 | 17                   | 2   | 0   | 18       |                     |

#### Semester 6

| Course No | Course Name             | Contact & Credit Hrs |     |     |          | Prerequisite |
|-----------|-------------------------|----------------------|-----|-----|----------|--------------|
|           |                         | Lec                  | Lab | Tut | Cr. Hrs. |              |
| FIN 320   | International Finance   | 3                    | 0   | 0   | 3        | FIN 220      |
|           | College Elective – 2    | 3                    | 0   | 0   | 3        | -            |
|           | University Elective – 3 | 3                    | 0   | 0   | 3        | -            |



|         |                                |    |   |   |    |                   |
|---------|--------------------------------|----|---|---|----|-------------------|
| FIN 321 | Financial Risk & Insurance     | 3  | 0 | 0 | 3  | FIN 220           |
| MGT 401 | Management Information Systems | 3  | 0 | 0 | 3  | MGT 200 & INT 300 |
|         | Major Elective – 1             | 3  | 0 | 0 | 3  | -                 |
| Total   |                                | 18 | 0 | 0 | 18 |                   |

**Semester 7**

| Course No | Course Name          | Contact & Credit Hrs |     |     |          | Prerequisite                            |
|-----------|----------------------|----------------------|-----|-----|----------|---|
|           |                      | Lec.                 | Lab | Tut | Cr. Hrs. |   |
| FIN 410   | Investments          | 3                    | 0   | 0   | 3        | FIN 321                                 |
| FIN 411   | Financial Markets    | 3                    | 0   | 0   | 3        | FIN 210 & FIN 324                       |
| MGT 470   | Supervised Training  | 3                    | 0   | 0   | 3        | 96 Cr. Hrs including<br>7 major courses |
|           | College Elective - 3 | 3                    | 0   | 0   | 3        | -                                       |
| Total     |                      | 12                   | 0   | 0   | 12       |   |

**Semester 8**

| Course No | Course Name                     | Contact & Credit Hrs |     |     |          | Prerequisite              |
|-----------|---------------------------------|----------------------|-----|-----|----------|---------------------------|
|           |                                 | Lec.                 | Lab | Tut | Cr. Hrs. |                           |
|           | Major Elective - 2              | 3                    | 0   | 0   | 3        |                           |
| FIN 420   | Portfolio Management and Theory | 3                    | 0   | 0   | 3        | FIN 411                   |
|           | College Elective - 4            | 3                    | 0   | 0   | 3        |                           |
| FIN 424   | Graduation Project/Finance      | 3                    | 0   | 0   | 3        | 102 Cr. Hrs. & MGT<br>312 |
| Total     |                                 | 12                   | 0   | 0   | 12       |                           |

## Course Descriptions

### Courses offered by the Management Department

#### **MGT 200 Introduction to Management**

This introductory course provides an overview of the field of management. The topics covered are designed around the key functions of management: planning, organizing, leading, and controlling. Students are exposed to the development of management theories and approaches, managerial decision-making, business environment, business ethics and social responsibility.

#### **MGT 312 Business Research Methods**

This course provides an introduction to research methods in social sciences in general and business administration in particular. The primary aim of the course is to equip students with the essential research techniques they would use in advanced specialized courses such as marketing research, feasibility studies and project planning, and the graduation project. The course will cover a range of topics including, in particular, research designs, sampling theory, data collection tools, questionnaire development and program evaluation methodology. The course will also cover basic data analysis methods involving both exploratory and hypothesis testing statistical techniques.

**Pre-requisites: STA 321, MGT 200**

#### **MGT 311 Business Communications**

The course aims to equip students with effective business communication skills, providing thorough practice in writing business letters, memos, reports, resumes and job applications. In addition to developing written communication, the course teaches verbal communication skills, for example public speaking, interviewing and other forms of communication. The entire teaching process is focused on building effective communication skills.

**Pre-requisite: MGT 200**

#### **MGT 300 Organizational Behavior**

This course surveys the background and development of organizational behavior, and examines major conceptual models in the field. A number of topics are explored in detail, including personality, perception, motivation, groups and teams, communication, leadership, conflict and negotiation, and organizational sources of stress and coping strategies. Issues relating to organizational change and development are given special attention.

**Pre-requisite: MGT 200**

#### **MGT 301 Business Law**

The aim of this course is to review basic legal principles and sources of contract law, background of law and legal theory. The following topics are covered in detail: formation of contracts, modifications, terminations, remedies, award law, pricing, patent, business organizations, company law, sales of goods, transfer of ownership rights, employment and health and safety laws.

**Pre-requisite: MGT 200**

#### **MGT 401 Management Information Systems**

This course provides an overview of computers and information processing. It covers the following topics in detail: management information system concepts, information processing applications, data

handling process, data processing and automation, fundamentals of any system and system design, and development and implementation.

**Pre-requisites: MGT 200, STA 231**

#### **MGT 323 Business Ethics**

The aim of this course is to provide comprehensive and systematic coverage of a wide range of ethical issues in all functional areas of business. Using cases, vignettes and discussion points, the course will examine the ethical problems involved in real-life business situations. Some of the major topics to be covered include: ethical theory and business practice, corporate social responsibility, rights and obligations of employees and employers, ethical issues in international business, and social and economic justice.

**Pre-requisite: MGT 200**

#### **MGT 325 Public Relations**

The course represents a survey of the fundamental principles, tools and practices of the public relations profession in addition to the issues involved in designing and evaluating public relations programs to solve specific internal and external communication problems.

**Pre-requisite: MGT 311**

#### **MGT 313 Feasibility Studies**

Feasibility studies and project evaluation have become increasingly important, since they signal the success of any industrial, tourism or investment project. This course is designed to introduce students to the concepts and process of feasibility studies and project evaluation. It explains how to prepare feasibility studies and project evaluation, and how to benefit from them in the investment decision-making process. Feasibility studies and project evaluation depend on collecting and analyzing marketing, technical, administrative and financial data and information.

**Pre-requisites: ECO 200, FIN 210**

#### **MGT 211 Production and Operations Management**

This course is designed to cover the principles of production and operations management as they relate to both manufacturing and service operations. The course will examine the following topics: decision-making process, forecasting, operations strategy, production planning, scheduling, productivity, quality control, and future trends in production and operations management.

**Pre-requisites: MGT 200, STA 111**

#### **MGT 202 Human Resource Management**

The aim of this course is to survey the principles and practices in managing human resources. The course covers a number of basic topics, for example job analysis and job design techniques, human resource policies, human resource acquisition and maintenance strategies, recruitment, selection, development and training, compensation, health and safety issues and policies. The topics of labor relations and collective bargaining also receive careful attention.



**Pre-requisite: MGT 200**

**MGT 411 International Business**

This course covers a number of topics of both a general and specific nature. It examines the objectives and motives of international companies (MNCs) for operating internationally, and the strategies they use to achieve global presence. Special attention is given to the following topics: theories of international trade, domestic trade, free trade and protectionism, tariffs, foreign exchange, foreign direct investments (FDI), international financial institutions, international corporate planning and competitive strategies.

**Pre-requisites: ECO 210, MGT 200**

**MGT 221 Purchasing and Materials Management**

This course offers a survey of the principles and techniques used in purchasing and materials management. It examines the following topics: recognition of materials needs, the acquisition process and the overall supply management issues and policies. Within these broader topics, the course looks at techniques used in materials requirement planning, stock and inventory control, transportation, stores management, quality and quality assurance, JIT and TQM. The course also examines the purchasing and supply management processes and methods used by governments, non-profit and service organizations.

**Pre-requisite: MGT 211**

**MGT 400 Strategic Management**

This advanced course focuses on all aspects of the strategic management process, including decision-making, company objectives, strategies, implementation and outcome assessment. The course develops a thorough understanding among students of policy formulation and evaluation with special attention to the capabilities and competencies of a firm. The course also addresses issues relating to resource analysis and allocation techniques, and the management of strategic change.

**Pre-requisites: FIN 210, MGT 300, MKT 200**

**MGT 320 Organizational Theory and Design**

The primary aim of this course is to expose students to the evolution of organization theory, and the contribution of different schools of thought to the development of classical and contemporary theoretical perspectives. The topics of bureaucracy, power and politics, organizational structures and technology, and emerging design options will be extensively examined. The course also looks at the issues of information and control, organizational renewal and learning, techno-structural change and adaptive capacity of organizations. Case studies and actual examples from a range of firms will be used to investigate the application of organization theory to management issues.

**Pre-requisite: MGT 300**

**MGT 421 Selected Topics in Management**

This is an advanced course in management. Its primary aim is to offer a more thorough examination of selected topics. The course instructor will select topics keeping in view students' interests and the availability of teaching material and resources. In general, an attempt will be made to include topics that have received little attention in other management courses, or topics in new areas that are not covered in the prescribed syllabus. The choice of topics is expected to vary from semester to semester.

**Pre-requisite: MGT 400**

#### **MGT 212 Management of Small Business**

The course is designed to answer the fundamental question that students and aspiring entrepreneurs often ask: how can I start and manage my own business? With this objective, the course discusses different types of businesses, legal organizations, accounting and financial requirements. Other topics covered in the course include: obtaining capital, controlling inventory, setting prices, staffing, marketing strategies, growth and expansion decisions and strategies.

**Pre-requisite: MGT 200**

#### **MGT 321 Total Quality Management**

This course offers an introduction to principles and philosophy of Total Quality Management. It draws upon the work of experts such as Edwards Deming, Joseph Juran, Philip Crosby and Genichi Taguchi to develop an understanding of the concepts of quality from the perspectives of customers and product/service organizations. The course also evaluates the criteria used in well-known quality awards (e.g., The Malcolm Baldrige National Quality Award, and ISO 9000, as well as local UAE quality awards), and reviews the performance of selected quality-award winning companies.

**Pre-requisite: MGT 211**

### **Courses Offered by the Accounting Department**

#### **ACC 200 Principles of Accounting I**

Accounting is something that affects people in their personal lives just as much as it affects very large businesses. Financial accounting is concerned with the provision of accounting information to owners, investors and other external users. The term accounting may refer to different activities, for example collecting, recording, processing and communicating economic data to produce useful accounting information. This course is a study of the fundamental principles and procedures of accounting as applied to sole proprietorships, partnerships and corporations.

#### **ACC 220 Principles of Accounting II**

The users of accounting information need complete and comparable information to assess company profitability and financial position. The course provides details on the preparation of financial statements (balance sheet, income statement, and statement of cash flow) as well as the accounting treatment of their components

**Pre-requisite: ACC 200**

#### **ACC 310 Intermediate Accounting I**

Like other human activities, accounting is largely a product of its environment. Therefore, accounting objectives are not the same today as they were in the past. To provide managers and other interested parties with useful information, they must know how this information can be generated. "Accountants must act as well as think," therefore it is important for business administration students to understand how accounting reports are prepared, as well as why. The course places particular emphasis on valuation procedures and alternative accounting treatments of various assets and liabilities.

**Pre-requisite: ACC 220**

#### **ACC 320 Intermediate Accounting II**

Like other human activities, accounting is largely a product of its environment. Therefore, accounting objectives are not the same today as they were in the past. To provide managers and other interested parties with useful information, they must know how this information can be generated. "Accountants must act as well as think," therefore it is important for business administration students to understand how accounting reports are prepared, as well as why. The course places particular emphasis on valuation procedures and alternative accounting treatments of various assets and abilities.

**Pre-requisite: ACC 310**

#### **ACC 322 Managerial Accounting**

Managers in every organization are better equipped to perform their duties when they have a reasonable grasp of accounting data. Decision-making, which is "the choice of alternative courses of action" is the core of the management process that depends ultimately on useful accounting information. This type of information will be provided through management accounting, which refers to accounting information developed for managers within an organization. The course is designed primarily for students who have studied basic accounting for two semesters. Emphasis is placed on accounting as a tool for planning and control.

**Pre-requisite: ACC 220**

#### **ACC 312 Governmental Accounting**

The aim of this course is to equip the students with the theory and practice of fund accounting in government units and not-for-profit organizations. In the process, the course discusses all issues related to the preparation of financial statements of the government units and non-profit organizations.

**Pre-requisite: ACC 310**

#### **ACC 323 Auditing**

Auditing is interdisciplinary in its scope and methodology, encompassing accounting theory and applications, legal aspects, managerial issues, environmental factors and computer processing. In its modern sense, an audit is a process whereby the accounts of business entities and managerial performance are subjected to scrutiny to develop an opinion on fairness of financial statements and effectiveness of management. The general concern of auditing could be derived from the famous statement of Confucius: "The aim of the superior man is truth." This course is designed to introduce students to basic concepts and standards. Concentration is mainly on auditing standards, ethics, principles and procedures used by external auditors in conducting financial and managerial audit.

**Pre-requisite: ACC 320**

#### **ACC 321 Cost Accounting**

The relevance of information depends on the decision being made. Decision-making is essentially choosing among several courses of action. Accountants have an important role in the decision-making process, not as decision-makers but as collectors and reporters of relevant information. The accountant's role in decision-making is primarily that of a technical expert on cost analysis, cost control and cost reduction, information that will lead to the best decision on production, marketing,

profitability, performance evaluation, transfer pricing and capital budgeting. The study of the basic concepts and practical aspects of cost accounting is the primary concentration of this course.

**Pre-requisite: ACC 310**

#### **ACC 410 Advanced Accounting**

In most business combinations, one company acquires control over the net assets of another. The transfer of control from one group of owners to another affects the economic interests of many people, including the owners, managers, creditors and customers. Although the single proprietorship is the most common form of business in the Arab world, and although the corporate form of organization accounts for the largest volume of business, the partnership form is widely used by smaller business entities in the Arabian Gulf region. The study of partnership and consolidated financial statements is the primary concentration of this course. Fundamentals of fair value and equity accounting methods are reviewed.

**Pre-requisite: ACC 320**

#### **ACC 411 Advanced Auditing**

Many accounting students will choose a career in auditing, either in public accounting, private industry or government. These students need to acquire technical expertise and to understand the theoretical concepts underlying current auditing practice. This course is designed to acquaint the student of accounting with the advanced practical aspects of auditing procedures and techniques with reference to the method of their application in commercial, industrial and other profit making organizations, paying particular attention to assessment of risk, concept of internal control and assertions of assets and liabilities.

**Pre-requisite: ACC 311, ACC 323**

#### **ACC 421 Financial Management and Control**

This course aims to provide with an understanding of financial statements and the analytical tools available for use in properly managing and adding value to an organization. It focuses on analysis of financial and accounting information and its impact on financial decision-making and profit planning. The course uses some basic applications of statistics in analyzing the impact on financial markets and consequently setting up standards in the field of financial planning in order to ensure the financial stability.

**Pre-requisites: ACC 322, ACC 410**

#### **ACC 420 Accounting Theory**

Accounting theory is concerned with the models, hypotheses and concepts that together form the foundation for financial accounting practice. This course traces the historical development of accounting to gain an understanding of how we arrived at current practices, together with the social, political and economic influences on accounting standards.

**Pre-requisite: ACC 410**

#### **ACC 311 Computerized Accounting Information Systems**

The computerized accounting information system combines the skill sets of two areas experiencing rapid growth and change - accounting and information technology. Electronic commerce, direct-business-to-business communication, paperless work process and many other technology-intensive



innovations have created new challenges and opportunities for accountants who also have expertise in information systems. Many traditional accounting functions are now embodied in systems that require a different combination of technical and financial knowledge. The CAIS course is designed to provide the combination of knowledge and skill sets to meet the new challenges and opportunities of the information technology world.

**Pre-requisites: ACC 310**

#### **ACC 414 International Accounting**

The global economy is best characterized by a new economic and corporate world in which national boundaries are losing their importance. Multinational and local firms need to be aware of the linkages, ramifications, conditions and demands of the global economy. This course looks at how accounting information that reflects this international reality for both external and internal users can be produced. International accounting takes in all the technical accounting problems in financial accounting, cost accounting, management accounting and auditing that have a bearing on the conduct of foreign operations.

**Pre-requisite: ACC 310**

#### **ACC 424 Islamic Accounting**

This course provides a broad framework of the structure of Islamic accounting thought. The conceptual framework of accounting, accounting policy, operationalization of terms, financial reporting standardization of accounting practice and profit and loss sharing in Islam on the most controversial issues at the academic and professional levels.

**Pre-requisite: ACC 310**

#### **ACC 413 Oil and Gas Accounting**

Since the early 1970s, oil revenues have transformed the Arabian Gulf region into a modern sophisticated industrialized economy. Crude oil exports, which are the preserve of the Arabian Gulf region, remain the mainstay of economic activity. Oil and gas accounting is concerned with the models and concepts that together form the foundation and practice of financial and cost accounting for oil and gas industry.

**Pre-requisite: ACC 310**

#### **ACC 412 Taxation Accounting**

Managers of local and multinational corporations face different tax systems in different countries that require adequate tax planning and knowledgeable people in the field of taxation accounting. Taxation of business does vary from one country to another. Not only are tax rates different, but also opinions differ as to definitions of taxable income and types of taxes to be used.



**Pre-requisite:** ACC 310

### Courses Offered by the Marketing Department:

#### **MKT 200 Principles of Marketing**

This introductory course sheds light on the basic concepts of marketing, its varied definitions, origins and evolution through time. It also covers the main components of the marketing program (product, price, place and promotion) on which any attempts to plan marketing efforts rest.

**Pre-requisite:** MGT 200

#### **MKT 212 Service Marketing**

The course explores the area of service marketing and identifies the main characteristics that set product and service marketing apart. As such the course represents an extension of the marketing management process beyond its traditional role in the physical products area.

**Pre-requisite:** MKT 200

#### **MKT 411 Marketing Research**

This course offers a closer review and examination of research techniques applicable to problem-solving and decision-making in marketing and other management fields. The course exposes the students to the complete research process starting with problem formulation and definition of key concepts and analytical techniques, data collection, analysis, interpretation and presentation of findings. Students are required to develop a major marketing research project using appropriate field techniques.

**Pre-requisites:** MKT 200, STA 231

#### **MKT 211 Consumer Behavior**

The course introduces students to the study of consumer behavior. In so doing, the course borrows key concepts and theories from the behavioral sciences and examines their relevance and usefulness in understanding shopping behavior. Specifically the course traces those forces that shape, constrain and color consumer's buying decisions and their implications for mapping out marketing strategies.

**Pre-requisite:** MKT 200

#### **MKT 311 Advertising and Promotion**

The prime focus of this course is on the communication function of marketing which is known in the marketing literature as the promotional mix, i.e. advertising, public relations, sales promotion and personal selling. As such the course provides an understanding as to how these variables interact in an integrated field.

**Pre-requisite:** MKT 211

#### **MKT 325 Marketing Channels**

The course follows an institutional approach to marketing by concentrating on the main institutions which are involved in making goods and services available for use and consumption. Given such a

premise, the course sheds light on these institutions and dwells on their nature, types, history, functions and patterns of development.

**Pre-requisite: MKT 200**

#### **MKT 312 Business-to-Business Marketing**

The focus of this course is on studying and analyzing the unique aspects of marketing goods and services to organizational buyers rather than to ultimate consumers. Towards this end the course constitutes a description and analysis of the institutions and functions of business markets.

**Pre-requisite: MKT 200**

#### **MKT 412 International Marketing**

The interdependence among countries has forced business organizations to practice marketing beyond domestic boundaries. This course addresses this issue and endeavors to expose the students to international marketing and the application of marketing techniques and strategies in a global environment.

**Pre-requisite: MKT 200**

#### **MKT 424 Marketing Management**

This is the capstone course in the marketing major. It is intended to help the students integrate the knowledge he acquired in other marketing courses. As such, it is a managerial decision-making process aimed at matching organizational strengths with market opportunities. The course looks at the relationships between the customer, competition and the company. It explores ways for the company to differentiate itself from competition by providing superior value to the customer.

**Pre-requisites: MKT 211, MKT 411**

#### **MKT 224 Computer Applications in Marketing**

The course represents an attempt to explore the potential of certain computerized software and programs in summarizing, organizing, interpreting and analyzing marketing data, in addition to the use of a host of advanced statistical packages in predicting specific marketing phenomena.

**Pre-requisite: COM 111, MKT 200**

#### **MKT 314 Electronic Marketing**

The course introduces students to the Internet and Internet marketing, in a sense enabling them to use the Internet to market goods and services worldwide. Towards this end students will learn how to create and publish web pages, develop Web marketing skills, promote and sell products over the World Wide Web.

**Pre-requisite: MKT 200**

#### **MKT 326 Product and Brand Management**

The product (and/or service) plays a central role in the activities of all organizations for it is the medium through which they seek to achieve their objectives and at the same time satisfy their customers. This course is designed to shed light on issues relevant to product and brand management processes. Specifically the course focuses on two major problems: the development and introduction of new

products/brands from the idea inception to commercialization, and the marketing of existing brands with emphasis on building, measuring and managing brand equity.

**Pre-requisite: MKT 200**

#### **MKT 327 Retail Marketing**

The course provides an overview of the field of retailing and endeavors to familiarize the student with the basic concepts and issues that are deemed pertinent in today's world of retailing and retail marketing. These include, but are not limited to, the nature and structure of retail industry, the determinants of successful retail marketing strategies and the fundamental principles of sound retail management.

**Pre-requisite: MKT 200**

#### **MKT 313 Selected Topics in Marketing**

This course caters for specific issues, topics and recent developments in marketing thought and practice that are new or controversial in nature and that have not adequately covered or addressed in other marketing courses.

**Pre-requisite: MKT 200**

#### **MKT 223 Personal Selling**

This course focuses on familiarizing students with the concepts, theory and practice of personal selling. Through emphasis on professional salesmanship, the course deals with interpersonal communication and understanding consumer motivation for buying as the foundation to effective selling.

**Pre-requisite: MKT 200, MGT 311**

### **Courses Offered by the Finance Department**

#### **FIN 210 Fundamentals of Finance**

This introductory course discusses in detail basic terms commonly used in finance. Topics covered include functions of financial management, financial analysis and planning, working capital management, the capital budgeting process and long term financing.

**Pre-requisite: ACC 200**

#### **FIN 220 Corporate Finance**

This course introduces financial issues from the corporate point of view. It includes the concept of net present value (NPV) and valuation of future cash flows. The course extends to the application of NPV in the capital budgeting decisions. The course covers the risk-return concept with the help of CAPM and APT theories. It also highlights long-term financial planning and capital structure decisions.

**Pre-requisite: FIN 210**

#### **FIN 221 Money and Financial System**

This course is designed to introduce basic economic and financial concepts related to money, banking and financial systems. It uses basic economic principles to introduce the structure of financial markets, financial institution management, the foreign exchange markets, the internationalization of

financial markets and the role of monetary policy in the economy. This course offers students a balanced picture of the interactions between money, the financial system and the economy.

**Pre-requisite: ECO 210**

#### **FIN 311 Financial Planning and Control**

This course provides an understanding of financial statements and the analytical tools available for use in properly managing and adding value to an organization. It focuses on analysis of financial and accounting information and its impact on financial decision-making and profit planning. The course uses some basic applications of statistics in financial planning in order to ensure corporate financial stability.

**Pre-requisite: ACC 220, FIN 210**

#### **FIN 324 Commercial Banking**

This commercial bank management course will equip the students with good grounding in the banking industry by teaching both the theory and practice of commercial banking. It focuses on the dynamic and rapidly changing financial-services industry; it explores modern financial management decision-making and highlights the importance of adapting to change and creating value as the way for financial institutions to succeed. The following areas are explained: introduction to bank management, strategic and financial management and the measurement of bank performance, the portfolio risks of banking and their management, managing the bank lending functions, and capital adequacy in banking institutions.

**Pre-requisite: FIN 221**

#### **FIN 411 Financial Markets**

This course is designed to build an understanding of financial markets, institutions and market participants. The coverage includes various types of financial markets like foreign exchange markets, stock markets, derivative markets and bond markets. The specific topics covered include the determination of interest rates; fixed income securities, mortgages, foreign exchange, futures, options, and money markets; commercial banks, savings banks, and credit unions; insurance companies, securities firms, finance companies, mutual funds, and pension funds. It also studies financial institution and market regulation, past and present banking crises, management and hedging of risk, central banking and monetary policy.

**Pre-requisite: FIN 210, FIN 324**

#### **FIN 320 International Finance**

This course is designed to introduce an overview of the environment of global finance, the international dimension of corporate finance, balance of payments and exchange market, the international monetary system, political risk, international cash management, international portfolio diversification, foreign direct investment and international and other developmental international financial issues.

**Pre-requisite: FIN 220****FIN 422 Selected Topics in Finance**

The primary aim of this course is to offer a more thorough examination of selected topics. The course instructor will select topics keeping in view topics of current interest and the availability of teaching material and resources. The choice of topics is expected to vary from semester to semester. In general, the course caters for specific issues, topics and recent developments in financial thought and practice that are new or controversial in nature and that have not been adequately covered or addressed in other finance courses.

**Pre-requisite: FIN 210****FIN 410 Investments**

This course develops advanced analytical and managerial skills in the field of investments. The topics covered include risk and returns, the analysis of different types of securities, basics of portfolio theory, modern investment theory, and portfolio selection and management. The course helps students learn how to make good investment decisions, recognize investment problems and deal with them.

**Pre-requisite: FIN 321****FIN 423 Computer Applications in Finance**

This course will equip students with the skills required to apply their acquired finance knowledge using computer applications and available software, like EXCEL. The following topics are covered using computers: accounting primer, cash management, financial ratios analysis, break-even analysis, EPS, P/E ratio, taxation, time-value of money, interest/discount rates, capital budgeting, PV, FV, NPV, IRR, loan repayment schedule, dividends, measurement of risk and returns, valuation of securities, cost of capital, credit-scoring models, yield measurement, and advanced models in finance.

**Pre-requisites: COM 111, FIN 210****FIN 322 Personal Finance**

This personal finance course equips the student with financial knowledge and tools to maximize financial resources over an individual's lifetime. This course discusses the latest financial planning tools and techniques that enable an individual to achieve his/her financial goals. Financial and personal satisfaction is the result of an organized process referred to as personal money management, which is the focus of this course.

**Pre-requisite: FIN 210****FIN 421 Islamic Banking**

This course will equip students with a firm grounding in the banking industry. It teaches the theory and practice of Islamic banking within the backdrop of conventional banking. Focusing on the dynamic and rapidly changing financial services industry, it explores modern financial engineering for financial product development that is Shari'ah-compliant. The following areas are covered; introduction to Islamic economy and Islamic financial system, Islamic financial instruments, the measurement of bank performance, management of Islamic banks' investment risk, Shari'ah-compliant management of bank financing functions, bank capital (theory, management and regulation), financial innovations, Information technology, and corporate restructuring in the financial services industry.

**Pre-requisite: FIN 324****FIN 420 Portfolio Management and Theory**

This course is designed to introduce an overview of portfolio management, more specifically securities and security analyses, risk and return, environment analyses, company analyses, bond analyses, options, rights, warrants and convertibles, futures, efficient-market theory, portfolio analyses and selection, capital market theory, managed portfolios and performance measurements.

**Pre-requisite: FIN 411****FIN 321 Financial Risk and Insurance**

This course explores various types of corporate and financial risks, analyzes them, and identifies methods to control them. Specific issues covered include risk identification and measurement, risk analysis and management, and relevance of corporate risk management from shareholders' value point of view. It also deals with the main tool to diffuse risk, i.e., insurance, describing the mechanics of insurance contracts and their pricing, risk pooling and risk diversification, and risk hedging with derivative contracts.

**Pre-requisite: FIN 220****ECO 200 Microeconomics**

This course is designed to introduce basic economic concepts related to individual decision-makers in the economy - households, businesses and governments - and how they interact. Meaning, nature and methods of economic study are introduced. Supply, demand and elasticity are used to analyze consumer and firm behaviors in different types of markets. The rationale for various public policies designed to modify the workings of markets is examined.

**ECO 210 Macroeconomics**

This course is designed to introduce basic economic concepts related to aggregate economic relationships such as output and income, national income accounting, aggregate supply and aggregate demand, unemployment, inflation, economic growth and development, money and banking, and the international economy. The course emphasizes the main components of aggregate expenditure and determination of equilibrium level of income, in addition to the analysis of the effects of fiscal and monetary policies on the economy. It extends understanding of the ability of governments to influence economic performance.

**Pre-requisite: ECO 200****ECO 310 Quantitative Analysis**

The aim of this course is to review basic quantitative methods used in business decision-making. The major focus of the course will be on decision-making under uncertainty and certainty such as linear programming. Some of the specific topics to be covered will include: problem formulation, graphic solutions and different forms of linear programming such as transportation and assignment models, queuing theory, decision analysis, inventory systems and forecasting.

**Pre-requisites: MTH 131, STA 231**

**ECO 311 Managerial Economics**

This course is designed to acquaint students of business administration with the economics of managerial decision-making, paying special attention to the criteria for rational decision making in private business, non-profit institutions and public agencies. The course emphasizes the application of economic theory and the tools of decision science to examine how an organization can achieve its objectives most efficiently. It is an application of economic theory and analysis to the managerial decision-making process.

**Pre-requisites:** ECO 200

**ECO 320 Economic Development of GCC**

This course is designed to introduce the concepts, measurements and theories of broad-based sustainable development, as well as the relationships between economic development, human development and environment. Students will also become familiar with several theories of development, and the characteristics and the quality of life in GCC countries will be investigated and compared to those of other countries. The focus would be on the causes, problems and challenges associated with the development of GCC countries, such as population structure and localization policies, the feasibility of GCC states integration and the impact of oil and non-oil production on development.

**Pre-requisite:** ECO 210

**MGT 402, ACC 422, MKT 425, FIN 424 Graduation Project**

This course takes the form of a dissertation completed by graduating students in partial fulfillment of BSc in Management, Accounting, Marketing and Finance degree programs. Students choose an appropriate research project, justify it, work out the research methodology, and analyze, synthesize and evaluate information, then communicate significant knowledge and understanding. The proposed research should be related to the program. An academic advisor is assigned to advise the student at various stages of the research project. This course culminates in the preparation of a dissertation by each student. The course is an integral part of the curriculum, designed to train students to undertake scientific research and bridge the gap between theory and practice in management, accounting, marketing or finance.

**Pre-requisite:** 102 credit hours, MGT 312

**MGT 470 Supervised Training**

After the completion of 96 credit hours, including seven major core courses. The aim of supervised training is to enable students to practice the learnt theories and concepts in a business organization. Students from any business discipline undergo a training period that is closely monitored by an instructor and the manager/supervisor of the organization to ensure that the student cultivates sound professional attitudes and ethics needed in work places.

**CBA Minors**

CBA Minors within the College of Business

- Minor in Accounting
- Minor in Finance
- Minor in Management

- Minor in Marketing

#### CBA Minors for Other Colleges

- Minor in Management to the College of Engineering & IT
- Minor in Accounting to the Department of IT.
- Minor in Marketing to the College of Pharmacy

#### Important Information

- Minors are open to students from outside College of Business Administration and to College of Business Administration students pursuing minor in disciplines other than the discipline of their major.
- College of Business Administration students may pursue only two minors offered within the College of Business Administration.
- A grade of at least C in each course and a GPA of at least 2.00 must be earned in courses taken to satisfy the minor.
- Minor Requirements (9 credits).
- Minor Electives (minimum of 6 credits).

#### Structure of the Minor Programs

##### Minor Programs offered by Business Administration College

#### 1. Department of Management

- Minor for Business Administration College ONLY  
Management for non-Management Students: 15 Credit Hours

#### Compulsory Courses\* (9 Credit Hours)

| Add                      | Course No. | Course Title              | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite      |
|--------------------------|------------|---------------------------|-----|------|------|----------|-------------------|
| <input type="checkbox"/> | MGT 202    | Human Resource Management | 3   | 0    | 0    | 3        | MGT 200           |
| <input type="checkbox"/> | MGT 411    | International Business    | 3   | 0    | 0    | 3        | MGT 200 & ECO 210 |
| <input type="checkbox"/> | MGT 422    | Project Management        | 3   | 0    | 0    | 3        | MGT 200           |

#### Optional Courses\* (6 Credit Hours)

| Add | Course No. | Course Title | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite |
|-----|------------|--------------|-----|------|------|----------|--------------|
|-----|------------|--------------|-----|------|------|----------|--------------|



|                          |         |                                      |   |   |   |   |               |
|--------------------------|---------|--------------------------------------|---|---|---|---|---------------|
| <input type="checkbox"/> | MGT 211 | Production and Operations Management | 3 | 0 | 0 | 3 | MGT200,STA111 |
| <input type="checkbox"/> | MGT 322 | Computer Applications in Management  | 2 | 2 | 0 | 3 | COM111,MGT200 |
| <input type="checkbox"/> | MGT 320 | Organizational Theory and Design     | 3 | 0 | 0 | 3 | MGT 300       |

*A compulsory course which is part of the student's major must be replaced by another optional course. An optional course which is part of the student's major cannot be taken.*

### Minor Program offered for Engineering College

- Minor Programs in Management Offered by Business Administration College  
15 Credit Hours

### Compulsory Courses\* (9 Credit Hours)

| Add                      | Course No. | Course Title               | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite |
|--------------------------|------------|----------------------------|-----|------|------|----------|--------------|
| <input type="checkbox"/> | MGT 200    | Introduction to Management | 3   | 0    | 0    | 3        |              |
| <input type="checkbox"/> | MGT 422    | Project Management         | 3   | 0    | 0    | 3        | MGT 200      |
| <input type="checkbox"/> | MGT 300    | Organization Behavior      | 3   | 0    | 0    | 3        | MGT 200      |

### Optional Courses\* (6 Credit Hours)

| Add                      | Course No. | Course Title                        | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite |
|--------------------------|------------|-------------------------------------|-----|------|------|----------|--------------|
| <input type="checkbox"/> | MGT 211    | Production & Operations Management  | 3   | 0    | 0    | 3        | MGT200       |
| <input type="checkbox"/> | MGT 322    | Computer Applications in Management | 2   | 2    | 0    | 3        | MGT200       |
| <input type="checkbox"/> | MGT 320    | Organization Theory & Design        | 3   | 0    | 0    | 3        | MGT 200      |

## 2. Department of Accounting

### Minor Programs offered by Business Administration College

#### Minor for Business Administration College ONLY

- Accounting for non-Accounting Students: 15 Credit Hours

### Compulsory Courses\* (9 Credit Hours)

| Add                      | Course No. | Course Title              | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite                           |
|--------------------------|------------|---------------------------|-----|------|------|----------|--|
| <input type="checkbox"/> | ACC 310    | Intermediate Accounting I | 3   | 0    | 0    | 3        | Principles of Accounting II<br>ACC 220 |
| <input type="checkbox"/> | ACC 322    | Managerial Accounting     | 3   | 0    | 0    | 3        | Principles of Accounting II<br>ACC 220 |
| <input type="checkbox"/> | ACC 321    | Cost Accounting           | 3   | 0    | 0    | 3        | Principles of Accounting II<br>ACC 220 |

### Optional Courses\* (6 Credit Hours)

| Add | Course No. | Course Title                 | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite                           |
|-----|------------|------------------------------|-----|------|------|----------|--|
|     | ACC 312    | Governmental Accounting      | 3   | 0    | 0    | 3        | Principles of Accounting II<br>ACC 220 |
|     | ACC 412    | Taxation Accounting          | 3   | 0    | 0    | 3        | Principles of Accounting II<br>ACC 220 |
|     | ACC 311    | Computerized Acc. Info. Sys. | 2   | 2    | 0    | 3        | Principles of Accounting II<br>ACC 220 |
|     | ACC 413    | Oil & Gas Accounting         | 3   | 0    | 0    | 3        | Principles of Accounting II<br>ACC 220 |
|     | ACC 323    | Auditing                     | 3   | 0    | 0    | 3        | Principles of Accounting II<br>ACC 220 |

*A compulsory course which is part of the student's major must be replaced by another optional course. An optional course which is part of the student's major cannot be taken.*

### Minor offered for the Department of IT.

15 Credit Hours

**Minor in Accounting for**

- Information Technology/ Network & security
- Information Technology/ Database and Web system

### Compulsory Courses\* (9 Credit Hours)

| Add | Course No. | Course Title | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite |
|-----|------------|--------------|-----|------|------|----------|--------------|
|-----|------------|--------------|-----|------|------|----------|--------------|

|                          |         |                             |   |   |   |   |  |
|--------------------------|---------|-----------------------------|---|---|---|---|--|
| <input type="checkbox"/> | ACC 220 | Principles of Accounting II | 3 | 0 | 0 | 3 | Principles of Accounting I<br>ACC 200  |
| <input type="checkbox"/> | ACC 310 | Intermediate Accounting I   | 3 | 0 | 0 | 3 | Principles of Accounting II<br>ACC 220 |
| <input type="checkbox"/> | ACC 322 | Managerial Accounting       | 3 | 0 | 0 | 3 | Principles of Accounting II<br>ACC 220 |

**Optional Courses\* (6 Credit Hours)**

| Add                      | Course No. | Course Title                  | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite                           |
|--------------------------|------------|-------------------------------|-----|------|------|----------|--|
| <input type="checkbox"/> | ACC 320    | Intermediate Accounting II    | 3   | 0    | 0    | 3        | Intermediate Accounting I<br>ACC 310   |
| <input type="checkbox"/> | ACC 321    | Cost Accounting               | 3   | 0    | 0    | 3        | Principles of Accounting II<br>ACC 220 |
| <input type="checkbox"/> | ACC 312    | Governmental Accounting       | 3   | 0    | 0    | 3        | Principles of Accounting II<br>ACC 220 |
| <input type="checkbox"/> | ACC 250    | Enterprise Resources Planning | 2   | 2    | 0    | 3        | Principles of Accounting I<br>ACC 200  |

**Minors offered for Department of IT.**

- Minor in Accounting for
  - Information System/ E Business Management
  - Information System/ Project Management

**Compulsory Courses\* (9 Credit Hours)**

| Add                      | Course No. | Course Title                    | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite                           |
|--------------------------|------------|---------------------------------|-----|------|------|----------|--|
| <input type="checkbox"/> | ACC 220    | Principles of Accounting II     | 3   | 0    | 0    | 3        | Principles of Accounting I<br>ACC 200  |
| <input type="checkbox"/> | ACC 220    | Intermediate Accounting I       | 3   | 0    | 0    | 3        | Principles of Accounting II<br>ACC 220 |
| <input type="checkbox"/> | ACC 311    | Computerized Information System | 2   | 2    | 0    | 3        | Principles of Accounting II<br>ACC 220 |
| <input type="checkbox"/> |            |                                 |     |      |      |          |  |

### Optional Courses\* (6 Credit Hours)

| Add                      | Course No. | Course Title                     | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite                           |
|--------------------------|------------|----------------------------------|-----|------|------|----------|--|
| <input type="checkbox"/> | ACC 322    | Managerial Accounting            | 3   | 0    | 0    | 3        | Principles of Accounting II<br>ACC 220 |
| <input type="checkbox"/> | ACC 321    | Cost Accounting                  | 3   | 0    | 0    | 3        | Principles of Accounting II<br>ACC 220 |
| <input type="checkbox"/> | ACC 312    | Governmental Accounting          | 3   | 0    | 0    | 3        | Principles of Accounting II<br>ACC 220 |
|                          | ACC 250    | Enterprise Resources<br>Planning | 2   | 2    | 0    | 3        | Principles of Accounting I<br>ACC 200  |

### 3. Department of Marketing

#### Minor for Business Administration College ONLY

- Marketing for non-Marketing students: 15 Credit Hours

#### The Study Plans of Minor Programs

Compulsory Courses\* (9 Credit Hours)

| Add                      | Course No. | Course Title       | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite                    |
|--------------------------|------------|--------------------|-----|------|------|----------|---------------------------------|
| <input type="checkbox"/> | MKT 211    | Consumer behavior  | 3   | 0    | 0    | 3        | Principles of Marketing MKT 200 |
| <input type="checkbox"/> | MKT 411    | Marketing Research | 3   | 0    | 0    | 3        | Principles of Marketing MKT 200 |
| <input type="checkbox"/> | MKT 223    | Personal Selling   | 3   | 0    | 0    | 3        | Principles of Marketing MKT 200 |

Optional Courses\* (6 Credit Hours)

| Add                      | Course No. | Course Title                      | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite                    |
|--------------------------|------------|-----------------------------------|-----|------|------|----------|---------------------------------|
| <input type="checkbox"/> | MKT 327    | Retail Marketing                  | 3   | 0    | 0    | 3        | Principles of Marketing MKT 200 |
| <input type="checkbox"/> | MKT 325    | Marketing Channel                 | 3   | 0    | 0    | 3        | Principles of Marketing MKT 200 |
| <input type="checkbox"/> | MKT 224    | Computer Application in Marketing | 2   | 2    | 0    | 3        | Principles of Marketing MKT 200 |
| <input type="checkbox"/> | MKT 326    | Product and Brand Management      | 3   | 0    | 0    | 3        | Principles of Marketing MKT 200 |
| <input type="checkbox"/> | MKT 423    | Social Media Marketing            | 3   | 0    | 0    | 3        | Principles of Marketing MKT 200 |
|                          | MKT 312    | Business to Business Marketing    | 3   | 0    | 0    | 3        | Principles of Marketing MKT 200 |

*A compulsory course which is part of the student's major must be replaced by another optional course.  
An optional course which is part of the student's major cannot be taken*

## Minor Program for Pharmacy and Health Sciences College

- Minor in Marketing: 15 credit hours.

### Compulsory Courses\* (9 Credit Hours)

| Add                      | Course No. | Course Title               | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite                    |
|--------------------------|------------|----------------------------|-----|------|------|----------|---------------------------------|
| <input type="checkbox"/> | MGT 200    | Introduction to Management | 3   | 0    | 0    | 3        |                                 |
| <input type="checkbox"/> | MKT 200    | Principles of Marketing    | 3   | 0    | 0    | 3        | MGT 200                         |
| <input type="checkbox"/> | MKT 212    | Service Marketing          | 3   | 0    | 0    | 3        | Principles of Marketing MKT 200 |

### Optional Courses\* (6 Credit Hours)

| Add                      | Course No. | Course Title                      | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite                    |
|--------------------------|------------|-----------------------------------|-----|------|------|----------|---------------------------------|
| <input type="checkbox"/> | MKT 327    | Retail Marketing                  | 3   | 0    | 0    | 3        | Principles of Marketing MKT 200 |
| <input type="checkbox"/> | MKT 224    | Computer Application in Marketing | 2   | 2    | 0    | 3        | Principles of Marketing MKT 200 |
| <input type="checkbox"/> | MKT 211    | Consumer Behavior                 | 3   | 0    | 0    | 3        | Principles of Marketing MKT 200 |
| <input type="checkbox"/> | MKT 423    | Social Media Marketing            | 3   | 0    | 0    | 3        | Principles of Marketing MKT 200 |
| <input type="checkbox"/> | MKT 325    | Marketing Channels                | 3   | 0    | 0    | 3        | Principles of Marketing MKT 200 |

#### 4. Department of Finance

##### Minor for Business Administration College ONLY

- Finance for non-Finance Students: 15 Credit Hours

##### Compulsory Courses\* (9 Credit Hours)

| Add                      | Course No. | Course Title                 | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite |
|--------------------------|------------|------------------------------|-----|------|------|----------|--------------|
| <input type="checkbox"/> | FIN 221    | Money and Financial System   | 3   | 0    | 0    | 3        | ECO 210      |
| <input type="checkbox"/> | FIN 220    | Corporate Finance            | 3   | 0    | 0    | 3        | FIN 210      |
| <input type="checkbox"/> | FIN 311    | Financial Planning & Control | 3   | 0    | 0    | 3        | FIN 210      |

##### Optional Courses\* (6 Credit Hours)

| Add                      | Course No. | Course Title               | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite |
|--------------------------|------------|----------------------------|-----|------|------|----------|--------------|
| <input type="checkbox"/> | FIN 322    | Personal Finance           | 3   | 0    | 0    | 3        | FIN 210      |
| <input type="checkbox"/> | FIN 320    | International Finance      | 3   | 0    | 0    | 3        | FIN 220      |
| <input type="checkbox"/> | FIN 321    | Financial Risk & Insurance | 3   | 0    | 0    | 3        | FIN 220      |
| <input type="checkbox"/> | FIN 324    | Commercial Banking         | 3   | 0    | 0    | 3        | FIN 221      |
| <input type="checkbox"/> | FIN 421    | Islamic Banking            | 3   | 0    | 0    | 3        | FIN 324      |

*A compulsory course which is part of the student's major must be replaced by another optional course. An optional course which is part of the student's major cannot be taken*

\*Students within the college of business administration (CBA) cannot take the same courses as students from other colleges since these courses are in their study plans for their major. For example, *Introduction to Management (MGT 200)*, *Principles of Accounting I (ACC 200)*, *Organizational Behaviour (MGT 300)*, *Principles of Marketing (MKT 200)*, and *Principles of Accounting II (ACC 200)* are mandatory courses for all students pursuing different majors in CBA. Overall, CBA students are required to take 54 credit hours as part of their major study plans.

\*\*On the other hand, students from other colleges do not take the same courses for their major programs. The courses offered to students from other colleges are thus not part of their major program study plans. This explains the apparent differences in the course offerings for CBA students and those for non-CBA students.

## College of Dentistry

The College of Dentistry (COD) was established in academic year 1997-1998 as the first oral and dental health teaching institution in the United Arab Emirates. The college's programs are tailored to meet the oral and dental health needs of the UAE community, focusing on the prevention of oral and dental disease.

### Mission

The College of Dentistry reflects the mission of Ajman University to provide dental educational programs in the UAE, to initiate and develop basic and clinical research and to offer high quality oral healthcare to meet the needs of the region. The College of Dentistry aims to prepare graduates who are highly qualified in dental sciences to deliver compassionate and ethical orofacial healthcare services.

### Objectives

The College of Dentistry aims to:

- educate and train a new generation of oral health professionals to world-class standards
- implement a comprehensive oral healthcare program with emphasis on prevention
- provide community dentistry services that meet world-class standards
- initiate scientific research in oral health in collaboration with prestigious international dental and medical institutions, and companies related to dentistry

### Degree Programs

The College of Dentistry currently offers the following undergraduate dental program which is accredited by the UAE Ministry of Education – Higher Education Affairs:

1. Doctor of Dental Surgery (DDS) - 5 year program

### Facilities

The College of Dentistry is equipped to deliver world class dental education. Spacious lecture halls with audio-visual and video conferencing facilities provide students with an exciting learning experience. State-of-the-art laboratories with the latest medical and dental education equipment enhance students' knowledge and skills. The college's dental clinics have a contemporary design with modern dental units and x-ray rooms, and are provided with the latest dental materials, instruments and equipment. Free-of-charge comprehensive dental treatment for all patients ensures a regular flow of dental cases for clinical training, skills development and research requirements during the clinical phase of dental education programs.

### Doctor of Dental Surgery (DDS) Degree Program

This is a five-year undergraduate program leading to the degree of Doctor of Dental Surgery (DDS). The study program and curriculum is at par with that of renowned international universities and dental institutes.



### Program Objectives

The DDS program aims to:

1. educate and train a new generation of competent dental surgeons, who will be able to provide high quality comprehensive oral healthcare with emphasis on prevention
2. emphasize on the prevention and early detection of oral and dental diseases as an integral part of the curriculum
3. provide educational experiences for students using a comprehensive patient care model
4. provide community dentistry services that meet world-class standards
5. establish national recognition in term of academia by the concerned authorities and the public

### Program Outcomes

The DDS program at AU-College of Dentistry is only delivered as a full time program. The College of dentistry offers access to e-learning (MOODLE) as a supplementary tool to its traditional face-to-face pedagogy. The effectiveness of the program is evaluated against the program learning outcomes which have been aligned with the UAE Qualifications Framework (UAEQF) and are consistent with the defined level of the degree.

## DDS PROGRAM LEARNING OUTCOMES

### KNOWLEDGE

On successful completion of the Doctor of Dental Surgery program, graduates will be able to:

1. Express coherent knowledge, capabilities and limitations of specialization areas in dentistry.
2. Describe the importance of prevention, treatment and management of oral and dental diseases.
3. Use the factual and theoretical knowledge in basic medical and dental sciences and allied sciences to gather information from patient as part of history taking and patient examination in order to decide appropriate investigation and decide a suitable course of treatment within the scope of a general dental practice.
4. Identify the integration and importance of the basic medical and allied sciences such as psychology and behavioral sciences to dentistry.
5. Demonstrate a broad knowledge of the fundamental concepts, theories and principles in research projects and protocols complying with ethical principles.

### SKILL

1. Demonstrate effective technical and analytical skills using evidentiary and procedural based processes to perform appropriate dental procedures independently and safely in a general dental practice setting.
2. Practice promotion of oral health and prevention of related disorders.
3. Demonstrate highly developed communication skills to explain or critique complex and unpredictable matters related to oral health and disease.
4. Demonstrate accurate record keeping and how to source and analyze information relevant to effective clinical practice.
5. Practice ethical, professional and legal responsibilities and display appropriate attitudes and behavior.
6. Evaluate, select and apply appropriate methods of clinical research in relation to oral health and disease.

## COMPETENCE

### Autonomy and Responsibility

1. Show responsibility and independent technical and clinical decision-making to evaluate and manage complex and unpredictable clinical work appropriate to a primary care practice.
2. Illustrate adherence to current best practice methods in a mature manner.

### Role in Context

3. Recognize the importance of appropriate leadership roles, manage and take accountability of the team involved in patient care.
4. Demonstrate responsibility and supervise the professional activity and mentoring of allied dental health personnel.

### Self-development

5. Engage in self-evaluation and professional development apt for general dental practice or towards specific specialization.
6. Value professional ethics, positive criticism and feedback, and engage in a life-long learning.

## OUTCOMES MAPPING MATRIX

| National Standards of Learning Outcomes for Bachelor Program (UAENQF LEVEL 7)  | Program Learning Outcomes of Doctor of Dental Surgery |       |       |       |       |
|--|---|-------|-------|-------|-------|
| <b>KNOWLEDGE</b>   | PLO 1   | PLO 2 | PLO 3 | PLO 4 | PLO 5 |
| 1. Specialized factual and theoretical knowledge and an understanding of the boundaries in a field of work or discipline, encompassing a broad and coherent body of knowledge and concepts, with substantive depth in the underlying principles and theoretical concepts | ✓   |       |       |       |       |
| 2. An understanding of allied knowledge and theories in related fields of work or disciplines and in the case of professional disciplines including related regulations, standards, codes, conventions   |   |       | ✓     |       |       |
| 3. Understanding of critical approach to the creation and compilation of a systematic and coherent body of knowledge and concepts gained from a range of sources   |   | ✓     |       | ✓     |       |
| 4. A comprehensive understanding of critical analysis, research systems and methods and evaluative problem-solving techniques  |   |       |       |       | ✓     |
| 5. Familiarity with sources of current and new research and knowledge with integration of concepts from outside fields   |   |       |       |       | ✓     |

| SKILL  |       |       |       |       |       |       |
|--|-------|-------|-------|-------|-------|-------|
|  | PLO 1 | PLO 2 | PLO 3 | PLO 4 | PLO 5 | PLO 6 |
| 1. Technical, creative and analytical skills appropriate to solving specialized problems using evidentiary and procedural based processes in predictable and new contexts that include devising and sustaining arguments associated with a field of work or discipline | ✓     |       |       |       | ✓     |       |
| 2. Evaluating, selecting and applying appropriate methods, procedures or techniques in processes of investigation towards identified solutions   |       | ✓     |       | ✓     |       |       |
| 3. Evaluating and implementing appropriate research tools and strategies associated with the field of work or discipline   |       |       |       |       |       | ✓     |
| 4. Highly developed advanced communication and information technology skills to present, explain and/or critique complex and unpredictable matters   |       |       | ✓     |       |       |       |
| COMPETENCE   |       |       |       |       |       |       |
| Autonomy and responsibility  | PLO 1 |       | PLO 2 |       |       |       |
| 1. Can take responsibility for developing innovative and advanced approaches to evaluating and managing complex and unpredictable work procedures and processes, resources or learning   | ✓     |       |       |       |       |       |
| 2. Can manage technical, supervisory or design processes in unpredictable, unfamiliar and varying contexts   |       |       | ✓     |       |       |       |
| 3. Can work creatively and/or effectively as an individual, in team leadership, managing contexts, across technical or professional activities   | ✓     |       |       |       |       |       |
| 4. Can express an internalized, personal view, and accept responsibility to society at large and to socio-cultural norms and relationships   |       |       | ✓     |       |       |       |
| COMPETENCE   |       |       |       |       |       |       |
| Role in context  | PLO 3 |       | PLO 4 |       |       |       |
| 1. Can function with full autonomy in technical and supervisory contexts and adopt para-professional roles with little guidance  |       |       | ✓     |       |       |       |
| 2. Can take responsibility for the setting and achievement of group or individual outcomes and for the management and supervision of the work of others or self in the case of a specialization in field of work or discipline   | ✓     |       |       |       |       |       |



|   |       |       |
|---|-------|-------|
| 3. Can participate in peer relationships with qualified practitioners and lead multiple, complex groups   | ✓     |       |
| 4. Can take responsibility for managing the professional development and direct mentoring of individuals and groups   |       | ✓     |
| <b>COMPETENCE</b>   |       |       |
| Self-development  | PLO 5 | PLO 6 |
| 1. Can self-evaluate and take responsibility for contributing to professional practice, and undertake regular professional development and/ or further learning can manage learning | ✓     | ✓     |
| 2. Can manage learning tasks independently and professionally, in complex and sometimes unfamiliar learning contexts  | ✓     |       |
| 3. Can contribute to and observe ethical standard   |       | ✓     |

### Admission Requirements

#### Admission is based on the following requirements:

1. A UAE secondary school certificate, science section, or its equivalent, with a grade of not less than B (80 percent). Priority is given to students with higher grades in the following subjects:  
Biology  
Physics  
Chemistry
2. English proficiency test (TOEFL score of 500 or above, or the equivalent)
3. Personal interview
4. Health Fitness Certificate

### Career Opportunities

Graduates of the College will have a wide range of career opportunities to choose from, in addition to continuing higher education (Masters and PhD degrees) in one of the following specialties:

- Endodontics
- Periodontics
- Prosthodontics
- Operative Dentistry
- Pediatric Dentistry
- Orthodontics
- Oral and Maxillofacial Surgery
- Oral Radiology and Oral Medicine
- Dental Public Health
- Implantology
- Aesthetic Dentistry
- Oral Pathology

Graduates may wish to take advanced courses in Oral Surgery, Implantology and other clinical specialties, or they may choose to work in research facilities.

Those who prefer to practice in UAE will be able to do so provided that they pass the UAE Licensing Exams. Graduates are subject to the regulations of the UAE licensing authorities with regard to the type of examination and certification criteria.

**Graduation Requirements**

Students will be awarded the Doctor of Dental Surgery (DDS) degree upon fulfillment of the following requirements:

1. Completing successfully the required credit hours (199 Credit Hours), including the University requirement courses, with an accumulative grade point average (AGPA) not less than C, otherwise students should take, during the following semester(s), clinical subjects as suggested by the academic advisor to fulfill this graduation requirement.
2. Completing successfully the required clinical cases during the clinical phase in addition to the mandatory two months internal clinical training during summer.
3. Submitting & defending a research project before an academic committee of the College.

Degree requirements

The Doctor of Dental Surgery (D.D.S.) degree requires the completion of 199 Credit Hours, distributed according to the following plan:

| Type of Courses                              | Credit hours |
|--|--------------|
| 1. University General Education Requirements |              |
| (a) University Required Courses              | 15           |
| (b) University Elective Courses              | 9            |
| 2. College Requirements                      | 175          |
| TOTAL  | 199          |

**UNIVERSITY REQUIREMENTS COURSES**

**(a) University required Courses (15 cr. Hrs)**

| Course Code | Course Title                            | Credit Hours |      |      | Prerequisite(s) |
|-------------|---|--------------|------|------|-----------------|
|             |   | L/C          | Lb/T | Cr/H |                 |
| ISL112      | Islamic Culture                         | 3            | –    | 3    | xxx xxx         |
| ARB111      | Communication skills in Arabic Language | 3            | –    | 3    | xxx xxx         |
| STA112      | Statistics                              | 2            | 2    | 3    | xxx xxx         |
| INN311      | Innovation & Entrepreneurship           | 3            | –    | 3    | xxx xxx         |
| COM111      | IT Fundamentals                         | 2            | 2    | 3    | xxx xxx         |

**(b) University elective Courses (9 cr. Hrs)**

Although elective, the student has to register for three (03) courses, one each from the three fields, after consulting his/her academic advisor.

## Study Plan

### First Semester

| Course Code | Course Title                             | Credit Hours |        |      | Prerequisite(s) |
|-------------|--|--------------|--------|------|-----------------|
|             |  | L/C          | Lb/T** | Cr/H |                 |
| STA112      | Statistics                               | 2            | 2      | 3    | xxx xxx         |
| COM111      | IT Fundamentals                          | 2            | 2      | 3    | xxx xxx         |
| PHY181      | Physics (Dentistry) *                    | 3            | -      | 3    | xxx xxx         |
| PHA145      | General Chemistry (Dentistry) *          | 2            | 2      | 3    | xxx xxx         |
| DDS101      | English for Special Purposes (Dentistry) | 3            | -      | 3    | xxx xxx         |
| DDS102      | Integrated Biological Sciences I *       | 2            | 2      | 3    | xxx xxx         |
| DDS103      | Histology & Cell Biology *               | 2            | 2      | 3    | xxx xxx         |
| Total       |  | 16           | 10     | 21   |                 |

### Second Semester

| Course Code | Course Title                            | Credit Hours |        |      | Prerequisite(s) |
|-------------|---|--------------|--------|------|-----------------|
|             |   | L/C          | Lb/T** | Cr/H |                 |
| ARB111      | Communication Skills in Arabic Language | 3            | -      | 3    | xxx xxx         |
| PHA155      | Biochemistry (Dentistry) *              | 3            | 2      | 4    | PHA145          |
| DDS104      | Integrated Biological Sciences II *     | 3            | 2      | 4    | DDS102          |
| DDS105      | Oral Histology *                        | 3            | 2      | 4    | DDS103          |
| DDS106      | Head & Neck Anatomy I *                 | 2            | 2      | 3    | DDS102          |
| xxx xxx     | Elective Course                         | 3            | -      | 3    | xxx xxx         |
| Total       |   | 17           | 8      | 21   |                 |

\* THIS IS A FOUNDATIONAL COURSE FOR THE DDS PROGRAM. EVERY DENTAL STUDENT **MUST PASS** THIS COURSE BEFORE PROCEEDING TO THE CLINICAL COMPONENT OF THE DEGREE PROGRAM.

\*\* Two (02) Practical Hours = 1 Credit Hour

### Third Semester

| Course Code | Course Title                     | Credit Hours |        |      | Prerequisite(s) |
|-------------|----------------------------------|--------------|--------|------|-----------------|
|             |                                  | L/C          | Lb/T** | Cr/H |                 |
| ISL112      | Islamic Culture                  | 3            | -      | 3    | xxx xxx         |
| PHA232      | Pharmacology I (Dentistry) *     | 2            | -      | 2    | DDS104          |
| DDS201      | Psychology & Behavioral Sciences | 3            | -      | 3    | xxx xxx         |
| DDS202      | Head & Neck Anatomy II *         | 2            | 2      | 3    | DDS106          |

|        |                             |    |   |    |         |
|--------|-----------------------------|----|---|----|---------|
| DDS203 | Microbiology & Immunology * | 3  | 2 | 4  | xxx xxx |
| DDS204 | Pathology *                 | 3  | 1 | 3  | DDS103  |
| DDS205 | Biomaterials *              | 2  | 1 | 2  | xxx xxx |
| Total  |                             | 18 | 6 | 20 |         |

#### Forth Semester

| Course Code | Course Title                                | Credit Hours |        |      | Prerequisite(s)  |
|-------------|---|--------------|--------|------|------------------|
|             |   | L/C          | Lb/T** | Cr/H |                  |
| PHA233      | Pharmacology II (Dentistry) *               | 2            | -      | 2    | PHA232           |
| DDS206      | General Medicine & Infectious Diseases *    | 4            | 1      | 4    | DDS203<br>DDS204 |
| DDS207      | General Surgery & ENT *                     | 2            | 1      | 2    | DDS106           |
| DDS208      | Introduction to Oral & Dental Diseases      | 2            | 2      | 3    | DDS204           |
| DDS209      | Dental Anatomy & Occlusion *                | 3            | 2      | 4    | DDS106           |
| DDS210      | Four Handed Dentistry & Infection Control * | 2            | -      | 2    | DDS203           |
| DDS211      | Oral Radiology I *                          | 2            | 2      | 3    | PHY181<br>DDS106 |
| Total       |   | 17           | 8      | 20   |                  |

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\*\* Two (02) Practical Hours = 1 Credit Hour

#### Fifth Semester

| Course Code | Course Title                                 | Credit Hours |        |      | Prerequisite(s)           |
|-------------|--|--------------|--------|------|---------------------------|
|             |  | L/C          | Lb/T** | Cr/H |                           |
| DDS301      | Pre-Clinical Operative Dentistry I *         | 2            | 3      | 3    | DDS205, DDS209            |
| DDS302      | Pre-Clinical Prosthodontics I *              | 2            | 6      | 4    | DDS205, DDS209            |
| DDS303      | Pre-Clinical Endodontics I *                 | 1            | 3      | 2    | DDS205, DDS209            |
| DDS304      | Preventive Dentistry & Nutrition             | 3            | 2***   | 4    | DDS206, DDS208            |
| DDS305      | Pre-Clinical Pediatric Dentistry I *         | 2            | -      | 2    | DDS208                    |
| DDS306      | Pre-Clinical Periodontics I *                | 1            | 1      | 1    | DDS105                    |
| DDS307      | Pre-Clinical Oral Surgery I & Pain Control * | 2            | 2      | 2    | PHA233, DDS203,<br>DDS207 |
| DDS308      | Oral Pathology I *                           | 2            | 2***   | 3    | DDS204, DDS208            |
| Total       |  | 15           | 19     | 21   |                           |

### Sixth Semester

| Course Code | Course Title                          | Credit Hours |        |      | Prerequisite(s) |
|-------------|---------------------------------------|--------------|--------|------|-----------------|
|             |                                       | L/C          | Lb/T** | Cr/H |                 |
| DDS309      | Pre-Clinical Operative Dentistry II * | 2            | 3      | 3    | DDS301          |
| DDS310      | Pre-Clinical Prosthodontics II *      | 2            | 3      | 3    | DDS301, DDS302  |
| DDS311      | Pre-Clinical Endodontics II *         | 1            | 3      | 2    | DDS303          |
| DDS312      | Pre-Clinical Pediatric Dentistry II * | 1            | 3      | 2    | DDS305          |
| DDS313      | Pre-Clinical Orthodontics *           | 1            | 3      | 2    | DDS105, DDS209  |
| DDS314      | Pre-Clinical Periodontics II *        | 1            | 3      | 2    | DDS306          |
| DDS315      | Pre-Clinical Oral Surgery II & CPR *  | 3            | 2      | 3    | DDS206, DDS307  |
| DDS316      | Oral Pathology II *                   | 2            | 2***   | 3    | DDS308          |
| Total       |                                       | 13           | 22     | 20   |                 |

\* THIS IS A FOUNDATIONAL COURSE FOR THE DDS PROGRAM. EVERY DENTAL STUDENT **MUST PASS** THIS COURSE BEFORE PROCEEDING TO THE CLINICAL COMPONENT OF THE DEGREE PROGRAM.

\*\* Three (03) Pre-clinical Training Hours=1 Credit Hour

\*\*\* Two (02) Practical Hours = 1 Credit Hour

### Seventh Semester

| Course Code | Course Title                   | Credit Hours |       |      | Prerequisite(s) |
|-------------|--------------------------------|--------------|-------|------|-----------------|
|             |                                | L/C          | Cl/T* | Cr/H |                 |
| DDS401      | Clinical Operative Dentistry I | 1            | 4     | 2    |                 |
| DDS402      | Clinical Prosthodontics I      | 1            | 4     | 2    | All             |
| DDS403      | Clinical Endodontics I         | 1            | 4     | 2    |                 |
| DDS404      | Clinical Pediatric Dentistry I | 1            | 4     | 2    | Pre-Clinical    |
| DDS405      | Clinical Orthodontics I        | 1            | 4     | 2    |                 |
| DDS406      | Oral Diagnosis / Oral Medicine | 2            | 4     | 3    |                 |
| DDS407      | Oral Radiology II              | 1            | 2**   | 2    | DDS211          |
| DDS408      | Clinical Periodontics I        | 1            | 4     | 2    | Courses         |
| DDS409      | Clinical Oral Surgery I        | 1            | 4     | 2    | "and DDS201     |
| Total       |                                | 10           | 34    | 19   |                 |

\*\* Two (02) Practical Hours = 1 Credit Hour



**Eighth Semester**

| Course Code | Course Title                    | Credit Hours |       |      | Prerequisite(s) |
|-------------|---------------------------------|--------------|-------|------|-----------------|
|             |                                 | L/C          | Cl/T* | Cr/H |                 |
| xxx xxx     | Elective Course                 | 3            | -     | 3    | xxx xxx         |
| DDS410      | Clinical Operative Dentistry II | 1            | 4     | 2    | DDS401          |
| DDS411      | Clinical Prosthodontics II      | 1            | 4     | 2    | DDS402          |
| DDS412      | Clinical Endodontics II         | 1            | 4     | 2    | DDS403          |
| DDS413      | Clinical Pediatric Dentistry II | 1            | 4     | 2    | DDS404          |
| DDS414      | Clinical Orthodontics II        | 1            | 4     | 2    | DDS405          |
| DDS415      | Clinical Periodontics II        | 1            | 4     | 2    | DDS408          |
| DDS416      | Clinical Oral Surgery II        | 1            | 4     | 2    | DDS409          |
| Total       |                                 | 10           | 28    | 17   |                 |

\* Four (04) Clinical Training Hours=1 Credit Hour

**In-Campus Training Program \***

This in-campus clinical training program is held at the end of the eighth semester.

| Course Code | Course Title                           | Credit Hours |       |      | Prerequisite(s)      |
|-------------|--|--------------|-------|------|----------------------|
|             |  | L/C          | Cl/T* | Cr/H |                      |
| DDS417      | Internal Clinical Training Fourth Year | -            | 20    | 2    | All Clinical Courses |

**Ninth Semester**

| Course Code | Course Title                    | Credit Hours |       |      | Prerequisite(s)      |
|-------------|---------------------------------|--------------|-------|------|----------------------|
|             |                                 | L/C          | Cl/T* | Cr/H |                      |
| DDS501      | Ethics                          | 1            | -     | 1    | xxx xxx              |
| DDS502      | Geriatric Dentistry             | 1            | -     | 1    | All Clinical Courses |
| DDS503      | Clinical Dentistry I            | -            | 24    | 6    | All Clinical Courses |
| DDS504      | Applied Biostatistics           | 2            | -     | 2    | STA112               |
| DDS505      | Emergency Dental Care           | 1            | 4     | 2    | All Clinical Courses |
| DDS506      | Implantology                    | 1            | 1     | 1    | All Clinical Courses |
| DDS507      | Treatment Planning & Seminars I | 2            | -     | 2    | DDS316, DDS406       |
| xxx xxx     | Elective Course                 | 3            | -     | 3    | xxx xxx              |
| Total       |                                 | 11           | 29    | 18   |                      |

### Tenth Semester

| Course Code | Course Title                     | Credit Hours |       |      | Prerequisite(s) |
|-------------|----------------------------------|--------------|-------|------|-----------------|
|             |                                  | L/C          | Cl/T* | Cr/H |                 |
| DDS508      | Clinical Dentistry II            | -            | 28    | 7    | DDS503          |
| DDS509      | Hospital Dentistry               | -            | 8     | 2    | DDS505          |
| DDS510      | Lasers & Modern Technology       | 1            | 1     | 1    | DDS415, DDS416  |
| DDS511      | Treatment Planning & Seminars II | 2            | -     | 2    | DDS507          |
| DDS512      | Research Project                 | 1            | -     | 1    | DDS504          |
| DDS513      | Practice Management              | 1            | -     | 1    | xxx xxx         |
| DDS514      | Equipment Maintenance            | 1            | 1     | 1    | xxx xxx         |
| xxx xxx     | Elective Course                  | 3            | -     | 3    | xxx xxx         |
| Total       |                                  | 9            | 38    | 18   |                 |

\* Four (04) Clinical Training Hours= 1 Credit Hour

### Internal Training Program \*

The internal clinical training program is held at the end of the tenth semester.

| Course Code | Course Title                          | Credit Hours |       |      | Prerequisite(s)      |
|-------------|---------------------------------------|--------------|-------|------|----------------------|
|             |                                       | L/C          | Cl/T* | Cr/H |                      |
| DDS515      | Internal Clinical Training Fifth Year | -            | 20    | 2    | All Clinical Courses |

## Course Descriptions

## Doctor of Dental Surgery (DDS) Degree Program

## COLLEGE REQUIREMENTS

|                  |                            |                    |
|------------------|----------------------------|--------------------|
| <b>1) PHY181</b> | <b>Physics / Dentistry</b> | <b>(3 cr. /h.)</b> |
|------------------|----------------------------|--------------------|

The course is designed to cover the basic concepts in most branches of classical mechanics, electricity and thermodynamics as well as some of modern physics concepts applicable to x-ray, lasers and radioactivity. Finally, x-ray, lasers, radioactivity and applications of these concepts in dentistry will also be covered.

|                  |                                      |                    |
|------------------|--------------------------------------|--------------------|
| <b>2) PHA145</b> | <b>General Chemistry / Dentistry</b> | <b>(3 cr. /h.)</b> |
|------------------|--------------------------------------|--------------------|

This course presents the fundamentals of certain topics in general chemistry. It includes two major parts: Part I is the general part, and Part II is the organic part. The general part will introduce the student to basic aspects of general chemistry, i.e. the atomic structures, electronic configuration, periodic table of elements, chemistry of metals, and the fundamentals of chemical bonds and chemical reactions. The organic part covers some important areas in organic chemistry, which include aliphatic and aromatic hydrocarbons, stereochemistry, as well as some functional groups, e.g.: alcohols, phenols, carbonyl compounds.

|                  |                                 |                    |
|------------------|---------------------------------|--------------------|
| <b>3) PHA155</b> | <b>Biochemistry / Dentistry</b> | <b>(4 cr. /h.)</b> |
|------------------|---------------------------------|--------------------|

The course is designed to provide a comprehensive survey of the major topics in biochemistry. It explores how the structure of proteins, carbohydrates, lipids, nucleic acids, and vitamins relates to their function. Metabolism and energy production as well as biosynthesis of small and macromolecules is discussed. Special topics such as Calcium metabolism, bone mineralization, and Dental caries are included.

|                  |                                   |                    |
|------------------|-----------------------------------|--------------------|
| <b>4) PHA232</b> | <b>Pharmacology-I / Dentistry</b> | <b>(2 cr. /h.)</b> |
|------------------|-----------------------------------|--------------------|

This course will introduce the general aspects of pharmacokinetics and pharmacodynamics. Students will also learn basic pharmacotherapy for relevant disorders of cardiovascular system, CNS, endocrine system, gastrointestinal system, including asthma and drugs of abuse that are pertinent to practice of dentistry.

|                  |                                    |                    |
|------------------|------------------------------------|--------------------|
| <b>5) PHA233</b> | <b>Pharmacology-II / Dentistry</b> | <b>(2 cr. /h.)</b> |
|------------------|------------------------------------|--------------------|

This course is designed to teach the students the various drugs used to control the pain and anxiety of dental patients as well as those used for treatment of different oral conditions. A special emphasis is made on the clinical indications, dosage, potential side effects and drug-interactions. The course will also highlight the importance of standard practice in prescription writing to ensure both effectiveness of the treatment and patient safety.

|                  |   |                   |
|------------------|---|-------------------|
| <b>6) DDS101</b> | <b>English for Special Purposes - Dentistry</b> | <b>(3 cr./h.)</b> |
|------------------|---|-------------------|

This course aims at preparing the students of Dentistry College to cope with the kind of English needed in the real life situations and field of specializations in the future. It enables the students to

practice the four skills. The course develops the students' competence through using the language resource room, CD ROMs, the internet and some other audio-visual facilities.

**7) DDS201 Psychology & Behavioral Sciences (3 cr. /h.)**

This course aims at providing dentistry students with an insight of psychology, and helps them to observe, evaluate and explain the behavior of people in relation to oral/dental health care in particular. The students are provided with information regarding basic psychological concepts, psychological disturbances and disorders, management techniques and their application specifically in the field of dentistry and healthcare. It is designed to be helpful to dental students by providing them an understanding of the people (patients and dental team members) they will come across in their dental practice/career. This will allow them to better understand the feelings and thoughts of their patients and help them relax and be comfortable during dental treatments.

**8) DDS102 Integrated Biological Sciences - I (3 cr. /h.)**

This course deals with the study of two complementary branches of biology, human anatomy and human physiology which provide the basic concepts helping dental students understand how the human body is developed, the way it is built up and how it works. Objectives of this course are to develop the foundational knowledge and basic concepts necessary to independently perform the diagnostic and clinical skills.

**9) DDS104 Integrated Biological Sciences-II (4 cr. /h.)**

This course is intended to help the dental students to understand the basic concepts of Anatomy & Physiology simultaneously, with emphasis on topics related to the dental practice. The course covers the study of the main body systems with great emphasis on the applied & the practical aspects. The teaching tools include CD presentations, Power points presentations, videotapes & Internet explorations.

**10) DDS103 Histology & Cell Biology (3 cr. /h.)**

This course provides students with general knowledge about the cell and various cellular organelles, and the characteristic structure of each organelle that enable it to perform essential functions within the cell. The students are also provided with wide knowledge concerning the morphological features of the four primary tissues and recognize their roles in forming organs. A basic knowledge of cell division, general embryology and genetics integrates the above information.

**11) DDS105 Oral Histology (4 cr. /h.)**

This course describes in details the development and structure of the oral cavity and teeth. Students are provided with the basic concepts of oro-facial development and structures. The microscopic, histological and ultrastructural organizations of soft and hard oral tissues are studied in details. A considerable knowledge of functional and clinical correlation is also stressed.

**12) DDS106 Head & Neck Anatomy I (3 cr. /h.)**

The course is intended to help the dental student to study & understand the basic terms & facts about the gross anatomy of the head and neck region of human body. The course includes the study

of the detailed structures of the skull, the head & their nerve and blood supply. Also, the course includes full descriptions of the various muscles & glands of the face, orbit, nasal cavity, oral cavity, floor of the mouth, palate and tongue. In general, the course will provide the dental student with the fundamental detailed structures of the skull & head as related to dental practice.

**13) DDS202 Head & Neck Anatomy II**

**(3 cr. /h.)**

The course deals with the description of the head & neck region including brain & spinal cord. The main elements are the nerves & vessels, lymphatic drainage, fascial spaces and muscles of neck, the pharynx and larynx with special reference to the anatomical basis of the management of upper airway obstruction and related radiology. Further it provides the relevant details of pain physiology, brain, spinal cord their development and cranial nerves function and test. In general the course will provide the basis to the dental practice involving the anatomical structures.

**14) DDS203 Microbiology & Immunology**

**(4 cr. /h.)**

The course covers the fundamentals of microbiology with emphasis on oral microbiota, pathogens & defense mechanisms in the dental environment. The basics of immunology including the immune system & organisms of medical & dental significance; virus structure & classification, viral pathogenesis & mechanisms of host defense; hygiene covering pathogenesis of bacterial, infections, etiology, clinical picture, lab diagnosis, treatment, prevention and control of diseases caused by the different bacteria, are also discussed.

**15) DDS204 Pathology**

**(3 cr. /h.)**

This course covers the fundamentals of the basic disease process in the body. Students are provided with gross, microscopic & biochemical features of different pathological conditions. Objectives of this course are to study and understand different pathogenic processes in details in order to establish a sound foundation for clinical practice in dentistry. Teaching tools include power point plus projection, practical lessons with CD presentations & internet explorations.

**16) DDS206 General Medicine**

**(4 cr. /h.)**

This comprehensive course covers topics specific to the medical field, with interest to medically compromised patient as related to dental care. Students are provided with basic concept of general medical & infectious diseases. Teaching tools include: power point plus projection, practical lessons with CD presentations & internet explorations.

**17) DDS207 General Surgery & ENT**

**(2 cr. /h.)**

The course is intended to help dental students to study & understand the basic principles of surgery & ENT in relation to Dentistry and Oral and maxillofacial Surgery. The course includes the knowledge of the theoretical & practical approaches to the assessment of surgical and how to perform an effective risk assessment preoperatively based on the information obtained from case history, clinical examination, investigations in relation to the anaesthetic potential risks and also the invasiveness of the planned surgery. Also, the student will identify the pathology of tumors, cysts, fistulae, sinuses & ulcer in head and neck region. Information about trauma, tissue repairs & preoperative management of inpatients like administered fluids, water balance monitoring and indications and possible complications of blood transfusion are also included within the course. In addition, the student will

study the various common diseases of the ear, nose, paranasal sinuses & pharynx. Finally the students will learn the common postoperative complications seen in surgical patient whether due to anaesthesia, the surgical intervention or those initiated or aggravated by the existing morbid conditions of surgical patients.

**18) DDS208 Introduction to Oral & Dental Diseases (3 cr. /h.)**

This is an introduction to profession of dentistry. This course provides students with knowledge and understanding of oral and dental diseases, their etiology, pathogenesis and different stages of these lesions and their clinical manifestations.

**19) DDS209 Dental Anatomy & Occlusion (4 cr. /h.)**

This course deals with nomenclature as related to the morphology of the natural dentition. It includes theory related to the morphology of the deciduous & permanent teeth in the human dentition & features related to the normal occlusion. Laboratory exercises include wax-adding & carving to build up the crowns of permanent teeth, analyze occlusal patterns and correct occlusal disharmonies. Its significance is integrated with dental treatment in Operative dentistry, Endodontics, Prosthodontics, Periodontics and Orthodontics. This course will help students in diagnosing dental disorders affecting the crowns or roots of human teeth & thus forms a basic foundation to the understanding of clinical dentistry. The study of occlusion part of this course involves the whole masticatory system, it includes the static relationship of teeth as well as the functional inter-relationship between teeth, periodontal, tissue, jaws, temporomandibular joints (TMJ), muscles and nervous system.

**20) DDS205 Biomaterials (2 cr. /h.)**

The course is designed to provide students with knowledge to define and memorize the physical, chemical, and biological properties of dental materials. The program emphasizes on employment of concepts in modern materials science to solve problem of dental treatment.

**21) DDS211 Oral Radiology-I (3 cr. /h.)**

This course discusses the basic principles of X-ray production, the biological effects of ionizing radiation and radiation safety. This course demonstrates the intra oral and extra oral radiographic techniques and prepare the Students learn to take and interpret radiographs, and perform initial screening, examination and diagnosis. The course is integrated with different dental specialties. Objectives of this course are to develop the fundamental knowledge of x-ray production and skill to independently perform the radiographs and interpretation of radiographic normal anatomy.

**22) DDS301 Pre-Clinical Operative Dentistry I (3 cr. /h.)**

The main components of this course are the principles of cavity preparation for the currently available restorations according to their physical and manipulative characteristics and the steps of cavity restorations. The restorative department during the two semesters of the third year provides them.

**23) DDS309 Pre-clinical Operative Dentistry II (3 cr. /h.)**

This course consists of two main components, the principle of cavity preparations for the currently available restorations and their physical and manipulative characteristics and cavity restorations. The restorative department during the two semesters of the third year provides them.

**24) DDS302 Pre-Clinical Prosthodontics I (4 cr. /h.)**

This is a dental technology course consist of lectures and pre-clinical laboratory practical sessions .Terminology, nomenclature, theories, principles, concepts and basic techniques necessary for the construction of complete denture service will be presented. The course is designed to prepare the student to understand the biological, esthetic and mechanical aspects of complete dentures treatments. Correlation of basic science concepts as related to mechanical and clinical conditions will be stressed.

**25) DDS310 Pre-Clinical Prosthodontics II (3 cr. /h.)**

This course provides both didactic and practical sessions in dental technology. Students will be introduced to the dental skills laboratory (phantom head or the simulator). Lectures cover all the procedures of teeth preparation for fixed restorations, and the use of equipment and instruments needed for the construction of all types of fixed prosthodontics. More emphasis will be directed to the principles of tooth preparation. Included in the course a practical sessions for the training of the students on how to prepare abutment teeth, apply impression techniques and making provisional restorations.

**26) DDS303 Pre-Clinical Endodontics I (2 cr. /h.)**

The theoretical part covers topics which include an introduction to the subject, anatomy and morphology of the root canal system, access cavity preparation, cleaning and shaping of the root canal systems and it lays emphasis on possessing thorough knowledge of the various endodontic instruments. The pre-clinical practical component focuses on the treatment of anterior and premolar teeth. This prepares and enables students to be competent in treatment of clinical endodontic cases in the next year.

**27) DDS311 Pre-Clinical Endodontics II (2 cr. /h.)**

The theoretical part covers topics which include root can obturation, endodontic microbiology, endodontic mishaps management, pulp and periapical pathology, diagnosis and diagnostic procedures. The pre-clinical lab/practical component focuses on performing endodontic procedures on molars. This prepares the students to perform basic endodontic procedures prior to entering the clinics in next year.

**28) DDS210 Four Handed Dentistry & Infection Control (2 cr. /h.)**

Four Handed Dentistry

This course describes the concept and advantages of four handed dentistry. It describes the ergonomic position for the patient, dental assistant and doctor and explain the responsibilities of the dental assistant during clinical dental work. The course also describes the ergonomic arrangement of dental clinic.

Infection Control:

This course explains the different ways of transmission of infectious diseases and emphasis on the immunization of all oral health care providers. The course describes the sterilization methods in dental practice, application of protective barriers, personal protective equipment and infection control during all clinical dental procedures.

**29) DDS304 Preventive Dentistry & Nutrition (4 cr. /h.)**

The Preventive Dentistry and Nutrition course introduces the student to the principles and methods of prevention including information on etiology of dental caries, periodontal diseases and methods of preventing and controlling dental diseases through a preventive treatment plan and health education programs. In addition, this course provides the students with a basic knowledge of the essential nutrient materials in both health and disease, and discusses the role of the nutrition on the development, prevention and treatment of the oral and dental diseases.

**30) DDS305 Pre-Clinical Pediatric Dentistry I (2 cr. /h.)**

This course introduce pediatric dentistry as an essential branch of dentistry related to child patients mainly focusing on the development and growth of oral/facial structures of children and recognizing the chronology of primary and permanent dentition. Different types of dental anomalies have been described with their genetic aspects. Child abuse and neglect are discussed in relation to pediatric dentistry. Psychological management, examination, diagnosis and treatment planning of child patient are introduced.

**31) DDS312 Pre-Clinical Pediatric Dentistry II (2 cr. /h.)**

This course discusses radiographic as well as local anesthetic techniques used for child patient which needs specific modifications. Management and treatment of dental caries with different types of cavity preparations have been discussed. Also it describes vital and non –vital pulp therapy for primary teeth which considered an important issue in restoration and prevention of primary teeth extraction, on the other hand in case of loss of the primary teeth it is necessary to plan arch space analysis and construction of space maintainer to prevent space loss.

**32) DDS313 Pre-Clinical Orthodontics (2 cr. /h.)**

The course will introduce the third year dental student to the fundamentals of orthodontics, including topics on the concepts of growth and development of the craniofacial structures, etiology of orthodontic problems, biological basis of orthodontic therapy, and clinical features of different malocclusions. This course is also designed to give the student a basic understanding of the skills required to fabricate removable orthodontic appliances that are typically indicated for limited tooth movement and retention in interceptive orthodontics.

**33) DDS306 Pre-Clinical Periodontics-I (1 cr. /h.)**

This course describes in details the anatomy of periodontium and associated structures. Students are provided with the basic concepts of periodontal health. The microscopic, histological and ultrastructural organizations of soft and hard oral tissues are studied in detail. Basic knowledge of functional and clinical correlation is also stressed.



**34) DDS314 Pre-Clinical Periodontics-II**

**(2 cr. /h.)**

In this course lectures and practical training are given to students to expose them to immune response (host response) and periodontal pathogenesis. A complete spectrum of periodontal lesions and their pathogenicity, plaque control, trauma from occlusion, food impaction and halitosis are to be stressed.

**35) DDS307 Pre-clinical Oral Surgery-I & Pain Control**

**(2 cr. /h.)**

This preclinical course introduces the student to oral surgery and prepares him/her for clinical experience with dentoalveolar surgery. The student will learn to assess the patient, diagnose and treat basic oral surgical problems encountered in general practice. In addition to this, the goal of this course is to learn the pharmacology and toxicology of dental local anesthetic drugs and the proper techniques for their administration during dental extraction and related procedures.

**36) DDS315 Pre-Clinical Oral Surgery-II & C.P.R**

**(3 cr. /h.)**

The purpose of this course is to prepare the student to recognize advanced oral and maxillofacial surgery problems. Upon the completion of this course, the student will be able to formulate diagnosis and treatment plans in order to provide surgical care within the context of a patient-centered system of care delivery. In addition, this course will promote surgical principles and techniques to correct the pathologic conditions mentioned here. The course also emphasizes the principles and application of skills in basic life support, external cardiac compression and the emergency medical systems. Students will learn how to evaluate and treat a patient who sustains cardiac arrest in the dental office or an airway obstruction, through the techniques of CPR and Foreign Body Airway Obstruction.

**37) DDS308 Oral Pathology-I**

**(3 cr. /h.)**

This course deals with the understanding of the basic disease processes affecting the head & neck regions. The etiopathogenesis, clinical features & histopathologic features of developmental disorders, non-odontogenic & odontogenic lesions, cysts & infections related to the teeth, their supporting structures, jaw bones & soft tissues in & around the oral cavity will be dealt with. It also includes the oral manifestations of systemic diseases, like mucocutaneous disorders. The differential diagnosis & prognosis of various pathologies will also be considered.

**38) DDS316 Oral Pathology-II**

**(3 cr. /h.)**

This course is a continuation of Oral Pathology I. Students will continue learning the etiopathogenesis, clinical features & histopathologic features of non-odontogenic & odontogenic lesions, cysts & tumours related to the teeth, their supporting structures, jaw bones & soft tissues in & around the oral cavity. The oral manifestations of physical & chemical injuries to the oral tissues will also be detailed. The differential diagnosis & prognosis of various pathologies will also be considered.

**39) DDS407 Oral Radiology-II**

**(2 cr. /h.)**

The course deals with the acquisition and interpretation of radiographic imaging studies performed for diagnosis of conditions affecting the oral and maxillofacial region and assist in treatment planning.

**40) DDS401 Clinical Operative Dentistry-I**

**(2 cr. /h.)**

The course of operative dentistry consists of the diagnosis, prevention, treatment, and prognosis of the diseases and injuries inflicted upon the teeth. Also includes the study of basic concepts of restoration relation to oral and dental tissues and the various restorative materials. The curriculum includes both didactic and clinical components over a period of two semesters, and involves a clinical training program. The clinical training program for two semesters involves a clinical application of principles and skills acquired, based on a comprehensive approach in the oral health care.

**41) DDS410 Clinical Operative Dentistry-II**

**(2 cr. /h)**

The course of operative dentistry consists of the prevention, diagnosis, treatment, and prognosis of the diseases and injuries inflicted upon the teeth. It serves as a defining clinical experience for the dental students by providing them with the opportunity to participate in the evaluation and management of discolored, fractured and endodontically treated teeth. The curriculum includes both didactic and clinical components, and involves a clinical training program. The clinical training program involves a clinical application of principles and skills acquired, based on a comprehensive approach in the oral health care.

**42) DDS402 Clinical Prosthodontics-I**

**(2 cr. /h.)**

This course consists of two main components - complete denture, and removable partial denture prosthodontics. Prosthodontic treatment planning principles are provided in lectures and the group seminars. The didactic component focuses on planning and integrating removable prosthodontic interventions within a continuum of comprehensive patient care. The clinical instructors will ensure that the knowledge acquired in the preclinical years of studying is towards evidence-based decision making regarding prosthodontic management of patients partially and completely edentulous jaws. The course will be presented in lectures and clinical sessions, the lectures cover various clinical techniques, the manipulation of dental materials, and how to use dental instruments and equipment.

**43) DDS411 Clinical Prosthodontics-II**

**(2 cr. /h)**

The clinical fixed partial denture prosthodontics course consists of the theoretical part and the clinical training. The students should know how to do clinical examination, proper diagnosis and sound treatment plan. At the end of this course all students will be familiar with the best techniques of fixed partial dentures treatment, and will develop their manual dexterity in all clinical aspects for the construction of this type of prosthesis. Every student should complete all the requirements needed, recognize the importance of the preservation of the prepared teeth, periodontal tissues, and other soft tissues of the oral cavity while performing all types of restorations.

**44) DDS403 Clinical Endodontics-I**

**(2 cr. /h.)**

This Course aims to enable the students to diagnose the need for endodontic therapy. Previous endodontic courses presented a biologic foundation relating to endodontic clinical diagnosis. Students are provided with the basic concepts of diagnosis and treatment planning including medically compromised patients. Advanced endodontic techniques and/ or treatment modalities for the following conditions are also discussed: endodontic retreatment, apexification and apexogenesis, internal and external resorption, traumatic injuries to teeth.

**45) DDS412 Clinical Endodontics-II**

**(2 cr. /h)**

This Course aims to enable the students to gain knowledge and experience in endodontic treatment. Students are provided with the techniques used to determine success or failure of Endodontic treatment and the indication and contraindication of endodontic surgery, describing procedures and materials. Advanced endodontic techniques and/ or treatment modalities for the following conditions are also discussed: single visit root canal therapy, bleaching of discolored teeth, restoring endodontically treated teeth and relationship of orthodontic treatment, periodontal lesion to endodontic treatment.

**46) DDS404 Clinical Paediatric Dentistry-I**

**(2 cr. /h.)**

This course will reinforce basic knowledge developed during third year preclinical course, and facilitate continued development as the student performs routine pediatric dentistry procedures commonly employed in general dental practice. This course will also provide the fourth year dental student with a defining clinical experience that will include: diagnosis, prevention and treatment of the different pathological conditions in pediatric patients; classification, diagnosis and management of different traumatic injuries of oral & dental structures in primary and permanent teeth. Objectives of this course are to develop the foundational knowledge, skills and values necessary to independently perform diagnostic and clinical skills and participate safely in the care of pediatric patients.

**47) DDS413 Clinical Paediatric Dentistry-II**

**(2 cr. /h.)**

This course intends to inform and provide the dental student with sufficient knowledge on indications, techniques used in pharmacological methods of child's management including sedation and GA in management of anxious children. This course will also provide the fourth year dental student the team approach for the management of cleft lip & palate child at the level of the undergraduate students, dental management of special health care need children. They are also taught interceptive orthodontic methods in a growing child. Child abuse and neglect are discussed in relation to pediatric dentistry.

**48) DDS405 Clinical Orthodontics-I**

**(2 cr. /h.)**

This course introduces the dental student to the practice of orthodontics. The primary goal of this experience is to reinforce didactic concepts taught in the third year and build upon them in a manner that will better prepare the student to recognize, communicate and manage orthodontic problems in the general dentistry setting. In this manner, the student will be able to make proper diagnosis and differential diagnosis of patients of all ages, plan and execute the treatment of selected uncomplicated malocclusion cases.

**49) DDS414 Clinical Orthodontics-II**

**(2 cr. /h.)**

This course is intended to complement the orthodontic lectures and the pre-doctoral orthodontic experience; it will provide for each student to briefly present a clinical case and to view a large number of clinical orthodontic cases and establish combination between orthodontic treatment and the other four dental specialties - Pedodontics, Periodontics, Prosthodontics and Oral Surgery. Multidisciplinary treatment approaches will be discussed in the lectures. Clinically, they will be discussed in the patient examination and diagnosis sessions.

**50) DDS406 Oral Diagnosis & Oral Medicine (3 cr. /h.)**

This course describes in details the art of history taking, examination, investigation of oro-facial lesions and interpretation of the results of investigations. The course also will help the students to learn etiopathogenesis of local disease processes in orofacial area along with oral manifestation of systemic diseases affecting the oral mucosa. Students are provided with the basic concept of oral manifestation of psychiatric diseases and their management.

**51) DDS408 Clinical Periodontics-I (2 cr. /h.)**

The lecture and clinical training will prepare the students to understand the clinical phenomena in terms of underlying tissue changes and comprehensive nature of periodontal response to therapy. The course focuses on differential diagnosis, prognosis and treatment planning of different forms of periodontal diseases. The solution of periodontal problems can be incorporated into the practice of dentistry.

**52) DDS415 Clinical Periodontics-II (2 cr. /h.)**

This course consists of a didactic and clinical component. It will cover: The treatment of different types of periodontal diseases. The interrelation between periodontics and related dental specialties. Introduction to the surgical approaches in the management of moderate to advanced periodontal diseases. To distinguish acute and chronic (mild, moderate and advanced) form of periodontal diseases and management by non-surgical and surgical treatment. To expose the students to focus on objectives of periodontal therapy, treatment planning and techniques including pre-prosthetic, pre-restorative, reconstructive surgery and knowledge necessary for advanced periodontal regeneration procedures.

**53) DDS409 Clinical Oral Surgery-I (2 cr. /h.)**

This course will reinforce basic knowledge developed during third year preclinical course, and facilitate continued development as the student performs routine oral surgery procedures commonly employed in general dental practice. This course serves as a defining clinical experience for the dental students by providing them with the opportunity to participate in the evaluation and management of surgical patients such as with intraoral lesions, maxillary sinus and salivary gland pathologies to name a few. Objectives of this course are to develop the foundational knowledge, skills and values necessary to independently perform diagnostic and clinical skills and participate safely in the care of surgical patients.

**54) DDS416 Clinical Oral Surgery-II (2 cr. /h.)**

The purpose of Clinical Oral Surgery II is to prepare the student to recognize advanced oral and maxillofacial surgery problems that in most cases will require referral to an oral and maxillofacial surgeon. Discussions will include diagnostic and treatment considerations relative to cases that require referral to an oral and maxillofacial surgeon as well as those that may be treated by the general dentist. The course will also describe the characteristics and surgical management of the more common trauma, anomalies and malignancies of the oral & maxillofacial region.

**55) DDS507 Treatment Planning & Seminars-I**

**(2 cr. /h.)**

Problem Oriented Learning (POL) is an instructional strategy to help students acquire and integrate basic science, behavioral, and clinical knowledge in the context of solving a patient problem. POL is one of many instructional techniques used to teach problem solving. Problem Oriented Learning course is designed to give the students the experience to apply lecture materials to life-like situations and allows the student to experience the process as seen in daily clinical practice.

**56) DDS511 Treatment Planning & Seminars-II**

**(2 cr. /h.)**

This course is developed to give the students the experience to analyze their clinical cases, in order to enhance their clinical capability and patient management using case studies and patients presented by students. Treatment Planning & Seminar II will help the students to acquire and integrate their basic science, behavioral and clinical knowledge in the context of solving a patient's problem, including communication and ethical aspects. Topics presented are in a multidisciplinary field of dentistry, such as ethics, health care delivery, communication skills and practice management. Ethics related cases discussions will provide the needed experience to the dental students to the medico-legal aspects related to their future practice, in the fields of: Medical Ethics, Medical Responsibility and Forensic Medicine.

**57) DDS512 Research Project**

**(1 cr. /h.)**

The course is designed to enable the student to conduct a research project under the guidance of a teaching faculty. Students learn how to approach a research topic of interest, apply the basic principles of research design and to formulate the appropriate methodology and analysis for the research.

**58) DDS503 Clinical Dentistry-I**

**(6 cr. /h.)**

The purpose of this course is to reinforce and refine patient management skills that students have been introduced to in the fourth year courses. It is designed to observe, evaluate, and subsequently assist students in understanding and practicing proper comprehensive patient care and management. This course focuses on refinement and integration of clinical skills. It does not contain any formal theoretical lecturing. Students are assigned in clinical blocks for patient care and treatment planning. These treatment plans and completed treatment are discussed, and are evaluated as to the rationale and sequences used. Taught by an interdisciplinary faculty, this course considers strategies and approaches for the integration of isolated dental procedures into an appropriately sequenced treatment plan for comprehensive patient care.

**59) DDS508 Clinical Dentistry-II**

**(7 cr. /h.)**

This course is a continuation of Clinical Dentistry I, and does not contain any formal theoretical lecturing. Small group clinical discussions and demonstrations will be taken by the faculty. It is designed to provide students with more clinical experience in the care of patients with a focus on an advanced comprehensive care and treatment planning. Students are assigned in clinical blocks for patient care and treatment planning. All treatment options are discussed so that the student learns the fundamentals of good treatment planning and patient care. Taught by an interdisciplinary faculty, this course considers strategies and approaches for the integration of isolated dental procedures into

an appropriately sequenced treatment plan for comprehensive patient care. The course mainly focuses on improving the quality of comprehensive care expected of a graduating student.

**60) DDS502 Geriatric Dentistry**

**(1 cr. /h.)**

This course focuses on issues and concerns related to the rapidly increasing elderly population. It also provide the student with an understanding of the aging process and the multidisciplinary needs of the older patient. Myths and stereotypes about aging and the aged, which exist and influence the provision of health care to the older population, will be discussed and expelled. It will provide the student with a framework of knowledge about the biological, psychological, sociological, behavioral and general medical aspects of aging from which treatment can be planned and provided appropriately. A multidisciplinary team of speakers will present approaches that will help the student in integrating dental training and practice with the management, diagnosis and treatment of the older patient.

**61) DDS501 Ethics**

**(1cr. /h.)**

Dental ethics is the systematic and critical study of morality as it pertains to the practice of dentistry. The course consists of 16 hours of classroom lecture and discussion. It is designed to heighten students' awareness of the importance of ethical issues as they relate to dentistry. The curriculum provides students with an understanding of ethical principles, which have direct relevance to students' training and future practice experience. It focuses on common ethical dilemmas found in the relationships between dentist and patient, between dentists themselves, and between dentist and society.

**62) DDS504 Applied Biostatistics**

**(2 cr. /h.)**

This course provides the dental students with the necessary background of specific statistics relevant to the medical / dental fields in addition to adequate knowledge of study design in medical & dental research, enabling the dental student to critically evaluate and apply the appropriate statistics to dental and medical research.

**63) DDS513 Practice Management**

**(1cr. /h)**

This course is designed to provide the senior dental student with a general introduction to the basic principles of dental practice management. Primary focus will be on developing an understanding of various management concepts, processes & its role in obtaining an effective overall management of dental practice. The topics focused on include staff management, patient management, legal concepts and terminologies, office design, equipment placement, occupational hazard, appointments management, records management, dental insurance system, inventory and supply management.

**64) DDS514 Equipment Maintenance**

**(1cr. /h)**

This course focus on basic principles of various dental equipment, their operations and general preventive maintenance procedures. It also covers basic electrical theories and electrical safety precautions while dealing with dental equipment. Additionally advances in dental equipment technologies will also be covered in this course. This course helps the students to build the required skills and confidence to perform routine maintenance and minor repairs without the help of Biomedical technicians/Engineers.

**65) DDS505 Emergency Dental Care (2 cr. /h.)**

This course provides a study of dental office emergencies with emphasis on prevention, prompt recognition and effective emergency care. Emphasis is also placed on etiology of common chronic oral diseases, treatment of specific dental emergencies and applicable assessment methods used in the prevention of emergencies related to the particular disease process. The course also deals with the use of emergency drugs and equipment.

**66) DDS509 Hospital Dentistry (2 cr. /h.)**

Fifth year students are assigned for six weeks to an affiliated hospital. During this rotations, students are assigned to hospitalized patients to reinforce principles of physical diagnosis for patients with severe medical problems, learn to request and answer consultations.

**67) DDS510 Lasers & Modern Technology (1 cr. /h.)**

This course is designed to provide the students with the fundamentals of laser technology and its use in dental practice including oral and maxillofacial surgery, periodontics, preventive and operative dentistry with more emphasis on the understanding and appreciation of laser safety measures. In addition, this course will introduce the students to some of the latest technologies in the dental field and their applications.

**68) DDS506 Implantology (1 cr. /h.)**

This comprehensive lecture course presents the scientific basis and clinical applications of modern dental implantology techniques, and cover both the surgical procedures and periodontics and prosthodontics consideration in implant dentistry. Students perform implantology procedures in Lab setting.

**69) DDS417 Internal Clinical Training Fourth Year (2 cr. /h.)**

This clinical course is in the summer semester of the fourth year of the dental curriculum. It is designed to provide students with clinical experience in the care of patients in the areas of Periodontics, Operative Dentistry, Endodontics, Pediatric Dentistry and Oral Surgery with a focus on comprehensive care and treatment planning. There is no theoretical component to this course. Students are assigned patients having various dental problems, and they have to formulate a comprehensive diagnosis and treatment planning, including patient and clinical management.

**70) DDS515 Internal Clinical Training Fifth Year (2 cr. /h.)**

This clinical course is in the summer semester of the fifth year of study. It is designed to provide students with clinical experience in the care of patients in the areas of Periodontics, Operative Dentistry, Endodontics, Pediatric Dentistry and Oral Surgery with a focus on comprehensive care and treatment planning. There is no theoretical component to this course. It reinforces and refines the student's knowledge and skill required for the graduate level of clinical practice of dentistry. Students are assigned patients having various dental problems, and they have to formulate a comprehensive diagnosis and treatment planning, including patient and clinical management. Students are expected to perform comprehensive care at an advanced level from that of the previous summer semester.

## College of Engineering and Information Technology (CEIT)

The rapid growth in the development of instruments, hardware, software, and the widespread applications in all aspects of life created a considerable demand for engineering and computing graduates in all specializations. The College of Engineering and Information Technology (CEIT) offers quality academic programs to meet the needs of the society in a variety of areas such as, electronics, communication, control, computer engineering, biomedical engineering, information technology, information systems, power and renewable energy among others to prepare its students for gainful employment in the dynamic and rapidly evolving engineering and computing industry.

### Vision

The vision of the College of Engineering and Information Technology is to be among the best engineering and information technology colleges in the region.

### Mission

The mission of the College of Engineering and Information Technology is to provide high quality and relevant education in engineering and computing that prepares students to deal with the real-world problems; support impactful research and innovative scholarly activities to solve engineering and computing problems and build impactful partnerships with the community. This is consistent with AU mission.

### Goals

The College of Engineering and Information Technology aims at:

- Providing high quality internationally recognized engineering and computing academic programs
- Promoting research that contributes to the advancement in the field of engineering and information technology
- Producing graduates who are innovative, life-long learners and able to pursue further graduate studies in their discipline of engineering and computing
- Providing community services to the UAE society and the region in the field of engineering and information technology
- Increasing the visibility of the College of Engineering and Information Technology in the UAE and the region

### Departments

- Department of Electrical and Computer Engineering
- Department of Information Technology
- Department of Biomedical Engineering

### Programs Offered

The College of Engineering and Information Technology offers the following programs:

- Bachelor of Science in Electrical Engineering
  - Instrumentation and Control
  - Electronics and Communication
  - Power and Renewable Energy



- Bachelor of Science in Computer Engineering
- Bachelor of Science in Biomedical Engineering
- Bachelor of Science in Information Systems
  - Project Management
  - E-Business Management
- Bachelor in Science in Information Technology
  - Networking and Security
  - Databases and Web Systems

### Admission Requirements

- Admission to Electrical Engineering, Computer Engineering and Biomedical Engineering programs requires a UAE secondary school certificate (Advanced stream) or its equivalent with a minimum grade of 70 percent. (For further information please refer to the University admissions policy).
- Admission to Information Systems program requires a UAE secondary school certificate or its equivalent with a minimum grade of 60 percent for advanced stream and 65% for general stream. (For further information please refer to the University admissions policy).
- Admission to Information Technology program requires a UAE secondary school advanced stream certificate or its equivalent with a minimum grade of 70. Students with UAE secondary school general stream certificate can be admitted provided that they have a minimum score of 70% in addition to a minimum score of 70% in both Math and Physics. (For further information, please refer to the University admissions policy).

### Academic Staff

Faculty members hold terminal degrees from internationally recognized universities and are well versed in their areas of specialization.

### Laboratories

The College of Engineering and Information Technology has well-equipped laboratories which provide practical hands-on experience to students of all specializations.

### Lecture Rooms

The college has appropriate lecture rooms that meet all needs of delivering courses' materials such as data shows, smart boards and access to the internet.

### Other Facilities

College of Engineering and Information Technology students have access to a wide range of university facilities including computer labs, libraries, learning and information resources, sports and recreation facilities, swimming pool, cafeteria and clinics.

### Internship

External internship is an essential part of the curriculum of all College of Engineering & Information Technology programs. Students are required to complete external internship where its duration depends on the program. The College has extensive links with local organizations such as engineering companies, hospitals, power plants, governmental organizations and other firms, who offer on-site external internship to engineering and information technology students. The aim of the external internship program is to enable students to acquire practical skills, gain an understanding of the work environment and improve their communication skills.

Prior to the external internship, students of all programs, take part in an internal training program to enhance their practical and professional skills.

## Department of Electrical and Computer Engineering

### Vision of Electrical & Computer Engineering (ECE) Department

The vision of the Department of Electrical and Computer Engineering is to become a nationally recognized Electrical & Computer Engineering Department in the region.

### Mission of Electrical & Computer Engineering Department

The Department of Electrical & Computer Engineering (ECE) aims to provide high quality education to its students by focusing on developing their technical as well as generic skills so that they are well qualified for gainful employment in electrical & computer engineering disciplines and can effectively contribute to the advancement of the community. It also aims to promote research and community engagement as well as prepare its students for graduate studies in electrical & computer engineering.

## Bachelor of Science in Electrical Engineering

### The Electrical Engineering Program

The Electrical Engineering program offered by the Department of Electrical and Computer Engineering is appropriate to the University mission and its design and composition as well as its delivery and assessment of learning outcomes are in accordance with international academic norms. There is a regular process of assessment and evaluation and the results of such evaluation are regularly utilized for continuous improvement of the program. Its program learning outcomes are appropriate to the level of qualifications awarded and are consistent with the UAE Qualification Framework (QF Emirates).

The EE program requires a total of 142 credit hours for graduation. This includes 3 credit hours for 12 weeks of practical training (internship) in engineering organizations preceded by 2 weeks of intensive internal training in the College of Engineering & IT. The remaining 139 credit hours of course work are distributed over 8 full semesters and one summer semester. Accordingly, a student can complete all the requirements for graduation in a period of four years. For graduation, a student must have cumulative GPA of at least 2.0. Depending upon the chosen concentration, students are awarded degrees as follows:

- B.Sc in Electrical Engineering (Electronics and Communication)
- B.Sc in Electrical Engineering (Instrumentation and Control)
- B.Sc in Electrical Engineering (Power and Renewable Energy)

The first three years of the study plan will be exactly the same as those of other concentrations and only in the final (fourth) year, students will take some different specialization courses.

### Program Goals

The EE Program Goals, also referred to as Program Educational Objectives (PEOs), are stated below.

Graduates of EE program shall be:

1. Contributing as productive individuals, team members, and leaders in electrical engineering profession.

2. Updating and adapting their knowledge and abilities in their major field and associated disciplines.
3. Engaging with the community at all levels in an ethical and professional manner.
4. Pursuing graduate studies in electrical engineering and related fields both inside and outside the United Arab Emirates.

### Program Outcomes (POs)

The Program Outcomes (POs) are also referred to as Student Outcomes (SOs). To combine both terminologies, these outcomes may also be referred to as Student/Program Outcomes. The EE program has 12 Program Outcomes, stated as A to L, as given below.

- (A) an ability to apply knowledge of mathematics, science, and engineering
- (B) an ability to design and conduct experiments, as well as to analyze and interpret data
- (C) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
- (D) an ability to function on multidisciplinary teams
- (E) an ability to identify, formulate, and solve engineering problems
- (F) an understanding of professional and ethical responsibility
- (G) an ability to communicate effectively
- (H) the broad education necessary to understand the impact of engineering solution in a global, economic, environmental, and societal context
- (I) a recognition of the need for, and an ability to engage in life-long learning
- (J) a knowledge of contemporary issues
- (K) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice
- (L) an ability to demonstrate broad knowledge in the field of electrical engineering and specialized knowledge in chosen concentration.

### Relationship of Program Outcomes to Program Goals

The Program Goals, based on the needs of its constituents, are broad statements. On the other hand, the Program or Student Outcomes (POs or SOs), derived from Program Goals, are defined in measurable terms and represent the abilities and attributes of students at the time of their graduation. Accordingly, there must be a well-defined relationship between Program Outcomes and Program Goals as the former will assist in attaining the latter. For the EE program, this relationship is given in Table 1 which shows how SOs will prepare graduates to attain the Program Goals.

Table 1: Relationship of Program Outcomes and Program Goals

| Program Outcomes | Program Goals (Abbreviated)                           |   |  |                                      |
|------------------|---|---|--|--------------------------------------|
|                  | Goal #1<br>Productively contributing in EE Profession | Goal #2<br>Updating their knowledge and abilities | Goal #3<br>Ethical and professional community engagement | Goal #4<br>Pursuing graduate studies |
| A                | ✓   |   |  | ✓                                    |
| B                | ✓   |   |  | ✓                                    |
| C                | ✓   |   |  | ✓                                    |
| D                | ✓   |   |  |                                      |
| E                | ✓   |   |  | ✓                                    |
| F                |   |   | ✓  |                                      |
| G                | ✓   |   |  | ✓                                    |
| H                |   |   | ✓  |                                      |
| I                |   | ✓   |  | ✓                                    |
| J                |   |   | ✓  |                                      |
| K                | ✓   | ✓   |  | ✓                                    |
| L                | ✓   | ✓   |  | ✓                                    |

The rationale for the above table is as follows:

**Goal #1:** The most relevant program outcomes are those related to technical competence, i.e. A, B, C, E, K, and L. Outcomes D and G are relevant because teamwork and effective communication play an important role in professional environment.

**Goal #2:** Outcomes I, K, L are relevant because with their current knowledge and skills as well as ability for life-long learning, graduates will be able to continually update their knowledge and skills.

**Goal #3:** Outcomes F, H, J are relevant since in addition to an understanding of professional and ethical responsibility, it is also important to have knowledge of contemporary issues and the impact of engineering solutions while engaging with the community at different levels.

**Goal #4:** For graduate studies all outcomes related to technical competence, i.e. A, B, C, E, K, and L are relevant. In addition, outcomes G and I are important because they relate to communication skills and self-learning ability.

### Alignment of Program Outcomes to QF Emirates

The Program Outcomes are consistent with the level of qualification awarded as defined in the UAE Qualification Framework. Out of twelve Program Outcomes, four each are for knowledge, skills, and competencies, as follows:

#### Knowledge:

- 1) An ability to apply knowledge of mathematics, science, and engineering.

- 2) An ability to identify, formulate, and solve engineering problems.
- 3) A knowledge of contemporary issues.
- 4) An ability to demonstrate broad knowledge in the field of electrical engineering and specialized knowledge in chosen concentration.

**Skills:**

- 1) An ability to design and conduct experiments, as well as to analyze and interpret data.
- 2) 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.
- 3) An ability to communicate effectively.
- 4) An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

**Competencies:**

- 1) An ability to function on multidisciplinary teams.
- 2) An understanding of professional and ethical responsibility.
- 3) Understanding of the impact of engineering solution in a global, economic, environmental, and societal context.
- 4) A recognition of the need for, and an ability to engage in life-long learning.

The alignment of Program Outcomes to QFEmirates is shown below in Table 2.

**Table 2: Alignment of Program Outcomes to QFEmirates**

| Program Outcomes   | Strand 1<br>Knowledge | Strand 2<br>Skills | Strand 3<br>Autonomy<br>& Responsi-<br>bility | Strand 4<br>Role in<br>Context | Strand 5<br>Self-<br>Development |
|--|-----------------------|--------------------|---|--------------------------------|----------------------------------|
| A. an ability to apply knowledge of mathematics, science, and engineering  | X                     |                    |   |                                |                                  |
| B. an ability to design and conduct experiments, as well as to analyze and interpret data  |                       | X                  |   |                                |                                  |
| C. an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability |                       | X                  |   |                                |                                  |



| Program Outcomes   | Strand 1<br>Knowledge | Strand 2<br>Skills | Strand 3<br>Autonomy<br>& Responsi-<br>bility | Strand 4<br>Role in<br>Context | Strand 5<br>Self-<br>Development |
|--|-----------------------|--------------------|---|--------------------------------|----------------------------------|
| D. an ability to function on multidisciplinary teams   |                       |                    | X   |                                |                                  |
| E. an ability to identify, formulate, and solve engineering problems   | X                     |                    |   |                                |                                  |
| F. an understanding of professional and ethical responsibility   |                       |                    |   | X                              |                                  |
| G. an ability to communicate effectively   |                       | X                  |   |                                |                                  |
| H. the broad education necessary to understand the impact of engineering solution in a global, economic, environmental, and societal context |                       |                    |   | X                              |                                  |
| I. a recognition of the need for, and an ability to engage in life-long learning   |                       |                    |   |                                | X                                |
| J. a knowledge of contemporary issues  | X                     |                    |   |                                |                                  |
| K. an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice                                 |                       | X                  |   |                                |                                  |
| L. an ability to demonstrate broad knowledge in the field of electrical engineering and specialized knowledge in chosen concentration.       | X                     |                    |   |                                |                                  |

### Admission Requirements

Admission to the electrical engineering specialization requires a UAE secondary school certificate (science major) or its equivalent with a minimum grade of 70 percent. For further information, please refer to the university admissions policy.

### Career Opportunities

Graduates of the electrical engineering pursue careers in a wide range of industries and services, including the electronic and computer industries, industrial manufacturing plants, security control systems, design automation companies, product design and development companies, major service companies for electronic appliances, mobile telephone industry, digital communication and

networking industry, television and radio services, telecommunication companies, electrical power generation companies, electrical power distribution services, and renewable energy system design companies.

### Graduation Requirements

The Bachelor of Science degree is awarded upon the fulfillment of the following:

- Successful completion of all courses in the program curriculum (139 credit hours)
- Successful completion of 2 weeks of internal training and 12 weeks of external training at engineering companies (3 credit hours)
- The cumulative grade points average CGPA is at least 2.0

### Degree requirements

The B.Sc. degree in Electrical Engineering requires the completion of 139 Cr. Hrs of course work, distributed according to the following plan, plus 3 credit hours of practical training or internship (total of 142 credit hours):

| Type of Courses                              | Credit hours |
|--|--------------|
| 1. University General Education Requirements |              |
| (a) University Required Courses              | 15           |
| (b) University Elective Courses              | 6            |
| 2. College Required Courses                  | 36           |
| 3. EE Required Courses                       | 57           |
| 4. Specialization Courses                    | 19           |
| 5. Graduation Projects I & II                | 6            |
| Total Credit Hours (course work)             | 139          |

### University General Education Requirements

#### (a) University Required Courses (15 Cr. Hrs.)

| Course No. | Course Title                            | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite    |
|------------|---|-----|------|------|----------|-----------------|
| ORN111     | Orientation                             | 1   | 0    | 0    | 0        | ---             |
| ISL114     | Islamic Culture                         | 3   | 0    | 1    | 3        | ---             |
| ARB111     | Communication Skills in Arabic Language | 3   | 0    | 0    | 3        | ---             |
| STA112     | Statistics                              | 2   | 2    | 0    | 3        | ---             |
| COM111     | IT Fundamentals                         | 2   | 2    | 0    | 3        | ---             |
| INN311     | Innovation and Entrepreneurship         | 3   | 0    | 0    | 3        | 60 credit hours |

#### (b) University Elective Courses (Humanities or Arts) (3 credit hours)

| Course No. | Course Title | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite |
|------------|--------------|-----|------|------|----------|--------------|
|------------|--------------|-----|------|------|----------|--------------|

|        |                                     |   |   |   |   |     |
|--------|-------------------------------------|---|---|---|---|-----|
| LAW111 | Legal Culture                       | 3 | 0 | 0 | 3 | --- |
| ART111 | Introduction to Art                 | 3 | 0 | 0 | 3 | --- |
| ART211 | Introduction to Digital Photography | 3 | 0 | 0 | 3 | --- |
| ART112 | Introduction to Aesthetics          | 3 | 0 | 0 | 3 | --- |
| FRE211 | French Language                     | 3 | 0 | 0 | 3 | --- |
| ARB113 | The Art of Written Expression       | 3 | 0 | 0 | 3 | --- |
| INF112 | Academic Writing                    | 3 | 0 | 0 | 3 | --- |
| ENG211 | The Art of Public Speaking          | 3 | 0 | 0 | 3 | --- |
| ISL211 | Introduction to Hadeeth and Sunna   | 3 | 0 | 0 | 3 | --- |

**(c) University Elective Courses (Social or Behavioral Sciences) (3 credit hours)**

| Course No. | Course Title                     | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite |
|------------|----------------------------------|-----|------|------|----------|--------------|
| ECO211     | Economic Concepts                | 3   | 0    | 0    | 3        | ---          |
| EMS111     | Emirates Society                 | 3   | 0    | 0    | 3        | ---          |
| PSY111     | General Psychology               | 3   | 0    | 0    | 3        | ---          |
| ENG111     | English Communication Skills     | 3   | 0    | 0    | 3        | ---          |
| SOC112     | Communication between Cultures   | 3   | 0    | 0    | 3        | ---          |
| INF113     | Library Information System       | 3   | 0    | 0    | 3        | ---          |
| THI211     | Critical and Analytical Thinking | 3   | 0    | 0    | 3        | ---          |

**College Required Courses (36 Cr. Hrs.)**

| Course No. | Course Title                  | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite(s)             |
|------------|-------------------------------|-----|------|------|----------|-----------------------------|
| ENV111     | Environmental Sciences        | 3   | 0    | 0    | 3        | ---                         |
| MTH121     | Engineering Mathematics I     | 3   | 0    | 2    | 3        | ---                         |
| PHY121     | Engineering Physics I         | 3   | 2    | 2    | 4        | ---                         |
| CHE101     | Chemistry for Engineers       | 2   | 2    | 0    | 3        | ---                         |
| ELE101     | Computer Programming          | 3   | 0    | 2    | 3        | COM111                      |
| MTH122     | Engineering Mathematics II    | 3   | 0    | 2    | 3        | MTH121                      |
| PHY122     | Engineering Physics II        | 3   | 2    | 2    | 4        | ---                         |
| ELE102     | Introduction to Engineering   | 1   | 0    | 1    | 1        | ---                         |
| ELE301     | Report Writing & Presentation | 3   | 0    | 1    | 3        | ELE102 +<br>Junior Standing |
| MTH221     | Engineering Mathematics III   | 3   | 0    | 2    | 3        | MTH122                      |
| MTH222     | Engineering Mathematics IV    | 3   | 0    | 2    | 3        | MTH221                      |
| ELE410     | Engineering Management        | 3   | 0    | 0    | 3        | ELE301                      |



**EE Required Courses (57 Cr. Hrs.)**

| Course No. | Course Title                              | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite      |
|------------|---|-----|------|------|----------|-------------------|
| ELE202     | Logic Design                              | 3   | 2    | 2    | 4        | COM111            |
| ELE206     | Engineering Analysis                      | 3   | 0    | 2    | 3        | ELE101            |
| ELE203     | Circuit Analysis I                        | 3   | 2    | 2    | 4        | PHY122            |
| ELE205     | Electronic Devices & Circuits I           | 3   | 2    | 2    | 4        | ELE203            |
| ELE204     | Signal and Systems                        | 3   | 0    | 2    | 3        | MTH221            |
| ELE207     | Circuit Analysis II                       | 3   | 2    | 2    | 4        | ELE203            |
| ELE305     | Electronic Devices & Circuits II          | 3   | 2    | 2    | 4        | ELE205            |
| ELE302     | Principles of Communications              | 3   | 2    | 2    | 4        | ELE204            |
| ELE303     | Electromagnetic Fields & Wave Propagation | 3   | 0    | 2    | 3        | PHY122,<br>MTH221 |
| ELE307     | Control Systems                           | 3   | 2    | 2    | 4        | ELE204            |
| ELE310     | Design with Integrated Circuits           | 3   | 2    | 0    | 4        | ELE305            |
| ELE314     | Microcontrollers and Applications         | 3   | 2    | 0    | 4        | ELE101, ELE202    |
| ELE313     | Sensors and Instrumentation               | 3   | 2    | 0    | 4        | ELE305, ELE206    |
| ELE312     | Power Systems & Electrical Machines       | 3   | 2    | 0    | 4        | ELE207            |
| ELE304     | Probability and Random Variables          | 3   | 0    | 2    | 3        | MTH122            |
| ELE465     | Senior Seminar                            | 1   | 0    | 0    | 1        | ELE301            |

**Specialization Required Courses & Graduation Projects (16 Cr. Hrs.)**
**Electronics & Communication Concentration**

| Course No. | Course Title                       | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite     |
|------------|------------------------------------|-----|------|------|----------|------------------|
| ELE425     | Optoelectronics                    | 3   | 0    | 0    | 3        | ELE305<br>ELE303 |
| ELE451     | Communication & Switching Networks | 3   | 2    | 0    | 4        | ELE302           |
| ELE455     | Wireless Communication             | 3   | 0    | 0    | 3        | ELE302, ELE303   |
| ELE438     | Graduation Project I               | 1   | 4    | 0    | 3        | ELE310           |
| ELE439     | Graduation Project II              | 1   | 4    | 0    | 3        | ELE438           |

## Specialization Required Courses & Graduation Projects (16 Cr. Hrs.)

### Instrumentation & Control Concentration

| Course No. | Course Title                               | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite      |
|------------|--|-----|------|------|----------|-------------------|
| ELE492     | Power Switching Devices                    | 3   | 0    | 0    | 3        | ELE305<br>ELE207  |
| ELE491     | Industrial Control systems                 | 3   | 2    | 2    | 4        | ELE307            |
| ELE483     | Computer Based Instrumentation and control | 2   | 2    | 0    | 3        | ELE313,<br>ELE314 |
| ELE488     | Graduation Project I                       | 1   | 4    | 0    | 3        | ELE310            |
| ELE489     | Graduation Project II                      | 1   | 4    | 0    | 3        | ELE488            |

## Specialization Required Courses & Graduation Projects (16 Cr. Hrs.)

### Power & Renewable Energy Concentration

| Course No. | Course Title                        | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite |
|------------|-------------------------------------|-----|------|------|----------|--------------|
| ELE463     | Renewable Energy Systems            | 3   | 2    | 0    | 4        | ELE312       |
| ELE464     | Power System Analysis               | 3   | 0    | 0    | 3        | ELE312       |
| ELE477     | Smart Grid Renewable Energy Systems | 3   | 0    | 0    | 3        | ELE463       |
| ELE468     | Graduation Project I                | 1   | 4    | 0    | 3        | ELE310       |
| ELE469     | Graduation Project II               | 1   | 4    | 0    | 3        | ELE468       |

## Specialization Elective Courses (9 Cr. Hrs.)

### Electronics & Communication Concentration

The student will take three of the following Specialization Electives as approved by the academic advisor. At least two of these courses must have the course code as 2114xxx or 2124xxx or 2164xxx. Advisor's approval is required if the third elective is not from the listed electives.

| Course No. | Course Title                         | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite              |
|------------|--------------------------------------|-----|------|------|----------|---------------------------|
| ELE421     | VLSI Design                          | 3   | 0    | 0    | 3        | ELE305, ELE202            |
| ELE450     | Digital Signal Processing            | 3   | 0    | 0    | 3        | ELE204                    |
| ELE456     | Telecommunication Systems            | 3   | 0    | 0    | 3        | ELE302                    |
| ELE491     | Industrial Control Systems           | 3   | 2    | 2    | 4        | ELE307                    |
| ELE463     | Renewable Energy Systems             | 3   | 2    | 0    | 4        | ELE312                    |
| ELE436     | Selected Topics in Electr. and Comm. | 3   | 0    | 0    | 3        | ELE305, ELE320            |
| ELE437     | Directed Study in Electr. And Comm.  | 3   | 0    | 0    | 3        | ELE310, ELE302 + Approval |

**Specialization Elective Courses (9 Cr. Hrs.)**
**Instrumentation and Control Concentration**

The student will take three of the following Specialization Electives as approved by the academic advisor. At least two of these courses must have the course code as 2144xxx. Advisor's approval is required if the third elective is not from the listed electives.

| Course No. | Course Title                                 | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite      |
|------------|--|-----|------|------|----------|-------------------|
| ELE451     | Communication & Switching Networks           | 3   | 2    | 0    | 4        | ELE302            |
| ELE480     | Fuzzy Logic and Neural Networks              | 3   | 0    | 0    | 3        | ELE202            |
| ELE486     | Biomedical Instrumentation                   | 3   | 0    | 0    | 3        | ELE313            |
| ELE463     | Renewable Energy Systems                     | 3   | 2    | 0    | 4        | ELE312            |
| ELE470     | Power System Protection and Control          | 3   | 0    | 0    | 3        | ELE307, ELE312    |
| ELE487     | Selected Topics in Instrumentation & Control | 3   | 0    | 0    | 3        | ELE313            |
| ELE490     | Directed Study in Instrumentation & Control  | 3   | 0    | 0    | 3        | ELE313 + Approval |

**Specialization Elective Courses (9 Cr. Hrs.)**
**Power & Renewable Energy Concentration**

The student will take three of the following Specialization Electives as approved by the academic advisor. At least two of these courses must have the course code as 2154xxx. Advisor's approval is required if the third elective is not from the listed electives.

| Course No. | Course Title                                | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite     |
|------------|---|-----|------|------|----------|------------------|
| ELE492     | Power Switching Devices                     | 3   | 0    | 0    | 3        | ELE207, ELE305   |
| ELE491     | Industrial Control Systems                  | 3   | 2    | 2    | 4        | ELE307           |
| ELE470     | Power System Protection and Control         | 3   | 0    | 0    | 3        | ELE312, ELE307   |
| ELE471     | Power Generation and Transmission           | 3   | 0    | 0    | 3        | ELE312           |
| ELE472     | Electrical Power Distribution Systems       | 3   | 0    | 0    | 3        | ELE312           |
| ELE478     | Selected Topics in Power & Renewable Energy | 3   | 0    | 0    | 3        | ELE463           |
| ELE479     | Directed Study in Power & Renewable Energy  | 3   | 0    | 0    | 3        | ELE463 +Approval |

## Study Plan

### FIRST YEAR

#### Fall Semester:

| Course Code | Course Title                            | Credit Hrs. | Lec. Hrs. | Lab. Hrs. | Tut. Hrs. | Prerequisite |
|-------------|---|-------------|-----------|-----------|-----------|--------------|
| ORN111      | Orientation                             | 0           | 1         | --        | --        | ---          |
| ARB111      | Communication Skills in Arabic Language | 3           | 3         | --        | --        | ---          |
| COM111      | IT Fundamentals                         | 3           | 2         | 2         | --        | ---          |
| MTH121      | Engineering Mathematics I               | 3           | 3         | --        | 2         | ---          |
| PHY121      | Engineering Physics I                   | 4           | 3         | 2         | 2         | ---          |
| CHE101      | Chemistry for Engineers                 | 3           | 2         | 2         | --        | ---          |
| ELE102      | Introduction to Engineering             | 1           | 1         | --        | 1         | ---          |
|             |   | <b>17</b>   | <b>15</b> | <b>6</b>  | <b>5</b>  |              |

#### Spring Semester:

| Course Code | Course Title               | Credit Hrs. | Lec. Hrs. | Lab. Hrs. | Tut. Hrs. | Prerequisite |
|-------------|----------------------------|-------------|-----------|-----------|-----------|--------------|
| ISL114      | Islamic Culture            | 3           | 3         | --        | 1         | ---          |
| ELE101      | Computer Programming       | 3           | 3         | --        | 2         | COM111       |
| MTH122      | Engineering Mathematics II | 3           | 3         | --        | 2         | MTH121       |
| PHY122      | Engineering Physics II     | 4           | 3         | 2         | 2         | ---          |
| xxxxxxx     | University Elective I      | 3           | 3         | --        | --        | ---          |
|             |                            | <b>16</b>   | <b>15</b> | <b>2</b>  | <b>7</b>  |              |

#### Summer Semester:

| Course Code | Course Title           | Credit Hrs. | Lec. Hrs. | Lab. Hrs. | Tut. Hrs. | Prerequisite |
|-------------|------------------------|-------------|-----------|-----------|-----------|--------------|
| ENV111      | Environmental Sciences | 3           | 3         | --        | --        | ---          |
| xxxxxxx     | University Elective II | 3           | 3         | --        | --        | ---          |
|             |                        | <b>6</b>    | <b>6</b>  | <b>0</b>  | <b>0</b>  |              |

**SECOND YEAR**

**Fall Semester:**

| Course Code | Course Title                | Credit Hrs. | Lec. Hrs. | Lab. Hrs. | Tut. Hrs. | Prerequisite |
|-------------|-----------------------------|-------------|-----------|-----------|-----------|--------------|
| STA112      | Statistics                  | 3           | 2         | 2         | --        | ---          |
| ELE202      | Logic Design                | 4           | 3         | 2         | 2         | COM111       |
| ELE206      | Engineering Analysis        | 3           | 3         | --        | 2         | ELE101       |
| ELE203      | Circuit Analysis I          | 4           | 3         | 2         | 2         | PHY122       |
| MTH221      | Engineering Mathematics III | 3           | 3         | --        | 2         | MTH122       |
|             |                             | <b>17</b>   | 14        | 6         | 8         |              |

**Spring Semester:**

| Course Code | Course Title                    | Credit Hrs. | Lec. Hrs. | Lab. Hrs. | Tut. Hrs. | Prerequisite    |
|-------------|---------------------------------|-------------|-----------|-----------|-----------|-----------------|
| ELE205      | Electronic Devices & Circuits I | 4           | 3         | 2         | 2         | ELE203          |
| ELE204      | Signals and Systems             | 3           | 3         | --        | 2         | MTH221          |
| ELE207      | Circuit Analysis II             | 4           | 3         | 2         | 2         | ELE203          |
| MTH222      | Engineering Mathematics IV      | 3           | 3         | --        | 2         | MTH221          |
| INN311      | Innovation and Entrepreneurship | 3           | 3         | --        | --        | 60 credit hours |
|             |                                 | <b>17</b>   | 15        | 4         | 8         |                 |

**THIRD YEAR**

**Fall Semester:**

| Course Code | Course Title                                | Credit Hrs. | Lec. Hrs. | Lab. Hrs. | Tut. Hrs. | Prerequisite     |
|-------------|---|-------------|-----------|-----------|-----------|------------------|
| ELE305      | Electronic Devices & Circuits II            | 4           | 3         | 2         | 2         | ELE205           |
| ELE302      | Principles of Communication                 | 4           | 3         | 2         | 2         | ELE204           |
| ELE303      | Electromagnetic Fields and Wave Propagation | 3           | 3         | --        | 2         | PHY122<br>MTH221 |
| ELE312      | Power Systems and Electrical Machines       | 4           | 3         | 2         | --        | ELE207           |

|        |                                  |    |    |    |   |        |
|--------|----------------------------------|----|----|----|---|--------|
| ELE304 | Probability and Random Variables | 3  | 3  | -- | 2 | MYH122 |
|        |                                  | 18 | 15 | 6  | 8 |        |

### Internal Training (2 Weeks in Spring Break)

#### Spring Semester:

| Course Code | Course Title                      | Credit Hrs. | Lec. Hrs. | Lab. Hrs. | Tut. Hrs. | Prerequisite                |
|-------------|-----------------------------------|-------------|-----------|-----------|-----------|-----------------------------|
| ELE310      | Design with Integrated Circuits   | 4           | 3         | 2         | --        | ELE305                      |
| ELE307      | Control Systems                   | 4           | 3         | 2         | 2         | ELE204                      |
| ELE313      | Sensors and Instrumentation       | 4           | 3         | 2         | --        | ELE305<br>ELE206            |
| ELE314      | Microcontrollers and Applications | 4           | 3         | 2         | --        | ELE101<br>ELE202            |
| ELE301      | Report Writing and Presentation   | 3           | 3         | --        | 1         | ELE102 +<br>Junior Standing |
|             |                                   | 19          | 15        | 8         | 4         |                             |

### ELE497: Engineering Training I (6 Weeks in Summer)

### FINAL YEAR (ELECTRONICS & COMMUNICATION)

#### Fall Semester:

| Course Code | Course Title                       | Credit Hrs. | Lec. Hrs. | Lab. Hrs. | Tut. Hrs. | Prerequisite     |
|-------------|------------------------------------|-------------|-----------|-----------|-----------|------------------|
| ELE451      | Communication & Switching Networks | 4           | 3         | 2         | --        | ELE302           |
| ELE425      | Optoelectronics                    | 3           | 3         | --        | --        | ELE305<br>ELE303 |
| ELE438      | Graduation Project I               | 3           | 1         | 4         | --        | ELE310           |
| ELEXXX      | Technical Elective I               | 3           | 3         | --        | --        | As Specified     |
| ELE465      | Senior Seminar                     | 1           | 1         | --        | --        | ELE301           |
|             |                                    | 14          | 11        | 6         | --        |                  |

#### Spring Semester:

| Course Code | Course Title | Credit Hrs. | Lec. Hrs. | Lab. Hrs. | Tut. Hrs. | Prerequisite |
|-------------|--------------|-------------|-----------|-----------|-----------|--------------|
|-------------|--------------|-------------|-----------|-----------|-----------|--------------|

|        |                        |    |    |    |    |                  |
|--------|------------------------|----|----|----|----|------------------|
| ELE455 | Wireless Communication | 3  | 3  | -- | -- | ELE302<br>ELE303 |
| ELE439 | Graduation Project II  | 3  | 1  | 4  | -- | ELE438           |
| ELEXXX | Technical Elective II  | 3  | 3  | -- | -- | As Specified     |
| ELEXXX | Technical Elective III | 3  | 3  | -- | -- | As Specified     |
| ELE410 | Engineering Management | 3  | 3  | -- | -- | ELE301           |
|        |                        | 15 | 13 | 4  | -- |                  |

### ELE497: Engineering Training II (6 Weeks in Summer)

#### List of Technical Electives for Electronics & Communication Concentration:

The student will take three of the following Technical Electives. At least two of these electives must have the course code as 2114xxx/2124xxx/2164xxx. Approval of academic advisor is required if a student intends to take one 400 level technical elective outside the below list.

| Code   | Course Title                       | Cr. Hrs. | Pre-requisite(s)          |
|--------|------------------------------------|----------|---------------------------|
| ELE421 | VLSI Design                        | 3        | ELE305, ELE202            |
| ELE450 | Digital Signal Processing          | 3        | ELE204                    |
| ELE456 | Telecommunication Systems          | 3        | ELE302                    |
| ELE491 | Industrial Control Systems         | 4        | ELE307                    |
| ELE463 | Renewable Energy Systems           | 4        | ELE312                    |
| ELE436 | Selected Topics in Electr. & Comm. | 3        | ELE305, ELE320            |
| ELE437 | Directed Study in Electr. & Comm.  | 3        | ELE310, ELE302 + Approval |

### FINAL YEAR (INSTRUMENTATION AND CONTROL)

#### Fall Semester:

| Course Code | Course Title               | Credit Hrs. | Lec. Hrs. | Lab. Hrs. | Tut. Hrs. | Prerequisite     |
|-------------|----------------------------|-------------|-----------|-----------|-----------|------------------|
| ELE491      | Industrial Control Systems | 4           | 3         | 2         | 2         | ELE307           |
| ELE492      | Power Switching Devices    | 3           | 3         | --        | --        | ELE305<br>ELE207 |
| ELE488      | Graduation Project I       | 3           | 1         | 4         | --        | ELE310           |
| ELEXXX      | Technical Elective I       | 3           | 3         | --        | --        | As specified     |
| ELE465      | Senior Seminar             | 1           | 1         | --        | --        | ELE301           |
|             |                            | 14          | 11        | 6         | 2         |                  |

#### Spring Semester:

| Course Code | Course Title | Credit Hrs. | Lec. Hrs. | Lab. Hrs. | Tut. Hrs. | Prerequisite |
|-------------|--------------|-------------|-----------|-----------|-----------|--------------|
|-------------|--------------|-------------|-----------|-----------|-----------|--------------|

|        |  |           |    |    |    |                  |
|--------|--|-----------|----|----|----|------------------|
| ELE483 | Computer-Based Instrumentation and Control | 3         | 2  | 2  | -- | ELE313<br>ELE314 |
| ELE489 | Graduation Project II                      | 3         | 1  | 4  | -- | ELE488           |
| ELEXXX | Technical Elective II                      | 3         | 3  | -- | -- | As specified     |
| ELEXXX | Technical Elective III                     | 3         | 3  | -- | -- | As specified     |
| ELE410 | Engineering Management                     | 3         | 3  | -- | -- | ELE301           |
|        |  | <b>15</b> | 12 | 6  | -- |                  |

### ELE497: Engineering Training II (6 Weeks in Summer)

#### List of Technical Electives for Instrumentation and Control:

The student will take three of the following Technical Electives. At least two of these electives must have the course code as 2144xxx. Approval of academic advisor is required if a student intends to take one 400 level technical elective outside the below list.

| Code   | Course Title                                 | Cr. Hrs. | Pre-requisite(s)  |
|--------|--|----------|-------------------|
| ELE451 | Communication & Switching Networks           | 4        | ELE302            |
| ELE480 | Fuzzy Logic and Neural Networks              | 3        | ELE202            |
| ELE486 | Biomedical Instrumentation                   | 3        | ELE313            |
| ELE487 | Selected Topics in Instrumentation & Control | 3        | ELE313            |
| ELE490 | Directed Study in Instrumentation & Control  | 3        | ELE313 + Approval |
| ELE470 | Power System Protection and Control          | 3        | ELE307, ELE312    |
| ELE463 | Renewable Energy Systems                     | 4        | ELE312            |

### FINAL YEAR (POWER AND RENEWABLE ENERGY)

#### Fall Semester:

| Course Code | Course Title             | Credit Hrs. | Lec. Hrs. | Lab. Hrs. | Tut. Hrs. | Prerequisite |
|-------------|--------------------------|-------------|-----------|-----------|-----------|--------------|
| ELE463      | Renewable Energy Systems | 4           | 3         | 2         | --        | ELE312       |
| ELE464      | Power System Analysis    | 3           | 3         | --        | --        | ELE312       |
| ELE468      | Graduation Project I     | 3           | 1         | 4         | --        | ELE310       |
| ELEXXX      | Technical Elective I     | 3           | 3         | --        | --        | As specified |
| ELE465      | Senior Seminar           | 1           | 1         | --        | --        | ELE301       |
|             |                          | <b>14</b>   | 11        | 6         | --        |              |

#### Spring Semester:

| Course Code | Course Title | Credit Hrs. | Lec. Hrs. | Lab. Hrs. | Tut. Hrs. | Prerequisite |
|-------------|--------------|-------------|-----------|-----------|-----------|--------------|
|-------------|--------------|-------------|-----------|-----------|-----------|--------------|



|        |                                     |    |    |    |    |              |
|--------|-------------------------------------|----|----|----|----|--------------|
| ELE477 | Smart Grid Renewable Energy Systems | 3  | 3  | -- | -- | ELE463       |
| ELE469 | Graduation Project II               | 3  | 1  | 4  | -- | ELE468       |
| ELEXXX | Technical Elective II               | 3  | 3  | -- | -- | As specified |
| ELEXXX | Technical Elective III              | 3  | 3  | -- | -- | As specified |
| ELE410 | Engineering Management              | 3  | 3  | -- | -- | ELE301       |
|        |                                     | 15 | 13 | 4  | -- |              |

**ELE497: ENGINEERING TRAINING II (6 Weeks in Summer)**

**List of Technical Electives for Power & Renewable Energy:**

The student will take three of the following Technical Electives. At least two of these electives must have the course code as 2154xxx. Approval of academic advisor is required if a student intends to take one 400 level technical elective outside the below list.

| Code   | Course Title                                | Cr. Hrs. | Pre-requisite(s) |
|--------|---|----------|------------------|
| ELE492 | Power Switching Devices                     | 3        | ELE207, ELE305   |
| ELE491 | Industrial Control Systems                  | 4        | ELE307           |
| ELE470 | Power System Protection and Control         | 3        | ELE312, ELE307   |
| ELE471 | Power Generation and Transmission           | 3        | ELE312           |
| ELE472 | Electrical Power Distribution Systems       | 3        | ELE312           |
| ELE478 | Selected Topics in Power & Renewable Energy | 3        | ELE463           |
| ELE479 | Directed Study in Power & Renewable Energy  | 3        | ELE463 +Approval |

## MINOR IN ELECTRICAL ENGINEERING

The Minor in Electrical Engineering is offered to undergraduate students enrolled in either Biomedical Engineering or Computer Engineering programs offered by AU. There are some basic core courses that are common between these three programs. Having taken these basic core courses in their own programs, students majoring in the Biomedical and Computer Engineering programs will have the required foundation to expand their knowledge and skills in Electrical Engineering by taking some important courses in this discipline, thus enabling them to get a Minor in Electrical Engineering. The courses in the study plan of Minor in Electrical Engineering are designed such that students taking this Minor will not have to take any additional course just for the sake of meeting the pre-requisite requirements.

### Study Plan

The specified courses for Minor in Electrical Engineering are given in the following table. These courses were selected after considering the study plans of Biomedical Engineering (BME) and Computer Engineering (CE) programs at AU to ensure that students of these two programs have the required pre-requisite courses to take the courses needed for obtaining Minor in Electrical Engineering.

| Course ID              | Course Title   | Credit Hrs.<br>(Th, Lab) | Pre-requisite(s)   |
|------------------------|--|--------------------------|--|
| ELE207                 | Circuit Analysis II                                  | 4<br>(3,2)               | Circuit Analysis I (ELE203)<br>Engineering Mathematics III<br>(MTH221) |
| ELE206                 | Engineering Analysis                                 | 3<br>(3,0)               | Computer Programming<br>(ELE101)                                       |
| ELE302<br>OR<br>ELE307 | Principles of Communication<br>OR<br>Control Systems | 4<br>(3,2)               | Signals and Systems (ELE204)   |
| ELE305                 | Electronic Devices and<br>Circuits II                | 4<br>(3,2)               | Electronic Devices and Circuits I<br>(ELE205)                          |
| ELE312                 | Power Systems and<br>Electrical Machines             | 3<br>(3,0)               | Circuit Analysis II (ELE207)   |

### Admission and Completion Requirements

The requirements for a Minor in Electrical Engineering are presented in the following.

1. Only the registered students of Biomedical and Computer Engineering programs at AU can apply for Minor in Electrical Engineering.
2. For a student to be accepted for Minor in Electrical Engineering, his/her cumulative GPA at the time of application must be at least 2.0.
3. The student will be enrolled for Minor in Electrical Engineering after obtaining approval from the advisor, Head of the Electrical & Computer Engineering Department, and the Head of

Biomedical Engineering Department as well as the Registrar (Office of Admissions and Registration).

- The students accepted for Minor in Electrical Engineering must successfully complete five specified courses (18 credit hours as given below) with a minimum CGPA of 2.0 in these courses.

### Course Descriptionss

|   |   |                |
|---|---|----------------|
| <b>ELE205</b>   | <b>Electronic Devices &amp; Circuits I (Lec-Lab-Credit Hrs)</b> | <b>(3-2-4)</b> |
| <p>Basic properties of semiconductor materials. Theory of operation and applications of p-n junction diodes, zener diodes and photodiodes. Theory of operation, biasing circuits, and small signal analysis of Bipolar Junction Transistor and Junction Field Effect Transistor. Transistor configurations and two-port network representation of transistor a.c. equivalent circuits. Analysis and design of transistor amplifier circuits.</p> <p><i>Prerequisite: ELE203</i></p>                                   |   |                |
| <b>ELE305</b>   | <b>Electronic Devices and Circuits II</b>                       | <b>(3-2-4)</b> |
| <p>Operational amplifiers and their applications. MOSFETs: theory of operation and characteristics of depletion and enhancement type MOSFETs, analysis of various biasing circuits. Small-signal model and AC analysis of amplifiers. Frequency response of amplifiers. Multistage amplifiers. Feedback amplifiers and oscillator circuits. Power amplifiers.</p> <p><i>Prerequisite: ELE205</i></p>  |   |                |
| <b>ELE310</b>   | <b>Design with Integrated Circuits</b>                          | <b>(3-2-4)</b> |
| <p>A review of Op-Amps and Digital IC families. Design of analog signal conditioning circuits. Design of power supplies using IC regulators. Op-amp applications. Design of systems for measuring and displaying the measured values on LEDs. Applications of ADC, DAC, and counter ICs. Optoisolators, triacs, and control of high-voltage systems and actuators. Design of signal generators. Applications of commonly used ICs such as VCO, PLL, Timer IC, F/V and V/F ICs.</p> <p><i>Prerequisite: ELE305</i></p> |   |                |
| <b>ELE421</b>   | <b>VLSI Design</b>  | <b>(3-0-3)</b> |
| <p>Introduction to VLSI design. Review of basic logic gates in CMOS. Integrated circuit layers, sheet resistance, time delay, CMOS layers, designing FET arrays, stick diagrams, layouts of CMOS circuits. Fabrication of CMOS ICs. Design rules, physical limitations. Advanced techniques in CMOS logic circuits. General VLSI system components. Floor-planning and routing. DRAM, SRAM, ROM designs.</p> <p><i>Prerequisites: ELE305, ELE202</i></p>  |   |                |
| <b>ELE425</b>   | <b>Optoelectronics</b>  | <b>(3-0-3)</b> |
| <p>Fundamental concepts of semiconductors optical properties. Characteristics and classification of detectors. Radiation sources, classification of radiation sources. Population inversion and gain in a two-level lasing medium. Optical feedback and laser cavity. P-N junction laser operating principles, threshold current, Hetero-junction lasers, Quantum well lasers, device fabrication and fiber coupling. Optical fibers and design of optical systems.</p> <p><i>Prerequisites: ELE305, ELE303</i></p>   |   |                |
| <b>ELE204</b>   | <b>Signals and Systems</b>                                      | <b>(3-0-3)</b> |
| <p>Continuous- and discrete-time signals and systems. Basic system properties. Linear Time-Invariant (LTI) systems. Properties of LTI systems. Convolution sum. Fourier series of periodic signals. Fourier</p>   |   |                |

transform of non-periodic signals. Filtering. Analysis of continuous-time LTI systems using Laplace transform.

*Prerequisite: MTH221*

|               |                                    |                |
|---------------|------------------------------------|----------------|
| <b>ELE302</b> | <b>Principles of Communication</b> | <b>(3-2-4)</b> |
|---------------|------------------------------------|----------------|

Introduction to fundamentals of communication systems. Amplitude Modulation (AM): Modulation index, spectrum of AM signals, AM circuits. Single side band modulation, frequency division multiplexing. Frequency Modulation (FM): Spectrum of FM signals, FM circuits. FM versus AM. Sampling, quantization, coding, pulse code modulation, delta modulation, time division multiplexing. Shift Keying methods.

*Prerequisite: ELE204*

|               |  |                |
|---------------|--|----------------|
| <b>ELE303</b> | <b>Electromagnetic Fields and Wave Propagation</b> | <b>(3-0-3)</b> |
|---------------|--|----------------|

Electrostatics: Coulomb's Law, Gauss's Law. Electric fields in material space, Polarization in Dielectrics. Ampere's Law, Stoke's Theorem. Time-varying Fields, Faraday's Law, Maxwell's Equations in point form, Maxwell's equations in integral form, boundary conditions. Wave equation, plane wave propagation, Poynting vector and average power. Transmission line theory, reflection and transmission on transmission lines.

*Prerequisites: PHY122, MTH221*

|               |                                  |                |
|---------------|----------------------------------|----------------|
| <b>ELE450</b> | <b>Digital Signal Processing</b> | <b>(3-0-3)</b> |
|---------------|----------------------------------|----------------|

Review of discrete-time signals and systems. Transform-domain representations of signals: Discrete-time Fourier Transform, Fast-Fourier Transform, applications of Z-Transform. Transform-domain representations of LTI systems: Types of transfer functions, stability condition and test. Frequency response of a Rational Transfer Function. The difference equation and Digital Filtering. Concept of filtering: Finite Impulse Response (FIR) and Infinite Impulse Response (IIR) Filters.

*Prerequisite: ELE204*

|               |   |                |
|---------------|---|----------------|
| <b>ELE451</b> | <b>Communication &amp; Switching Networks</b> | <b>(3-2-4)</b> |
|---------------|---|----------------|

Introduction to computer networks, protocol in architecture and OSI reference model. Local Area Network (LAN): Topologies and transmission media. high-speed LAN. Token-Ring, FDDI. Circuit switching and packet switching, ISDN, DSL, packet switching network, X.25, frame relay, ATM. Internetworking devices. UDP, TCP architecture, Internet protocols, TCP/IP. Application Layer: Client-server model, socket interface, SMTP, FTP, HTTP, and WWW. Wireless Networking.

*Prerequisite: ELE302*

|               |                                  |                |
|---------------|----------------------------------|----------------|
| <b>ELE456</b> | <b>Telecommunication Systems</b> | <b>(3-0-3)</b> |
|---------------|----------------------------------|----------------|

Introduction to telecommunication systems. Telecommunication fundamentals and transmission media characteristics. Design analog and digital data transmission schemes. Telephony systems: ISDN and PSTN, essentials of traffic engineering. Overview of Wireless LAN technology. Comparison of ZigBee with other standards and applications. Introduction to satellite and fiber optic based communications.

*Prerequisite: ELE302*

|               |                                |                |
|---------------|--------------------------------|----------------|
| <b>ELE455</b> | <b>Wireless Communications</b> | <b>(3-0-3)</b> |
|---------------|--------------------------------|----------------|

Introduction to cellular mobile radio systems: Cellular-concept system design fundamentals, trunking and grade of service. Mobile channel, large scale and small-scale fading. Outdoor propagation models. Multiple access techniques for mobile communication. Modern wireless communication systems: Second-generation (2G) cellular networks, Third-Generation (3G) and Fourth Generation (4G) wireless systems.

*Prerequisites: ELE302, ELE303*

|               |                             |                |
|---------------|-----------------------------|----------------|
| <b>ELE101</b> | <b>Computer Programming</b> | <b>(3-0-3)</b> |
|---------------|-----------------------------|----------------|

Problem solving using flowcharts, structure of a C++ program, data types, operators, variables and constants. Input and output, output formatting. Control Statements: IF and SWITCH, WHILE, DO-WHILE and FOR statements. Function definition and calling, library functions, arrays and strings, pointers. File input and output.

*Prerequisite: COM111*

|               |                     |                |
|---------------|---------------------|----------------|
| <b>ELE202</b> | <b>Logic Design</b> | <b>(3-2-4)</b> |
|---------------|---------------------|----------------|

Basic theorems and properties of Boolean Algebra and Boolean functions. Simplification of Boolean functions: Karnaugh Map and Tabulation Method. Product of Sums (POS) and Sum of Products (SOP) forms. Combinational logic circuits: Design and analysis procedures. Decoders, encoders, multiplexers, demultiplexers, ROM, PLA and PAL. Sequential logic circuits: Flip Flops (RS, D, JK, T), design procedure for clocked sequential circuits, counters. Registers and shift registers.

*Prerequisite: COM111*

|               |                             |                |
|---------------|-----------------------------|----------------|
| <b>ELE206</b> | <b>Engineering Analysis</b> | <b>(3-0-3)</b> |
|---------------|-----------------------------|----------------|

Developing C++ programs to solve electrical engineering problems. MATLAB programming environment, vectors and matrices, input/output, M-files: scripts and functions, control statements. Plotting with MATLAB. GUI in MATLAB. Introduction to SIMULINK. Electrical system modeling via SIMULINK. Introduction to LabVIEW. Development of Virtual Instruments using LabVIEW.

*Prerequisite: ELE101*

|               |  |                |
|---------------|--|----------------|
| <b>ELE314</b> | <b>Microcontrollers and Applications</b> | <b>(3-2-4)</b> |
|---------------|--|----------------|

Introduction to microprocessor and its internal architecture. Typical microprocessor bus systems. Addressing modes and address decoding. Memory and I/O interface. Assembly language programming. Microcontrollers and embedded systems. Programming of microcontroller using C language. Interrupt processing and interrupt-based control. Microcontroller interfacing to real-world applications. Design and implementation of course projects using a microcontroller.

*Prerequisites: ELE101, ELE202*

|               |                        |                |
|---------------|------------------------|----------------|
| <b>ELE307</b> | <b>Control Systems</b> | <b>(3-2-4)</b> |
|---------------|------------------------|----------------|

Introduction to Control Systems: Characteristics, time response, steady-state error. Open loop and closed loop concepts, transfer function, time domain, frequency domain, stability of linear feedback control systems, Root Locus method, Bode diagram. Design of feedback control systems: Principles of design, design with the PD, PI, and PID controllers. Performance evaluation of feedback control systems. Compensation: phase-lead, phase-lag and lead-lag compensation.

*Prerequisite: ELE204*

|               |                                    |                |
|---------------|------------------------------------|----------------|
| <b>ELE313</b> | <b>Sensors and Instrumentation</b> | <b>(3-2-4)</b> |
|---------------|------------------------------------|----------------|

Basic measurement concepts, sources and types of measurement errors, sources of noise and interference and how to minimize them. Analysis and design of DC and AC bridge circuits and their applications. Operating principles and specifications of DVM and DMM. Transducers and their applications in measurement systems. Operation analysis of electromagnetic sensors for flux, current and position sensing. Oscilloscopes: types, specifications, operation and measurements. Analyzers: types, architecture and the optimal tuning. Design projects related to different types of measuring instruments

*Prerequisites: ELE305, ELE206*

**ELE492**

**Power Switching Devices**

**(3-0-3)**

Introduction to power electronics devices, power transistors, IGBTs and SITs. Thyristors: characteristics, types, models, operations, thyristor commutation techniques and commutation circuit design. Analysis and design of uncontrolled and controlled rectifiers. AC voltage controllers with resistive and inductive load. DC choppers: principles and classifications. Principles of operation and performance parameters of different types of inverters. DC and AC drives. Power system applications.

*Prerequisite: ELE305, ELE207*

**ELE491**

**Industrial Control Systems**

**(3-2-4)**

Industrial control principles. Block diagram representation of industrial control systems. Application of analog and digital signal conditioning in industrial control. Thermal, optical, displacement, position, strain, motion, pressure, and flow sensors used in industrial control. Actuators in industrial control. Data Logging, Supervisory Control, Computer-based Controllers. Programmable Logic Controllers (PLCs). Sequential programming, Ladder diagrams. Introduction to Process Control Systems. Foundation Fieldbus and Profibus standards.

*Prerequisite: ELE307*

**ELE483**

**Computer-Based Instrumentation and Control**

**(2-2-3)**

Introduction to PC-based instrumentation and control. Explanation of standard bus types: ISA, EISA, PCI, PXI busses. IEEE 488 (GPIB) and RS-232 standards. Hardware and software interrupts, programmable interrupt controllers, interrupt service routines, DMA control and DMA controllers. Parallel Port interfacing. Serial Port Interfacing. USB Port interfacing. Data acquisition and control using plug-in cards. Development of virtual instruments using LabVIEW, remote data transmission and control, telemetry. Applications for a variety of measurements involving different kinds of sensors/transducers.

*Prerequisite: ELE313, ELE314*

**ELE480**

**Fuzzy Logic and Neural Networks**

**(3-0-3)**

An introduction to Fuzzy Logic and Neural Networks history, applications, and implementations. Fuzzy logic fundamentals, fuzzy sets, types of membership functions, linguistic variables, creation of fuzzy logic rule base, fuzzy logic operations. Fuzzy inference system. Neural network fundamentals, neural type learning process, single layer perceptron. Artificial neural networks architectures, training algorithms, genetic algorithms and evolution computing, neuro-fuzzy technology, fuzzy control systems and applications. Associative memory Hopfield neural networks.

*Prerequisite: ELE202*

**ELE486**

**Biomedical Instrumentation**

**(3-0-3)**

Biomedical sensors and transducers. Biopotential amplifiers, pre-amplifier circuits, instrumentation amplifier, isolation amplifiers, surge protection, input guarding, filters and signal conditioning circuits. Physiological recording systems ECG, EMG, EEG, ERG, etc. Blood pressure and its measurement. Pacemakers and Defibrillators. Clinical laboratory instrumentation.

*Prerequisite: ELE313*

**ELE487**

**Selected Topics in Instrumentation and Control**

**(3-0-3)**

Topics of current interest in Instrumentation and Control as selected by the faculty and approved by the EE Department. The course is tailored according to market demands and the technology directions.

*Prerequisite: ELE313*

**ELE490 Directed Study in Instrumentation and Control (3-0-3)**

Directed study in Instrumentation and Control is conducted under the supervision of a faculty member. A student interested to undertake such a study shall submit a proposal outlining the description of the work to be performed with clearly defined objectives and intended outcomes. The study may include experimental investigation, computer simulation or completely theoretical research. The proposal must be approved by the concerned faculty and the Head of EE Department.

*Prerequisites: ELE313, Advisor's Approval*

**ELE203 Circuit Analysis I (3-2-4)**

Basic quantities: charge, current, voltage, resistance, energy and power. Analysis of series, parallel and series-parallel D.C. resistive circuits using Ohm's law, Kirchhoff's voltage and current laws. Star-Delta and Delta-Star Transformations. Analysis of more resistive circuits using loop and nodal methods, superposition, source transformation, Thevenin's and Norton theorems, maximum power transfer theorem. Transient analyses of RC, RL, and RLC circuits with DC excitation.

*Prerequisites: PHY122*

**ELE207 Circuit Analysis II (3-2-4)**

AC circuits: impedance and admittance, phasors and phasor diagrams, series and parallel circuits, power and power factor correction. Steady-state response using phasor method. Nodal and loop analysis, application of circuit theorems. Steady-state power analysis. Magnetically-coupled circuits. Analysis of balanced three-phase circuits. Frequency response of simple circuits. Series and parallel resonance.

*Prerequisites: ELE203*

**ELE312 Power Systems and Electrical Machines (3-2-4)**

Introduction to power systems. Control of reactive power, voltage and frequency. Contemporary issues related to electrical energy. Basics of power system protection. Principles of DC and AC machines and their types. Ideal and practical transformer. Voltage regulation and efficiency of transformer.

*Prerequisites: ELE207*

**ELE470 Power System Protection and Control (3-0-3)**

An overview of electric industry structure, modern power system, system protection and energy control center. Introduction to power system apparatus: power transforms, circuit breakers, CTs, VTs, CCVTs and line trap. Primary and backup protection of transmission lines. Protection of transformers and busbars. Protection schemes for rotating machinery. Operation, algorithms and advantages of digital relays. Techniques for voltage and frequency control of power systems.

*Prerequisites: ELE307, ELE312*

**ELE471 Power Generation and Transmission (3-0-3)**

Introduction to different types of conventional power plants for generation of power. Operating principles of steam power plants, hydroelectric power plants, hydro turbines, hydro generators, gas-turbine plant, gas-power plant and combined-cycle gas-power plant. Comparison of different transmission line insulators. String efficiency and its improvement. Calculations for sag and tension in designing a transmission line. Classification and comparison of underground cables.

*Prerequisite: ELE312*

**ELE463 Renewable Energy Systems (3-2-4)**

Introduction to renewable energy sources. Electrical characteristics and performance evaluation of PV cells, modules, panels and arrays. Optimization of PV arrays. Design of a stand-alone PV system with

battery storage. Wind energy conversion systems, sizing and site matching. Hydro generation and types of hydropower turbines. Solar thermal and ocean thermal energy conversion. Tidal energy, wave power generation, geothermal and biomass energy systems. Types of energy storage systems.

*Prerequisite: ELE312*

|               |  |                |
|---------------|--|----------------|
| <b>ELE477</b> | <b>Smart Grid Renewable Energy Systems</b> | <b>(3-0-3)</b> |
|---------------|--|----------------|

Basic concept of electric power grid. Types and equipment at grid stations. Grid station automation. Fundamental concepts of power grid integration on microgrids of renewable energy sources. Modeling converters in microgrids. Smart meters and monitoring systems. Design of PV microgrid generating station. Microgrid wind energy systems.

*Prerequisite: ELE463*

|               |                              |                |
|---------------|------------------------------|----------------|
| <b>ELE464</b> | <b>Power System Analysis</b> | <b>(3-0-3)</b> |
|---------------|------------------------------|----------------|

Explanation of Per Unit system and determination of the equivalent circuits of synchronous generator and three-phase power transformers. Parameters of transmission lines. The equivalent circuit models of transmission lines. Power flow analysis. Analyzing symmetrical and unsymmetrical faults in power system. Stability of power systems.

*Prerequisite: ELE312*

|               |  |                |
|---------------|--|----------------|
| <b>ELE472</b> | <b>Electrical Power Distribution Systems</b> | <b>(3-0-3)</b> |
|---------------|--|----------------|

Introduction to electrical power distribution. Power distribution equipment, underground distribution, radial, ring and network distribution systems. Conductors and insulators in power distribution systems. Electrical distribution inside buildings. Analyzing single phase and three phase power distribution systems. Measurement equipment for distribution systems. Discussion of various distribution system considerations. Design of a power distribution system for a small building.

*Prerequisite: ELE312*

|               |  |                |
|---------------|--|----------------|
| <b>ELE478</b> | <b>Selected Topics in Power &amp; Renewable Energy</b> | <b>(3-0-3)</b> |
|---------------|--|----------------|

Topics of current interest in Power & Renewable Energy as selected by the faculty and approved by the EE Department. The course is tailored according to market demands and the technology directions.

*Prerequisite: ELE463*

|               |   |                |
|---------------|---|----------------|
| <b>ELE479</b> | <b>Directed Study in Power &amp; Renewable Energy</b> | <b>(3-0-3)</b> |
|---------------|---|----------------|

Directed study in Power & Renewable Energy is conducted under the supervision of a faculty member. A student interested to undertake such a study shall submit a proposal outlining the description of the work to be performed with clearly defined objectives and intended outcomes. The study may include experimental investigation, computer simulation or completely theoretical research. The proposal must be approved by the concerned faculty and Head of the EE Department.

*Prerequisites: ELE463, Advisor's Approval*

|               |   |                |
|---------------|---|----------------|
| <b>ELE436</b> | <b>Selected Topics in Electr. and Comm.</b> | <b>(3-0-3)</b> |
|---------------|---|----------------|

Topics of current interest in Electronics and Communication as selected by the faculty and approved by the EE Department. The course is tailored according to market demands and the technology directions.

*Prerequisites: ELE305, ELE302*

|               |  |                |
|---------------|--|----------------|
| <b>ELE437</b> | <b>Directed Study in Electr. and Comm.</b> | <b>(3-0-3)</b> |
|---------------|--|----------------|

Directed study in Electronics and Communication is conducted under the supervision of a faculty member. A student interested to undertake such a study shall submit a proposal outlining the



description of the work to be performed with clearly defined objectives and intended outcomes. The study may include experimental investigation, computer simulation or completely theoretical research. The proposal must be approved by the concerned faculty and Head of the EE Department.

*Prerequisites: ELE302, ELE310, Advisor's Approval*

**MTH121      Engineering Mathematics I      (3-0-3)**

Limits of functions, theorems about limits, evaluation of limit at a point and infinity, continuity. Derivatives of algebraic and trigonometric functions, maxima and minima, engineering applications of derivatives. The definite and indefinite integrals and their applications. Integration by parts, Integration using powers of trigonometric functions, Integration using trigonometric substitution, Integration by partial fractions. Integration of improper integrals. Transcendental Functions.

*Prerequisite: None*

**MTH122      Engineering Mathematics II      (3-0-3)**

Matrix addition, subtraction, multiplication and transposition. Complex numbers, algebraic properties of complex numbers, absolute values, complex conjugate, polar representation, powers and roots. Functions of several variables. Double and triple integrals in rectangular and polar coordinates. Applications of multiple integrals in engineering. Infinite sequences, tests for convergence, power series expansion of functions, Taylor series, Laurent series, Fourier series and their applications in engineering.

*Prerequisite: MTH121*

**PHY121      Engineering Physics I      (3-2-4)**

Vectors, motion, and Newton's laws. Work, energy, momentum and conservation of momentum. Rotation of rigid bodies, dynamics of rotational motion. Equilibrium and elasticity. Stress and strain. Periodic motion. Engineering applications.

*Prerequisite: None*

**PHY122      Engineering Physics II      (3-2-4)**

Electric charge and electric field. Coulomb's law and Gauss's law with applications. Capacitance and dielectrics. DC circuits. Magnetic fields. Ampere's law and its applications. Electromagnetic induction, Faraday's law, Lenz's law, induced electric fields. Self- and mutual-inductance. Electromagnetic waves and Maxwell's equations. Optics and its engineering applications.

*Prerequisite: None*

**CHE101      Chemistry for Engineers      (2-2-3)**

Atoms, molecules, ions and formulas of ionic compounds. Electronic structure and the periodic table. Quantum numbers, energy levels and orbital. Orbital diagrams of atoms. Various types of bonds. Chemistry of the metals and semiconductors. Introduction to organic chemistry, bonding and types of hybridization in carbon atom, alkanes and cyclo alkanes, alkyl and halogen substituents. Alkenes and alkynes, Diels-Alder reaction. Types, properties, and use of polymers.

*Prerequisite: None*

**ELE102      Introduction to Engineering      (1-0-1)**

Engineering profession and the role of engineers in modern developments, engineering ethics. Various engineering disciplines with special emphasis on electrical engineering. Importance of math and science to engineers. Engineering design and analysis, lab skills for engineers, computer skills for engineers. Electrical Engineering curriculum, curriculum planning and management. Critical thinking, soft skills for engineers, creativity, communication skills. Case studies on engineering ethics.

*Prerequisite: None*

|               |                                    |                |
|---------------|------------------------------------|----------------|
| <b>MTH221</b> | <b>Engineering Mathematics III</b> | <b>(3-0-3)</b> |
|---------------|------------------------------------|----------------|

Vector Calculus and its engineering applications. First order differential equations. Homogeneous linear second-order differential equations with constant and variable coefficients, non-homogeneous linear second-order differential equations with constant coefficients, higher-order linear differential equations with constant coefficients. Power series solution of differential equations. Laplace Transform, Inverse Laplace Transform. Application of Laplace Transform to solve ordinary differential equations. Introduction to partial differential equations (PDEs), first order PDEs, second order PDEs, boundary value problems, engineering applications.

*Prerequisite: MTH122*

|               |                                   |                |
|---------------|-----------------------------------|----------------|
| <b>MTH222</b> | <b>Engineering Mathematics IV</b> | <b>(3-0-3)</b> |
|---------------|-----------------------------------|----------------|

Linear Algebra: Matrices and determinants, solution of systems of linear equations, eigenvalues and eigenvectors, engineering applications, computer exercises. Complex Analysis: Complex functions, derivative of complex functions, analytic functions, Cauchy-Riemann equations, harmonic functions. Fourier analysis: Fourier Series, Fourier Integrals, Fourier series of even and odd functions with applications. Discrete Mathematics and its engineering applications.

*Prerequisite: MTH221*

|               |  |                |
|---------------|--|----------------|
| <b>ELE301</b> | <b>Report Writing and Presentation</b> | <b>(3-0-3)</b> |
|---------------|--|----------------|

Writing of technical reports, brief reports, and progress reports. Business communication: business letters and memos, executive summary, business reports. Oral presentation: planning, preparation of visuals, and delivering of an oral presentation.

*Prerequisites: ELE102 + Junior Standing*

|               |   |                |
|---------------|---|----------------|
| <b>ELE304</b> | <b>Probability and Random Variables</b> | <b>(3-0-3)</b> |
|---------------|---|----------------|

Concept of Probability. Discrete and continuous random variables. Operations on single random variable: Expected values and moments. Joint cumulative distribution function and joint probability density function. Sum of random variables. Independent random variables. Jointly Gaussian random variables. Definition and classification of random process, transmission of random process through linear filters, and optimum filtering. Applications in signal processing and communication systems.

*Prerequisite: MTH122*

|               |                               |                |
|---------------|-------------------------------|----------------|
| <b>ELE410</b> | <b>Engineering Management</b> | <b>(3-0-3)</b> |
|---------------|-------------------------------|----------------|

Introduction to engineering management and role of effective management. Strategic and operational planning, forecasting, action planning. Organization: activities, organizational structures, delegating, establishing working relationships. Basics of leadership. Controlling activities: setting standards, measuring, evaluating, and improving performance. Marketing Management: marketing process and strategies, pricing, promotion strategy, channels of distribution and types of distribution.

*Prerequisite: ELE301*

|                               |                             |                |
|-------------------------------|-----------------------------|----------------|
| <b>ELE438, ELE488, ELE468</b> | <b>Graduation Project I</b> | <b>(1-4-3)</b> |
|-------------------------------|-----------------------------|----------------|

Teams of 3-4 students shall design, implement, test, and demonstrate their graduation project in two semesters. Graduation Project I is to be completed in first semester and it includes literature survey, action plan, design of complete project taking into account realistic constraints, computer simulation (if applicable), partial implementation and testing. Report writing and oral presentation.

*Prerequisite: ELE310*

**ELE439, ELE489, ELE469**

**Graduation Project II**

**(1-4-3)**

It is a continuation of Graduation Project I in the second semester. Students will complete the implementation and testing of the remaining part of their design. They will integrate the complete project, test it, and prepare a PCB. Report writing, oral presentation, poster presentation, and project demonstration.

*Prerequisite: ELE438, ELE488, ELE468*

**ELE465**

**Senior Seminar**

**(1-0-1)**

The course aims to develop students' understanding of contemporary issues as well as the impact of engineering solutions in a global, economic, environmental, and societal context. It will also improve their oral presentation skills.

*Prerequisite: ELE301*

**ELE497**

**Engineering Training**

-

To expose students to a learning environment where they can apply what they have learned in the classroom to a professional setting and enhance their abilities to correlate theoretical knowledge with professional practice. Prior to starting their external training, students shall take two weeks intensive internal training to prepare them for external training.

*Prerequisite: Completion of 75 credit hours.*

## Bachelor of Science in Computer Engineering

### Introduction

The Department of Electrical and Computer Engineering offers a B.Sc. degree in Computer Engineering accredited by the Ministry of Education/Higher Education Affairs. The program is designed so that students have a balanced background in computer hardware, software, and networking technology. The curriculum includes general and specialized courses, field practical internship, and senior graduation projects. The program enables graduates to be competitive in the marketplace and can pursue graduate studies.

### Program Mission

The mission of the Computer Engineering program is to:

- Provide quality education in the field of computer engineering based on internationally recognized standards;
- Produce computer engineering professionals who can address complex computer engineering problems based on market and societal needs; and
- Prepare individuals for lifelong learning and research.

### Program Educational Objectives (Goals)

Graduates of the Bachelor of Science in Computer Engineering program will have the following characteristics within few years of graduation:

- Apply their acquired skills and knowledge in Computer Engineering to pursue a rewarding and a successful career in the public, private and academic sectors, locally or globally.
- Act as effective individuals or leaders who can address Computer Engineering or related technical, societal and ethical challenges.
- Engage in life-long learning and professional development through self-study, professional or graduate studies in Computer Engineering or related fields.

### Program Learning Outcomes (Students Learning Outcomes)

On successful program completion, graduates will have:

PLO#1: An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.

PLO#2: An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.

PLO#3: An ability to communicate effectively with a range of audiences.

PLO#4: An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.

PLO#5: An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.

PLO#6: An ability to develop and conduct appropriate experimentation, analyze and interpret data, and

use engineering judgment to draw conclusions.

PLO#7: An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

PLO#8: An ability to explain and apply specialized knowledge in the field of computer engineering and related areas.

**Program Learning Outcomes and Alignment to UAE Qualification Framework (UAEQF)**

| Program Learning Outcomes   | UAEQF Strands   |
|---|---|
| PLO-1: an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics  | <ul style="list-style-type: none"> <li>• Knowledge</li> <li>• Skill</li> </ul>  |
| PLO-2: an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors                   | <ul style="list-style-type: none"> <li>• Knowledge</li> <li>• Skill</li> </ul>  |
| PLO-3: an ability to communicate effectively with a range of audiences  | <ul style="list-style-type: none"> <li>• Skill</li> </ul>   |
| PLO-4: an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts | <ul style="list-style-type: none"> <li>• Knowledge</li> <li>• Autonomy and responsibility</li> <li>• Self-development:</li> </ul> |
| PLO-5: an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives   | <ul style="list-style-type: none"> <li>• Role in context</li> <li>• Autonomy and responsibility</li> </ul>                        |
| PLO-6: an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions  | <ul style="list-style-type: none"> <li>• Skill</li> </ul>   |
| PLO-7: an ability to acquire and apply new knowledge as needed, using appropriate learning strategies   | <ul style="list-style-type: none"> <li>• Self-development</li> <li>• Autonomy and responsibility</li> </ul>                       |
| PLO-8: an ability to explain and apply specialized knowledge in the field of computer engineering and related areas.  | <ul style="list-style-type: none"> <li>• Knowledge</li> <li>• Skill</li> </ul>  |

**Admission Requirements**

The normal entry requirements for applicants are the UAE secondary certificate (Grade 12), with a minimum overall score of 70% (scientific section) or an equivalent qualification certified by the Ministry of Education, UAE. For further information, please refer to the university admissions policy.

**Career Opportunities**

Graduates of the computer engineering program can work in a wide range of industries and services, including but not limited to the following:

- Industries engaged in the field of computer hardware and software development.
- Companies operating in the area of information systems and computer networks.

- Computer services of public administration.

### Graduation requirements

The Bachelor of Science degree in Computer Engineer requires the completion of 137 credit hours. In addition, the student is required to complete an internship program for 8 weeks after completing 99 credit hours. This internship experience is equivalent to three credit hours making the total completion requirements 140 credit hours.

### Program Structure

The B.Sc. degree in Computer Engineering requires the completion of 140 credit hours distributed according to the following plan:

| Type of Courses                          | Credit/hour |
|--|-------------|
| 1. University General Education Courses  |             |
| (a) University Compulsory Courses        | 18          |
| (b) University Elective Courses          | 6           |
| 2. Major Requirements                    |             |
| (a) Major General Education Requirements | 6           |
| (b) Major Compulsory Courses             | 98          |
| (c) Internship                           | 3           |
| (d) Major Electives                      | 9           |
| <b>Total Credit Hours</b>                | <b>140</b>  |

**Program Courses**
**University General Education Courses**
**University Required Courses (15 Cr. Hrs.)**

| Course No. | Course Title                            | Th | Lab | Tut | Cr. Hrs | Prerequisite |
|------------|---|----|-----|-----|---------|--------------|
| ISL114     | Islamic Culture                         | 3  | 0   | 1   | 3       | -            |
| ARB111     | Communication Skills in Arabic Language | 3  | 0   | 0   | 3       | -            |
| STA112     | Statistics                              | 2  | 2   | 0   | 3       | -            |
| COM111     | IT Fundamentals                         | 2  | 2   | 0   | 3       | -            |
| INN311     | Innovation and Entrepreneurship         | 2  | 2   | 0   | 3       | 66 Cr. Hrs.  |

**University Compulsory course (Natural Sciences) (3 Credit Hours)**

| Course No. | Course Title          | Th | Lab | Tut | Cr. Hrs | Prerequisite |
|------------|-----------------------|----|-----|-----|---------|--------------|
| ENV111     | Environmental Science | 3  | 0   | 0   | 3       | -            |

**University Elective Courses (6 Cr. Hrs.)**

| Course No.   | Course Title                        | Th | Lab | Tut | Cr. Hrs | Prerequisite |
|--|-------------------------------------|----|-----|-----|---------|--------------|
| <b>1. Humanities / Arts (3 Credit Hours)</b>             |                                     |    |     |     |         |              |
| ISL211   | Introduction to Hadeeth and Sunna   | 3  | 0   | 0   | 3       | -            |
| ENG113   | Academic Writing                    | 3  | 0   | 0   | 3       | -            |
| ART211   | Introduction to Digital Photography | 3  | 0   | 0   | 3       | -            |
| FRE211   | French Language                     | 3  | 0   | 0   | 3       | -            |
| ART112   | Introduction to Aesthetics          | 3  | 0   | 0   | 3       | -            |
| ART111   | Introduction to Art                 | 3  | 0   | 0   | 3       | -            |
| ARB113   | The Art of Written Expression       | 3  | 0   | 0   | 3       | -            |
| ENG211   | The Art of Public Speaking          | 3  | 0   | 0   | 3       | -            |
| LAW211   | Legal Culture                       | 3  | 0   | 0   | 3       | -            |
| <b>2. Social or Behavioral Sciences (3 Credit Hours)</b> |                                     |    |     |     |         |              |
| THI211   | Critical and Analytical Thinking    | 3  | 0   | 0   | 3       | -            |
| INF113   | Library Information System          | 3  | 0   | 0   | 3       | -            |
| ECO211   | Economic Concepts                   | 3  | 0   | 0   | 3       | -            |
| EMS111   | Emirates Society (English)          | 3  | 0   | 0   | 3       | -            |

|        |                                |   |   |   |   |   |
|--------|--------------------------------|---|---|---|---|---|
| ENG111 | English Communication Skills   | 3 | 0 | 0 | 3 | - |
| SOC112 | Communication Between Cultures | 3 | 0 | 0 | 3 | - |
| PSY111 | General Psychology (English)   | 3 | 0 | 0 | 3 | - |

## Computer Engineering Program Compulsory Courses

### Major General Education Requirements Courses (6 Cr. Hrs.)

| Course No. | Course Title               | Th | Lab | Tut | Cr. Hrs | Prerequisite                        |
|------------|----------------------------|----|-----|-----|---------|-------------------------------------|
| MTH121     | Engineering Mathematics I  | 3  | 0   | 2   | 3       | Co-requisite<br>PHY121              |
| MTH122     | Engineering Mathematics II | 3  | 0   | 2   | 3       | MTH121 & Co-<br>requisite<br>PHY122 |

### Major Compulsory Courses & Internship - (101 Cr.Hrs.)

| Course No. | Course Title                            | Th | Lab | Tut | Cr. Hrs | Prerequisite   |
|------------|---|----|-----|-----|---------|----------------|
| COE202     | Programming for Engineers I             | 2  | 2   | 2   | 3       | COM111         |
| COE212     | Programming for Engineers II            | 2  | 2   | 2   | 3       | COE202         |
| COE213     | Introduction to Programming with MATLAB | 0  | 2   | 0   | 1       | COE202         |
| COE215     | Circuit Analysis                        | 3  | 2   | 2   | 4       | MTH121, PHY122 |
| COE242     | Digital Logic Design                    | 3  | 2   | 2   | 4       | COM111         |
| COE246     | Computer Organization & Architecture    | 3  | 0   | 0   | 3       | COE242         |
| COE251     | Electronics I                           | 3  | 2   | 2   | 4       | COE215         |
| COE303     | Electronics II                          | 2  | 2   | 0   | 3       | COE251         |
| COE321     | Digital System Design                   | 3  | 2   | 0   | 4       | COE242         |
| COE348     | Microprocessor Systems                  | 3  | 2   | 0   | 4       | COE246         |
| COE349     | Embedded Systems                        | 3  | 2   | 0   | 4       | COE348         |
| COE322     | Instrumentation & Measurements          | 2  | 2   | 0   | 3       | COE251         |
| COE431     | Project I                               | 1  | 4   | 0   | 3       | 99 Cr. Hrs.    |
| COE432     | Project II                              | 1  | 4   | 0   | 3       | COE431         |
| COE440     | Digital Integrated Circuits             | 3  | 0   | 2   | 3       | COE251, COE242 |
| COE446     | Engineering Ethics                      | 1  | 0   | 0   | 1       | 66 Cr. Hrs.    |



|        |  |   |   |   |   |                                |
|--------|--|---|---|---|---|--------------------------------|
| COE401 | Computer Engineering Internship                  | 3 | 0 | 0 | 3 | 99 Cr. Hrs                     |
| COE304 | Data Structures                                  | 3 | 0 | 0 | 3 | COE212, INT202                 |
| INT202 | Discrete Mathematics                             | 3 | 0 | 0 | 3 | MTH121                         |
| INT205 | Fundamentals of Data Communications & Networking | 2 | 2 | 0 | 3 | COM111& 33 Cr. Hrs             |
| INT301 | Operating Systems                                | 2 | 2 | 0 | 3 | COE246                         |
| INT303 | Fundamentals of Information security             | 3 | 0 | 0 | 3 | INT205                         |
| INT302 | Database Management Systems                      | 2 | 2 | 0 | 3 | COE211                         |
| INT311 | Advanced Computer Networks                       | 2 | 2 | 0 | 3 | INT205                         |
| INT305 | Fundamentals of Software Engineering             | 3 | 0 | 0 | 3 | COE304                         |
| ELE204 | Signals & Systems                                | 3 | 0 | 2 | 3 | MTH221                         |
| ELE302 | Principles of Communication                      | 3 | 2 | 2 | 4 | ELE204                         |
| ELE304 | Probability and Random Variables                 | 3 | 0 | 2 | 3 | MTH122                         |
| PHY121 | Engineering Physics I                            | 3 | 2 | 2 | 4 | Co-requisite<br>MTH121         |
| PHY122 | Engineering Physics II                           | 3 | 2 | 2 | 4 | PHY121 &<br>Corequisite MTH122 |
| MTH221 | Engineering Mathematics III                      | 3 | 0 | 2 | 3 | MTH122                         |
| MTH222 | Engineering Math. IV                             | 3 | 0 | 2 | 3 | MTH221                         |

### Major Electives – Any three courses (9 Cr.Hrs.)

| Course No. | Course Title                            | Th | Lab | Tut | Cr. Hrs | Prerequisite                         |
|------------|---|----|-----|-----|---------|--------------------------------------|
| COE430     | Selected Topics in Computer Engineering | 3  | 0   | 0   | 3       | 66 Cr. Hrs. &<br>Department approval |
| COE472     | Machine Intelligence and Robotics       | 3  | 0   | 0   | 3       | COE349                               |
| INT312     | Network Security                        | 2  | 2   | 0   | 3       | INT303                               |
| INT406     | Computer Modeling and Simulation        | 2  | 2   | 0   | 3       | Prog. for Eng II<br>COE212           |
| INT411     | Network Design & Implementation         | 2  | 2   | 0   | 3       | INT311                               |
| ELE450     | Digital Signal Processing               | 3  | 0   | 0   | 3       | ELE204                               |
| ELE421     | VLSI Design                             | 3  | 0   | 0   | 3       | COE242,<br>COE303                    |
| ELE456     | Telecommunication Systems               | 3  | 0   | 0   | 3       | ELE302                               |
| ELE480     | Fuzzy Logic and Neural Networks         | 3  | 0   | 0   | 3       | COE242                               |

## Study Plan

### First semester:

| Course No. | Course Title                            | Th. | Lab | Tut | Cr. Hrs | Prerequisite                                      |
|------------|---|-----|-----|-----|---------|---|
| ARB111     | Communication Skills in Arabic Language | 3   | 0   | 0   | 3       | -   |
| COM111     | IT Fundamentals                         | 2   | 2   | 0   | 3       | -   |
| INN311     | Environmental Sciences                  | 3   | 0   | 0   | 3       | -   |
| MAT121     | Engineering Mathematics I               | 3   | 0   | 2   | 3       | Co-requisite<br>Engineering Physics I<br>PHY121   |
| MTH121     | Engineering Physics I                   | 3   | 2   | 2   | 4       | Co-requisite<br>Engineering<br>Mathematics MTH121 |
| Total      |   | 14  | 4   | 4   | 16      |   |

### Second semester:

| Course No. | Course Title               | Th. | Lab | Tut | Cr. Hrs | Prerequisite                        |
|------------|----------------------------|-----|-----|-----|---------|-------------------------------------|
| ISL114     | Islamic Culture            | 3   | 0   | 1   | 3       | -                                   |
| STA112     | Statistics                 | 2   | 2   | 0   | 3       | -                                   |
| MTH122     | Engineering Mathematics II | 3   | 0   | 2   | 3       | MTH121 & Co-<br>requisite<br>PHY122 |
| PHY122     | Engineering Physics II     | 3   | 2   | 2   | 4       | PHY121 & Co-<br>requisite<br>MTH122 |
| xxxxxxx    | University Elective I      | 3   | 0   | 0   | 3       | -                                   |
| Total      |                            | 14  | 4   | 5   | 16      |                                     |

### Third semester:

| Course No. | Course Title                | Th. | Lab | Tut | Cr. Hrs | Prerequisite      |
|------------|-----------------------------|-----|-----|-----|---------|-------------------|
| MTH221     | Engineering Mathematics III | 3   | 0   | 2   | 3       | MTH122            |
| COE215     | Circuit Analysis            | 3   | 2   | 2   | 4       | MTH121,<br>PHY122 |
| COE202     | Programming for Engineers I | 2   | 2   | 2   | 3       | COM111            |
| INT202     | Discrete Mathematics        | 3   | 0   | 0   | 3       | MTH121            |
| COE242     | Digital Logic Design        | 3   | 2   | 2   | 4       | COM111            |
| xxxxxxx    | University Elective II      | 3   | 0   | 0   | 3       | -                 |
| Total      |                             | 17  | 6   | 8   | 20      |                   |

**Fourth semester:**

| Course No. | Course Title                                     | Th. | Lab | Tut | Cr. Hrs | Prerequisite       |
|------------|--|-----|-----|-----|---------|--------------------|
| MTH222     | Engineering Math. IV                             | 3   | 0   | 2   | 3       | MTH221             |
| COE246     | Computer Organization & Architecture             | 3   | 0   | 0   | 3       | COE242             |
| COE212     | Programming for Engineers II                     | 2   | 2   | 2   | 3       | COE202             |
| COE251     | Electronics I                                    | 3   | 2   | 2   | 4       | COE215             |
| INT205     | Fundamentals of Data Communications & Networking | 2   | 2   | 0   | 3       | COM111& 33 Cr. Hrs |
| COE213     | Introduction to Programming with MATLAB          | 0   | 2   | 0   | 1       | COE202             |
| Total      |  | 14  | 8   | 6   | 17      |                    |

**Fifth semester:**

| Course No. | Course Title                     | Th. | Lab | Tut | Cr. Hrs | Prerequisite |
|------------|----------------------------------|-----|-----|-----|---------|--------------|
| COE303     | Electronics II                   | 2   | 2   | 0   | 3       | COE251       |
| COE321     | Digital System Design            | 3   | 2   | 0   | 4       | COE242       |
| COE348     | Microprocessor Systems           | 3   | 2   | 0   | 4       | COE246       |
| INT302     | Database Management Systems      | 2   | 2   | 0   | 3       | COE211       |
| INT311     | Advanced Computer Networks       | 2   | 2   | 0   | 3       | INT205       |
| ELE304     | Probability and Random Variables | 3   | 0   | 2   | 3       | MTH122       |
| Total      |                                  | 15  | 10  | 2   | 20      |              |

**Sixth semester:**

| Course No. | Course Title                    | Th. | Lab | Tut | Cr. Hrs | Prerequisite   |
|------------|---------------------------------|-----|-----|-----|---------|----------------|
| ELE204     | Signals & Systems               | 3   | 0   | 2   | 3       | MTH221         |
| COE322     | Instrumentation & Measurements  | 2   | 2   | 0   | 3       | COE251         |
| COE304     | Data Structures                 | 3   | 0   | 2   | 3       | COE212, INT202 |
| COE349     | Embedded Systems                | 3   | 2   | 0   | 4       | COE348         |
| INN311     | Innovation and Entrepreneurship | 2   | 2   | 0   | 3       | 66 Cr. Hrs.    |
| xxxxxx     | Major Elective I                | 3   | 0   | 0   | 3       | xxxxxx         |
| Total      |                                 | 16  | 6   | 4   | 19      |                |

### Seventh semester:

| Course No. | Course Title                         | Th. | Lab | Tut | Cr. Hrs | Prerequisite |
|------------|--------------------------------------|-----|-----|-----|---------|--------------|
| ELE302     | Principles of Communication          | 3   | 2   | 2   | 4       | ELE204       |
| COE431     | Project I                            | 1   | 4   | 0   | 3       | 99 Cr. Hrs.  |
| INT301     | Operating Systems                    | 2   | 2   | 0   | 3       | COE246       |
| INT303     | Fundamentals of Information security | 3   | 0   | 0   | 3       | INT205       |
| INT305     | Fundamentals of Software Engineering | 3   | 0   | 0   | 3       | COE304       |
| xxxxxx     | Major Elective II                    | 3   | 0   | 0   | 3       | xxxxx        |
| Total      |                                      | 15  | 8   | 2   | 19      |              |

### Eighth semester:

| Course No. | Course Title                | Th. | Lab | Tut | Cr. Hrs | Prerequisite   |
|------------|-----------------------------|-----|-----|-----|---------|----------------|
| COE432     | Project II                  | 1   | 4   | 0   | 3       | COE431         |
| COE446     | Engineering Ethics          | 1   | 0   | 0   | 1       | 66 Cr. Hrs.    |
| COE440     | Digital Integrated Circuits | 3   | 0   | 2   | 3       | COE251, COE242 |
| xxxxxx     | Major Elective III          | 3   | 0   | 0   | 3       | xxxxx          |
| Total      |                             | 8   | 4   | 2   | 10      |                |

**COE401:** Computer Engineering Internship (8 Weeks in Summer)

## Course Descriptions

### ENGINEERING PHYSICS I - PHY121

Vectors, motion, and Newton's laws. Work, energy, momentum and conservation of momentum. Rotation of rigid bodies, dynamics of rotational motion. Equilibrium and elasticity. Stress and strain. Periodic motion. Engineering applications.

### ENGINEERING PHYSICS II - PHY122

Electric charge and electric field. Coulomb's law and Gauss's law with applications. Capacitance and dielectrics. DC circuits. Magnetic fields. Ampere's law and its applications. Electromagnetic induction, Faraday's law, Lenz's law, induced electric fields. Self- and mutual-inductance. Electromagnetic waves and Maxwell's equations. Optics and its engineering applications.

### ENGINEERING MATHEMATICS I - MTH121

Limits of functions, theorems about limits, evaluation of limit at a point and infinity, continuity. Derivatives of algebraic and trigonometric functions, maxima and minima, engineering applications of derivatives. The definite and indefinite integrals and their applications. Integration by parts, Integration using powers of trigonometric functions, Integration using trigonometric substitution, Integration by partial fractions. Integration of improper integrals. Transcendental Functions.

### ENGINEERING MATHEMATICS II - MTH122

Matrix addition, subtraction, multiplication and transposition. Complex numbers, algebraic properties of complex numbers, absolute values, complex conjugate, polar representation, powers and roots. Functions of several variables. Double and triple integrals in rectangular and polar coordinates. Applications of multiple integrals in engineering. Infinite sequences, tests for convergence, power series expansion of functions, Taylor series, Laurent series, Fourier series and their applications in engineering.

### ENGINEERING MATHEMATICS III - MTH221

Vector Calculus and its engineering applications. First order differential equations. Homogeneous linear second-order differential equations with constant and variable coefficients, non-homogeneous linear second-order differential equations with constant coefficients, higher-order linear differential equations with constant coefficients. Power series solution of differential equations. Laplace Transform, Inverse Laplace Transform. Application of Laplace Transform to solve ordinary differential equations. Introduction to partial differential equations (PDEs), first order PDEs, second order PDEs, boundary value problems, engineering applications.

### ENGINEERING MATHEMATICS IV - MTH222

Linear Algebra: Matrices and determinants, solution of systems of linear equations, eigenvalues and eigenvectors, engineering applications, computer exercises. Complex Analysis: Complex functions, derivative of complex functions, analytic functions, Cauchy-Riemann equations, harmonic functions. Fourier analysis: Fourier Series, Fourier Integrals, Fourier series of even and odd functions with applications. Discrete Mathematics and its engineering applications.



### **Discrete Mathematics – INT202**

This course introduces Discrete Mathematics techniques to Information Technology and Computer Engineering students. Topics covered include propositional logic, predicate logic, inference, induction & other proof techniques, counting, sets, functions, recursion, relations, graphs, and trees.

### **Programming for Engineers I – COE202**

This course provides knowledge and skill of programming concepts using pseudo code and C++ programming language. Topics cover: Pseudo code and flow-charts; data types; variables, constants, and memory locations; simple sequential programs; basic input/output; selection and repetition control; arrays and strings; and user-defined functions.

### **Programming for Engineers II – COE212**

The primary objective of this course is to introduce the concepts of object-oriented programming: classes, objects, functions, inheritance, polymorphism, composition and aggregation, and recursive functions.

### **Introduction to Programming with MATLAB – COE213**

The course also offers an in-depth exposure to programming techniques in MATLAB programming environment. Contents include Vectors, Matrices, Basic Arithmetic, Conditional and Repetition Statements, Plotting with MATLAB. GUI in MATLAB, Input/Output, M-files scripts and functions.

### **Circuit Analysis- COE215**

This course covers the topics of DC and AC circuit analysis. It includes the topics of impedance and admittance, mesh, nodal, superposition, Thevenin's and Norton's theorem, transient response of RC and RLC circuits, sinusoidal steady state response, resonance, phasor representation, and two-port networks.

### **Electronics I COE251**

Basic properties of semiconductor materials. Theory of operation and applications of p-n junction diodes, zener diodes and photodiodes. Theory of operation, biasing circuits, and small signal analysis of Bipolar Junction Transistor and Junction Field Effect Transistor. Transistor configurations and two-port network representation of transistor A.C. equivalent circuits. Analysis and design of transistor amplifier circuits.

### **Electronics II – COE303**

This course covers design and analysis of BJT and FET amplifier circuits, operational amplifiers and their applications in wave shaping, signal generation, filters, A/D and D/A converters. It also covers design of oscillator circuits and signal/waveform generators.

**Instrumentation and Measurements – COE322**

Basic measurement concepts, sources and types of measurement errors, sources of noise and interference. DC and AC Bridges and their applications. Analog DC and AC meters. Oscilloscopes: types, specifications, operation, measurements with oscilloscopes. Electronic voltmeters, digital multi-meters, electronic counters. Logic Analyzers, Data Generators. Development of virtual instruments using software.

**Digital Logic Design – COE242**

This course covers the topics of number systems. Logic gates. Boolean algebra. Simplification of Boolean Functions. Combinational circuit design. Sequential Circuits. Finite State Machines and Memories.

**Digital System Design - COE321**

This course introduces design methodologies for implementing digital systems in programmable logic. The course will build on the basics of digital logic design course. The students will learn how a Hardware Description Language (HDL) is used to describe and implement hardware. The topics will include (behavioral modeling, dataflow modeling and structural modeling and writing test benches for design verification). The students also will learn about computer-aided synthesis and implementation for FPGAs design. Laboratory exercises lead the students through the complete programmable logic design cycle. Each student will prototype a digital system starting with VHDL entry, functional and timing simulations, logic synthesis, device programming, and verification.

**Computer Organization and Architecture – COE246**

Introduction to computer organization, the major components of a computer system and the interaction between them, including CPU, memory, I/O devices and buses. Machine instructions, assembly language programming, CPU performance and metrics, non-pipelined and pipelined processor design, datapath and control unit, pipeline hazards, memory system and cache memory.

**Description: Microprocessor Systems – COE348**

This course covers microprocessor architecture, system design and development, instruction set and buses. The Intel 80x86 family, real and protected mode, interrupts and interfacing techniques are explained. Advanced microprocessor system architectures such as the Intel Pentium will be discussed.

**Embedded Systems - COE349**

This course introduces the hardware and software design of embedded systems using microcontrollers. Students are introduced to microcontroller programming in both assembly and C. Important subsystems of the microcontroller are covered such as timers, interrupts, serial transmission of data, analog to digital and digital to analog converters. There are a series of exercises introduced into the lectures and labs, which give students hands-on experience with working with microcontroller. At the end of the course, each student will choose a design project to work on during the last few weeks.

**Operating Systems – INT301**

This course covers the principles and concepts of modern operating systems. Topics include: operating system services; operating systems structures; operating system processes: threads, synchronization,

CPU scheduling, deadlocks; memory management: main memory, virtual memory; storage management: storage structures, file-system interface, and file-system implementation; and operating protection and security.

#### **Digital Integrated Circuits COE440**

This course covers design, operation and analysis of various digital integrated circuit families, MSI digital circuits, and memories.

#### **Engineering Ethics - COE446**

This course is designed to introduce undergraduate Computer Engineering students to the concepts, theory and practice of engineering ethics. Topics include professionalism, code of ethics, moral framework, safety and risk, honesty, intellectual properties, privacy, computer crimes, economic and global issues.

#### **Computer Engineering Internship - COE401**

Internship familiarizes students with actual working environments. It gives students the opportunity to integrate their knowledge and skills acquired in various courses. Internship also gives the student a feeling of what is involved in working in a practical environment. It also provides an opportunity to develop communication and team-work skills as well as ethical issues relating to the profession.

#### **Data Structures - COE304**

The course covers concepts of program performance (time and space complexity); recursion; data structures: lists, stacks, queues, graphs, trees, binary search trees, priority queues, heaps, and operations on them and their applications; sorting; searching and hashing.

#### **Fundamentals of Data Communications and Networking – INT205**

Introduction to computer networks and the Internet. Protocol layers and the OSI model. Network models. Network Performance, Switching, Network Devices. Data Link Layer: ARP, Error Detection & Correction, Data-link Control, Medium Access, Ethernet, WLANs, Network Layer: IP and Routing Algorithms, Transport Layer: UDP, TCP, Congestion Control, Application Layer: Web, FTP, e-mail, DNS and P2P.

#### **Fundamentals of Information Security – INT303**

This course aims at introducing fundamental security concepts to students. Main security threats and related countermeasures are presented. Students will learn the importance of protecting information stored on computer systems from unauthorized access. The students will also learn how to encrypt and decrypt information, control access to objects and recommend a secure system implementation.



**Database Management Systems- INT302**

This course is designed to give a theoretical and practical background in database techniques. It covers database concepts, data models, data dictionary, entity relationship diagrams, and the relational data model, converting E-R models to relational model, SQL language, normalization, and physical database design. Oracle software is used in the Lab.

**Advanced Computer Networks – INT311**

This course will cover the principles of networking with a focus on algorithms, protocols, and implementations for advanced networking services. We will examine a variety of ideas that were proposed to enhance the Internet, why some of these enhancements were successful while others were not. The emphasis in this course is on topics such as routing protocols, advanced routing and switching. It covers Internet architecture, congestion control, QoS, IPv6, and voice over IP.

**Fundamentals of Software Engineering – INT305**

The course emphasizes object-oriented techniques and the use of UML. Topics covered in this course include: overview of the software engineering process, software process models, UML syntax and semantics, software requirement analysis, software design principles and models, component-level design, and software testing. Student will work in teams on software projects.

**Computer Engineering Project I - COE431**

The course aims to give students the opportunity to work in a guided but independent fashion to develop a solution to a problem by making use of knowledge, techniques, and methodologies acquired in the previous semesters. The course also aims to enhance team work and communication skills, both oral and written.

**Computer Engineering Project II - COE432**

The course aims to give students the opportunity to work in a guided but independent fashion to develop a solution to a problem by making use of knowledge, techniques, and methodologies acquired in the previous semesters. The course also aims to enhance team work and communication skills, both oral and written. Student may continue the work on project-1 subject to the approval of the advisor or define a new project.

**SIGNALS AND SYSTEMS - ELE204**

This course aims to develop students' understanding of discrete and continuous-time signals and systems, and their analysis in both time and frequency domains. It further enhances their skills in analyzing such systems using computer-based simulation tools

**PRINCIPLES OF COMMUNICATION - ELE302**

Introduction to fundamentals of communication systems. Amplitude Modulation (AM): Modulation index, spectrum of AM signals, AM circuits. Single side band modulation, frequency division multiplexing. Frequency Modulation (FM): Spectrum of FM signals, FM circuits. FM

versus AM. Sampling, quantization, coding, pulse code modulation, delta modulation, time division multiplexing. Shift Keying methods.

#### **PROBABILITY AND RANDOM VARIABLES - ELE304**

Concept of Probability. Discrete and continuous random variables. Operations on single random variable: Expected values and moments. Joint cumulative distribution function and joint probability density function. Sum of random variables. Independent random variables. Jointly Gaussian random variables. Definition and classification of random process, transmission of random process through linear filters, and optimum filtering. Applications in signal processing and communication systems.

#### **Selected Topics in Computer Engineering - COE430**

This course covers some advanced topics related to computer engineering, computer science and its related areas that are not covered in the curriculum and are considered useful and additional learning material for students majoring in computer engineering. Course contents are subject to the approval of the department.

#### **Machine Intelligence and Robotics - COE472**

The course will cover the following topics; introduction to robotics and machine intelligence, rigid-body transformations, forward and inverse positional kinematics, velocities and Jacobians of linkages, dynamics, linear and non-linear control, force control methodologies, and robotic programming. Concept Learning and the General-to-Specific Ordering, decision tree learning, artificial neural networks, genetic algorithms, learning sets of rules, and reinforcement learning.

#### **Network Security – INT312**

This course covers security concepts related to the protection of a network from known threats and attacks. This includes digital signatures, authentication protocols, IP & Web security and e-mail security. Advanced cryptographic algorithms are also discussed in details such as DES and AES. Determine common network security threats and countermeasures.

#### **Computer Modeling and Simulation – INT406**

This course aims to introduce students to elements and methodology of simulation. Topics include: basic concepts and types of simulation, discrete-event simulation, a review of probability and statistics relating to simulation, selecting input probability distributions, generation of random variates, design of simulation experiments and output analysis, verification and validation of simulation models. Students are expected to submit a simulation project.

#### **Network Design & Implementation – INT411**

This course covers the principles of network analysis, architecture, and design. These principles help in identifying and applying the services and performance levels that a network must satisfy. Principles of network analysis include network service characteristics, performance characteristics, network requirements analysis, and network flow analysis. Principles of network architecture and design include addressing and routing, network management architecture, performance architecture and design, security and privacy architecture, and quality of service design.

**DIGITAL SIGNAL PROCESSING - ELE450**

Review of discrete-time signals and systems. Transform-domain representations of signals: Discrete-time Fourier Transform, Fast-Fourier Transform, applications of Z-Transform. Transform-domain representations of LTI systems: Types of transfer functions, stability condition and test. Frequency response of a Rational Transfer Function. The difference equation and Digital Filtering. Concept of filtering: Finite Impulse Response (FIR) and Infinite Impulse Response (IIR) Filters.

**VLSI DESIGN ELE421**

Introduction to VLSI design. Review of basic logic gates in CMOS. Integrated circuit layers, sheet resistance, time delay, CMOS layers, designing FET arrays, stick diagrams, layouts of CMOS circuits. Fabrication of CMOS ICs. Design rules, physical limitations. Advanced techniques in CMOS logic circuits. General VLSI system components. Floor-planning and routing. DRAM, SRAM, ROM designs.

**TELECOMMUNICATION SYSTEMS - ELE456**

Introduction to telecommunication systems. Telecommunication fundamentals and transmission media characteristics. Design analog and digital data transmission schemes. Telephony systems: ISDN and PSTN, essentials of traffic engineering. Overview of Wireless LAN technology. Comparison of ZigBee with other standards and applications. Introduction to satellite and fiber optic based communications.

**FUZZY LOGIC AND NEURAL NETWORKS - ELE480**

An introduction to Fuzzy Logic and Neural Networks history, applications, and implementations. Fuzzy logic fundamentals, fuzzy sets, types of membership functions, linguistic variables, creation of fuzzy logic rule base, fuzzy logic operations. Fuzzy inference system. Neural network fundamentals, neural type learning process, single layer perceptron. Artificial neural networks architectures, training algorithms, genetic algorithms and evolution computing, neuro-fuzzy technology, fuzzy control systems and applications. Associative memory Hopfield neural networks.

## Department of Information Technology

### Vision

To be among the top recognized Information Technology Departments in the region.

### Mission

The Department of Information Technology aims to provide quality education in the field of information technology and information systems based on internationally recognized standards for undergraduate programs; produce information technology and information systems professionals who can deploy efficiently IT technologies and implement IT solutions according to market and society needs, particularly in the UAE and Gulf region; and prepare individuals for lifelong learning and research.

### Degree Programs

The Department currently offers two distinct Bachelor degree programs, which provide the student with an excellent theoretical and practical knowledge and skills to prepare her/him for professional career or further study in the field of computing. All programs are accredited by the Commission for Academic Accreditation.

#### Programs offered are:

1. Bachelor of Science in Information Technology with two concentrations:
  - Networking & Security, and
  - Database & Web systems
2. Bachelor of Science in Information Systems with two concentrations:
  - Project Management
  - E-Business Management
3. Bachelor of Science in Data Analytics.

## Bachelor of Science in Information Technology

### Program Mission

The mission of the Information Technology program is to Provide quality education in the field of information technology based on internationally recognized standards for undergraduate programs; Produce information technology professionals who can deploy efficiently IT technologies and implement IT solutions according to market and society needs, particularly in the UAE and Gulf region; and Prepare individuals for lifelong learning and research.

### Program Educational Objectives (Goals)

The program educational objectives (Goals) are as follows:

Graduates of the Bachelor of Science in Information Technology program will have the following characteristics within few years of graduation:

1. PEO\_1. Apply their acquired skills and knowledge in information technology to pursue a rewarding and a successful career in public sector, private sector, or academia locally or globally.
2. PEO\_2. Act as effective individuals or leaders who can address information technology related technical, business, or ethical challenges.
3. PEO\_3. Engage in life-long learning and professional development through self-study, professional, or graduate studies in information technology or related fields.

### Program Learning Outcomes (PLOs)

Graduates of the program will be able to:

PLO#1: *Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.*

PLO#2: *Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.*

PLO#3: *Communicate effectively in a variety of professional contexts.*

PLO#4: *Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.*

PLO#5: *Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.*

PLO#6: *Identify and analyze user needs and to take them into account in the selection, creation, integration, evaluation, and administration of computing-based systems.*

PLO#7: *Apply security principles and practices to maintain operations in the presence of risks and threats (Only for Networking & Security Program concentration).*

### Admission Requirements

The normal entry requirement for an applicant is the U.A.E secondary school certificate, Advanced Stream, with a minimum average grade of 70% or General Stream with 80% or equivalent qualifications in addition to the English proficiency requirements.

## Graduation Requirements

Students at Ajman University (AU) are eligible for a Bachelor in Information Technology in either track after the completion of 123 credits hours, which normally takes eight semesters (not counting summer semesters). In addition, students must undertake 12 weeks of internship in a summer session, which is equivalent to 3 credit hours. The minimum accumulative grade point average for graduation is 2.0.

## Career Opportunities

Graduates of the IT program can undertake a variety of job positions at both the managerial and technical levels. Job opportunities may include but not limited to: IT resources management, professional IT consultant, professional teacher or trainer, marketing of software and hardware, and pursuing postgraduate study and research. For those specializing in networks and security, additional job opening may include: network administration and management, IT security management, building and designing networks. Graduate of Databases and Web Systems may find additional job opportunities in database administration and management, developing database applications, and developing web applications.

## Curriculum Structure and Credit Hours

The B.Sc. degree in Information Technology requires the completion of 120 credit hours. In addition, the student is required to complete an internship program for 10 weeks (240 working hours) after completing 90 credit hours. This internship experience is equivalent to three credit hours making the total completion requirements 123 credit hours.

The Information Technology program has two concentrations:

- a. Networking and Security,
- b. Databases and Web Systems

Each concentration consists of five specific courses (15 credit hours). The structure of the program is described below.

## Program Structure

The B.Sc. degree in Information Technology with its two concentrations requires the completion of 120 credit hours distributed according to the following plan for the two concentrations:

| Type of Courses   | Credit Hours |
|---|--------------|
| 1. University General Education Courses                     |              |
| (a) University Compulsory Courses                           | 15           |
| (b) University Elective Courses                             | 9            |
| 2. Information Technology Program Common Compulsory Courses |              |
| (a) General Courses   | 9            |
| (b) Information Technology Core Courses                     | 60           |
| (c) Internship  | 3            |
| 3. Information Technology Program Concentration Courses     | 15           |
| 4. Information Technology Program Elective Courses          | 12           |
| <b>Total Credit Hours</b>                                   | <b>123</b>   |

## Program Courses

### University General Education Courses

#### (a) University Compulsory Courses ( 15 Cr.Hrs.)

| Course No. | Course Title                            | Th. | Lab | Tut | Cr. Hrs. | Prerequisite |
|------------|---|-----|-----|-----|----------|--------------|
| ARB111     | Communication Skills in Arabic Language | 3   | 0   | 0   | 3        | -            |
| COM111     | IT Fundamentals                         | 2   | 2   | 0   | 3        | -            |
| INN311     | Innovation & Entrepreneurship           | 3   | 0   | 0   | 3        | -            |
| ISL114     | Islamic Culture                         | 3   | 0   | 1   | 3        | -            |
| STA112     | Statistics                              | 2   | 2   | 0   | 3        | -            |

#### (b) University Elective Courses (9 Cr.Hrs.)

| Course Code  | Course Title                           | Th. | Lab | Tut | Cr. Hrs. | Prerequisite |
|--|--|-----|-----|-----|----------|--------------|
| <b>1. Humanities / Arts (3 Credit Hours)</b>             |  |     |     |     |          |              |
| ARB113   | The Art of Written Expression (Arabic) | 3   | 0   | 0   | 3        | -            |
| ART111   | Introduction to Art                    | 3   | 0   | 0   | 3        | -            |
| ART112   | Introduction to Aesthetics (English)   | 3   | 0   | 0   | 3        | -            |
| ART211   | Introduction to Digital Photography    | 3   | 0   | 0   | 3        | -            |
| ENG113   | Academic Writing (English)             | 3   | 0   | 0   | 3        | -            |
| ENG211   | The Art of Public Speaking (English)   | 3   | 0   | 0   | 3        | -            |
| FRE211   | French Language                        | 3   | 0   | 0   | 3        | -            |
| ISL211   | Introduction to Hadeeth and Sunna      | 3   | 0   | 0   | 3        | -            |
| LAW211   | Legal Culture                          | 3   | 0   | 0   | 3        | -            |
| <b>2. Natural Sciences (3 Credit Hours)</b>              |  |     |     |     |          |              |
| AST211   | Astronomy                              | 3   | 0   | 0   | 3        |              |
| BIO111   | General Biology                        | 3   | 0   | 0   | 3        |              |
| CHM111   | General Chemistry                      | 3   | 0   | 0   | 3        |              |
| PHY111   | General Physics                        | 3   | 0   | 0   | 3        |              |
| <b>3. Social or Behavioral Sciences (3 Credit Hours)</b> |  |     |     |     |          |              |
| ECO211   | Economic Concepts                      | 3   | 0   | 0   | 3        | -            |
| EMS111   | Emirates Society (English)             | 3   | 0   | 0   | 3        | -            |
| ENG111   | English Communication Skills           | 3   | 0   | 0   | 3        | -            |
| INF113   | Library Information System             | 3   | 0   | 0   | 3        | -            |

|        |                                |   |   |   |   |   |
|--------|--------------------------------|---|---|---|---|---|
| PSY111 | General Psychology (English)   | 3 | 0 | 0 | 3 | - |
| SOC112 | Communication Between Cultures | 3 | 0 | 0 | 3 | - |

## Information Technology Program Common Compulsory Courses

### (a) Program General Courses (9 Cr. Hrs.)

| Course No. | Course Title                        | Th. | Lab | Tut | Cr. Hrs. | Prerequisite |
|------------|-------------------------------------|-----|-----|-----|----------|--------------|
| ACC200     | Principles of Accounting I          | 3   | 0   | 0   | 3        | -            |
| INT101     | Calculus for Information Technology | 3   | 0   | 2   | 3        | -            |
| MGT200     | Introduction to Management          | 3   | 0   | 0   | 3        | -            |

### (b) Information Technology Core Courses & Internship (63 Cr. Hrs.)

| Course No. | Course Title                                       | Th. | Lab | Tut | Cr. Hrs. | Prerequisite   |
|------------|--|-----|-----|-----|----------|----------------|
| INT100     | Introductory Programming                           | 2   | 2   | 2   | 3        | -              |
| INT103     | Information Technology in Business                 | 3   | 0   | 0   | 3        | COM111         |
| INT201     | Object Oriented programming                        | 2   | 2   | 2   | 3        | INT100         |
| INT202     | Discrete Mathematics                               | 3   | 0   | 2   | 3        | INT101         |
| INT203     | Computer Organization                              | 3   | 0   | 0   | 3        | COM111         |
| INT209     | Data Structures                                    | 3   | 0   | 2   | 3        | INT201, INT202 |
| INT205     | Fundamentals of Data Communications and Networking | 2   | 2   | 0   | 3        | INT203         |
| INT206     | Fundamentals of Web Systems                        | 2   | 2   | 0   | 3        | INT201         |
| INT207     | Multimedia Technology                              | 2   | 2   | 0   | 3        | INT100         |
| INT301     | Operating Systems                                  | 2   | 2   | 0   | 3        | INT203         |
| INT302     | Database Management Systems                        | 2   | 2   | 0   | 3        | INT201         |
| INT303     | Fundamentals of Information Security               | 3   | 0   | 0   | 3        | INT205         |
| INT313     | User Interface Design                              | 3   | 0   | 0   | 3        | INT305         |
| INT305     | Fundamentals of Software Engineering               | 3   | 0   | 0   | 3        | INT209         |
| INT306     | Computer Ethics and Professional Practices         | 3   | 0   | 0   | 3        | INT303         |
| INT307     | Information Technology Project Management          | 3   | 0   | 0   | 3        | INT305         |
| INT309     | Cloud Computing                                    | 2   | 2   | 0   | 3        | INT303         |
| INT322     | Web Technologies                                   | 2   | 2   | 0   | 3        | INT206         |



|        |                                   |   |   |   |   |             |
|--------|-----------------------------------|---|---|---|---|-------------|
| INT401 | Information Technology Project    | 1 | 4 | 0 | 3 | INT307      |
| INT402 | Information Technology Internship |   |   |   | 3 | 90 Cr. Hrs. |
| INT430 | Artificial Intelligence           | 2 | 2 | 0 | 3 | INT302      |

**Information Technology Program Concentration Specific Compulsory Courses**

Each concentration is composed of fifteen credit hours of compulsory courses as described below.

**(a) Networking and Security Concentration Compulsory Courses (15 Cr. Hrs.)**

| Course No. | Course Title                  | Th. | Lab | Tut | Cr. Hrs. | Prerequisite |
|------------|-------------------------------|-----|-----|-----|----------|--------------|
| INT311     | Advanced Computer Networks    | 2   | 2   | 0   | 3        | INT205       |
| INT312     | Network Security              | 2   | 2   | 0   | 3        | INT303       |
| INT414     | Wireless Networks             | 2   | 2   | 0   | 3        | INT311       |
| INT419     | Network Design and Management | 2   | 2   | 0   | 3        | INT311       |
| INT432     | Ethical Hacking               | 2   | 2   | 0   | 3        | INT312       |

**(b) Databases and Web Systems Concentration Compulsory Courses (15 Cr. Hrs.)**

| Course No. | Course Title                                | Th. | Lab | Tut. | Cr. Hrs. | Prerequisite |
|------------|---|-----|-----|------|----------|--------------|
| INT323     | Big Data Technologies                       | 2   | 2   | 0    | 3        | INT302       |
| INT421     | Web Application Design and Development      | 2   | 2   | 0    | 3        | INT322       |
| INT423     | Advanced Database Design and Implementation | 2   | 2   | 0    | 3        | INT302       |
| INT424     | E-Commerce                                  | 2   | 2   | 0    | 3        | INT322       |
| INT428     | Data Warehousing and Data Mining            | 3   | 0   | 0    | 3        | INT302       |

**Information Technology Program Elective Courses (12 Credit Hours)**

| Course No. | Course Title                              | Th. | Lab | Tut | Cr. Hrs. | Prerequisite |
|------------|---|-----|-----|-----|----------|--------------|
| INT321     | Database Administration                   | 2   | 2   | 0   | 3        | INT302       |
| INT403     | Selected Topics in Information Technology | 3   | 0   | 0   | 3        | INT307       |
| INT405     | Knowledge-Based Systems                   | 2   | 2   | 0   | 3        | INT305       |
| INT406     | Computer Modeling and Simulation          | 2   | 2   | 0   | 3        | INT201       |
| INT413     | Network Operating Systems                 | 2   | 2   | 0   | 3        | INT301       |
| INT416     | Data Compression                          | 2   | 2   | 0   | 3        | INT303       |
| INT417     | Distributed Systems                       | 3   | 0   | 0   | 3        | INT311       |

|        |                          |   |   |   |   |                   |
|--------|--------------------------|---|---|---|---|-------------------|
| INT422 | Information Architecture | 2 | 2 | 0 | 3 | INT302            |
| INT426 | Knowledge Management     | 3 | 0 | 0 | 3 | INT302            |
| INT427 | Advanced Web Topics      | 2 | 2 | 0 | 3 | INT322            |
| INT429 | Mobile Applications      | 2 | 2 | 0 | 3 | INT301,<br>INT302 |

In addition, students registered in a particular concentration can choose one or more elective courses from other concentrations of the information technology program provided that the corresponding prerequisites of these courses are met.

## Study Plan

### Information Technology Program/Networking & Security Study Plan

#### First Semester

| Course Code | Course Name                             | Prerequisite |
|-------------|---|--------------|
| ARB111      | Communication Skills in Arabic Language | -            |
| COM111      | IT Fundamentals                         | -            |
| ISL114      | Islamic Culture                         | -            |
| AAA###      | University Elective I                   | -            |
| AAA###      | University Elective II                  | -            |

#### Second Semester

| Course Code | Course Name                         | Prerequisite |
|-------------|-------------------------------------|--------------|
| INT101      | Calculus for Information Technology | -            |
| INT100      | Introductory Programming            | -            |
| INT103      | Information Technology in Business  | COM111       |
| STA112      | Statistics                          | -            |
| AAA###      | University Elective III             | -            |

#### Third Semester

| Course Code | Course Name                 | Prerequisite |
|-------------|-----------------------------|--------------|
| ACC200      | Principles of Accounting    | -            |
| INT201      | Object Oriented Programming | INT100       |
| INT202      | Discrete Mathematics        | INT101       |
| INT203      | Computer Organization       | COM111       |

|       |  |
|-------|--|
| TOTAL |  |
|-------|--|

#### Fourth Semester

| Course Code | Course Name  | Prerequisite   |
|-------------|--|----------------|
| INT209      | Data Structures                                    | INT201, INT202 |
| INT205      | Fundamentals of Data Communications and Networking | INT203         |
| INT206      | Fundamentals of Web Systems                        | INT201         |
| INT207      | Multimedia Technology                              | INT100         |
| MGT200      | Principles of Management                           | -              |

#### Fifth Semester

| Course Code | Course Name                          | Prerequisite |
|-------------|--------------------------------------|--------------|
| INT301      | Operating Systems                    | INT203       |
| INT302      | Database Management Systems          | INT201       |
| INT303      | Fundamentals of Information Security | INT205       |
| INT305      | Fundamentals of Software Engineering | INT209       |
| INT322      | Web Technologies                     | INT206       |

#### Sixth Semester

| Course Code | Course Name                                | Prerequisite |
|-------------|--|--------------|
| INN311      | Innovation & Entrepreneurship              | -            |
| INT306      | Computer Ethics and Professional Practices | INT303       |
| INT307      | Information Technology Project Management  | INT305       |
| INT309      | Cloud Computing                            | INT303       |
| INT311      | Advanced Computer Networks                 | INT205       |
| INT313      | User Interface Design                      | INT305       |

#### Seventh Semester

| Course Code | Course Name                   | Prerequisite |
|-------------|-------------------------------|--------------|
| INT312      | Network Security              | INT303       |
| INT419      | Network Design and Management | INT311       |
| INT430      | Artificial Intelligence       | INT302       |
| AAA###      | Major Elective I              | AAA###       |
| AAA###      | Major Elective II             | AAA###       |

### Eighth Semester

| Course Code | Course Name                    | Prerequisite |
|-------------|--------------------------------|--------------|
| INT401      | Information Technology Project | INT307       |
| INT432      | Ethical Hacking                | INT312       |
| INT414      | Wireless Networks              | INT311       |
| AAA###      | Major Elective III             | AAA###       |
| AAA###      | Major Elective IV              | AAA###       |

### Information Technology Program/Database & Web Systems Study Plan

#### First Semester

| Course Code | Course Name                             | Prerequisite |
|-------------|---|--------------|
| ARB111      | Communication Skills in Arabic Language | -            |
| COM111      | IT Fundamentals                         | -            |
| ISL114      | Islamic Culture                         | -            |
| AAA###      | University Elective I                   | -            |
| AAA###      | University Elective II                  | -            |

#### Second Semester

| Course Code | Course Name                         | Prerequisite |
|-------------|-------------------------------------|--------------|
| INT101      | Calculus for Information Technology | -            |
| INT100      | Introductory Programming            | -            |
| INT103      | Information Technology in Business  | COM111       |
| STA112      | Statistics                          | -            |
| AAA###      | University Elective III             | -            |
| TOTAL       |                                     |              |

#### Third Semester

| Course Code | Course Name                 | Prerequisite |
|-------------|-----------------------------|--------------|
| ACC200      | Principles of Accounting    | -            |
| INT201      | Object Oriented Programming | INT100       |
| INT202      | Discrete Mathematics        | INT101       |
| INT203      | Computer Organization       | COM111       |

#### Fourth Semester

| Course Code | Course Name | Prerequisite |
|-------------|-------------|--------------|
|-------------|-------------|--------------|

|        |  |                |
|--------|--|----------------|
| INT209 | Data Structures                                    | INT201, INT202 |
| INT205 | Fundamentals of Data Communications and Networking | INT203         |
| INT207 | Multimedia Technology                              | INT100         |
| INT206 | Fundamentals of Web Systems                        | INT201         |
| MGT200 | Introduction to of Management                      | -              |

#### Fifth Semester

| Course Code | Course Name                          | Prerequisite |
|-------------|--------------------------------------|--------------|
| INT301      | Operating Systems                    | INT203       |
| INT302      | Database Management Systems          | INT201       |
| INT303      | Fundamentals of Information Security | INT205       |
| INT305      | Fundamentals of Software Engineering | INT209       |
| INT322      | Web Technologies                     | INT206       |

#### Sixth Semester

| Course Code | Course Name                                | Prerequisite |
|-------------|--|--------------|
| INN311      | Innovation & Entrepreneurship              | -            |
| INT306      | Computer Ethics and Professional Practices | INT303       |
| INT307      | Information Technology Project Management  | INT305       |
| INT309      | Cloud Computing                            | INT303       |
| INT313      | User Interface Design                      | INT305       |
| INT323      | Big Data Technologies                      | INT302       |
| TOTAL       |  |              |

#### Seventh Semester

| Course Code | Course Name                                 | Prerequisite |
|-------------|---|--------------|
| INT421      | Web Application Design and Development      | INT322       |
| INT423      | Advanced Database Design and Implementation | INT302       |
| INT430      | Artificial Intelligence                     | INT302       |
| AAA###      | Major Elective I                            | AAA###       |
| AAA###      | Major Elective II                           | AAA###       |

#### Eighth Semester

| Course Code | Course Name                    | Prerequisite |
|-------------|--------------------------------|--------------|
| INT401      | Information Technology Project | INT307       |

|        |                                  |        |
|--------|----------------------------------|--------|
| INT424 | E-Commerce                       | INT322 |
| INT428 | Data Warehousing and Data Mining | INT302 |
| AAA### | Major Elective III               | AAA### |
| AAA### | Major Elective IV                | AAA### |

## Course Descriptions

### General Courses

#### ACC200 - Principles of Accounting I

Principles of accounting I is concerned with the provision of financial information to the different users such as external and internal users. The term accounting refers to the activities of collecting, recording, processing and communicating economic events to the users of accounting information. The course covers the recording process, adjustments, completing accounting cycle, accounting for merchandising operations and preparation of financial statements.

#### MGT200 - Introduction to Management

This course introduces the student to the four fundamental managerial functions i.e. planning, organizing, leading and controlling to teach them how to perform as an efficient and effective manager. The challenges faced by the contemporary managers in dealing with today's changing business environment are discussed in detail in terms of different managerial roles and desired skills. This foundational level course will effectively prepare the students to undertake more advanced and specialized courses within the management discipline. The course provides a holistic view of management studies, and thus arouses their further interest in pursuing this discipline.

#### STA112 – Statistics

This course covers the essential statistical topics that students in sciences majors are expected to know. The course deals with data organization and calculation of descriptive measures. It also covers probability concepts and probability rules. This course includes discrete and continuous probability distributions where the emphasis is on the binomial, the Poisson and the normal distribution. This course introduces students to inferential statistics: it includes confidence intervals and hypothesis testing of a population parameters. The last part of this course includes simple linear regression analysis and its applications.

### Program Core Courses and Internship

#### INT101 - Calculus for Information Technology

This course covers the essential mathematical topics that students specialized in information technology needs. Topics covered are plane analytic geometry; matrices and determinants; solution of a system of linear equations; real functions limits, continuity, differentiation and applications; integration; and graphs.

#### INT100 - Introductory Programming

This course provides knowledge and skills of problem solving and introductory programming using Java programming language. Topics cover: the problem- solving process; data types; variables, constants,

scope, and memory locations; simple sequential programs; basic input/output; selection and repetition control structures; arrays and strings; and user-defined functions.

#### **INT103 - Information Technology in Business**

The major role of information technology (IT) is to support organizational personnel, regardless of their functional area or level in the organization. The aim of this course is to provide students with solid grounding in business uses of information technology in a rapidly changing environment, and to provide discussion of critical issues surrounding the use of IT in organizations. This course covers a range of general information technology topics that will make the student appreciate the role of IT in business. Topics include: information technology fundamentals; information technologies; computer networks and security; business applications; development processes; and ethical, societal and security issues.

#### **INT201- Object Oriented Programming**

The primary objective of this course is to introduce the concepts of object-oriented programming: classes, objects, methods, object interaction, encapsulation, inheritance, polymorphism, composition, recursive algorithms, and exception handling. This course is not a comprehensive introduction to all of Java concepts such as applets and socket programming.

#### **INT202 - Discrete Mathematics**

This course introduces Discrete Mathematics techniques to Information Technology and Computer Engineering students. Topics covered include propositional logic, predicate logic, inference, induction & other proof techniques, counting, sets, functions, recursion, relations, graphs, and trees.

#### **INT203 - Computer Organization**

This course covers the organization of the von Neumann machine, explains how instructions are fetched from memory and executed, how numerical values are represented in digital computers, and identifies the main types of memory used, addressing formats, and a design of simple computer interface.

#### **INT205 - Fundamentals of Data Communications and Networking**

Introduction to computer networks and the Internet. Protocol layers and the OSI model. Network models. Network Performance, Switching, Network Devices. Data Link Layer: ARP, Error Detection & Correction, Data-link Control, Medium Access, Ethernet, WLANs, Network Layer: IP and Routing Algorithms, Transport Layer: UDP, TCP, Congestion Control, Application Layer: Web, FTP, e-mail, DNS and P2P.

#### **INT206 - Fundamentals of Web Systems – INT206**

This course introduces the fundamentals of client Web systems technologies to students. Topics covered include: XHTML, CSS, XML, and JavaScript, Students will apply this knowledge to generate essential web components like basic browser controls (buttons, links, and menus), forms and frames.

#### **INT207 - Multimedia Technology**

Multimedia has become an indispensable part of modern computer technology. In this course, students will be introduced to principles and current technologies of multimedia systems and gain hands-on experience in this area. Issues in effectively representing, processing, and retrieving multimedia data such as audio, graphics, images, and video will be addressed.



### **INT209 - Data Structures**

The course covers concepts of program performance (time and space complexity); recursion; data structures: lists, stacks, queues, graphs, trees, binary search trees, priority queues, heaps, and operations on them and their applications; sorting; searching and hashing.

### **INT305 - Fundamentals of Software Engineering**

The course emphasizes object-oriented techniques and the use of UML. Topics covered in this course include: overview of the software engineering process, software process models, UML syntax and semantics, software requirement analysis, software design principles and models, component-level design, and software testing. Student will work in teams on software projects.

### **INT302 - Database Management Systems**

This course is designed to give a theoretical and practical background in database techniques. It covers database concepts, data models, data dictionary, entity relationship diagrams, and the relational data model, converting E-R models to relational model, SQL language, normalization, physical database design, and database security. Oracle software is used in the Lab.

### **INT303 - Fundamentals of Information Security**

This course aims at introducing fundamental security concepts to students. Main security threats and related countermeasures are presented. Students will learn the importance of protecting information stored on computer systems from unauthorized access. The students will also learn how to encrypt and decrypt information, control access to objects and recommend a secure system implementation.

### **INT301 - Operating Systems**

This course covers the principles and concepts of modern operating systems. Topics include: operating system services; operating systems structures; operating system processes: threads, synchronization, CPU scheduling, deadlocks; memory management: main memory, virtual memory; storage management: storage structures, file-system interface, and file-system implementation; and operating protection and security.

### **INT306 - Computer Ethics and Professional Practices**

This course will examine the ethical issues that arise in the use of computers, and the responsibilities of those who work with computers, either as computer science professionals or as end users. Topics covered include: legal, social and ethical issues surrounding computer technology and its use; privacy; intellectual property rights and copy right laws; information technology code of ethics; issues of privacy and confidentiality; risks of using computers; and computer crime: computer viruses, hacking, phishing & pharming, and scams.

### **INT307 - Information Technology Project Management**

This course covers: characteristics of IT Project management, initiating an IT project; project planning; defining and managing project scope, structuring a project, project schedule and budget, managing project risk, project communication, tracking, and reporting, IT project quality management, ethics and professional practices, and project implementation.



**INT309 - Cloud Computing**

This course aims to introduce students to theory and practice of cloud computing. Topics include: parallel and distributed systems; deployment and service models; cloud infrastructure; applications and paradigms; resource virtualization; resource management and scheduling; networking support; cloud storage systems; and cloud security.

**INT313 - User Interface Design**

This course introduces students to the concepts, methods, and guidelines of computer user interface design. Topics covered include: user interface design principles, specifications and requirements modeling in UID, usability measures, interaction styles, user-centred design, and evaluating UID and screen layout.

**INT322 - Web Technologies**

The aim of this course is to develop students' skills in the technologies and approaches that allow them to develop web applications at the enterprise level, identify key application areas and technology for web applications, and learn key design issues of web applications.

**INT430 - Artificial Intelligence**

This course is designed to introduce the theory and techniques of AI to students. The course covers knowledge representation schemes, classical and heuristic search techniques, inferencing, machine learning, and agents. The PROLOG language is also covered to enable students to represent, manipulate, and reason with knowledge.

**INT401 - Information Technology Project**

This course aims to give students the opportunity to work in a guided but independent fashion to investigate a problem by making use of information technology knowledge, techniques, and methodologies acquired in the previous semesters to provide a suitable solution to an IT problem. The course also aims to enhance teamwork and communication skills, both oral and written as well as ethical issues involved.

**INT402 - Information Technology Internship**

Internship familiarizes students with actual working environments. It gives students the opportunity to integrate their knowledge and skills learned in the course by applying it to real world problems encountered in business and industry. Internship also gives the student a feeling of what is involved in working on actual information technology problems and develop communication and team-work skills as well as ethical issues relation to IT.

**Networking and Security Concentration Courses****INT311 - Advanced Computer Networks**

This course will cover the principles of networking with a focus on algorithms, protocols, and implementations for advanced networking services. We will examine a variety of ideas that were proposed to enhance the Internet, why some of these enhancements were successful while others were not. The emphasis in this course is on topics such as routing protocols, advanced routing and switching. It covers Internet architecture, congestion control, QoS, IPv6, and voice over IP.



### **INT312 - Network Security**

This course covers security concepts related to the protection of a network from known threats and attacks. This includes digital signatures, authentication protocols, IP & Web security and e-mail security. Advanced cryptographic algorithms are also discussed in details such as DES and AES. Determine common network security threats and countermeasures.

### **INT414 - Wireless Networks**

This course presents the student with the latest in wireless technologies. Topics include: wireless internetworking concepts, architecture and protocols (IEEE802.11 MAC protocols), Mobile IP and a mobile ad hoc routing protocol, Mobility support for the Internet Protocol, Wireless Security, and the performance of a wireless local area network.

### **INT419 - Network Design & Management**

This course covers the principles of network design and management. It includes Top-Down Network Design Methodology, and Designing a Network Topology. It also covers Selecting Switching and Routing Protocols, Developing Network Security Strategies, Developing Network Management Strategies, Physical Network Design, Selecting Technologies and Devices for Enterprise Networks.

### **INT432 - Ethical Hacking**

Students learn how attacks are launched on computers and networks, and how to protect them from such attacks to have a secure network. Additionally, the course introduces the human behavior in terms of data protection, privacy, and threat mitigation. This course also investigates the impact of cybersecurity on society and its related ethical aspects.

## **Databases and Web Systems Concentration Courses**

### **INT323 - Big Data Technologies**

This is an introduction to the technologies that are used for big data. The aim of the course is to provide students with the knowledge required to use big data technologies and learn how to store, and process big data sets. Topics covered include: Big Data and Hadoop, Hadoop Distributed File System, Map Reduce, PIG, HIVE, HBase, and search with Solr and Lucene.

### **INT421 - Web Application Design & Development**

This course prepares students to understand the application of java enterprise edition (Java EE) technologies and its implementation into an enterprise level web application. Topics covered include Servlets, JavaServer Faces, RESTful Web Services, SOAP-based Web Services, JSON process, Enterprise JavaBeans, Java Transaction and Persistence. This course will take a project-based assessment approach with its primary emphasis on the delivery of the enterprise level web product/project by students.

### **INT423 - Advanced Database Design and Implementation**

This course builds on top of the first DBMS course by introducing advanced database concepts to allow students to effectively design and implement a database. The course revisits SQL in a deeper, more practical approach, with a focus on its PL/SQL extension. The student will learn object oriented database design, and how to manage multi-user databases with respect to concurrency and recovery. Students also will be exposed to distributed database systems.

**INT424 - E-Commerce**

This course aims to expose students to the theory and practice of e-commerce. Topics covered are: Introduction to E-Commerce, E-Commerce Technology Infrastructure, Revenue models, Marketing on the web, Business-to-business online strategies, Web server hardware and software, E-Commerce Commercial Software, E-Commerce security, Payment Systems, and Planning for e-commerce business.

**INT428 - Data Warehousing and Data Mining**

This course aims to introduce students to concepts and techniques of Data Warehousing and Data Mining. Topics covered include: data warehouse architecture, development life cycle, logical data modeling for a data warehouse, Data mining concepts and tasks, data preprocessing and reduction, classification techniques, association analysis and algorithms, clustering analysis and algorithms, anomaly detection methods, and web mining

**Elective Courses****INT321 - Database Administration**

This course prepares students to administer and maintain databases by applying best practices and procedures to any database platform. With general, platform independent approach, students will be able to work as database administrators to any of the major industrial databases including Oracle, IBM DB2, Sybase, Microsoft and MySQL. Students will become familiar with DBA roles and responsibilities, be able to create a database environment with modeling and normalization as well as reporting while maintaining data integrity.

**INT403 - Selected Topics in Information Technology**

This course aims to introduce students to new developments in the area of information technology not specifically covered in the curriculum and in which a faculty member has developed interest and proficiency. The intention is to provide a rapid response to current trends and to widen student's knowledge in areas such as but not limited to: information storage, retrieval, security, processing, or transition. Specific content of the course will depend on the particular area taught at the time.

**INT405 - Knowledge-Based Systems**

The aim of this course is to introduce the concepts, principles, design and operation of a knowledge base systems (KBS) with particular emphasis on expert systems. Topics covered include: Knowledge representation with production rules; Inference using forward chaining and backward chaining; Uncertainty handling; Frame based expert systems; Fuzzy expert systems; Knowledge acquisition and data mining; Agents and multi-Agents systems. Practical assignments are used to emphasize these topics in the lab.

**INT406 - Computer Modeling and Simulation**

This course aims to introduce students to elements and methodology of simulation. Topics include: basic concepts and types of simulation, discrete-event simulation, a review of probability and statistics relating to simulation, selecting input probability distributions, generation of random variates, design of simulation experiments and output analysis, verification and validation of simulation models. Students are expected to submit a simulation project.



#### **INT413 - Network Operating Systems**

This course introduces network operating system NOS, which is the software that allows multiple computers to communicate, share files and hardware devices with one another. The course aims to provide the student with theoretical and practical knowledge of network operating systems. The student is exposed to some of the most commonly used network operating systems. The student will reinforce their theoretical knowledge in practical sessions where they will install configure, manage and trouble-shoot network operating systems.

#### **INT416 - Data Compression**

The aim of this course is to introduce the theoretical underpinnings of data compression and cover many fundamental algorithms. Topics covered include: fundamentals of digital communication, communication channel, measure of information, encoding of source output, Shannon's algorithms. Discrete and continuous channel entropy coding, variable length code, channel noise, compression & codes, lossless compression algorithms, lossy compression algorithms, audio compression, image and video compression.

#### **INT417 - Distributed Systems**

The aims of this course are to study the fundamental characteristics of distributed systems. Topics covered will include: low-level basics including sockets, internet-based inter-process communications, and threading; remote-procedure-calls and remote-method-invocations; modern synchronous and asynchronous style client server systems and supporting processes; messaging and transactional systems; peer-to-peer and grid technologies; supporting systems such as naming and directory services.

#### **INT422 - Information Architecture**

Information is the heart of knowledge and one of the main pillars of information systems. This course introduces fundamental concepts and methods of understanding and modeling data as well as extracting information out of it. It also shows how to represent large volume of information and allow users to comprehend and interact with it in an effective way. The course focuses on data modeling and architecture approaches allowing student to build effective information architecture. Then the student will learn how to interact with information using different labeling, navigation, and search strategies. Students will finally learn about information architecture in practice and its applications in large organizations.

#### **INT426 - Knowledge Management**

The aim of this course is to introduce basic concepts, terminologies, tools, and techniques of Knowledge Management (KM). Topics covered include: the origins and units of organizational knowledge; knowledge management life-cycle models, knowledge management implementation models, knowledge capture and codification, knowledge sharing, knowledge management tools and knowledge management strategies.

#### **INT427 - Advanced Web Topics**

The aim of this course is to develop the skills of the students in the technologies and approaches that allow them to develop an advanced web applications at the enterprise level using web services that run on different machines to exchange data and integrate web-based applications using open standards over an Internet protocol.

**INT429 - Mobile Applications**

This course provides an introduction to mobile software development for those with Java programming experience. Students will learn to build mobile applications for phones and tablets through the study and use of a complex software development kit (Android Java SDK). Students will explore the emerging mobile ecosystem, location-aware software, and advanced programming topics including inheritance, polymorphism, threads, sensors, APIs and databases.

## Bachelor of Science in Information Systems

### Program Mission

The mission of the Information Systems program is to Provide quality education in the field of information systems based on internationally recognized standards for undergraduate programs; Produce information systems professionals who can deploy efficiently IT technologies and implement IT solutions according to market and society needs, particularly in the UAE and Gulf region; and Prepare graduates for lifelong learning and research.

### Program Educational Objectives (Goals)

The program educational objectives (Goals) are as follows:

Graduates of the Bachelor of Science in Information Systems program will have the following characteristics within few years of graduation:

PEO\_1. Apply acquired knowledge and skills in information systems and implement their skills in public, private sectors, academic or international information systems functional activities.

PEO\_2. Act as information systems professional leaders in performing related skills in technical, business, or ethical duties.

PEO\_3. Engage in life-long learning and professional development in pursuing additional graduate degrees, professional development and self-studies.

### Program Learning Outcomes (PLO)

Graduates of the program will be able to:

PLO#1: *Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.*

PLO#2: *Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.*

PLO#3: *Communicate effectively in a variety of professional contexts.*

PLO#4: *Recognize professional responsibilities and make informed judgements in computing practice based on legal and ethical principles.*

PLO#5: *Function effectively as a member or leader of a team engaged in information technology activities.*

PLO#6: *Support the delivery, use, and management of information systems within an information systems environment.*

### Admission Requirements

The entry requirements for an applicant are:

- U.A.E secondary school certificate or an equivalent qualification with a minimum average grade of 60% for the Advanced Stream and 70% for General Stream;
- English proficiency requirement (TOEFL 500 score or equivalent).

### Graduation Requirements

Students will be eligible for the degree of Bachelor of Science in Information Systems after completing:

- 120 credits hours of course work, which normally takes eight semesters (not counting summer semesters),
- 3 credit hours for successful completion of summer internship.
- The minimum cumulative grade point average of 2 on a scale of 4.

### Career Opportunities

Information system graduates are required to meet the demands of various stakeholders including industry, commerce, education, health, and government. Some graduates are employed in companies and research organizations, others in resource centers in schools, colleges and universities. There are opportunities in finance, in computing and telecommunications industries, as well as in the medical sector.

### Curriculum Structure and Credit Hours

The Bachelor of Science degree in Information Systems requires the completion of 120 credit hours. In addition, the student is required to complete an internship program for 10 weeks after completing 90 credit hours. This internship experience is equivalent to three credit hours making the total completion requirements 123 credit hours.

The current Information Systems program contains two concentrations:

- a. Information Systems / Project Management
- b. Information Systems / E-Business Management

Each concentration consists of three courses (9 Credit Hours). The structure of the program is described below.

### General Program Structure

The Bachelor of Science degree in Information Systems with its two concentrations requires the completion of 123 Cr. Hrs. distributed according to the following plan for the two concentrations:

| Type of Courses   | Credit/hour |
|---|-------------|
| 1. University General Education Courses                       |             |
| (a) University Compulsory Courses                             | 15          |
| (b) University Elective Courses                               | 9           |
| 2. Information Systems Program Common Compulsory Core Courses |             |
| (a) General Courses   | 18          |
| (b) Information Systems Core Courses                          | 63          |
| (c) Internship  | 3           |
| 3. Information Systems Program Concentration Courses          | 9           |
| 4. Information Systems Program Elective Courses               | 6           |
| <b>Total Credit Hours</b>                                     | <b>123</b>  |

## Program Courses

### University General Education Courses

#### a. University Required Courses (15 Cr. Hrs.)

| Course No. | Course Title                            | Th. | Lab | Tut. | Cr. Hrs. | Prerequisite |
|------------|---|-----|-----|------|----------|--------------|
| ARB 111    | Communication skills in Arabic language | 3   | 0   | 0    | 3        | -            |
| COM 111    | IT Fundamentals                         | 2   | 2   | 0    | 3        | -            |
| INN 311    | Innovation & Entrepreneurship           | 3   | 0   | 0    | 3        | 60 Cr. Hrs   |
| ISL 114    | Islamic Culture                         | 3   | 0   | 0    | 3        | -            |
| STA 111    | Statistics                              | 2   | 2   | 0    | 3        | -            |

#### b. University Elective Courses (9 Cr. Hrs.)

| Course No.   | Course Title                           | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite |
|--|--|-----|------|------|----------|--------------|
| <b>1. Humanities / Arts (3 Credit Hours)</b>             |  |     |      |      |          |              |
| ARB 113  | The Art of Written Expression (Arabic) | 3   | 0    | 0    | 3        | -            |
| ART 111  | Introduction to Art                    | 3   | 0    | 0    | 3        | -            |
| ART 112  | Introduction to Aesthetics (English)   | 3   | 0    | 0    | 3        | -            |
| ART 211  | Introduction to Digital Photography    | 3   | 0    | 0    | 3        | -            |
| ENG 113  | Academic Writing (English)             | 3   | 0    | 0    | 3        | -            |
| ENG 211  | The Art of Public Speaking (English)   | 3   | 0    | 0    | 3        | -            |
| FRE 211  | French Language                        | 3   | 0    | 0    | 3        | -            |
| ISL 211  | Introduction to Hadeeth and Sunna      | 3   | 0    | 0    | 3        | -            |
| LAW 111  | Legal Culture                          | 3   | 0    | 0    | 3        | -            |
| <b>2. Natural Sciences (3 Credit Hours)</b>              |  |     |      |      |          |              |
| AST 211  | Astronomy                              | 3   | 0    | 0    | 3        | -            |
| BIO 111  | General Biology                        | 3   | 0    | 0    | 3        | -            |
| CHM 111  | General Chemistry                      | 3   | 0    | 0    | 3        | -            |
| PHY 111  | Physics                                | 3   | 0    | 0    | 3        | -            |
| <b>3. Social or Behavioral Sciences (3 Credit Hours)</b> |  |     |      |      |          |              |
| ECO 211  | Economic Concepts                      | 3   | 0    | 0    | 3        | -            |
| EMS 111  | Emirates Society (English)             | 3   | 0    | 0    | 3        | -            |
| ENG 111  | English Communication Skills           | 3   | 0    | 0    | 3        | -            |
| INF 113  | Library Information System             | 3   | 0    | 0    | 3        | -            |
| PSY 111  | General Psychology (English)           | 3   | 0    | 0    | 3        | -            |
| SOC 112  | Communication Between Cultures         | 3   | 0    | 0    | 3        | -            |



## Information Systems Program Common Compulsory Courses

## a. General Courses (18 Cr. Hrs.)

| Course No. | Course Title               | Th. | Lab | Tut. | Cr. Hrs. | Prerequisite |
|------------|----------------------------|-----|-----|------|----------|--------------|
| ACC 200    | Principles of Accounting I | 3   | 0   | 0    | 3        | -            |
| FIN 210    | Fundamentals of Finance    | 3   | 0   | 0    | 3        | ACC 200      |
| MGT 200    | Introduction to Management | 3   | 0   | 0    | 3        | -            |
| MGT 202    | Human Resources Management | 3   | 0   | 0    | 3        | MGT 200      |
| MKT 200    | Principles of Marketing    | 3   | 0   | 0    | 3        | MGT 200      |
| MTH 131    | Math for Management        | 3   | 0   | 2    | 3        | -            |

## b. Information Systems Program Core Courses &amp; Internship (63 Cr. Hrs.)

| Course No. | Course Title                                       | Th. | Lab | Tut. | Cr. Hrs. | Prerequisite |
|------------|--|-----|-----|------|----------|--------------|
| INS 207    | Leadership and Teamwork                            | 3   | 0   | 0    | 3        | INT 103      |
| INS 305    | Systems Analysis and Design                        | 3   | 0   | 0    | 3        | INT 103      |
| INS 307    | Business Process Management                        | 3   | 0   | 0    | 3        | INS 305      |
| INS 402    | Business Intelligence and Data Warehousing         | 3   | 0   | 0    | 3        | INT 323      |
| INS 403    | IS Audit and Control                               | 3   | 0   | 0    | 3        | INT 303      |
| INS 404    | Information Systems Strategy and Acquisition       | 3   | 0   | 0    | 3        | INT 307      |
| INS 405    | Information Systems Project                        | 1   | 4   | 0    | 3        | INT 307      |
| INS 406    | IT Resource Management                             | 3   | 0   | 0    | 3        | INS 307      |
| INS 408    | Information Systems Internship                     | 0   | 0   | 0    | 3        | 90 Cr. Hrs   |
| INT 100    | Introductory Programming                           | 2   | 2   | 2    | 3        | -            |
| INT 103    | Information Technology in Business                 | 3   | 0   | 0    | 3        | COM 111      |
| INT 201    | Object Oriented Programming                        | 2   | 2   | 2    | 3        | INT 100      |
| INT 205    | Fundamentals of Data Communications and Networking | 2   | 2   | 0    | 3        | INT 100      |
| INT 206    | Fundamentals of Web Systems                        | 2   | 2   | 0    | 3        | INT 201      |
| INT 301    | Operating Systems                                  | 2   | 2   | 0    | 3        | INT 201      |
| INT 302    | Database Management Systems                        | 2   | 2   | 0    | 3        | INT 201      |
| INT 303    | Fundamentals of Information Security               | 3   | 0   | 0    | 3        | INT 205      |
| INT 306    | Computer Ethics and Professional Practices         | 3   | 0   | 0    | 3        | INT 303      |
| INT 307    | Information Technology Project Management          | 3   | 0   | 0    | 3        | INS 305      |

|         |                       |   |   |   |   |         |
|---------|-----------------------|---|---|---|---|---------|
| INT 308 | Enterprise Systems    | 2 | 2 | 0 | 3 | INT 302 |
| INT 323 | Big Data Technologies | 2 | 2 | 0 | 3 | INT 302 |
| INT 426 | Knowledge Management  | 3 | 0 | 0 | 3 | INT 302 |

### Information Systems Program Concentration Courses

Each concentration is composed of nine credit hours of compulsory courses as described below.

#### a. Project Management Concentration Compulsory Courses (9 Cr. Hrs.)

| Course No. | Course Title                                  | Th. | Lab | Tut. | Cr. Hrs. | Prerequisite |
|------------|---|-----|-----|------|----------|--------------|
| INS 411    | IT Services and Operations Management         | 3   | 0   | 0    | 3        | INS 307      |
| INS 412    | Project Planning, Scheduling and Cost Control | 3   | 0   | 0    | 3        | INT 307      |
| INS 413    | Project Quality and Risk Management           | 3   | 0   | 0    | 3        | INT 307      |

#### b. E-Business Management Concentration Compulsory Courses (9 Cr. Hrs.)

| Course No. | Course Title     | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite |
|------------|------------------|-----|------|------|----------|--------------|
| INS 422    | E-Marketing      | 3   | 0    | 0    | 3        | MKT 200      |
| INS 424    | E-Commerce       | 2   | 2    | 0    | 3        | INT 206      |
| INT 322    | Web Technologies | 2   | 2    | 0    | 3        | INT 206      |

### Information Systems Program Elective Courses (6 Cr. Hrs.)

| Course No. | Course Title                                | Th. | La b. | Tut. | Cr. Hrs. | Prerequisite       |
|------------|---|-----|-------|------|----------|--------------------|
| INS 407    | Selected Topics in Information Systems      | 3   | 0     | 0    | 3        | INS 307            |
| INT 309    | Cloud Computing                             | 2   | 2     | 0    | 3        | INT 303            |
| INT 313    | User Interface Design                       | 3   | 0     | 0    | 3        | INS 305            |
| INT 321    | Database Administration                     | 2   | 2     | 0    | 3        | INT 302            |
| INT 423    | Advanced Database Design and Implementation | 2   | 2     | 0    | 3        | INT 302            |
| INT 429    | Mobile Applications                         | 2   | 2     | 0    | 3        | INT 301<br>INT 302 |
| INT 430    | Artificial Intelligence                     | 2   | 2     | 0    | 3        | INT 302            |

In addition, students registered in a particular concentration can choose one or more elective courses from other concentration of the Information Systems program provided that the corresponding prerequisites of these courses are met.

## Study Plan

### Information Systems Program / Project Management

#### FIRST SEMESTER

| Course Code | Course Name                             | Prerequisite |
|-------------|---|--------------|
| ARB 111     | Communication skills in Arabic language | -            |
| COM 111     | IT Fundamentals                         | -            |
| ISL 114     | Islamic Culture                         | -            |
| MGT 200     | Introduction to Management              | -            |
| MTH 111     | Math for Management                     | -            |

#### SECOND SEMESTER

| Course Code | Course Name                        | Prerequisite |
|-------------|------------------------------------|--------------|
| INT 100     | Introductory Programming           | -            |
| INT 103     | Information Technology in Business | COM 111      |
| STA 111     | Statistics                         | -            |
| xxxxxxx     | University Elective I              | -            |
| xxxxxxx     | University Elective II             | -            |

#### THIRD SEMESTER

| Course Code | Course Name                 | Prerequisite |
|-------------|-----------------------------|--------------|
| ACC 200     | Principles of Accounting I  | -            |
| INS 207     | Leadership and Teamwork     | INT 103      |
| INT 201     | Object Oriented Programming | INT 100      |
| MKT 200     | Principles of Marketing     | MGT 200      |
| xxxxxxx     | University Elective III     | -            |

#### FOURTH SEMESTER

| Course Code | Course Name  | Prerequisite |
|-------------|--|--------------|
| FIN 210     | Fundamentals of Finance                            | ACC 200      |
| INT 205     | Fundamentals of Data Communications and Networking | INT 201      |
| INT 206     | Fundamentals of Web Systems                        | INT 201      |
| MGT 202     | Human Resources Management                         | MGT 200      |

#### FIFTH SEMESTER

| Course Code | Course Name                   | Prerequisite |
|-------------|-------------------------------|--------------|
| INN 311     | Innovation & Entrepreneurship | 60 Cr. Hrs   |



|         |                                      |         |
|---------|--------------------------------------|---------|
| INS 305 | System Analysis and Design           | INT 103 |
| INT 301 | Operating Systems                    | INT 201 |
| INT 302 | Database Management Systems          | INT 201 |
| INT 303 | Fundamentals of Information Security | INT 205 |

#### SIXTH SEMESTER

| Course Code | Course Name                                | Prerequisite |
|-------------|--|--------------|
| INS 307     | Business Process Management                | INS 305      |
| INT 306     | Computer Ethics and Professional Practices | INT 303      |
| INT 307     | Information Technology Project Management  | INS 305      |
| INT 308     | Enterprise Systems                         | INT 302      |
| INT 323     | Big Data Technologies                      | INT 302      |

#### SEVENTH SEMESTER

| Course Code | Course Name                                   | Prerequisite |
|-------------|---|--------------|
| INS 402     | Business Intelligence and Data warehousing    | INT 323      |
| INS 403     | IS Audit and Control                          | INT 303      |
| INS 411     | IT Services and Operations Management         | INS 307      |
| INS 412     | Project Planning, Scheduling and Cost Control | INT 307      |
| INT 426     | Knowledge Management                          | INT 302      |
| xxxxxxx     | Major Elective I                              | xxxxxxx      |

#### EIGHTH SEMESTER

| Course Code | Course Name                                  | Prerequisite |
|-------------|--|--------------|
| INS 404     | Information Systems Strategy and Acquisition | INT 307      |
| INS 405     | Information Systems Project                  | INT 307      |
| INS 406     | IT Resource Management                       | INS 307      |
| INS 413     | Project Quality and Risk Management          | INT 307      |
| xxxxxxx     | Major Elective II                            | xxxxxxx      |

## Information Systems Program / E-Business Management

## FIRST SEMESTER

| Course Code | Course Name                             | Prerequisite |
|-------------|---|--------------|
| ARB 111     | Communication skills in Arabic language | -            |
| COM 111     | IT Fundamentals                         | -            |
| ISL 1140    | Islamic Culture                         | -            |
| MGT 200     | Introduction to Management              | -            |
| MTH 111     | Math for Management                     | -            |

## SECOND SEMESTER

| Course Code | Course Name                        | Prerequisite |
|-------------|------------------------------------|--------------|
| INT 100     | Introductory Programming           | -            |
| INT 103     | Information Technology in Business | COM 111      |
| STA 111     | Statistics                         | -            |
| xxxxxxx     | University Elective I              | -            |
| xxxxxxx     | University Elective II             | -            |

## THIRD SEMESTER

| Course Code | Course Name                 | Prerequisite |
|-------------|-----------------------------|--------------|
| ACC 200     | Principles of Accounting I  | -            |
| INS 207     | Leadership and Teamwork     | INT 103      |
| INT 201     | Object Oriented Programming | INT 100      |
| MKT 200     | Principles of Marketing     | MGT 200      |
| xxxxxxx     | University Elective III     | -            |

## FOURTH SEMESTER

| Course Code | Course Name  | Prerequisite |
|-------------|--|--------------|
| FIN 210     | Fundamentals of Finance                            | ACC 200      |
| INT 205     | Fundamentals of Data Communications and Networking | INT 201      |
| INT 206     | Fundamentals of Web Systems                        | INT 201      |
| MGT 202     | Human Resources Management                         | MGT 200      |

## FIFTH SEMESTER

| Course Code | Course Name                   | Prerequisite |
|-------------|-------------------------------|--------------|
| INN 311     | Innovation & Entrepreneurship | 60 Cr. Hrs   |
| INS 305     | System Analysis and Design    | INT 103      |

|         |                                      |         |
|---------|--------------------------------------|---------|
| INT 301 | Operating Systems                    | INT 201 |
| INT 302 | Database Management Systems          | INT 201 |
| INT 303 | Fundamentals of Information Security | INT 205 |

#### SIXTH SEMESTER

| Course Code | Course Name                                | Prerequisite |
|-------------|--|--------------|
| INS 307     | Business Process Management                | INS 305      |
| INT 306     | Computer Ethics and Professional Practices | INT 303      |
| INT 307     | Information Technology Project Management  | INS 305      |
| INT 308     | Enterprise Systems                         | INT 302      |
| INT 323     | Big Data Technologies                      | INT 302      |

#### SEVENTH SEMESTER

| Course Code | Course Name                                | Prerequisite |
|-------------|--|--------------|
| INS 402     | Business Intelligence and Data warehousing | INT 323      |
| INS 403     | IS Audit and Control                       | INT 303      |
| INT 322     | Web Technologies                           | INT 206      |
| INT 424     | E-Commerce                                 | INT 206      |
| INT 426     | Knowledge Management                       | INT 302      |
| xxxxxxx     | Major Elective I                           | xxxxxxx      |

#### EIGHTH SEMESTER

| Course Code | Course Name                                  | Prerequisite |
|-------------|--|--------------|
| INS 404     | Information Systems Strategy and Acquisition | INT 307      |
| INS 405     | Information Systems Project                  | INT 307      |
| INS 406     | IT Resource Management                       | INS 307      |
| INS 422     | E-Marketing                                  | MKT 200      |
| xxxxxxx     | Major Elective II                            | xxxxxxx      |

## Course Descriptions

### General Courses

#### Principles of Accounting I – ACC 200

Principles of accounting I is concerned with the provision of financial information to the different users such as external and internal users. The term accounting refers to the activities of collecting, recording, processing and communicating economic events to the users of accounting information. The course covers the recording process, adjustments, completing accounting cycle, accounting for merchandising operations and preparation of financial statements.

#### Fundamentals of Finance – FIN 210

This course is an introductory treatment of the field of corporate financial management. After a brief review of the functions and goals of financial management and the role of the financial manager in the financial markets, it presents in detail the tools and methods of financial analysis and planning, financial forecasting, and the concepts of operating and financial leverage. It then deals with working capital management including current asset management and sources of short-term financing. It then reviews the process of capital budgeting by introducing the concept of time value of money and its application to the valuation of securities and determination of the cost of capital.

#### Introduction to Management- MGT 200

This course introduces the student to the four fundamental managerial functions i.e. planning, organizing, leading and controlling to teach them how to perform as an efficient and effective manager. The challenges faced by the contemporary managers in dealing with today's changing business environment are discussed in detail in terms of different managerial roles and desired skills. This foundational level course will effectively prepare the students to undertake more advanced and specialized courses within the management discipline. The course provides a holistic view of management studies, and thus arouses their further interest in pursuing this discipline.

#### Human Resource Management– MGT202

This course covers the foundational concepts and different perspectives on human resource management practices. In this introductory level course, the students are introduced to fundamental processes and operational challenges of HRM practices such as: recruitment and selection, managing employee relations, managing discipline and grievances, dealing with equality and diversity issues, and coping with the challenges related to international human resource management and cross-cultural management. The course also discusses the challenges involved in HR planning and measurement, learning and development, and effectively managing the performance and rewards. A particular focus is given to discuss the rationality and effectiveness of the prevailing HRM practices of GCC and Middle East environment. The course makes an effective use of case studies, and relates it to the UAE context to better explore the relative strengths and weaknesses of local environment compared to the international HRM practices.

#### Principles of Marketing – MKT 200

The course is an introduction to marketing with an emphasis on learning to develop responsive marketing strategies that meet customer needs. The course focuses on basic marketing concepts, the role of marketing in the organization, and the role of marketing in society. Topics include market segmentation, product development, promotion, distribution, and pricing. Other topics, which will be incorporated into the course are, external environment (which will focus on integrative topics with

marketing, such as economics, politics, government, and nature), marketing research, international/global marketing with relevance to cultural diversity, ethics, the impact of technology on marketing, and careers in marketing.

#### **Math for Management – MTH131**

This course is designed to give students a basic understanding of mathematical concepts and their applications in Business Management. It deals with Analytical Geometry, linear programming, linear algebra, basic concepts of set theory and Calculus using functions of one real variable.

#### **Statistics – STA111**

This course is designed for students who need to gain skills in basic statistics knowledge. It covers the essential statistical subjects that students are expected to know. The first part of the course deals with basic statistical terminology, data organization and calculation of descriptive measures. The second part covers the basic concepts of probability and some important probability rules. The third part covers the discrete and continuous probability distributions, where the emphasis is on the binomial and the normal distribution. The fourth part covers the relationship between groups of data (bivariate correlation and regression and its applications to the time series forecasting).

### **Program Core Courses & Internship**

#### **Leadership and Teamwork – INS 207**

This course builds on students' soft skills attained throughout the university years including written and oral communications, the ability to apply technology in learning, critical thinking and problem solving in order to lead a group of people or an organization to achieve a short term goal related to a project or a generic mid-term goal. Student will apply feedback elicitation to gauge success of approach and make amendments as necessary to achieve more effective results; both peer feedback and instructor feedback will be utilized for this purpose. The course will also involve the students in discussions, debate, presentations and seminars in order to create opportunities to assess each other's work and give feedback. There will be a final report/essay and presentation that reflects and summarizes the benefits of successful activities and lessons learnt from others.

#### **Systems Analysis and Design – INS 305**

This course introduces the phases of the system development cycle. Topics covered include: Systems Development Methodologies, system project planning; requirement analysis phase; system design; Human Computer Interaction Layer Design; Physical Architecture Layer Design; and implementation phase. Systems analysis and design using UML will be discussed theoretically.

#### **Business Process Management – INS 307**

The course introduces the methods and techniques required to analyze, design, implement, automate, and evaluate business processes. Structured along the phases of the Business Process Management (BPM) life cycle, students learn to analyze organizational performance from a process perspective, redesign processes using value-focused techniques, design workflows and implement them in BPM systems, simulate new process design to ensure continual improvements within organizations. The course leads students from process discovery through conceptual and technical process design through the implementation of workflows to improve organizational capabilities.



**Business Intelligence and Data Warehousing – INS 402**

Today's IT deals with gigantic amount of information. The success of any organization greatly depends on its ability to process and understand its information and extract essential knowledge to help managers take well-informed decisions. This course teaches students the basic of data warehouse and how to deal with business intelligence – an information technology approach to data collection, data storage and data analysis to support a wide variety of management tasks, from performance evaluation to trend spotting and policy making. The students learn effective modeling techniques and use them to extract business intelligence and present them to users.

**IS Audit and Control – INS 403**

Information technology today represents a critical component of business operations. Almost every part of the business depends on information technology. This means that the function of information systems auditing is important. This course aims to explore the nature of information systems auditing and how information systems audits are undertaken. The gained knowledge allows students to evaluate controls over the confidentiality, integrity, and availability of the information systems data processed and maintained in business corporation information technology environment. Students also will be able to learn about audit planning, audit reporting, and audit evidence.

**Information Systems Strategy & Acquisition – INS 404**

In this course students learn how IT enables organizations to conduct business in radically different and more effective ways. The course defines high-level IT infrastructure and Information Systems that support the operational and strategic needs for organizations. Students learn framework that allows IS leaders to assess existing IT infrastructures and emerging technologies.

**Information Systems Project – INS 405**

This course aims to give students the opportunity to work in a guided but independent fashion to investigate a problem by making use of information technology knowledge, techniques, and methodologies acquired in the previous semesters to provide a suitable solution to an IT problem. The course also aims to enhance teamwork and communication skills, both oral and written as well as ethical issues involved.

**IT Resource Management – INS 406**

This course addresses the tactical/operational responsibilities and roles of the IT Management, and the governance considerations that link the IS-business organizations. The focus is on current/emerging issues in creating and coordinating the key activities necessary to manage the day-to-day operations of the IS function, and coordinating the skills and organizational IS infrastructure. This course typically combines lecture and cases. There are individual & team written assignments and formal presentations. Students are expected to use business terminology to derive an IS organization leverages technology across the firm. Students are encouraged to understand the issues from the perspective of senior IS managers.

**Information Systems Internship – INS 408**

Internship familiarizes students with actual working environments. It gives students the opportunity to integrate their knowledge and skills learned in the course by applying it to real world problems encountered in business and industry. Internship also gives the student a feeling of what is involved in working on actual information technology problems and develop communication and team-work skills as well as ethical issues relation to IT.



### **Introductory Programming – INT100**

This course provides knowledge and skills of problem solving and introductory programming using Java programming language. Topics cover: the problem- solving process; data types; variables, constants, scope, and memory locations; simple sequential programs; basic input/output; selection and repetition control structures; arrays and strings; and user-defined functions.

### **Information Technology in Business – INT103**

The major role of Information Technology (IT) is to support organizational personnel, regardless of their functional area or level in the organization. The aim of this course is to provide students with solid grounding in business uses of information technology in a rapidly changing environment, and to provide discussion of critical issues surrounding the use of IT in organizations. This course covers a range of general information technology topics that will make the student appreciate the role of IT in business. Topics include: information technology fundamentals; information technologies; computer networks and security; business applications; development processes; and ethical, societal and security issues.

### **Object Oriented Programming – INT201**

The primary objective of this course is to introduce the concepts of object-oriented programming: classes, objects, methods, object interaction, encapsulation, inheritance, polymorphism, composition, recursive algorithms, and exception handling. This course is not meant as a comprehensive introduction to all of Java concepts such as applets and socket programming.

### **Fundamentals of Data Communications and Networking – INT205**

Introduction to computer networks and the Internet. Protocol layers and the OSI model. Network models. Network Performance, Switching, Network Devices. Data Link Layer: ARP, Error Detection & Correction, Data-link Control, Medium Access, Ethernet, WLANs, Network Layer: IP and Routing Algorithms, Transport Layer: UDP, TCP, Congestion Control, Application Layer: Web, FTP, e-mail, DNS and P2P.

### **Fundamentals of Web Systems – INT206**

This course introduces the fundamentals of client Web systems technologies to students. Topics covered include: XHTML, CSS, XML, and JavaScript, Students will apply this knowledge to generate essential web components like basic browser controls (buttons, links, and menus), forms and frames.

### **Operating Systems – INT301**

This course covers the principles and concepts of modern operating systems. Operating system services: processes and process management, memory management, file systems, Input/Output and device control, deadlocks, distributed systems, case studies. To introduce the learner to the principles and practice of operating systems with respect to effective and convenient management and operation of a computer system.

### **Database Management Systems- INT302**

This course is designed to give a theoretical and practical background in database techniques. It covers database concepts, data models, data dictionary, entity relationship diagrams, and the relational data model, converting E-R models to relational model, SQL language, normalization, and physical database design. Oracle software is used in the Lab.

**Fundamentals of Information Security – INT303**

This course aims at introducing fundamental security concepts to students. Main security threats and related countermeasures are presented. Students will learn the importance of protecting information stored on computer systems from unauthorized access. The students will also learn how to encrypt and decrypt information, control access to objects and recommend a secure system implementation.

**Computer Ethics and Professional Practices – INT306**

This course will examine the ethical issues that arise in the use of computers, and the responsibilities of those who work with computers, either as computer science professionals or as end users. Topics covered include: legal, social and ethical issues surrounding computer technology and its use; privacy; intellectual property rights and copy right laws; information technology code of ethics; issues of privacy and confidentiality; risks of using computers; and computer crime: computer viruses, hacking, phishing & pharming, scams, etc.

**Information Technology Project Management – INT307**

This course covers: characteristics of IT Project management, initiating an IT project; project planning; defining and managing project scope, structuring a project, project schedule and budget, managing project risk, project communication, tracking, and reporting, IT project quality management, ethics and professional practices, and project implementation.

**Enterprise Systems – INT308**

Enterprise Systems (ES) provide a technology platform that enable organizations to integrate and coordinate their business processes. They provide a single system that is central to the organization and ensure that information can be shared across all functional levels and management hierarchies. This course is designed to provide students with an understanding of the theoretic and practical issues related to the application of ES within organizations. Example software will be used to illustrate how Enterprise Systems work.

**Big Data Technologies – INT323**

This is an introduction to the technologies that are used for big data. The aim of the course is to provide students with the knowledge required to use big data technologies and learn how to store, and process big data sets. Topics covered include: Big Data and Hadoop, Hadoop Distributed File System, Map Reduce, PIG, HIVE, HBase, and search with Solr and Lucene.

**Knowledge Management - INT426**

The aim of this course is to introduce basic concepts, terminologies, tools, and techniques of Knowledge Management (KM). Topics covered include: the origins and units of organizational knowledge; knowledge management life-cycle models, knowledge management implementation models, knowledge capture and codification, knowledge sharing, knowledge management tools and knowledge management strategies.

**Project Management Concentration Courses****IT Services and Operations Management – INS 411**

This course provides a detailed, modular introduction to the concepts, terms, definitions, benefits, objectives, and relationships within core IT service management processes and functions, according to the ITIL best practice framework. It is based on principles described in ITIL's Service Support and Service

Delivery Standards. It provides a practical understanding of ITIL key concepts, principles, processes, and functions.

#### **Project Planning, Scheduling and Cost Control – INS 412**

Most failures of projects are related to either schedule delays, or cost overrun or both. A balanced cost and time management is in the core of project management, and successful projects will need extensive attention to budget performance, which is strongly coupled to schedule. This course will explore recent methods and techniques which integrate technical, schedule, and cost objectives to enhance control on projects and ensure their success and timely termination. The course will allow students to get deep understanding of the many factors that affect project time and cost performance, and teaches them how to employ best practices, well known templates, methods and techniques to observe and control them.

#### **Project Quality and Risk Management – INS 413**

Project Quality and Risk management are forward looking disciplines, which try to identify potential future problems and plan for effective mitigation or avoidance techniques, leading to greater success in projects and business in general. While it covers all aspects of an organization, this course will introduce students to analytical and mathematical models to enable them measure and evaluate risks and quality related to IS projects.

### **E-Business Management Concentration Courses**

#### **E-Marketing – INS 422**

The course describes common strategies for the marketing of goods and services via the Internet range from public relations and corporate communications to advertising and electronic commerce. Students investigate and evaluate various marketing and communication strategies and tactics for the World Wide Web. Emphasis is placed on critical evaluation skills as well as Web site planning, development, design, and other factors, which contribute to a Web site's success.

#### **E-Commerce – INT424**

This course aims to expose students to the theory and practice of e-commerce. Topics covered are: Introduction to E-Commerce, E-Commerce Technology Infrastructure, Revenue models, Marketing on the web, Business-to-business online strategies, Web server hardware and software, E-Commerce Commercial Software, E-Commerce security, Payment Systems, and Planning for e-commerce business.

#### **Web Technologies – INT322**

The aim of this course is to develop students' skills in the technologies and approaches that allow them to develop web applications at the enterprise level, identify key application areas and technology for web applications, and learn key design issues of web applications.

### **Elective Courses**

#### **Selected Topics in Information Systems – INS 307**

This course aims to introduce students to new developments in the area of information systems not specifically covered in the curriculum and in which a faculty member has developed interest and proficiency. The intention is to provide a rapid response to current trends and to widen student's

knowledge in different areas of IS. Specific content of the course will depend on the particular area taught at the time.

#### **Cloud Computing – INT309**

This course aims to introduce students to theory and practice of cloud computing. Topics include: parallel and distributed systems; deployment and service models; cloud infrastructure; applications and paradigms; resource virtualization; management and scheduling; networking support; cloud storage systems; and cloud security.

#### **User Interface Design– INT313**

This course introduces students to the concepts, methods, and guidelines of computer user interface design. Topics covered include: user interface design principles, specifications and requirements modeling in UID, usability measures, interaction styles, user-centered design, and evaluating UID and screen layout.

#### **Database Administration – INT321**

This course prepares students to administer and maintain databases by applying best practices and procedures to any database platform. With general, platform independent approach, students will be able to work as database administrators to any of the major industrial databases including Oracle, IBM DB2, Sybase, Microsoft and MySQL. Students will become familiar with DBA roles and responsibilities, be able to create a database environment with modeling and normalization as well as reporting while maintaining data integrity.

#### **Advanced Database Design and Implementation – INT423**

This course builds on top of the first DBMS course by introducing advanced database concepts to allow students to effectively design and implement a database. The course revisits SQL in a deeper, more practical approach, with a focus on its PL/SQL extension. The student will learn object oriented database design, and how to manage multi-user databases with respect to concurrency and recovery. Students also will be exposed to distributed database systems.

#### **Mobile Applications – INT429**

This course provides an introduction to mobile software development for those with Java programming experience. Students will learn to build mobile applications for phones and tablets through the study and use of a complex software development kit (Android Java SDK). Students will explore the emerging mobile ecosystem, location-aware software, and advanced programming topics including inheritance, polymorphism, threads, sensors, APIs and databases.

#### **Artificial Intelligence – INT430**

This course is designed to introduce the theory and techniques of AI to students. The course covers: knowledge representation schemes, classical and heuristic search techniques, inferencing, machine learning, and agents. The PROLOG language is also covered to enable students to represent, manipulate, and reason with knowledge.

## Bachelor of Science in Data Analytics

### Program Mission

The mission of the Data Analytics program is to Provide quality education in the field of data analytics based on internationally recognized standards for undergraduate programs; Produce data analysts who can deploy efficiently data analytics technologies and implement solutions according to market and society needs, particularly in the UAE and Gulf region; and Prepare individuals for lifelong learning and research.

### Program Education Objectives (Goals)

The program educational objectives (goals) of the BSDA are as follows:

Graduates of the Bachelor of Science in Data Analytics program will have the following characteristics within few years of graduation:

PEO#1. Utilize their acquired skills and knowledge in data analytics to pursue a rewarding and a successful career in public sector, private sector, or academia locally or globally.

PEO#2. Act as effective individuals or leaders who can address data analytics related technical, business, and ethical challenges.

PEO#3. Engage in life-long learning and professional development through self-study, professional, or graduate studies in data analytics or related fields.

### Program Learning Outcomes

The Program Learning Outcomes of the Data Analytics program are based on ABET Student Learning Outcomes. They describe what students know and able to do upon completion of the curriculum. Graduates will be able to:

PLO#1: *Analyze complex data analytics problems and apply principles of data analytics and other relevant disciplines to identify solutions.*

PLO#2: *Design, implement and evaluate a solution to meet a given set of requirements for a data analytics problem.*

PLO#3: Communicate effectively in a variety of professional contexts.

PLO#4: *Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.*

PLO#5: *Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.*

PLO#6: *Identify and analyze user needs and to take them into account in the selection, creation, integration, and evaluation of data analytics solutions.*

Linkage of Program Learning Outcomes to QF-Emirates Level 7 Descriptors

| Program Learning Outcomes  | Knowledge, Skills, and Abilities that the PLO Provide in relation to the QF-Emirates Level 7 Descriptors   |
|--|--|
| <p>PLO#1. Analyze complex data analytics problems and apply principles of data analytics and other relevant disciplines to identify solutions.</p> | <p><b>Knowledge:</b></p> <ul style="list-style-type: none"> <li>• An understanding of allied knowledge and theories in related fields of work or disciplines and in the case of professional disciplines including related regulations, standards, codes, conventions.</li> <li>• A comprehensive understanding of critical analysis, research systems, methods, and evaluative problem-solving techniques.</li> </ul> <p><b>Skill:</b></p> <ul style="list-style-type: none"> <li>• Technical, creative and analytical skills appropriate to solving specialized problems using evidentiary and procedural based processes in predictable and new contexts that include devising and sustaining arguments associated with a field of work or discipline.</li> <li>• Evaluating, selecting and applying appropriate methods, procedures or techniques in processes of investigation towards identified solutions.</li> </ul> |
| <p>PLO#2. Design, implement and evaluate a solution to meet a given set of requirements for a data analytics problem.</p>                          | <p><b>Knowledge:</b></p> <ul style="list-style-type: none"> <li>• A comprehensive understanding of critical analysis, research systems and methods and evaluative problem-solving techniques.</li> <li>• An understanding of allied knowledge and theories in related fields of work or disciplines.</li> </ul> <p><b>Skill:</b></p> <ul style="list-style-type: none"> <li>• Technical, creative and analytical skills appropriate to solving specialized problems using evidentiary and procedural based processes in predictable and new contexts that include devising and sustaining arguments associated with a field of work or discipline.</li> <li>• Evaluating and implementing appropriate research tools and strategies associated with the field of work or discipline.</li> </ul>  |
| <p>PLO#3. Communicate effectively in a variety of professional contexts.</p>   | <p><b>Skill:</b></p> <ul style="list-style-type: none"> <li>• Highly developed advanced communication and information technology skills to present, explain and/or critique complex and unpredictable matters.</li> </ul> <p><b>Autonomy and Responsibility:</b></p> <ul style="list-style-type: none"> <li>• Can express an internalized, personal view, and accept responsibility to society at large and to socio-cultural norms and relationships.</li> </ul>  |

|  |   |
|--|---|
| <p>PLO#4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.</p>                   | <p><b>Autonomy and Responsibility</b></p> <ul style="list-style-type: none"> <li>• Can take responsibility for developing innovative and advanced approaches to evaluating and managing complex and unpredictable work procedures and processes, resources or learning.</li> </ul> <p><b>Role in Context:</b></p> <ul style="list-style-type: none"> <li>• Can take responsibility for the setting and achievement of group or individual outcomes and for the management and supervision of the work of others or self in the case of a specialization in field of work or discipline.</li> <li>• Can take responsibility for managing the professional development and direct mentoring of individuals and group.</li> </ul> <p><b>Self-Development:</b></p> <ul style="list-style-type: none"> <li>• Can self-evaluate and take responsibility for contributing to professional practice, and undertake regular professional development and/or further learning.</li> <li>• Can contribute to and observe ethical standards.</li> </ul> |
| <p>PLO#5. Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.</p>                                | <p><b>Autonomy and Responsibility</b></p> <ul style="list-style-type: none"> <li>• Can work creatively and/or effectively as an individual, in team leadership, managing contexts, across technical or professional activities.</li> </ul> <p><b>Role in Context:</b></p> <ul style="list-style-type: none"> <li>• Can function with full autonomy in technical and supervisory contexts and adopt para-professional roles with little guidance.</li> <li>• Can take responsibility for the setting and achievement of group or individual outcomes and for the management and supervision of the work of others or self in the case of a specialization in field of work or discipline.</li> <li>• Can participate in peer relationships with qualified practitioners and lead multiple, complex groups</li> </ul>   |
| <p>PLO#6. Identify and analyze user needs and to take them into account in the selection, creation, integration, and evaluation of data analytics solutions.</p> | <p><b>Skill:</b></p> <ul style="list-style-type: none"> <li>• Evaluating, selecting and applying appropriate methods, procedures or techniques in processes of investigation towards identified solutions.</li> <li>• Evaluating and implementing appropriate research tools and strategies associated with the field of work or discipline</li> <li>• Technical, creative and analytical skills appropriate to solving specialized problems using evidentiary and procedural based processes in predictable and new contexts that include devising and sustaining arguments associated with a field of work or discipline.</li> </ul> <p><b>Autonomy and Responsibility</b></p> <ul style="list-style-type: none"> <li>• Can manage technical, supervisory or design processes in unpredictable, unfamiliar and varying contexts.</li> </ul>   |



## Admission and Graduation Requirements

### Admission Requirements

The entry requirements for an applicant are:

- U.A.E secondary school certificate or an equivalent qualification with a minimum average grade of 70% for the Advanced Stream and 80% for General Stream;
- English proficiency requirement (TOEFL 500 score or equivalent).

### Graduation Requirements

Students will be eligible for the degree of Bachelor of Science in Data Analytics after completing:

- 120 credits hours of course work, which normally takes eight semesters (not counting summer semesters),
- 3 credit hours for successful completion of summer internship.
- The minimum cumulative grade point average of 2 on a scale of 4.

### Career Opportunities

Graduates of the Data Analytics program will gain deep knowledge of data analytics that position them as valuable assets for today's global companies. They will be equipped with required knowledge and skills to undertake a variety of job positions at both managerial and technical levels, such as data analyst, big data engineer, business intelligence analyst, or information management architect. Graduates of the Data Analytics program may also pursue postgraduate study and research.

### Curriculum Structure and Credit Hours

The Bachelor of Science degree in Data Analytics requires the completion of 120 credit hours of course work. In addition, the student is required to complete an internship program of 10 weeks (200 working hours) after completing 90 credit hours. This internship experience is equivalent to three credit hours making the total completion requirements as 123 credit hours.

### Program Structure

The Bachelor of Science degree in Data Analytics requires the completion of 123 credit hours distributed according to the following plan:

| Type of Courses                        | Credit hours |
|--|--------------|
| 1. General Education Requirements      |              |
| (a) University Compulsory Courses      | 15           |
| (b) University Elective Courses        | 9            |
| (c) Free Elective Courses              | 6            |
| 2. Data Analytics Program Courses      |              |
| (a) Mathematics and Statistics Courses | 18           |
| (b) Program Core Courses               | 63           |
| (c) Program Elective Courses           | 9            |
| (d) Internship                         | 3            |
| Total Credit Hours                     | 123          |

## Program Courses

### University General Education Courses

#### (a) University Compulsory Courses (15 Cr.Hrs.)

| Course No. | Course Title                            | Th. | Lab . | Tut. | Cr. Hrs. | Prerequisite |
|------------|---|-----|-------|------|----------|--------------|
| ARB111     | Communication Skills in Arabic Language | 3   | 0     | 0    | 3        | -            |
| COM111     | IT Fundamentals                         | 2   | 2     | 0    | 3        | -            |
| INN311     | Innovation & Entrepreneurship           | 3   | 0     | 0    | 3        | -            |
| ISL114     | Islamic Culture                         | 3   | 0     | 1    | 3        | -            |
| STA112     | Statistics                              | 2   | 2     | 0    | 3        | -            |

#### (b) University Elective Courses (9 Cr.Hrs.)

| Course Code  | Course Title                           | Th. | Lab . | Tut. | Cr. Hrs. | Prerequisite |
|--|--|-----|-------|------|----------|--------------|
| <b>1. Humanities / Arts (3 Credit Hours)</b>             |  |     |       |      |          |              |
| ARB113   | The Art of Written Expression (Arabic) | 3   | 0     | 0    | 3        | -            |
| ART111   | Introduction to Art                    | 3   | 0     | 0    | 3        | -            |
| ART112   | Introduction to Aesthetics (English)   | 3   | 0     | 0    | 3        | -            |
| ART211   | Introduction to Digital Photography    | 3   | 0     | 0    | 3        | -            |
| ENG113   | Academic Writing (English)             | 3   | 0     | 0    | 3        | -            |
| ENG211   | The Art of Public Speaking (English)   | 3   | 0     | 0    | 3        | -            |
| FRE211   | French Language                        | 3   | 0     | 0    | 3        | -            |
| ISL211   | Introduction to Hadeeth and Sunna      | 3   | 0     | 0    | 3        | -            |
| LAW211   | Legal Culture                          | 3   | 0     | 0    | 3        | -            |
| <b>2. Natural Sciences (3 Credit Hours)</b>              |  |     |       |      |          |              |
| AST211   | Astronomy                              | 3   | 0     | 0    | 3        |              |
| BIO111   | General Biology                        | 3   | 0     | 0    | 3        |              |
| CHM111   | General Chemistry                      | 3   | 0     | 0    | 3        |              |
| PHY111   | General Physics                        | 3   | 0     | 0    | 3        |              |
| <b>3. Social or Behavioral Sciences (3 Credit Hours)</b> |  |     |       |      |          |              |
| ECO211   | Economic Concepts                      | 3   | 0     | 0    | 3        | -            |
| EMS111   | Emirates Society (English)             | 3   | 0     | 0    | 3        | -            |
| ENG111   | English Communication Skills           | 3   | 0     | 0    | 3        | -            |
| INF113   | Library Information System             | 3   | 0     | 0    | 3        | -            |

|        |                                |   |   |   |   |   |
|--------|--------------------------------|---|---|---|---|---|
| PSY111 | General Psychology (English)   | 3 | 0 | 0 | 3 | - |
| SOC112 | Communication Between Cultures | 3 | 0 | 0 | 3 | - |

(C) Free Elective Courses (6 Cr.Hrs.)

Students can take six credit hours as free electives from the electives of the general education program.

**Data Analytics Program Compulsory Courses**

(a) Mathematics and Statistics Courses (18 Cr. Hrs.)

| Course No. | Course Title                            | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite |
|------------|---|-----|------|------|----------|--------------|
| DAT201     | Linear Algebra                          | 3   | 0    | 2    | 3        | INT101       |
| DAT203     | Probability Theory and its Applications | 3   | 0    | 0    | 3        | STA112       |
| DAT305     | Statistical Modelling                   | 3   | 0    | 2    | 3        | DAT203       |
| DAT406     | Optimization Models and Algorithms      | 3   | 0    | 0    | 3        | DAT305       |
| INT101     | Calculus for Information Technology     | 3   | 0    | 2    | 3        | -            |
| INT202     | Discrete Mathematics                    | 3   | 0    | 2    | 3        | INT101       |

(b) Program Core Courses & Internship (66 Cr. Hrs.)

| Course No. | Course Title                                       | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite |
|------------|--|-----|------|------|----------|--------------|
| DAT100     | Introduction to Data Analytics                     | 2   | 2    | 0    | 3        | -            |
| DAT204     | Data Engineering                                   | 2   | 2    | 0    | 3        | DAT100       |
| DAT205     | Programming for Data Analytics I                   | 2   | 2    | 0    | 3        | INT201       |
| DAT206     | Data Visualization                                 | 2   | 2    | 0    | 3        | DAT204       |
| DAT302     | Programming for Data Analytics II                  | 2   | 2    | 0    | 3        | DAT205       |
| DAT304     | Data Analytics Ethics                              | 3   | 0    | 0    | 3        | DAT206       |
| DAT401     | Data Mining  | 2   | 2    | 0    | 3        | DAT302       |
| DAT402     | Text and Web Mining                                | 2   | 2    | 0    | 3        | DAT401       |
| DAT403     | Data Analytics Capstone Project                    | 1   | 4    | 0    | 3        | DAT401       |
| DAT404     | Business and Social Analytics                      | 2   | 2    | 0    | 3        | INS402       |
| DAT405     | Machine Learning                                   | 2   | 2    | 0    | 3        | DAT401       |
| DAT407     | Data Analytics Internship                          |     |      |      | 3        | 90 Cr. Hrs.  |
| INS402     | Business Intelligence and Data Warehousing         | 3   | 0    | 0    | 3        | INT302       |
| INT100     | Introductory Programming                           | 2   | 2    | 2    | 3        | -            |
| INT201     | Object Oriented Programming                        | 2   | 2    | 2    | 3        | INT100       |
| INT205     | Fundamentals of Data Communications and Networking | 2   | 2    | 0    | 3        | INT201       |

| Course No. | Course Title                         | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite      |
|------------|--------------------------------------|-----|------|------|----------|-------------------|
| INT209     | Data Structures                      | 3   | 0    | 2    | 3        | INT201,<br>INT202 |
| INT301     | Operating Systems                    | 2   | 2    | 0    | 3        | INT201            |
| INT302     | Database Management Systems          | 2   | 2    | 0    | 3        | INT201            |
| INT305     | Fundamentals of Software Engineering | 3   | 0    | 0    | 3        | INT201            |
| INT323     | Big Data Technologies                | 2   | 2    | 0    | 3        | INT302            |
| INT430     | Artificial Intelligence              | 2   | 2    | 0    | 3        | INT302            |

(c) Program Elective Courses (9 Credit Hours)

| Course No. | Course Title                              | Th. | Lab | Tut. | Cr. Hrs. | Prerequisite |
|------------|---|-----|-----|------|----------|--------------|
| DAT410     | Selected Topics in Data Analytics         | 3   | 0   | 0    | 3        | DAT302       |
| DAT411     | Advanced Data Analytics                   | 2   | 2   | 0    | 3        | DAT303       |
| INT303     | Fundamentals of Information Security      | 3   | 0   | 0    | 3        | INT205       |
| INT307     | Information Technology Project Management | 3   | 0   | 0    | 3        | INT305       |
| INT309     | Cloud Computing                           | 2   | 2   | 0    | 3        | INT301       |
| INT321     | Database Administration                   | 2   | 2   | 0    | 3        | INT302       |
| INT422     | Information Architecture                  | 2   | 2   | 0    | 3        | INT302       |

## Study Plan

| Course No. | Course Title                               | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite |
|------------|--|-----|------|------|----------|--------------|
| DAT100     | Introduction to Data Analytics             | 2   | 2    | 0    | 3        | -            |
| DAT204     | Data Engineering                           | 2   | 2    | 0    | 3        | DAT100       |
| DAT205     | Programming for Data Analytics I           | 2   | 2    | 0    | 3        | INT201       |
| DAT206     | Data Visualization                         | 2   | 2    | 0    | 3        | DAT204       |
| DAT302     | Programming for Data Analytics II          | 2   | 2    | 0    | 3        | DAT205       |
| DAT304     | Data Analytics Ethics                      | 3   | 0    | 0    | 3        | DAT206       |
| DAT401     | Data Mining                                | 2   | 2    | 0    | 3        | DAT302       |
| DAT402     | Text and Web Mining                        | 2   | 2    | 0    | 3        | DAT401       |
| DAT403     | Data Analytics Capstone Project            | 1   | 4    | 0    | 3        | DAT401       |
| DAT404     | Business and Social Analytics              | 2   | 2    | 0    | 3        | INS402       |
| DAT405     | Machine Learning                           | 2   | 2    | 0    | 3        | DAT401       |
| DAT407     | Data Analytics Internship                  |     |      |      | 3        | 90 Cr. Hrs.  |
| INS402     | Business Intelligence and Data Warehousing | 3   | 0    | 0    | 3        | INT302       |

| Course No. | Course Title                                       | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite      |
|------------|--|-----|------|------|----------|-------------------|
| INT100     | Introductory Programming                           | 2   | 2    | 2    | 3        | -                 |
| INT201     | Object Oriented Programming                        | 2   | 2    | 2    | 3        | INT100            |
| INT205     | Fundamentals of Data Communications and Networking | 2   | 2    | 0    | 3        | INT201            |
| INT209     | Data Structures                                    | 3   | 0    | 2    | 3        | INT201,<br>INT202 |
| INT301     | Operating Systems                                  | 2   | 2    | 0    | 3        | INT201            |
| INT302     | Database Management Systems                        | 2   | 2    | 0    | 3        | INT201            |
| INT305     | Fundamentals of Software Engineering               | 3   | 0    | 0    | 3        | INT201            |
| INT323     | Big Data Technologies                              | 2   | 2    | 0    | 3        | INT302            |
| INT430     | Artificial Intelligence                            | 2   | 2    | 0    | 3        | INT302            |

(c) Program Elective Courses (9 Credit Hours)

| Course No. | Course Title                              | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite |
|------------|---|-----|------|------|----------|--------------|
| DAT410     | Selected Topics in Data Analytics         | 3   | 0    | 0    | 3        | DAT302       |
| DAT411     | Advanced Data Analytics                   | 2   | 2    | 0    | 3        | DAT401       |
| INT303     | Fundamentals of Information Security      | 3   | 0    | 0    | 3        | INT205       |
| INT307     | Information Technology Project Management | 3   | 0    | 0    | 3        | INT305       |
| INT309     | Cloud Computing                           | 2   | 2    | 0    | 3        | INT301       |
| INT321     | Database Administration                   | 2   | 2    | 0    | 3        | INT302       |
| INT422     | Information Architecture                  | 2   | 2    | 0    | 3        | INT302       |

## Data Analytics Program Study Plan and Course Sequencing

### First Semester

| Course Code | Course Name                             | Credit Hours |          |          |           | Prerequisite |
|-------------|---|--------------|----------|----------|-----------|--------------|
|             |   | Lec          | Lab      | Tut      | Cr.Hrs.   |              |
| ARB111      | Communication Skills in Arabic Language | 3            | 0        | 0        | 3         | -            |
| COM111      | IT Fundamentals                         | 2            | 2        | 0        | 3         | -            |
| INT100      | Introductory Programming                | 2            | 2        | 2        | 3         | -            |
| STA112      | Statistics                              | 2            | 2        | 0        | 3         | -            |
| xxx###      | University Elective I                   | 3            | 0        | 0        | 3         | -            |
| TOTAL       |   | <b>14</b>    | <b>2</b> | <b>1</b> | <b>15</b> |              |

### Second Semester

| Course Code | Course Name                         | Credit Hours |          |          |           | Prerequisite |
|-------------|-------------------------------------|--------------|----------|----------|-----------|--------------|
|             |                                     | Lec          | Lab      | Tut      | Cr.Hrs.   |              |
| DAT100      | Introduction to Data Analytics      | 2            | 2        | 0        | 3         |              |
| INT101      | Calculus for Information Technology | 3            | 0        | 2        | 3         | -            |
| ISL114      | Islamic Culture                     | 3            | 0        | 1        | 3         | -            |
| xxx###      | Free Elective 1                     | x            | x        | x        | 3         | xxx###       |
| xxx###      | University Elective II              | 3            | 0        | 0        | 3         | -            |
| TOTAL       |                                     | <b>x</b>     | <b>x</b> | <b>x</b> | <b>15</b> |              |

### Third Semester

| Course Code | Course Name                             | Credit Hours |          |          |           | Prerequisite |
|-------------|---|--------------|----------|----------|-----------|--------------|
|             |   | Lec          | Lab      | Tut      | Cr.Hrs.   |              |
| DAT203      | Probability Theory and its Applications | 3            | 0        | 2        | 3         | STA112       |
| DAT204      | Data Engineering                        | 2            | 2        | 0        | 3         | DAT100       |
| INT201      | Object Oriented Programming             | 2            | 2        | 2        | 3         | INT100       |
| INT202      | Discrete Mathematics                    | 3            | 0        | 2        | 3         | INT101       |
| xxx###      | University Elective III                 | 3            | 0        | 0        | 3         | -            |
| TOTAL       |   | <b>13</b>    | <b>4</b> | <b>8</b> | <b>15</b> |              |

### Fourth Semester

| Course Code | Course Name | Credit Hours |     |     |         | Prerequisite |
|-------------|-------------|--------------|-----|-----|---------|--------------|
|             |             | Lec          | Lab | Tut | Cr.Hrs. |              |

|        |  |           |          |          |           |                |
|--------|--|-----------|----------|----------|-----------|----------------|
| DAT205 | Programming for Data Analytics I                   | 2         | 2        | 0        | 3         | INT201         |
| DAT206 | Data Visualization                                 | 2         | 2        | 0        | 3         | DAT204         |
| INT205 | Fundamentals of Data Communications and Networking | 2         | 2        | 0        | 3         | INT201         |
| INT209 | Data Structures                                    | 3         | 0        | 0        | 3         | INT201, INT202 |
| DAT201 | Linear Algebra                                     | 3         | 0        | 2        | 3         | INT101         |
| TOTAL  |  | <b>11</b> | <b>8</b> | <b>0</b> | <b>15</b> |                |

### Fifth Semester

| Course Code | Course Name                          | Credit Hours |          |          |           | Prerequisite |
|-------------|--------------------------------------|--------------|----------|----------|-----------|--------------|
|             |                                      | Lec          | Lab      | Tut      | Cr.Hrs.   |              |
| DAT302      | Programming for Data Analytics II    | 2            | 2        | 0        | 3         | DAT205       |
| INT301      | Operating Systems                    | 2            | 2        | 0        | 3         | INT201       |
| INT302      | Database Management Systems          | 2            | 2        | 0        | 3         | INT201       |
| INT305      | Fundamentals of Software Engineering | 3            | 0        | 0        | 3         | INT201       |
| xxx###      | Free Elective II                     | x            | x        | x        | 3         | xxx###       |
| TOTAL       |                                      | <b>x</b>     | <b>x</b> | <b>x</b> | <b>15</b> |              |

### Sixth Semester

| Course Code | Course Name                   | Credit Hours |          |          |           | Prerequisite |
|-------------|-------------------------------|--------------|----------|----------|-----------|--------------|
|             |                               | Lec          | Lab      | Tut      | Cr.Hrs.   |              |
| DAT304      | Data Analytics Ethics         | 3            | 0        | 0        | 3         | DAT206       |
| DAT305      | Statistical Modeling          | 3            | 0        | 0        | 3         | DAT203       |
| INN311      | Innovation & Entrepreneurship | 3            | 0        | 0        | 3         | -            |
| INT323      | Big Data Technologies         | 2            | 2        | 0        | 3         | INT302       |
| xxx###      | Major Elective I              | x            | x        | x        | 3         | xxx###       |
| TOTAL       |                               | <b>x</b>     | <b>x</b> | <b>0</b> | <b>15</b> |              |

### Seventh Semester

| Course Code | Course Name                                | Credit Hours |     |     |         | Prerequisite |
|-------------|--|--------------|-----|-----|---------|--------------|
|             |  | Lec          | Lab | Tut | Cr.Hrs. |              |
| DAT401      | Data Mining                                | 2            | 2   | 0   | 3       | DAT302       |
| DAT406      | Optimization Models and Algorithms         | 3            | 0   | 0   | 3       | DAT305       |
| INS402      | Business Intelligence and Data warehousing | 3            | 0   | 0   | 3       | INT302       |

|        |                         |   |   |   |    |        |
|--------|-------------------------|---|---|---|----|--------|
| INT430 | Artificial Intelligence | 2 | 2 | 0 | 3  | INT302 |
| xxx### | Major Elective II       | x | x | 0 | 3  | xxx### |
| TOTAL  |                         | x | x | 0 | 15 |        |

### Eighth Semester

| Course Code | Course Name                     | Credit Hours |     |     |         | Prerequisite |
|-------------|---------------------------------|--------------|-----|-----|---------|--------------|
|             |                                 | Lec          | Lab | Tut | Cr.Hrs. |              |
| DAT402      | Text and Web Mining             | 2            | 2   | 0   | 3       | DAT401       |
| DAT403      | Data Analytics Capstone Project | 1            | 4   | 0   | 3       | DAT401       |
| DAT404      | Business and Social Analytics   | 2            | 2   | 0   | 3       | INS402       |
| DAT405      | Machine Learning                | 2            | 2   | 0   | 3       | DAT401       |
| xxx###      | Major Elective III              | x            | x   | 0   | 3       | xxx###       |
| TOTAL       |                                 | x            | x   | 0   | 15      |              |

## Course Descriptions

### Mathematics and Statistics Courses

#### DAT201 - Linear Algebra

This course will cover the following topics: Linear Equations and Vectors; Matrix and Linear Transformation; Determinants; Eigenvalues and Eigenvectors; Vector Space and subspace; Orthogonality.

#### DAT203 - Probability Theory and its Applications

This course introduces to Probability theory, Random variables and Random processes. It covers probability axioms, conditional probability; Bayes` theorem, discrete and continuous random variables, some common discrete probability distributions and continuous distributions It also includes bivariate distribution, independence, covariance and correlation. The course provides an introduction to random processes, the weak, the large law of numbers and the central limit theorem.

#### DAT305 - Statistical Modelling

This course covers topics such as estimations, hypothesis testing. Simple and multiple linear regression, parametric non-linear regression, generalized linear model, nonparametric regression, and generalized nonparametric regression.

#### DAT406 - Optimization Models and Algorithms

This course covers modeling techniques and algorithms to introduce optimization methods in solving data analysis problems. It includes the following topics: Linear Programming; Nonlinear Programming, Simplex Method; Revised and Dual Simplex method.



**INT101 - Calculus for Information Technology**

This course covers the essential mathematical topics that students specialized in information technology needs. Topics covered are plane analytic geometry; matrices and determinants; solution of a system of linear equations; real functions limits, continuity, differentiation and applications; integration; and graphs.

**INT202 - Discrete Mathematics**

This course introduces Discrete Mathematics techniques to Information Technology and Computer Engineering, and BSDA students. Topics covered include propositional logic, predicate logic, inference, induction & other proof techniques, counting, sets, functions, recursion, relations, graphs, and trees.

**Program Core Courses & Internship****DAT100 - Introduction to Data Analytics**

The class focuses on providing students with an overview of the data analytics related topics briefly. This will allow students to understand and apply the basic techniques of data analytics. Topics to be covered include data engineering, data analytics process, data visualization, decision-making process, and an introduction to the big data concepts. By the end of this course, students will be able to demonstrate fundamental knowledge about the data analytics field.

**DAT206 - Data Visualization**

The course aims to introduce students to data visualization techniques beyond the common visualization expressions, such as Bar chart and Line chart. The course provides an introduction of the underlying structure of large data sets using advanced visualizations: data and image models, shapes, Maps and Networks visualizations based on principles of graphic design and human cognition to choose the most effective way to display a variety of data. Students will learn explanatory data analysis methods to present information in an efficient, effective, understandable, and aesthetic manner, for the purposes of explaining ideas and analyzing data. Students will develop skills in creating and evaluating data visualizations, and how to use such visualizations to present clear evidence of results to the intended audience. This course also will provide students with hands-on experience using one of the modern visualization tools, such as Tableau and QlikView.

**DAT205 - Programming for Data Analytics I**

The aim of this course is to introduce students to scientific computing in Python Programming language, in order to solve a broad set of data analytics problems. Students will be able to manipulate, process, clean and crunch data in Python. The primary focus is on structured data. Topics include Multidimensional arrays (matrices), Tabular or spreadsheet-like data in which each column may be a different type (string, numeric, date, or otherwise), Multiple tables of data interrelated by key columns, evenly or unevenly spaced time series.

**DAT 204 - Data Engineering**

The course aims to introduce students with the concept of a modern data ecosystem. Students will learn how to perform the principle tasks involved in managing extracting, transforming and loading (ETL) data. Students will learn the different types of data modeling methods that are used for the three well know data types; namely structured, semi-structured and unstructured. This course also explains the data life cycle in a data analytics project starting from the data collection (data importing, data crawling), preprocessing (cleaning and transformation), ingestion, and warehousing. The course also



covers the elementary visualization aspects needed to understand and explore the data. By the end of this course, students will be able to perform all data engineering tasks needed for any data analytics project.

#### **DAT302 - Programming for data analytics II**

This course provides students with the knowledge of how to program in R programming language and how to use R for data analysis. Topics covered in this course include basic concepts of R programming, reading data into R, writing functions using R concept, control structure, debugging, data analysis, simulation and optimization, Simple data summaries, and packages. Working examples in statistical analysis will be given.

#### **DAT304 - Data Analytics Ethics**

This course provides students with an understanding of ethical and legal frameworks to initiatives in the data profession. The course will explore social, moral and ethical ramifications of the choices made by a data analyst at the different stages of the data capturing, storage and feedback loop. Students will learn applied data methods; develop foundational abilities in applying legal and ethical frameworks and techniques for the data analytics profession. This course will expose students to a variety of real-world business case, best practices, in class discussions, and hands-on exercises.

#### **DAT401 - Data Mining**

Analytics with its three types: descriptive, predictive and prescriptive, transforms data into insight for better business decision making. This course provides students with an understanding of how predictive analytics can be used to identify patterns and to transform data into useful insights. Students will learn statistical methods to understand and quantify the accuracy of model and to solve business problems with data. The course will explore approaches to discover, prepare and analyze data, to build predictive models and to visualize data using R language.

#### **DAT402 - Text and Web Mining**

This course covers the concepts, techniques, and algorithms of text analytics and web mining. Topics include, preprocessing unstructured data; statistical text processing methods and algorithms for text classification and clustering; web structure mining; web usage mining; web spam detection; and text visualization. Students are also required to work on group or individual projects that embodies a text analytics or a web mining solution to a problem.

#### **DAT403 - Data Analytics Capstone Project**

This course aims to give students the opportunity to work in a guided but independent fashion to investigate a problem by making use of data analytics knowledge, techniques, and methodologies acquired in the previous semesters to provide a suitable solution to a data analytics problem. The course also aims to enhance teamwork and communication skills, both oral and written as well as ethical issues involved.

#### **DAT404 - Business and Social Analytics**

This course provides students with an understanding of how analytics can help improve business decision-making process. The course will explore emerging methods and applications for understanding user behavior, draw insight from data, improve ability to make predictions, and advocate future actions that help make better business decisions. Students will learn how to identify analytics problems, use data analytics tools and identify types of analysis to be performed. This course will expose students to

a variety of real-world business cases, a collection of data analytics tools, best practices and hands-on exercises.

#### **DAT405 - Machine Learning**

The aim of this course is to introduce students to the methods and algorithms of machine learning and in particular deep learning models for supervised and unsupervised type learning. Topics covered are: neural networks models for classifications and clustering problems, linear and logistic regression, support vector machines (SVM), probabilistic models, dimensionality reduction techniques, reinforced learning, ensemble learning, multiclass classifications, and model selection and evaluation. Students are also required to work on an individual project that embodies a machine learning solution to a problem.

#### **DAT407 - Data Analytics Internship**

Internship familiarizes students with actual working environments. It gives students the opportunity to integrate their knowledge and skills learned by applying it to real world problems encountered in business and industry. Internship also gives the student a feeling of what is involved in working on actual data analytics problems and develop communication and teamwork skills as well as ethical issues relation to IT.

#### **INS 402 - Business Intelligence and Data Warehousing**

Today's IT deals with a gigantic amount of information. The success of any organization greatly depends on its ability to process and understand its information and extract essential knowledge to help managers make well-informed decisions. This course teaches students the basics of data warehouse and how to deal with business intelligence – an information technology approach to data collection, data storage, and data analysis to support a wide variety of management tasks, from performance evaluation to trend spotting and policymaking. The students learn effective modeling techniques and use them to extract business intelligence and present them to users.

#### **INT100 - Introductory Programming**

This course provides knowledge and skills of problem solving and introductory programming using Java programming language. Topics cover: the problem- solving process; data types; variables, constants, scope, and memory locations; simple sequential programs; basic input/output; selection and repetition control structures; arrays and strings; and user-defined functions.

#### **INT201 - Object Oriented Programming**

The primary objective of this course is to introduce the concepts of object-oriented programming: classes, objects, methods, object interaction, encapsulation, inheritance, polymorphism, composition, recursive algorithms, and exception handling. This course is not meant as a comprehensive introduction to all of Java concepts such as applets and socket programming.

#### **INT205 - Fundamentals of Data Communications and Networking**

Introduction to computer networks and the Internet: Protocol layers and the OSI model. Physical layer: Data and Signals, Shannon Capacity, channel coding, BCH codes, source coding and compression. Data Link Layer: error detection and correction, multiple access, MAC addressing, switches, ARP, MAC Frame (IEEE 802.3 protocol), Wired LAN Ethernet t, Virtual Circuit, and WLAN (IEEE 802.11 protocol). Transport layer: UDP, TCP and congestion control. Network layer: virtual circuits, routers, IP protocols and routing algorithms. Application layer: HTTP, FTP, SMTP, POP3, DNS and peer-to-peer applications.



### **INT209 - Data Structures**

The course covers concepts of program performance (time and space complexity); recursion; data structures: lists, stacks, queues, graphs, trees, binary search trees, priority queues, heaps, and operations on them and their applications; sorting; searching and hashing.

### **INT301 - Operating Systems**

This course covers the principles and concepts of modern operating systems. Operating system services: processes and process management, memory management, file systems, Input/Output and device control, deadlocks, distributed systems, case studies. To introduce the learner to the principles and practice of operating systems with respect to effective and convenient management and operation of a computer system.

### **INT302 - Database Management Systems**

This course is designed to give a theoretical and practical background in database techniques. It covers database concepts, data models, data dictionary, entity-relationship diagrams, and the relational data model, converting E-R models to the relational model, SQL language, normalization, and physical database design. Oracle software is used in the Lab.

### **INT305 - Fundamentals of Software Engineering**

The course emphasizes object-oriented techniques and the use of UML. Topics covered in this course include: overview of the software engineering process, software process models, UML syntax and semantics, software requirement analysis using UML, software design principles and models, component-level design, and software testing. Student will work in teams on software projects.

### **INT323 - Big Data Technologies**

This is an introduction to the technologies that are used for big data. The aim of the course is to provide students with the knowledge required to use big data technologies and learn how to store, and process big data sets. Topics covered include: Big Data and Hadoop, Hadoop Distributed File System, Map Reduce, PIG, HIVE, HBase, and search with Solr and Lucene.

### **INT430 - Artificial Intelligence**

This course is designed to introduce the theory and techniques of AI to students. The course covers: knowledge representation schemes, classical and heuristic search techniques, inferencing, linear and integer programming, and intelligent agents. The PROLOG language is also covered to enable students to represent, manipulate, and reason with knowledge.

## **Program Elective Courses**

### **DAT410 - Selected Topics in Data Analytics**

This course aims to introduce students to new developments in the area of data analytics not specifically covered in the curriculum and in which a faculty member has developed interest and proficiency. The intention is to provide a rapid response to current trends and to widen student's knowledge in various areas of data analytics. Specific content of the course will depend on the particular area taught at the time.

**DAT411 - Advanced Data Analytics**

This course emphasizes how to use more advanced algorithms for data analytics. Students will practice advanced data analytic techniques, including ensemble classification, Support vector machine, Deep learning, Bayesian approaches, advanced clustering methods (ex. Density-based clustering methods), classification method based on association rules, and sequential and time series analysis, and anomaly detection. Although data analytics can be performed in diverse domains, we will emphasize on modern data mining and machine learning methods and their application in specific domains, such as financial application, social networks, health, and bioinformatics.

**INT307 - Information Technology Project Management**

This course covers: characteristics of IT Project management, initiating an IT project; project planning; defining and managing project scope, structuring a project, project schedule and budget, managing project risk, project communication, tracking, and reporting, IT project quality management, ethics and professional practices, and project implementation.

**INT303 - Fundamentals of Information Security**

This course aims at introducing fundamental security concepts to students. Main security threats and related countermeasures are presented. Students will learn the importance of protecting information stored on computer systems from unauthorized access e.g Intelligent Authentication using data Analytics. The students will also learn how to encrypt and decrypt information, control access to objects and recommend a secure system implementation.

**INT309 - Cloud Computing**

This course aims to introduce students to theory and practice of cloud computing. Topics include: parallel and distributed systems; deployment and service models; cloud infrastructure; applications and paradigms; resource virtualization; resource management and scheduling; networking support; cloud storage systems; and cloud security.

**INT321 - Database Administration**

This course prepares students to administer and maintain databases by applying best practices and procedures to any database platform. With general, platform independent approach, students will be able to work as database administrators to any of the major industrial databases including Oracle, IBM DB2, Sybase, Microsoft and MySQL. The main topics covered by the course include creating database administration environment, performance management, database security, database monitoring and optimization, database tuning, storage management, database backup and recovery.

**INT422 - Information Architecture**

Information is the heart of knowledge and one of the main pillars of information systems. This course introduces fundamental concepts and methods of understanding and modeling data as well as extracting information out of it. It also shows how to represent large volume of information and allow users to comprehend and interact with it in an effective way. The course focuses on data modeling and architecture approaches allowing student to build effective information architecture. Then the student will learn how to interact with information using different labeling, navigation, and search strategies. Students will finally learn about information architecture in practice and its applications in large organizations

## Department Of Biomedical Engineering

### Mission

The mission of the biomedical engineering program is to bridge the gap between conventional engineering and life sciences through graduates equipped with the theoretical knowledge and practical skills necessary for pursuing a successful professional career in the healthcare industry. The program also prepares its students for graduate studies.

### Objectives

Biomedical Engineering program educational objectives are as follows:

Biomedical engineering graduates are:

1. Successful in applying theoretical knowledge and practical skills in the field of Biomedical Engineering.
2. Gainfully employed in the healthcare industry.
3. Successful in postgraduate studies.

## Bachelor of Science in Biomedical Engineering

### BME Program Learning Outcomes

| New ABET Outcomes   | Old ABET Outcomes |
|---|-------------------|
| 1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics  | (a) , (e) , (k)   |
| 2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors                   | (b) , (k)         |
| 3. an ability to communicate effectively with a range of audiences  | (c)               |
| 4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts | (d)               |
| 5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives   | (f) , (h) , (j)   |
| 6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions  | (g) , (k)         |
| 7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies   | (i)               |
| 8. broad knowledge in the field of biomedical engineering   | (l)               |

## Mapping of BME Program Learning Outcomes with Level–7 of the UAE’s Qualifications Framework.

| Descriptor Codes                   | QF Emirates Descriptor Statements (Level 7)  | Related BME Program Outcome Codes |
|------------------------------------|--|-----------------------------------|
| <b>Knowledge</b>                   |  |                                   |
| K1                                 | Specialized factual and theoretical knowledge and an understanding of the boundaries in a field of work or discipline, encompassing a broad and coherent body of knowledge and concepts, with substantive depth in the underlying principles and theoretical concepts. | (1)                               |
| K2                                 | an understanding of allied knowledge and theories in related fields of work or disciplines and in the case of professional disciplines including related regulations, standards, codes, conventions  | (4), (8)                          |
| K3                                 | understanding of critical approach to the creation and compilation of a systematic and coherent body of knowledge and concepts gained from a range of sources  | (8)                               |
| K4                                 | a comprehensive understanding of critical analysis, research systems and methods and evaluative problem-solving techniques   | (1)                               |
| K5                                 | familiarity with sources of current and new research and knowledge with integration of concepts from outside fields  | (4)                               |
| <b>Skills</b>                      |  |                                   |
| S1                                 | technical, creative and analytical skills appropriate to solving specialized problems using evidentiary and procedural based processes in predictable and new contexts that include devising and sustaining arguments associated with a field of work or discipline    | (2)                               |
| S2                                 | evaluating, selecting and applying appropriate methods, procedures or techniques in processes of investigation towards identified solutions  | (6)                               |
| S3                                 | evaluating and implementing appropriate research tools and strategies associated with the field of work or discipline  | (1), (2), (6)                     |
| S4                                 | highly developed advanced communication and information technology skills to present, explain and/or critique complex and unpredictable matters  | (3)                               |
| <b>Aspects of Competence</b>       |  |                                   |
| <b>Autonomy and responsibility</b> |  |                                   |
| CA1                                | can take responsibility for developing innovative and advanced approaches to evaluating and managing complex and unpredictable work procedures and processes, resources or learning  | (7)                               |
| CA2                                | can manage technical, supervisory or design processes in unpredictable, unfamiliar and varying contexts  | (7)                               |

|                         |   |          |
|-------------------------|---|----------|
| CA3                     | can work creatively and/or effectively as an individual, in team leadership, managing contexts, across technical or professional activities   | (5)      |
| CA4                     | can express an internalized, personal view, and accept responsibility to society at large and to socio-cultural norms and relationships   | (5), (4) |
| <b>Role in context</b>  |   |          |
| CB1                     | can function with full autonomy in technical and supervisory contexts and adopt para-professional roles with little guidance  | (5)      |
| CB2                     | can take responsibility for the setting and achievement of group or individual outcomes and for the management and supervision of the work of others or self in the case of a specialization in field of work or discipline | (5)      |
| CB3                     | can participate in peer relationships with qualified practitioners and lead multiple, complex groups  | (5)      |
| CB4                     | can take responsibility for managing the professional development and direct mentoring of individuals and groups  | (5)      |
| <b>Self-development</b> |   |          |
| CC1                     | can self-evaluate and take responsibility for contributing to professional practice, and undertake regular professional development and/ or further learning can manage learning  | (7)      |
| CC2                     | can manage learning tasks independently and professionally, in complex and sometimes unfamiliar learning contexts   | (7)      |
| CC3                     | can contribute to and observe ethical standard.   | (4)      |

### Admission Requirements

Admission to the biomedical engineering program requires a UAE secondary school certificate with a minimum grade of 70 percent in science stream or 90 percent in general stream. For more information please refer to the university admissions policy.

### Career Opportunities

Graduates will be qualified to work in the following areas:

- Healthcare facilities: biomedical engineering graduates are ideally suited to work as design and maintenance engineers for healthcare facilities such as hospitals and clinics
- Manufacturer's representatives and sales engineers: biomedical graduates have the technical knowledge required to communicate with a variety of health-care professionals, which enables them to act as representatives for manufacturers and suppliers of medical equipment and services
- Design and development: biomedical engineering graduates can work in companies on the design, development and testing of medical devices and systems.
- Management: program engineering graduates background in technology will allow them to be trained as managers in organizations dealing with healthcare and biological products



- Consultancy: biomedical engineering graduates are able to join consultancy agencies which provide advice for healthcare authorities regarding standards and quality evaluation of clinical facilities and services.

### Graduation Requirements

The Bachelor of Science Degree is awarded upon the fulfillment of the following:

- Successful completion of all courses in the curriculum
- Successful completion of the equivalent of four months of engineering training
- Cumulative Grade Point Average CGPA of at least 2.

### Degree Requirement

The B.Sc. degree in biomedical engineering requires the completion of 141Cr. Hrs. classified as follows:

| Type of Courses                              | Credit hours |
|--|--------------|
| 1. University General Education Requirements |              |
| (a) University Required Courses              | 15           |
| (b) University Elective Courses              | 9            |
| 2. College Required Courses                  | 30           |
| 3. Specialization Required Courses           | 74           |
| 4. Specialization Elective Courses           | 9            |
| 5. Engineering Training                      | 4            |
| Total Credit Hours                           | 141          |

### UNIVERSITY GENERAL EDUCATION REQUIREMENTS

#### (a) University Required Courses (15 Cr.Hrs.)

| Course No. | Course Title                            | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite |
|------------|---|-----|------|------|----------|--------------|
| ORN111     | Orientation                             | 1   | 0    | 0    | 0        | -            |
| ISL114     | Islamic Culture                         | 3   | 0    | 1    | 3        | -            |
| ARB111     | Communication Skills in Arabic Language | 3   | 0    | 0    | 3        | -            |
| STA112     | Statistics                              | 2   | 2    | 0    | 3        | -            |
| COM111     | IT Fundamentals                         | 2   | 2    | 0    | 3        | -            |
| INN311     | Innovation and Entrepreneurship         | 3   | 0    | 0    | 3        | -            |

#### (b)University Elective Courses ( 9 Cr.Hrs.)

The student will take three of the following University Electives as approved by the academic advisor.

| Course No. | Course Title                         | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite |
|------------|--------------------------------------|-----|------|------|----------|--------------|
| ISL113     | The Miraculousness of the Holy Koran | 3   | 0    | 0    | 3        | -            |
| RES211     | Research Methodology                 | 3   | 0    | 0    | 3        | -            |
| ACR211     | Principles of Architecture & Art     | 3   | 0    | 0    | 3        | -            |
| DES211     | Principles of Interior Design        | 3   | 0    | 0    | 3        | -            |
| SOC211     | Modern Technology and Society        | 3   | 0    | 0    | 3        | -            |
| INT211     | Internet Concepts                    | 3   | 0    | 0    | 3        | -            |
| INF212     | Introduction to Information Systems  | 3   | 0    | 0    | 3        | -            |

|        |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|
| ECO211 | Economic Concepts                       | 3 | 0 | 0 | 3 | - |
| ENT211 | Entrepreneurship Development            | 3 | 0 | 0 | 3 | - |
| ISH111 | History of science in Islam             | 3 | 0 | 0 | 3 | - |
| PIO211 | Scientific pioneering                   | 3 | 0 | 0 | 3 | - |
| PSY111 | General psychology                      | 3 | 0 | 0 | 3 | - |
| MTH111 | Principle of mathematics                | 3 | 0 | 0 | 3 | - |
| ARB113 | The Art of Expression and writing       | 3 | 0 | 0 | 3 | - |
| EMS111 | Emirates Society                        | 3 | 0 | 0 | 3 | - |
| EDT211 | Education Technology                    | 3 | 0 | 0 | 3 | - |
| CHM111 | General chemistry                       | 3 | 0 | 0 | 3 | - |
| NUT111 | Fundamental of Human Nutrition          | 3 | 0 | 0 | 3 | - |
| AID111 | First Aid                               | 3 | 0 | 0 | 3 | - |
| GIS211 | Applications of Remote sensing          | 3 | 0 | 0 | 3 | - |
| ETH111 | Principles of Ethics                    | 3 | 0 | 0 | 3 | - |
| BIO111 | General Biology                         | 3 | 0 | 0 | 3 | - |
| ORH211 | Oral Health                             | 3 | 0 | 0 | 3 | - |
| EPI111 | General principles of Epidemiology      | 3 | 0 | 0 | 3 | - |
| CPR111 | CPR-Cardio Pulmonary Resuscitation      | 3 | 0 | 0 | 3 | - |
| ENG111 | Communication Skills                    | 3 | 0 | 0 | 3 | - |
| SOC111 | Introduction to Communication Sociology | 3 | 0 | 0 | 3 | - |
| INF211 | Information Society                     | 3 | 0 | 0 | 3 | - |
| LAW211 | Legal Culture                           | 3 | 0 | 0 | 3 | - |
| ENV111 | Environmental Science                   | 3 | 0 | 0 | 3 | - |

### 1. College Required Courses (30 Cr. Hrs.)

| Course No. | Course Title                    | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite |
|------------|---------------------------------|-----|------|------|----------|--------------|
| ELE202     | Logic Design                    | 3   | 2    | 2    | 4        | COM111       |
| MTH121     | Engineering Mathematics I       | 3   | 0    | 2    | 3        | -----        |
| MTH122     | Engineering Mathematics II      | 3   | 0    | 2    | 3        | MTH121       |
| PHY121     | Engineering Physics I           | 3   | 2    | 2    | 4        | -----        |
| PHY122     | Engineering Physics II          | 3   | 2    | 2    | 4        | -----        |
| CHE101     | Chemistry for Engineers         | 2   | 2    | 0    | 3        | -----        |
| MTH221     | Engineering Mathematics III     | 3   | 0    | 2    | 3        | MTH122       |
| MTH222     | Engineering Mathematics IV      | 3   | 0    | 2    | 3        | MTH221       |
| ELE301     | Report Writing and Presentation | 3   | 0    | 1    | 3        | BME101       |

### Specialization Required Courses (74 Cr. Hrs.)

| Course No. | Course Title                           | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite   |
|------------|--|-----|------|------|----------|----------------|
| BME202     | Biochemistry                           | 2   | 2    | 0    | 3        | CHE101         |
| BME102     | Biology                                | 3   | 2    | 0    | 4        | -----          |
| BME101     | Introduction to Biomedical Engineering | 1   | 0    | 2    | 1        | -----          |
| BME103     | Computer Programming                   | 3   | 0    | 2    | 3        | COM111         |
| BME201     | Circuit Analysis                       | 3   | 2    | 2    | 4        | MTH121, PHY122 |
| BME205     | Electronic Circuits                    | 3   | 2    | 2    | 4        | BME201         |
| BME203     | Human Anatomy                          | 2   | 2    | 0    | 3        | BME102         |

|        |   |   |   |   |   |                   |
|--------|---|---|---|---|---|-------------------|
| BME204 | Human Physiology                          | 2 | 2 | 0 | 3 | BME203            |
| BME301 | Microcontrollers and Computer Interfacing | 3 | 2 | 0 | 4 | ELE202            |
| BME305 | Electrophysiology                         | 2 | 2 | 0 | 3 | BME204            |
| BME304 | Biomaterials Basics and Applications      | 3 | 0 | 2 | 3 | CHE101, BME203    |
| BME308 | Bio-mechanics                             | 3 | 0 | 2 | 3 | PHY121, BME203    |
| BME302 | Medical Electronics                       | 2 | 2 | 2 | 3 | BME205,<br>BME204 |
| BME307 | Medical Instrumentation I                 | 3 | 0 | 0 | 3 | BME302,<br>BME305 |
| BME303 | Signals and Systems                       | 3 | 0 | 2 | 3 | MTH221            |
| BME309 | Biomedical Design                         | 2 | 2 | 0 | 3 | BME302            |
| BME403 | Medical Instrumentation II                | 3 | 2 | 0 | 4 | BME307            |
| BME306 | Biomedical Imaging Systems. I             | 3 | 0 | 2 | 3 | BME204            |
| BME402 | Biomedical Imaging Systems. II            | 3 | 2 | 0 | 4 | BME306            |
| BME401 | Bio-Signal Processing                     | 3 | 2 | 2 | 4 | BME303            |
| BME404 | Directed Study in Biomedical Engineering  | 3 | 0 | 2 | 3 | Senior Standing   |
| BME491 | Biomedical Design Project I               | 1 | 4 | 0 | 3 | BME309            |
| BME492 | Biomedical Design Project II              | 1 | 4 | 0 | 3 | BME491            |

## 2. Specialization Electives Courses (9 Cr. Hrs.)

The student will take three of the following Specialization Electives as approved by the academic advisor.

| Course No. | Course Title                               | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite      |
|------------|--|-----|------|------|----------|-------------------|
| BME452     | Physiological Modeling and Control Systems | 2   | 2    | 0    | 3        | BME204            |
| BME455     | Bio-fluid Mechanics                        | 3   | 0    | 0    | 3        | BME308            |
| BME453     | IT and Computer Networks in Health-care    | 3   | 0    | 2    | 3        | 218 337-1         |
| BME456     | Artificial Neural Networks and Fuzzy Logic | 3   | 0    | 2    | 3        | MTH222            |
| BME457     | Biomedical Image Processing                | 2   | 2    | 0    | 3        | 218 375-6         |
| BME451     | Artificial Organs                          | 3   | 0    | 0    | 3        | BME204            |
| BME458     | Selected Topics in Biomedical Engineering  | 3   | 0    | 0    | 3        | Senior Standing   |
| BME454     | Rehabilitation Engineering                 | 3   | 0    | 0    | 3        | BME307,<br>BME204 |

## 3. Internship (4 Cr. Hrs.)

| Course No. | Course Title         | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite |
|------------|----------------------|-----|------|------|----------|--------------|
| BME499     | Engineering Training | 4   | 0    | 0    | 4        |              |

## Study Plan

### First Year

#### First Semester:

| Course Code | Course Title                           | Credit Hrs | Lec. Hrs | Lab. Hrs | Tut. Hrs | Prerequisite |
|-------------|--|------------|----------|----------|----------|--------------|
| ORN111      | Orientation                            | 0          | 1        | 0        | 0        | --           |
| MTH121      | Engineering Mathematics I              | 3          | 3        | 0        | 2        | --           |
| PHY121      | Engineering Physics I                  | 4          | 3        | 2        | 2        | --           |
| CHE101      | Chemistry for Engineers                | 3          | 2        | 2        | 0        | --           |
| BME102      | Biology                                | 4          | 3        | 2        | 0        | -            |
| COM111      | Computer Applications                  | 3          | 2        | 2        | 0        | -            |
| BME101      | Introduction to Biomedical Engineering | 1          | 1        | 0        | 2        | --           |
|             |  | 18         | 15       | 8        | 6        |              |

#### Second Semester

| Course Code | Course Title                            | Credit Hrs | Lec. Hrs | Lab. Hrs | Tut. Hrs | Prerequisite       |
|-------------|---|------------|----------|----------|----------|--------------------|
| BME103      | Computer Programming                    | 3          | 3        | 0        | 2        | COM111             |
| MTH122      | Engineering Mathematics II              | 3          | 3        | 0        | 2        | MTH121             |
| PHY122      | Engineering Physics II                  | 4          | 3        | 2        | 2        | --                 |
| BME202      | Biochemistry                            | 3          | 2        | 2        | 0        | CHE101             |
| ARB111      | Communication Skills in Arabic Language | 3          | 3        | 0        | 0        | ---                |
| xxx xxx     | University Elective I                   | 3          | 3        | 0        | 0        | Advisor's Approval |
|             |   | 19         | 17       | 4        | 6        |                    |

#### Summer Semester

| Course Code | Course Title           | Credit Hrs | Lec. Hrs | Lab. Hrs | Tut. Hrs | Prerequisite       |
|-------------|------------------------|------------|----------|----------|----------|--------------------|
| xxx xxx     | University Elective II | 3          | 3        | 0        | 0        | Advisor's Approval |
|             |                        | 3          | 3        | 0        | 0        |                    |

## SECOND YEAR

#### First Semester

| Course Code | Course Title                | Credit Hrs. | Lec. Hrs. | Lab. Hrs. | Tut. Hrs. | Prerequisite     |
|-------------|-----------------------------|-------------|-----------|-----------|-----------|------------------|
| ELE202      | Logic Design                | 4           | 3         | 2         | 2         | COM111           |
| MTH221      | Engineering Mathematics III | 3           | 3         | 0         | 2         | MTH122           |
| BME201      | Circuit Analysis            | 4           | 3         | 2         | 2         | PHY122<br>MTH121 |
| BME203      | Human Anatomy               | 3           | 2         | 2         | 0         | BME102           |
| ISL114      | Islamic Culture             | 3           | 3         | 0         | 1         | --               |
|             |                             | 17          | 14        | 6         | 7         |                  |

**Second Semester**

| Course Code | Course Title                  | Credit Hrs. | Lec. Hrs. | Lab. Hrs. | Tut. Hrs. | Prerequisite |
|-------------|-------------------------------|-------------|-----------|-----------|-----------|--------------|
| STA112      | Statistics                    | 3           | 2         | 2         | 0         | --           |
| MTH222      | Engineering Mathematics IV    | 3           | 3         | 0         | 2         | MTH221       |
| BME205      | Electronic Circuits           | 4           | 3         | 2         | 2         | BME201       |
| BME204      | Human Physiology              | 3           | 2         | 2         | 0         | BME203       |
| ELE301      | Report Writing & Presentation | 3           | 3         | 0         | 2         | BME101       |
|             |                               | 16          | 13        | 6         | 6         |              |

**THIRD YEAR**

**First Semester:**

| Course Code | Course Title                            | Credit Hrs. | Lec. Hrs. | Lab. Hrs. | Tut. Hrs. | Prerequisite     |
|-------------|---|-------------|-----------|-----------|-----------|------------------|
| BME306      | Biomedical Imaging System I             | 3           | 3         | 0         | 2         | BME206           |
| BME304      | Biomaterials Basics and Applications    | 3           | 3         | 0         | 2         | CHE101<br>BME203 |
| BME305      | Electrophysiology                       | 3           | 2         | 2         | 0         | BME206           |
| BME301      | Microcontrollers and Computer Interface | 4           | 3         | 2         | 0         | ELE202           |
| BME302      | Medical Electronics                     | 3           | 2         | 2         | 2         | BME205<br>BME206 |
|             |   | 16          | 13        | 6         | 6         |                  |

INTERNAL TRAINING (2 Weeks in Spring Break)

**Second Semester:**

| Course Code | Course Title              | Credit Hrs. | Lec. Hrs. | Lab. Hrs. | Tut. Hrs. | Prerequisite       |
|-------------|---------------------------|-------------|-----------|-----------|-----------|--------------------|
| BME308      | Bio-mechanics             | 3           | 3         | 0         | 2         | PHY121<br>BME203   |
| BME307      | Medical Instrumentation I | 3           | 3         | 0         | 0         | BME302<br>BME311   |
| BME303      | Signals and Systems       | 3           | 3         | 0         | 2         | MTH221             |
| BME309      | Biomedical Design         | 3           | 2         | 2         | 0         | BME302             |
| xxx xxx     | University Elective III   | 3           | 3         | 0         | 0         | Advisor's Approval |
|             |                           | 15          | 14        | 2         | 4         |                    |

210 400: ENGINEERING TRAINING I (6 Weeks in Summer)

**FOURTH (FINAL) YEAR**

**First Semester**

| Course Code | Course Title | Credit Hrs. | Lec. Hrs. | Lab. Hrs. | Tut. Hrs. | Prerequisite |
|-------------|--------------|-------------|-----------|-----------|-----------|--------------|
|-------------|--------------|-------------|-----------|-----------|-----------|--------------|

|         |                               |    |    |   |   |                    |
|---------|-------------------------------|----|----|---|---|--------------------|
| BME402  | Biomedical Imaging System II  | 4  | 3  | 2 | 0 | BME306             |
| BME401  | Bio-Signal Processing         | 4  | 3  | 2 | 2 | ELE204             |
| BME491  | Biomedical Design Project I   | 3  | 1  | 4 | 0 | BME310             |
| INN311  | Innovation & Entrepreneurship | 3  | 3  | 0 | 0 |                    |
| xxx xxx | BME Elective I                | 3  | 3  | 0 | 0 | Advisor's Approval |
|         |                               | 17 | 13 | 8 | 2 |                    |

### Second Semester

| Course Code | Course Title                               | Credit Hrs. | Lec. Hrs. | Lab. Hrs. | Tut. Hrs. | Prerequisite        |
|-------------|--|-------------|-----------|-----------|-----------|---------------------|
| BME403      | Medical Instrumentation II                 | 4           | 3         | 2         | 0         | BME307              |
| BME492      | Biomedical Design Project II               | 3           | 1         | 4         | 0         | BME491              |
| BME404      | Directed Studies in Biomedical Engineering | 3           | 3         | 0         | 2         | Department approval |
| xxx xxx     | BME Elective II                            | 3           | 3         | 0         | 0         | Advisor's Approval  |
| xxx xxx     | BME Elective III                           | 3           | 3         | 0         | 0         | Advisor's Approval  |
|             |  | 16          | 13        | 6         | 2         |                     |

210 400: ENGINEERING TRAINING II (6 Weeks in summer)

## Course Descriptions

|   |                     |
|---|---------------------|
| <b>BME102 Biology</b>   | <b>(3-2-0,4)</b>    |
| Cell biology, cell membrane, mediated transport system, bulk transport, cytoplasm and nuclear cell biology, cell cycle and cell division, meiosis and gameto-genesis, primary tissues, connective tissues, muscle tissues, nerve tissues.   |                     |
| <b>BME101 Introduction to Biomedical Engineering</b>  | <b>(1: 0: 2, 1)</b> |
| History of biomedical engineering, disciplines of biomedical engineering, role of biomedical engineers in health care sector, challenges and future directions in biomedical engineering, moral and ethical issues in biomedical engineering, visits to hospitals, student seminars Pre-  |                     |
| <b>BME201 Circuit Analysis</b>  | <b>(3: 2: 2,4)</b>  |
| Basic circuit variables, elements and Kirchoff's law, resistive circuit analysis and theorems, network theorems, time domain analysis, AC analysis, frequency characteristics of electric circuits, magnetic coupled circuits and two port elements. Pre-requisite: Engineering Physics II  |                     |
| <b>COM111 Computer Application</b>  | <b>(2: 2: 0,3)</b>  |
| Introduction to information technology, operating systems, information systems, graphics and multimedia, networks and their uses, internet and information retrieval, electronic mail and news, computers and society, ethical issues, computer security issues.  |                     |
| <b>ELE202 Logic Design</b>  | <b>(3: 2: 2,4)</b>  |
| Basic theorems and properties of Boolean Algebra and boolean functions. Simplification of Boolean Functions: Karnaugh Map and Tabulation (Quine-McCluskey) Method. Product of Sums (POS) and Sum of Products (SOP) forms. Combinational logic circuits: design and analysis procedures. Decoders, encoders, multiplexers, demultiplexers, ROM, PLA and PAL. Sequential logic circuits: Flip Flops (RS, D, JK, T), design procedure for clocked sequential circuits, counters. Registers and shift registers. Pre-requisite: Computer Applications |                     |
| <b>BME103 Computer Programming</b>  | <b>(3: 0: 2,3)</b>  |
| Flow charts and problem solving, data types, input output statements, C++ basics, functions, arrays and strings, pointers structures and unions, C++ preprocessor, MATLAB programming. Pre-requisite: Computer Applications   |                     |
| <b>BME203 Human Anatomy</b>   | <b>(2: 2: 0,3)</b>  |
| An Introduction to the human body, the skeletal system, the axial skeleton and ribs, the appendicular skeleton, joints, the muscular system, thorax, abdomen, upper limb, lower limb Pre-requisite: Biology   |                     |
| <b>BME204 Human Physiology</b>  | <b>(2: 2: 0,3)</b>  |
| Cell physiology, nervous system, muscles, cardiovascular systems, respiratory system, digestive system, urinary system, endocrine system. Pre-requisite: Human Anatomy  |                     |
| <b>BME305 Electrophysiology</b>   | <b>(2: 2: 0,3)</b>  |
| Basics of electro-physiology, membrane models, resting potential, action potential, bio electrodes, the electrophysiology of bio potential signals- ECG, EEG, EMG, EOG, ERG etc. Pre-requisite: Human Physiology I  |                     |

**BME205 Electronics Circuits**

(3,2: 2,4)

Semiconductors and PN Junction, bipolar junction transistor (BJT) DC analysis, bipolar Junction Transistor (BJT) AC analysis, junction field effect transistor (JFET), biasing and amplifiers circuits. Pre-requisite: Circuit Analysis

**BME301 Microprocessors and Microcontrollers**

(3: 2: 0,4)

The 8086 architecture and programming modes, assembly programming, the 8086 microprocessor instruction set, memory interface and I/O interface, interrupt processing, microcontrollers and applications. Pre-requisite: Logic Design

**BME302 Medical Electronics**

(2: 2: 2,3)

Amplifiers and filters, bio-potential amplifiers, design of power system in medical electronics, oscillator circuits, Analog to digital converter (ADC), digital to analog converter (DAC) and data acquisition circuits. Pre-requisite: Electronic Circuits, Human Physiology I

**BME308 Biomechanics**

(3: 0: 2,3)

Basics of anatomy and mechanics, applications involving forces and moments, statics and dynamics, Applications to human joints, Properties of deformable bodies, kinematics and kinetics, applications from real-life problems, contemporary issues: Motion analysis. Pre-requisite: Engineering Physics I, Human Anatomy

**BME202 Biochemistry**

(2: 2: 0,3)

Structural organization and function of the major components of living cells, metabolism and energy production, and biosynthesis of small molecular weight compounds and macromolecules. Pre-requisite: Chemistry for Engineers

**BME303 Signals and Systems**

(3: 0: 2,3)

Continuous- and discrete-time signals and systems. Basic system properties. Linear Time-Invariant (LTI) systems. Properties of LTI systems. Convolution sum. Fourier series of periodic signals. Amplitude, phase, and power spectra. Fourier transform of non-periodic signals. Laplace transform, analysis of continuous-time LTI systems using Laplace transform. Z-Transform. Pre-requisite: Engineering Mathematics III

**BME307 Biomedical Instrumentation I**

(3: 0: 0,3)

Introduction to biomedical instrumentation, biomedical sensors and transducers, basic concepts of measurements and instrumentation, bio potential electrodes, clinical laboratory instrumentation. Pre-requisite: Medical Electronics, Human Physiology II

**BME304 Biomaterials**

(3: 0: 2,3)

Introduction to biomaterials, structure and properties of materials, crystalline and non-crystalline materials, properties of biologic materials, biocompatibility, Metallic implant materials, ceramic implant materials, polymeric implant materials, composite implant materials. Pre-requisite: Chemistry for Engineers, Human Anatomy

**BME401 Bio-signal Processing**

(3: 2: 2,4)

Nature of biomedical signals, frequency response, DFT, FFT, DCT, design of digital filters, nonlinear models of biomedical signals, DSP applications of bio-signals. Pre-requisite: Signals and Systems, Human Physiology II



**BME403 Medical Instrumentation II**

**(3: 2: 0,4)**

Design procedure of medical equipment, bio-potential recording systems, blood pressure, flow and volume instrumentation systems, blood gas analyzers, pace-makers and defibrillators, electro-surgical, physiotherapy instruments, respiratory systems instruments Pre-requisite: Medical Instrumentation I

**BME309 Biomedical Design**

**(2: 2: 2,3)**

Amplifiers and filters, bio-potential amplifiers, design of power supplies, oscillator circuits, and biomedical data acquisition circuits, mini projects related to biomedical engineering applications. Pre-requisite: Medical Electronics

**BME491 Biomedical Design Project I**

**(1: 4: 0,3)**

Teams of three to four students shall design, implement, test and demonstrate their graduation project in two semesters. Biomedical design Project I is to be completed in one semester and includes a literature survey, action plan, design of complete project taking into account realistic constraints, computer simulation (if applicable). Pre-requisite: Completion of 100 Credit Hours

**BME492 Biomedical Design Project II**

**(1: 4: 0,3)**

It is continuation of biomedical design project I in the second semester. Students will complete the implementation and testing of remaining part of their design. They will integrate the complete project, test it, and prepare a PCB. Report writing, oral presentation, poster presentation, and project demonstration. Pre-requisite: Biomedical Design Project I

**BME306 Biomedical Imaging System I**

**(3: 0: 2,3)**

Radioactivity, X-ray physics and imaging techniques, Computed tomography (CT imaging), introduction to SPECT and PET imaging techniques, biological effects of radiation and safe handling. Pre-requisite: Engineering Physics II, Human Anatomy

**BME402 Biomedical Imaging System II**

**(3: 2: 0,4)**

Medical ultrasound imaging techniques, modes of operation, magnetic resonance imaging techniques (MRI), principles of operation, components of MRI machines, computer based reconstruction, biological effects of magnetic fields, static magnetic fields, radio frequency fields, gradient magnetic fields. Pre-requisite: Medical Imaging System I

**218 458 Biomedical Safety**

**(2: 0: 2,2)**

Introduction to the types of hazards in hospitals and clinics, electrical hazards safety requirements of power distribution in hospitals, biological, safety codes and standards for biomedical equipments and facilities, test instruments for checking safety parameters of medical instruments. Pre-requisite: Medical Instrumentation II

**BME499 Engineering Training: 4Cr. Hrs**

Pre-requisite: Approval of Academic Advisor

**BME452 Physiological Modeling and Control**

**(2: 2: 0,3)**

Physiological modeling, static analysis of physiological systems, time domain analysis, frequency domain analysis, stability analysis. Pre-requisite: Human Physiology II



**218 518 Tissue Engineering**

**(3: 0: 0, 3)**

Tissue engineering principles, cell, Intracellular signaling, control of cell growth, scaffolds, cell traction and migration, tissue regeneration and replacement, artificial organs, orthopedic tissue engineering, bioreactors and bio expansion. Pre-requisite: Biomaterials

**BME451 Artificial Organs**

**(3: 0: 0, 3)**

Major types of artificial organs, artificial blood. artificial skin and dermal equivalents. artificial pancreas. Prosthetics and orthotics; artificial limbs, major joint implants, dental implants. Pre-requisite: Human Physiology II

**BME455 Bio-fluid Mechanics**

**(3: 0: 0, 3)**

Fundamentals of fluid mechanics. Flow properties of blood, applications describing flow of air in the airways and flow of blood in large arteries. Pre-requisite: Biomechanics

**BME453 IT and Computer Networks in Health-care**

**(2: 2: 0,3)**

Types and classification of computer networks, networks topology and wiring type, OSI layering model, design process of computer network, hospital information system, and modern application of computer networks in health-care. Pre-requisite: Microprocessors and Computer Interfacing

**BME454 Rehabilitation Engineering**

**(3: 0: 0, 3)**

Introduction to rehabilitation engineering, disability, rehabilitation engineering technology, assistive devices, physiological and biomedical measurement techniques, disability assessment, application of rehabilitation engineering, prosthetics and orthotics. Pre-requisite: Medical Instrumentation I

**BME456 Artificial Neural Networks and Fuzzy Logic**

**(3: 0: 0,3)**

Fuzzy logic fundamentals, fuzzy sets, types of membership functions, linguistic variables, creation of fuzzy logic rule base, fuzzy logic operations, neural network fundamentals, neural type learning process, single layer perception, artificial neural networks architectures, training algorithms, genetic algorithms and evolution computing, neuro-fuzzy technology, fuzzy control systems and applications related to biomedical engineering. Pre-requisite: Engineering Mathematics I

**BME457 Biomedical Image Processing**

**(2: 2: 0,3)**

Digital image fundamentals, image transforms image enhancement, image restoration, image segmentation, representation and description, recognition and interpretation, image compression. Pre-requisite: Signals and Systems

## DEPARTMENT OF CIVIL ENGINEERING

### Mission

The mission of the civil engineering program is to produce graduates equipped with the theoretical knowledge and practical skills necessary for pursuing a successful professional career in civil engineering and infrastructure field. The program also prepares its students for graduate studies.

### Program Educational Objectives

Civil Engineering graduates are:

- Successful in applying theoretical knowledge and practical skills in the field of civil engineering.
- Gainfully employed in the construction industry and infrastructure.
- Successful in postgraduate studies.

## Bachelor of Science in Civil Engineering

### Program Learning Outcomes

- a. An ability to apply knowledge of mathematics, science, and engineering
- b. An ability to design and conduct experiments, as well as to analyze and interpret data
- c. An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
- d. An ability to function on multidisciplinary teams
- e. An ability to identify, formulate, and solve engineering problems
- f. An understanding of professional and ethical responsibility
- g. An ability to communicate effectively
- h. The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
- i. A recognition of the need for, and an ability to engage in life-long learning
- j. A knowledge of contemporary issues
- k. An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.
- l. Broad knowledge in the field of Civil Engineering.

## Mapping of Civil Engineering Program Learning Outcomes with Level–7 of the UAE’s Qualifications Framework.

| Descriptor Codes                   | QF Emirates Descriptor Statements (Level 7)  | Related Program Outcome Codes |
|------------------------------------|--|-------------------------------|
| <b>Knowledge</b>                   |  |                               |
| K1                                 | Specialized factual and theoretical knowledge and an understanding of the boundaries in a field of work or discipline, encompassing a broad and coherent body of knowledge and concepts, with substantive depth in the underlying principles and theoretical concepts. | (a)                           |
| K2                                 | an understanding of allied knowledge and theories in related fields of work or disciplines and in the case of professional disciplines including related regulations, standards, codes, conventions  | (h), (l)                      |
| K3                                 | understanding of critical approach to the creation and compilation of a systematic and coherent body of knowledge and concepts gained from a range of sources  | (l)                           |
| K4                                 | a comprehensive understanding of critical analysis, research systems and methods and evaluative problem-solving techniques   | (e)                           |
| K5                                 | familiarity with sources of current and new research and knowledge with integration of concepts from outside fields  | (j)                           |
| <b>Skills</b>                      |  |                               |
| S1                                 | technical, creative and analytical skills appropriate to solving specialized problems using evidentiary and procedural based processes in predictable and new contexts that include devising and sustaining arguments associated with a field of work or discipline    | (c)                           |
| S2                                 | evaluating, selecting and applying appropriate methods, procedures or techniques in processes of investigation towards identified solutions  | (b)                           |
| S3                                 | evaluating and implementing appropriate research tools and strategies associated with the field of work or discipline  | (k)                           |
| S4                                 | highly developed advanced communication and information technology skills to present, explain and/or critique complex and unpredictable matters  | (g)                           |
| <b>Aspects of Competence</b>       |  |                               |
| <b>Autonomy and responsibility</b> |  |                               |

|                         |   |          |
|-------------------------|---|----------|
| CA1                     | can take responsibility for developing innovative and advanced approaches to evaluating and managing complex and unpredictable work procedures and processes, resources or learning   | (i)      |
| CA2                     | can manage technical, supervisory or design processes in unpredictable, unfamiliar and varying contexts   | (i)      |
| CA3                     | can work creatively and/or effectively as an individual, in team leadership, managing contexts, across technical or professional activities   | (d)      |
| CA4                     | can express an internalized, personal view, and accept responsibility to society at large and to socio-cultural norms and relationships   | (d), (f) |
| <b>Role in context</b>  |   |          |
| CB1                     | can function with full autonomy in technical and supervisory contexts and adopt para-professional roles with little guidance  | (d)      |
| CB2                     | can take responsibility for the setting and achievement of group or individual outcomes and for the management and supervision of the work of others or self in the case of a specialization in field of work or discipline | (d)      |
| CB3                     | can participate in peer relationships with qualified practitioners and lead multiple, complex groups  | (d)      |
| CB4                     | can take responsibility for managing the professional development and direct mentoring of individuals and groups  | (d)      |
| <b>Self-development</b> |   |          |
| CC1                     | can self-evaluate and take responsibility for contributing to professional practice, and undertake regular professional development and/ or further learning can manage learning  | (i)      |
| CC2                     | can manage learning tasks independently and professionally, in complex and sometimes unfamiliar learning contexts   | (i)      |
| CC3                     | can contribute to and observe ethical standard.   | (f)      |

## Admission Requirements

Admission to the civil engineering program requires a UAE secondary school certificate (science major) or its equivalent with a minimum grade of 70 percent. For more information please refer to the university admissions policy.

## Career Opportunities

Graduates will be qualified to work as:

- structural engineers
- transportation, traffic and highway engineers
- geotechnical engineers
- environmental and water engineers

The BSCE program graduates can work in different consulting engineering firms, governmental agencies and construction companies. Furthermore, BSCE graduates may pursue their higher education to enhance their knowledge and expertise.

## Graduation Requirements

The Bachelor of Science Degree is awarded upon the fulfillment of the following:

1. Successful completion of all courses in the curriculum
2. Successful completion of the equivalent of four months of engineering training
3. Cumulative Grade Point Average CGPA of at least 2.

## Degree Requirement

The B.Sc. degree in civil engineering requires the completion of 141Cr. Hrs. classified as follows:

| Course Type                                  | Credit Hours |
|--|--------------|
| 1. University General Education Requirements |              |
| (a) University Required Courses              | 15           |
| (b) University Elective Courses              | 9            |
| 2. College Required Courses                  | 29           |
| 3. Program Required Courses                  | 72           |
| 4. Program Elective Courses                  | 12           |
| 6. Engineering Training                      | 4            |
| <b>Total Credit Hours</b>                    | <b>141</b>   |

**University General Education Requirements:**
**University Required Courses (15 Cr.Hrs.)**

| No. | Course ID | Course Name                               | Credit Hours (Cr. Hr.) | Lec-Lab-Tut Hours | Pre-requisites |
|-----|-----------|---|------------------------|-------------------|----------------|
| 1   | ARB111    | Comm. Skills in Arabic Lang.              | 3                      | 3-0-0             | -----          |
| 2   | ISL114    | Islamic Culture                           | 3                      | 3-0-1             | -----          |
| 3   | INN311    | Innovation and Entrepreneurship (English) | 3                      | 3-0-0             | -----          |
| 4   | COM111    | IT Fundamentals                           | 3                      | 2-2-0             | -----          |
| 5   | STA112    | Statistics                                | 3                      | 2-2-0             | -----          |

**University Elective Courses ( 9 Cr.Hrs.)**

The student will take three of the following University Electives as approved by the academic advisor.

| Course No. | Course Title                         | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite |
|------------|--------------------------------------|-----|------|------|----------|--------------|
| ISL113     | The Miraculousness of the Holy Koran | 3   | 0    | 0    | 3        | -            |
| RES211     | Research Methodology                 | 3   | 0    | 0    | 3        | -            |
| ACR211     | Principles of Architecture & Art     | 3   | 0    | 0    | 3        | -            |
| DES211     | Principles of Interior Design        | 3   | 0    | 0    | 3        | -            |
| SOC211     | Modern Technology and Society        | 3   | 0    | 0    | 3        | -            |
| INT211     | Internet Concepts                    | 3   | 0    | 0    | 3        | -            |
| INF212     | Introduction to Information Systems  | 3   | 0    | 0    | 3        | -            |
| ECO211     | Economic Concepts                    | 3   | 0    | 0    | 3        | -            |
| ENT211     | Entrepreneurship Development         | 3   | 0    | 0    | 3        | -            |
| ISH111     | History of science in Islam          | 3   | 0    | 0    | 3        | -            |
| PIO211     | Scientific pioneering                | 3   | 0    | 0    | 3        | -            |
| PSY111     | General psychology                   | 3   | 0    | 0    | 3        | -            |
| MTH111     | Principle of mathematics             | 3   | 0    | 0    | 3        | -            |
| ARB113     | The Art of Expression and writing    | 3   | 0    | 0    | 3        | -            |
| EMS111     | Emirates Society                     | 3   | 0    | 0    | 3        | -            |

|        |   |   |   |   |   |   |
|--------|---|---|---|---|---|---|
| EDT211 | Education Technology                    | 3 | 0 | 0 | 3 | - |
| CHM111 | General chemistry                       | 3 | 0 | 0 | 3 | - |
| NUT111 | Fundamental of Human Nutrition          | 3 | 0 | 0 | 3 | - |
| AID111 | First Aid                               | 3 | 0 | 0 | 3 | - |
| GIS211 | Applications of Remote sensing          | 3 | 0 | 0 | 3 | - |
| ETH111 | Principles of Ethics                    | 3 | 0 | 0 | 3 | - |
| BIO111 | General Biology                         | 3 | 0 | 0 | 3 | - |
| ORH211 | Oral Health                             | 3 | 0 | 0 | 3 | - |
| EPI111 | General principles of Epidemiology      | 3 | 0 | 0 | 3 | - |
| CPR111 | CPR-Cardio Pulmonary Resuscitation      | 3 | 0 | 0 | 3 | - |
| ENG111 | Communication Skills                    | 3 | 0 | 0 | 3 | - |
| SOC111 | Introduction to Communication Sociology | 3 | 0 | 0 | 3 | - |
| INF211 | Information Society                     | 3 | 0 | 0 | 3 | - |
| LAW211 | Legal Culture                           | 3 | 0 | 0 | 3 | - |
| ENV111 | Environmental Science                   | 3 | 0 | 0 | 3 | - |

#### College Required Courses (29 Cr. Hrs.)

|   |        | College Required Courses        | 29 |       |        |
|---|--------|---------------------------------|----|-------|--------|
| 1 | MTH121 | Engineering Mathematics I       | 3  | 3-0-2 | -----  |
| 2 | PHY121 | Engineering Physics I           | 4  | 3-2-2 | -----  |
| 3 | CHE101 | Chemistry for Engineers         | 3  | 2-2-2 | -----  |
| 4 | MTH122 | Engineering Mathematics II      | 3  | 3-0-2 | MTH121 |
| 5 | PHY122 | Engineering Physics II          | 4  | 3-2-2 | PHY121 |
| 6 | MTH221 | Engineering Mathematics III     | 3  | 3-0-2 | MTH122 |
| 7 | MTH222 | Engineering Mathematics IV      | 3  | 3-0-2 | MTH221 |
| 8 | MTH321 | Engineering Mathematics V       | 3  | 3-0-2 | MTH222 |
| 9 | ELE301 | Report Writing and Presentation | 3  | 3-0-1 | -----  |

#### Internship (4 Cr. Hrs.)

| Course No. | Course Title         | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite |
|------------|----------------------|-----|------|------|----------|--------------|
| CIE499     | Engineering Training | 4   | 0    | 0    | 4        |              |



## Program Required Courses (72 Cr. Hrs.)

|    |         | Program (Core)  | 72 |       |  |
|----|---------|---|----|-------|--|
| 1  | CIE101  | Introduction to Civil Engineering                                   | 1  | 1-0-1 | -----  |
| 2  | CIE 112 | Civil Engineering Drawing*  | 3  | 1-4-0 | -----  |
| 3  | CIE 201 | Programming for Engineers   | 3  | 2-2-1 | COM111   |
| 4  | CIE 211 | Statics   | 3  | 3-0-2 | PHY121   |
| 5  | CIE 212 | Mechanics of Materials  | 3  | 3-0-2 | CIE 211, MTH122  |
| 6  | CIE 213 | CAD for Civil Engineering*  | 3  | 1-4-0 | CIE 112  |
| 7  | CIE 222 | Civil Engineering Materials   | 4  | 3-2-0 | CHE101, CIE 212  |
| 8  | CIE 241 | Surveying I   | 3  | 2-2-0 | MTH121   |
| 9  | CIE 242 | Transportation Engineering  | 3  | 3-0-0 | CIE 241  |
| 10 | CIE 331 | Structural Analysis I   | 3  | 3-0-0 | CIE 212, MTH222  |
| 11 | CIE 332 | Structural Analysis II  | 3  | 3-0-0 | CIE 331  |
| 12 | CIE 334 | Design of Reinforced Concrete Structures                            | 3  | 3-0-2 | CIE 331, CIE 222   |
| 13 | CIE 336 | Computational Methods and Software Systems for Design of Structures | 3  | 2-2-0 | CIE 201, CIE 331   |
| 14 | CIE 342 | Highway Design  | 3  | 3-0-0 | CIE 242, CIE 222   |
| 15 | CIE 351 | Fluid Mechanics   | 4  | 3-2-0 | CIE 211  |
| 16 | CIE 352 | Environmental Engineering   | 3  | 3-0-0 | ENV111, CHE101   |
| 17 | CIE 361 | Geotechnical Engineering I  | 3  | 2-2-0 | CIE 212, CIE 222   |
| 18 | CIE 371 | Engineering Economics   | 3  | 3-0-0 | MTH122, STA112   |
| 19 | CIE 431 | Design of steel structures  | 3  | 3-0-0 | CIE 331  |
| 20 | CIE 451 | Hydrology & Water Resources   | 3  | 3-0-0 | CIE 351  |
| 21 | CIE 471 | Specification and Quantity Surveying                                | 3  | 3-0-0 | CIE 213, CIE 334   |
| 22 | CIE 473 | Construction Management   | 3  | 3-0-0 | CIE 334<br>Co: CIE 471   |
| 23 | CIE 491 | Graduation Project I  | 3  |       | Completion 90<br>credit hours CIE<br>334, CIE 342, CIE<br>371, CIE 352, CIE<br>361 |
| 24 | CIE 492 | Graduation Project II   | 3  |       | CIE 491  |

c) Program Electives Courses (12 Cr. Hrs.) The student will take three of the following Specialization Electives as approved by the academic advisor.

List of specialization electives (to select three courses – 9 Cr. Hr.)

| No. | Course ID | Course Name                             | Credit Hours (Cr. Hr.) | Lec-Lab-Tut Hours | Pre-requisites     |
|-----|-----------|---|------------------------|-------------------|--------------------|
| 1   | CIE 481   | Advanced Structural Analysis And Design | 3                      | 3-0-0             | CIE 332,           |
| 2   | CIE 482   | Pre-Stressed Concrete                   | 3                      | 3-0-0             | CIE 334, MTH222    |
| 3   | CIE 483   | Traffic Engineering                     | 3                      | 3-0-0             | CIE 242            |
| 4   | CIE 484   | Pavement Materials and Design           | 3                      | 3-0-0             | CIE 222<br>CIE 242 |
| 5   | CIE 485   | Surveying II                            | 3                      | 3-0-0             | CIE 241            |
| 6   | CIE 486   | Geotechnical Engineering II             | 3                      | 3-0-0             | CIE 361            |
| 7   | CIE 487   | Solid and Hazardous Waste Management    | 3                      | 3-0-0             | CIE 352            |

*Free elective (to select one course – 3 Cr. Hr.):* In addition to the specialization electives 1 – 7 listed above, students will have the opportunity to select a *free elective* from a different specialization such as project management and marketing management. The student's selection will require advisor's approval in addition to the requirements of course pre-requisites.

## Study Plan.

| No.                                | Course ID | Course Name                       | Credit Hours (Cr. Hr.) | Lec-Lab-Tut Hours | Pre-requisites  |
|------------------------------------|-----------|-----------------------------------|------------------------|-------------------|-----------------|
| <b>First Year First Semester</b>   |           |                                   | <b>17</b>              |                   |                 |
| 1                                  | MTH121    | Engineering Mathematics I         | 3                      | 3-0-2             | -----           |
| 2                                  | PHY121    | Engineering Physics I             | 4                      | 3-2-2             | -----           |
| 3                                  | CHE101    | Chemistry for Engineers           | 3                      | 2-2-2             | -----           |
| 4                                  | ARB111    | Comm. Skills in Arabic Lang.      | 3                      | 3-0-0             | -----           |
| 5                                  | CIE101    | Introduction to Civil Engineering | 1                      | 1-0-1             | -----           |
| 6                                  | ISL114    | Islamic Culture                   | 3                      | 3-0-1             | -----           |
| <b>First Year Second Semester</b>  |           |                                   | <b>19</b>              |                   |                 |
| 1                                  | MTH122    | Engineering Mathematics II        | 3                      | 3-0-2             | MTH121          |
| 2                                  | PHY122    | Engineering Physics II            | 4                      | 3-2-2             | PHY121          |
| 3                                  | CIE 102   | Report Writing and Presentation   | 3                      | 3-0-1             | -----           |
| 4                                  | COM111    | IT Fundamentals                   | 3                      | 2-2-0             | -----           |
| 5                                  | CIE 112   | Civil Engineering Drawing*        | 3                      | 1-4-0             | -----           |
| 6                                  | ENV111    | Environmental Science             | 3                      | 3-0-0             | -----           |
| <b>Second Year First Semester</b>  |           |                                   | <b>18</b>              |                   |                 |
| 1                                  | MTH221    | Engineering Mathematics III       | 3                      | 3-0-2             | MTH122          |
| 2                                  | STA112    | Statistics                        | 3                      | 2-2-0             | -----           |
| 3                                  | CIE 201   | Programming for Engineers         | 3                      | 2-2-1             | COM111          |
| 4                                  | CIE 211   | Statics                           | 3                      | 3-0-2             | PHY121          |
| 5                                  | CIE 213   | CAD for Civil Engineering*        | 3                      | 1-4-0             | CIE 112         |
| 6                                  | CIE 241   | Surveying I                       | 3                      | 2-2-0             | MTH121          |
| <b>Second Year Second Semester</b> |           |                                   | <b>19</b>              |                   |                 |
| 1                                  | MTH222    | Engineering Mathematics IV        | 3                      | 3-0-2             | MTH221          |
| 2                                  | CIE 212   | Mechanics of Materials            | 3                      | 3-0-2             | CIE 211, MTH122 |

|   |         |  |           |                           |  |
|---|---------|--|-----------|---------------------------|--|
| 3   | CIE 222 | Civil Engineering Materials  | 4         | 3-2-0                     | CHE101<br>Co CIE 212                           |
| 4   | CIE 242 | Transportation Engineering   | 3         | 3-0-0                     | CIE 241  |
| 5   | INN311  | Innovation and Entrepreneurship<br>(English)                           | 3         | 3-0-0                     | -----  |
| 6   | -----   | University Elective – I  | 3         | 3-0-0                     | -----  |
| <b>Third Year First Semester</b>                |         |  | <b>16</b> |                           |  |
| 1   | MTH321  | Engineering Mathematics V  | 3         | 3-0-2                     | MTH222   |
| 2   | CIE 331 | Structural Analysis I  | 3         | 3-0-0                     | CIE 212<br>MTH222                              |
| 3   | CIE 351 | Fluid Mechanics  | 4         | 3-2-0                     | CIE 211  |
| 4   | CIE 361 | Geotechnical Engineering I   | 3         | 2-2-0                     | CIE 212, CIE 222                               |
| 5   | CIE 371 | Engineering Economics  | 3         | 3-0-0                     | MTH122, STA112                                 |
| <u>2104000: ENGINEERING TRAINING (Internal)</u> |         |  |           | (2 Weeks in Spring Break) |  |
| <b>Third Year Second Semester</b>               |         |  | <b>18</b> |                           |  |
| 1   | CIE 332 | Structural Analysis II   | 3         | 3-0-0                     | CIE 331  |
| 2   | CIE 334 | Design of Reinforced Concrete<br>Structures                            | 3         | 3-0-2                     | CIE 331, CIE 222                               |
| 3   | CIE 336 | Computational Methods and Software<br>Systems for Design of Structures | 3         | 2-2-0                     | CIE 331<br>CIE 201                             |
| 4   | CIE 342 | Highway Design   | 3         | 3-0-0                     | CIE 242, CIE 222                               |
| 5   | CIE 352 | Environmental Engineering  | 3         | 3-0-0                     | ENV111, CHE101                                 |
| 6   | CIE 354 | Hydrology & Water Resources  | 3         | 3-0-0                     | CIE 351  |
| <b>Fourth Year First Semester</b>               |         |  | <b>18</b> |                           |  |
| 1   | CIE 491 | Graduation Project I   | 3         |                           | CIE 334, CIE 342, CIE<br>371, CIE 352, CIE 361 |
| 2   | CIE 431 | Design of steel structures   | 3         | 3-0-0                     | CIE 331  |
| 3   | CIE 471 | Specification and Quantity Surveying                                   | 3         | 3-0-0                     | CIE 213, CIE 334                               |
| 4   | CIE 473 | Construction Management  | 3         | 3-0-0                     | CIE 334<br>Co CIE 471                          |

|                                    |         |                             |           |       |         |
|------------------------------------|---------|-----------------------------|-----------|-------|---------|
| 5                                  | -----   | Specialization Elective I   | 3         | 3-0-0 | -----   |
| 6                                  | -----   | University Elective – II    | 3         | 3-0-0 | -----   |
| <b>Fourth Year Second Semester</b> |         |                             |           |       |         |
|                                    |         |                             | <b>12</b> |       |         |
| 1                                  | CIE 492 | Graduation Project II       | 3         |       | CIE 491 |
| 2                                  | -----   | Specialization Elective II  | 3         | 3-0-0 | -----   |
| 3                                  | -----   | Specialization Elective III | 3         | 3-0-0 | -----   |
| 4                                  | -----   | Non-Specialization Elective | 3         | 3-0-0 | -----   |
| <b>Fourth Year Summer Semester</b> |         |                             |           |       |         |
|                                    |         |                             | <b>4</b>  |       |         |
|                                    | CIE 499 | Engineering Training        | 4         | ----- |         |

**141 Hours**

\* Studio is required

## Course Descriptions

|  |  |                   |
|--|--|-------------------|
| <b>CIE101</b>  | <b>Introduction to Civil Engineering</b> | <b>(1-0-1, 1)</b> |
| <p>This course introduces civil engineering students to the broad field of Civil Engineering such as environmental, geotechnical, hydrology, water and waste water, structural design, high-rise buildings, construction engineering, and highways fields and assists them in determining the areas of emphasis they might want to follow for their bachelor's degree. Introduction to Engineering Design (Design Process and Working in Teams). Technical Communication Skills (Written and Oral). Introduction to Engineering Ethics and Professionalism. Demonstrate knowledge of career opportunities in the field of civil engineering. Introduction to management and leadership skills and public policy.</p> <p><i>Prerequisites: None</i></p> |  |                   |
| <b>CIE 102</b>   | <b>Report Writing and Presentation</b>   | <b>(3-0-1, 3)</b> |
| <p>Introduction, abstraction, audience and purpose, report writing and audience, ethical considerations in report writing, technical definitions, description of a mechanism, description of process, technical proposals, progress reports, feasibility and recommendation reports, laboratory and project reports, instructions and manuals, research reports, questionnaires for survey, abstract and summaries, grammar, style and punctuation, documentation, visuals, presentations, business communications, resume and cover letters.</p> <p><i>Prerequisites: None</i></p>  |  |                   |
| <b>CIE 211</b>   | <b>Statics</b>                           | <b>(3-0-2, 3)</b> |
| <p>The course (Statics) introduces knowledge and understanding of vector resultant of forces in two and three dimensions; type of structural supports; equilibrium of particles and rigid bodies; analysis of internal forces in beams and trusses; static and kinetic friction; centroids of lines, areas and volumes; moments of inertia.</p> <p><i>Prerequisites: PHY121</i></p>  |  |                   |
| <b>CIE 112</b>   | <b>Civil Engineering Drawing</b>         | <b>(1-4-0, 3)</b> |
| <p>Introduction to engineering drawing, Scales, Dimensioning, Types of lines, Construction geometry, Theory of Orthographic Projection, Pictorial drawing, Sections and Introduction to computer Aided Drafting (AutoCAD), computer graphics documentation for civil engineering- and construction-related professions, which involve introduction to graphic standards using hand drawn sketches as well as computer aided drawings that focus on graphical communications.</p> <p><i>Prerequisites: None</i></p>   |  |                   |
| <b>CIE 213</b>   | <b>CAD for Civil Engineering</b>         | <b>(1-4-0, 3)</b> |
| <p>The course is an interdisciplinary course for all Civil Engineering specializations. It provides freshmen students with the basic computer skills that help them to master the computer use for the fields of professional practice and studio projects, 2D and 3D drawing, presentation and visual communication. The course also lays the foundation for other advanced departmental computer course applications. This course includes geometric construction; line convention; elevations; perspective projections; dimensioning, and sectional views utilized in the preparation of drawings in civil and infrastructure engineering.</p> <p><i>Prerequisites: CIE 112</i></p>   |  |                   |

**CIE 201**

**Programming for Engineers**

**(2-2-1, 3)**

The course introduces the basic concepts of computer programming with C++ and involves practice at basic to intermediate level utilizing fundamentals and main features and procedures such as problem solving and flow charts, data types, input, output and control statements. Use of functions, arrays and strings is also practiced with engineering problem solving assignments.

*Prerequisites: COM111*

**CIE 212**

**Mechanics of Materials**

**(3-0-2, 3)**

Explanation of the response of engineering materials in terms of deformations when subjected to forces. Understanding the meaning of stress and strain terminologies. Formulation of relations between stresses, deformation, strains and applied forces. Using statics to analyse determinate beams. Understanding the internal forces developed in beams.

*Prerequisites: CIE 211, MTH122*

**CIE 222**

**Civil Engineering Materials**

**(3-2-0, 4)**

To familiarize the students with different types and properties of various materials used in the civil engineering construction projects (such as cement, aggregate, asphalt cement).

Familiarize the students with concrete and its constituents (cement, aggregates, water), cement manufacturing, cement hydration (physical and chemical properties), fresh and hardened concrete properties including tests for classifying fresh concrete (e.g. consistence), destructive tests for hardened concrete (e.g. compressive strength, tensile strength, etc.) Fresh and hardened concrete deformations, concrete durability, concrete curing, and concrete admixtures.

Familiarize the students with asphalt cement and its types and characteristics, perform different tests on asphalt cement such as penetration, ductility, viscosity and specific gravity.

Familiarize the students with aggregate types and characteristics and perform some tests on it to obtain its properties such as gradation and physical properties. Several types of other construction materials such as wood, steel and glass will be introduced.

*Prerequisites: CHE101, co CIE 212*

**CIE 241**

**Surveying I**

**(2-2-0, 3)**

Errors in measurements. Horizontal and vertical distance measurements, leveling / topographical and terrain elevations changes, topographic surveys, using topographical surveys to calculate areas and volumes; Setting out horizontal and vertical control benchmarks and use of surveying equipment such as Levels and Theodolites.

*Prerequisites: MTH121*

**CIE 242**

**Transportation Engineering**

**(3-0-0, 3)**

Transportation as a system, human and vehicle characteristics, traffic flow characteristics, highway capacity analysis, highway control devices, public transportation, urban transportation, planning, parking facilities, transportation safety, intelligent transportation system and computer applications, introduction to railway, waterway, airport.

*Prerequisites: CIE 241*

**CIE 331**

**Structural Analysis I**

**(3-0-0, 3)**

Internal axial forces in the members of statically determinate trusses, deflections in beams and trusses, internal forces in three hinged arches, influence lines of statically determinate structures.

*Prerequisites: CIE 212, MTH222*



**CIE 332**

**Structural Analysis II**

**(3-0-0, 3)**

**Course Description:**

Determinacy and indeterminacy of structures. Stability of structural systems. Methods for solving indeterminate structures. Shear force, bending moment and elastic lines diagrams. Use of models to analyze structures.

*Prerequisites: CIE 331*

**CIE 334**

**Design of Reinforced Concrete Structures**

**(3-0-2, 3)**

Introduction to building in “reinforced concrete”. Introduction to the behavior of reinforced concrete sections, reinforced concrete members & reinforced concrete frames. Introduction to international codes of practice for the design of reinforced concrete buildings. A computer application on structural analysis and reinforced concrete design of various structural elements. A suitable software will be chosen for this purpose (such as STAAD PRO or ETABS).

*Prerequisites: CIE 331, CIE 222*

**CIE 336 Computational Methods and Software Systems for Design of Structures (1-4-0, 3)**

This course aims at introducing topics based on the recent developments and advances in structural and RCC design engineering. It includes topics related to the analysis and design of structural systems through the use of computers. Use of computer software such as SAP, ETABS and STADPRO.

*Prerequisites: CIE 201, CIE 331*

**CIE 342**

**Highway Design**

**(3-0-0, 3)**

Introduction into different types of highways, principles of route location. Horizontal alignment; design and setting out (circular curve element, setting out of circular and transition curves, superelevation. Sight distance; stopping and passing sight distance. Vertical alignment; design and setting out (properties of vertical curves). Coordination of horizontal and vertical curves. Capacity of multilane highways. Geometric design of intersection and interchanges. Highway materials, mixtures and pavement design.

*Prerequisites: CIE 242, CIE 222*

**CIE 351**

**Fluid Mechanics**

**(3-2-0, 4)**

Fundamental concepts and properties of fluids; fluid statics, units and measurement of pressure; forces on planar and curved surfaces, and buoyancy; kinematics of fluid motion; conservation equations with applications; continuity, momentum and energy equations, and Bernoulli's equation; velocity and flow rate measurements; dimensional analysis and modeling; frictional losses in pipes and introduction to fluid dynamic forces on immersed bodies.

*Prerequisites: CIE 211*

**CIE 352**

**Environmental Engineering**

**(3-0-0, 3)**

Sources of pollutants and their effects on environment. Collecting treating and disposing off the treated waste. Fundamentals of water supply engineering for provision of a potable water supply. Design for water treatment unit, operation and design of water distribution network and plumbing system. Air pollution control, noise pollution measurement and control, and environmental impact assessment.

*Prerequisites: ENV111, CHE101*



|                |                                      |                   |
|----------------|--------------------------------------|-------------------|
| <b>CIE 354</b> | <b>Hydrology and Water Resources</b> | <b>(3-0-0, 3)</b> |
|----------------|--------------------------------------|-------------------|

Introduction to the hydrological cycle and its various components. Relevant hydrological information and methods of measurements of hydrological variables. Hydrological assessment and design.

Groundwater flow, geological structure, groundwater contamination, regional circulation, aquifers, recharge, and flow nets.

*Prerequisites:* CIE 351

|                |                                   |                   |
|----------------|-----------------------------------|-------------------|
| <b>CIE 361</b> | <b>Geotechnical Engineering I</b> | <b>(2-2-0, 3)</b> |
|----------------|-----------------------------------|-------------------|

Soil formation, composition types, physical properties of soils, soil classification and testing. Flow of water through soil, soil analysis and site investigation to determine the properties of soils and their bearing capacity; distribution of stresses in soils and the potential for differential settlement; soil classification factors to be considered in foundation design, lateral earth pressure and retaining walls, water flow in soils, soil compaction, consolidation and consolidation settlement, shear strength of soils, and slope stability.

*Prerequisites:* CIE 222, CIE 212

|                |                              |                   |
|----------------|------------------------------|-------------------|
| <b>CIE 371</b> | <b>Engineering Economics</b> | <b>(3-0-0, 3)</b> |
|----------------|------------------------------|-------------------|

Introduction to microeconomics, competition and monopoly, labor markets, macroeconomics, world trade and the balance of payments, basics of financial accounting and project appraisal and economic feasibility of engineering projects, income measurement, capital investments, equipment alternative analysis and equipment replacement studies.

*Prerequisites:* MTH122, STA112

|                |                                   |                   |
|----------------|-----------------------------------|-------------------|
| <b>CIE 431</b> | <b>Design of Steel Structures</b> | <b>(3-0-0, 3)</b> |
|----------------|-----------------------------------|-------------------|

Introduction to steel structures and practical design methods. Steel sections. Load factors and load combinations. Design of various steel elements using LRFD-method. Design of tension and compression members, Elastic and inelastic stiffness of columns. Beam design: Compact section criterion, lateral-torsional buckling, lateral supports, and various design aspects of beams. Design of steel members subject to biaxial moments. Design of simple bolted (or welded) steel connections. A software will be used for steel analysis and design.

*Prerequisites:* CIE 331

|                |   |                   |
|----------------|---|-------------------|
| <b>CIE 471</b> | <b>Specification and Quantity Surveying</b> | <b>(3-0-0, 3)</b> |
|----------------|---|-------------------|

Introduction; types and documents of tenders; types of construction contracts; bonds and insurance requirements; local and International general conditions and obligations of construction contracts; preparation of specifications; regulations pertinent to buildings, construction works and building materials; quantity surveying and bill of quantities; rights and obligations of engineering consulting offices. Study of estimating and costing of civil engineering projects. Cost estimation process.

Elements of the project costs. Case studies. BIM software will be used for estimating at different phases of construction.

*Prerequisites:* CIE 213, CIE 334

|                |                                |                   |
|----------------|--------------------------------|-------------------|
| <b>CIE 473</b> | <b>Construction Management</b> | <b>(3-0-0, 3)</b> |
|----------------|--------------------------------|-------------------|

Construction Management for Civil Engineering, Contract Management, Project Management. Culture and global business (managing cross-cultural differences in projects, impacts of cultural differences on project success in construction). Project delivery systems, types of contracts, planning and scheduling

using CPM network methods (CPM and PDM) as well as tracking and progress reporting using the earned value method (EVM). Quality assurance, Safety and Health in Construction. BIM Software system will be available to students to learn how to generate project schedule.

*Prerequisites: CIE 334, CIE 471*

|                |                             |            |
|----------------|-----------------------------|------------|
| <b>CIE 491</b> | <b>Graduation Project I</b> | <b>(3)</b> |
|----------------|-----------------------------|------------|

The course is aimed at the development of conceptual and applied design skills through discussions, meetings and laboratory work involving the completion of a civil engineering design project.

Graduation project include multiple major aspects of the civil engineering profession (such as structural, transportation, geotechnical, water and Environment) and require the use of engineering software for project management such as MS project and Primavera Project Planner.

The project experiences is intended to develop students skill in problem solving, team work, design, innovation, use information technology, engineering, ethics, and social responsibility.

Students are expected to complete a design project that demonstrates the skills and knowledge gained through applying engineering principles to solve a design problem.

Students work in teams of three to four to solve an engineering design problem. Every team is required to choose a real-world project. Teams are supervised by faculty members and instructors who oversee, guide and monitor progress in the project.

Every group is required to maintain a record of all project activities in a project logbook which will be inspected regularly by the project supervisor.

*Prerequisites: CIE 334, CIE 342, CIE 371, CIE 352, CIE 361 Completion of 90 credit hours*

|                |                              |            |
|----------------|------------------------------|------------|
| <b>CIE 492</b> | <b>Graduation Project II</b> | <b>(3)</b> |
|----------------|------------------------------|------------|

Graduation project II is a capstone course that combined all previous courses in one task of designing a civil engineering project. Graduation project includes one hour of theoretical instructions by the supervisor and at least four hours per week on design/analysis actives that may include work on various relevant software, or work on drawing or CAD studio to prepare the engineering plans for the specified project.

The course is aimed at the development of conceptual and applied design skills through discussions, meetings and various activity work (analysis/design) involving the completion of a civil engineering design project. The project experiences is intended to develop students skill in problem solving, team work, design, innovation, information technology, engineering, engineering ethics, and social responsibility.

Students are expected to complete a design project that demonstrates the skills and knowledge gained through applying engineering principles to solve a design problem.

Students work in teams of three to four to solve an engineering design problem. Every team is required to choose a real-world project. Teams are supervised by faculty members and instructors who oversee, guide and monitor progress in the project.

Every group is required to maintain a record of all project activities in a project logbook which will be inspected regularly by the project supervisor.

*Prerequisites: CIE 491*

|                |                             |            |
|----------------|-----------------------------|------------|
| <b>CIE 499</b> | <b>Engineering Training</b> | <b>(4)</b> |
|----------------|-----------------------------|------------|

Practical training is an important part of engineering student education. It will help him to relate the theoretical knowledge learned in classrooms to solutions of real-world problems, experience the working environment before graduation, and learn how to act responsibly and efficiently in carrying out assigned tasks, etc.

*Prerequisites: Completion of 75 credit hours*

|                |  |                   |
|----------------|--|-------------------|
| <b>CIE 481</b> | <b>Advanced Structural Analysis and Design</b> | <b>(3-0-0, 3)</b> |
|----------------|--|-------------------|

To demonstrate the knowledge of the Limit States theory, the method of design of reinforced concrete buildings-ultimate limit states & serviceability limit states. The concept of “redistribution of moments” Design different types of reinforced concrete floor systems-Slab & beams, Ribbed slab & Flat slab. Design different types of reinforced concrete columns- short & slender columns under axial load & bending moment. Design of Combined footings, Strip Foundations and introduction to the design of Raft Foundations. Complete design calculations and design drawings of a multistory reinforced concrete building to an international code of practice. Classification of nonlinear problems in structural analysis.

*Prerequisites: CIE 332, CIE 334*

|                |                              |                   |
|----------------|------------------------------|-------------------|
| <b>CIE 482</b> | <b>Pre-Stressed Concrete</b> | <b>(3-0-0, 3)</b> |
|----------------|------------------------------|-------------------|

Basic principles, short- and long-term properties of constituent materials, partial prestressing. Flexural behavior, analysis and design of prestressed concrete beams, classes, cracking, pretensioning, post-tensioning, service load design, load balancing, strength design, strain limits, flexural efficiency. Bond, transfer and development lengths, anchorage zone design. Shear and diagonal tension. Evaluation of immediate and long-term losses. Composite construction and design, shear-friction theory. Deflection calculation using approximate single time step approach.

*Prerequisites: CIE 334, MTH222*

|                |                            |                   |
|----------------|----------------------------|-------------------|
| <b>CIE 483</b> | <b>Traffic Engineering</b> | <b>(3-0-0, 3)</b> |
|----------------|----------------------------|-------------------|

Traffic flow theory, volume, speed, delay, parking and safety studies, Traffic control devices, capacity analysis of signalized and unsignalized intersections, Capacity analysis of two-lane highways, multi-lane highways, and freeways. Roundabout capacity and traffic impact analysis.

*Prerequisites: CIE 242*

|                |                                      |                   |
|----------------|--------------------------------------|-------------------|
| <b>CIE 484</b> | <b>Pavement Materials and Design</b> | <b>(3-0-0, 3)</b> |
|----------------|--------------------------------------|-------------------|

Introduction to the principals of pavement design for safety, serviceability and structural adequacy. Understand pavement engineering, terminology, and concepts. Know the different types of pavements. know and understand the engineering properties and characteristics of different materials that concern the pavement engineer such as soil, granular, and bituminous materials. Get familiar with different Superpave aggregate and asphalt binder tests and requirements. Design asphalt concrete mixture. Pavement performance, design flexible and rigid pavements using the AASHTO design procedure. Conduct analysis of flexible pavements for stresses, strains, and deflections in one-, two-, and three-layered systems.

*Prerequisites: CIE 242, CIE 222*

**CIE 485**

**Surveying II**

**(3-0-0, 3)**

Enhance the knowledge of advanced equipment, methods and their application in the field of engineering. To learn the surveying operations involved in different civil engineering projects. Laying out control lines for curves, use of Total Stations, GPS control systems, GIS Systems, and Digital scanners.

*Prerequisites: CIE 241*

**CIE 486**

**Geotechnical Engineering II**

**(3-0-0, 3)**

Description of wide range of methods which are used in practice to improve the engineering properties of soils. soil compaction, principle of effective stress, stresses due to self-weight, stresses due to applied loads, soil permeability, seepage: one and two dimensional, flow net, consolidation theory and consolidation settlement analysis: immediate and consolidation settlement, secondary compression, shear strength of soils. Developing an understanding of the mechanics of piled foundations in soft soils and to use that knowledge for design purpose. Purposes, scope and conduct of site investigation procedures.

*Prerequisites: CIE 361*

**CIE 487**

**Solid and Hazardous Waste Management**

**(3-0-0, 3)**

Function elements of solid waste management processes, Traditional versus integrated options for solid waste management, Physical and chemical characteristics of solid waste, Hazardous waste regulatory aspects, Characterization of hazardous waste, Treatment and disposal options of hazardous waste. Solid waste management in landfill and ultimate disposal practices. Risk assessment and risk management.

*Prerequisites: CIE 352*

**MTH121**

**Engineering Mathematics I**

**(3-0-2, 3)**

- Limits - Definition of the limit of a function, theorems about limits, evaluation of limit at a point and infinity, continuity.
- Derivatives - Derivatives of algebraic and trigonometric functions, applications of derivatives, maxima and minima. Applications of derivatives in engineering.
- Integration- The definite and indefinite integrals and their applications: anti-derivative, definite integrals, area between two curves, volumes, length of a plane curve, average value of a function, etc. Integration by parts, integration using powers of trigonometric functions, integration using trigonometric substitution, integration by partial fractions. Integration of improper integrals. Utilization of software package (such as MathCAD or MATLAB) for performing integration. Applications of engineering.
- Transcendental functions -Differentiation of trigonometric functions, inverse trigonometric functions, logarithmic functions, exponential functions, hyperbolic functions, and inverse hyperbolic functions.

*Prerequisites: None*

**MTH122**

**Engineering Mathematics II**

**(3-0-2, 3)**

- **Matrix Computation:**  
Matrix addition, subtraction, multiplication and transposition. Inverse of Matrix.
- **Complex Numbers:**

Definition of complex numbers, algebraic properties of complex numbers, absolute values, complex conjugate, polar representation, powers and roots.

- **Functions of Several Variables:**

Functions of several variables, partial derivatives, applications.

- **Multiple Integrals:**

Polar coordinates, double and triple integrals in rectangular and polar coordinates. Applications of multiple integrals in engineering.

- **Numerical Sequences and Series:**

Definitions, sequences of real numbers, tests for convergence, power series expansion of functions, Taylor series of a given function, Laurent series, Fourier series, and their applications in engineering.

*Prerequisites: MTH121*

|               |                                    |                   |
|---------------|------------------------------------|-------------------|
| <b>MTH221</b> | <b>Engineering Mathematics III</b> | <b>(3-0-2, 3)</b> |
|---------------|------------------------------------|-------------------|

- Vector Calculus:
- Vectors in the plane, dot and cross products, lines and planes in space, polar coordinate system, line integrals, Green's theorem, surface integrals. Engineering applications of vector calculus.
- Ordinary Differential Equations:
- First order differential equations, application examples of first order equations. Homogeneous linear second-order differential equations with constant and variable coefficients, non-homogeneous linear second-order differential equations with constant coefficients, higher-order linear differential equations with constant coefficients, application examples. Power series solution of differential equations.
- Laplace Transformation:
- Laplace Transform, Inverse Laplace Transform, Laplace Transform of derivatives and integrals, using Laplace Transform to solve ordinary differential equations, examples and applications. Unit step function, periodic functions, and table of some Laplace Transforms. Applications of Laplace Transformation in engineering.
- Partial Differential Equations:
- Introduction to partial differential equations (PDE), first order PDE (linear and non-linear), second order PDE, boundary value problems, engineering applications.

*Prerequisites: MTH122*

|               |                                   |                   |
|---------------|-----------------------------------|-------------------|
| <b>MTH222</b> | <b>Engineering Mathematics IV</b> | <b>(3-0-2, 3)</b> |
|---------------|-----------------------------------|-------------------|

- **Complex Analysis**  
Complex functions, derivative of complex functions, analytic functions, Cauchy-Riemann equations, harmonic functions. Engineering applications of complex analysis techniques.
- **Fourier Analysis**  
Fourier Series, Fourier Integrals, Fourier series of even and odd functions with applications.
- **Linear Algebra**  
Matrices and determinants, solution of systems of linear equations, eigenvalues and eigenvectors, engineering applications, computer exercises.
- **Discrete Mathematics**

Review of sets and relations. Introduction to basics of discrete mathematics and its engineering applications.

*Prerequisites: MTH221*

|               |                                  |                   |
|---------------|----------------------------------|-------------------|
| <b>MTH321</b> | <b>Engineering Mathematics V</b> | <b>(3-0-2, 3)</b> |
|---------------|----------------------------------|-------------------|

To introduce the students, the fundamentals of probability, random variables, and random processes so that they can deal with randomness and uncertainty involved processes and systems.

*Prerequisites: MTH222*

|               |                              |                   |
|---------------|------------------------------|-------------------|
| <b>PHY121</b> | <b>Engineering Physics I</b> | <b>(3-2-2, 4)</b> |
|---------------|------------------------------|-------------------|

- **Vectors, Motion and Newton's Laws**  
Vectors, Motion in one, two and three dimensions. Newton's Laws of motion and their applications.
- **Work, Energy and Momentum**  
Work, kinetic energy, potential energy, conservation of energy, momentum and collisions.
- **Rotation of Rigid Bodies**  
Angular velocity and acceleration, rotation with constant angular acceleration, relating linear and angular kinematics, energy in rotational motion.
- **Dynamics of Rotational Motion**  
Torque, rigid-body rotation, work and power in rotational motion, angular momentum, conservation of angular momentum. Applications in engineering.
- **Equilibrium and Elasticity**  
Conditions of equilibrium, center of gravity, solving rigid-body equilibrium problems. Stress, strain, and elastic moduli. Applications in engineering.
- **Periodic Motion**  
Oscillations, simple harmonic motion, applications of simple harmonic motion.

*Prerequisites: None*

|               |                               |                   |
|---------------|-------------------------------|-------------------|
| <b>PHY122</b> | <b>Engineering Physics II</b> | <b>(3-2-2, 4)</b> |
|---------------|-------------------------------|-------------------|

- **Electric Charge and Electric Field**  
Electric charge, Coulomb's law, electric-field and electric forces, electric-field calculations. Electric flux, Gauss's law, applications of Gauss's law. Electric potential.
- **Capacitance**  
Capacitance and dielectrics, capacitors in series and parallel, energy storage in capacitors.
- **DC Circuits**  
Electric current, resistivity, resistance, electromotive force, Ohm's law, energy and power in electric circuits, Kirchhoff's laws, analysis of simple DC circuits. Applications in engineering.
- **Magnetic Fields**  
Magnetic field lines and magnetic flux, motion of charged particles in a magnetic field and its applications, magnetic force on a current-carrying conductor and its applications, the Hall effect. Sources of magnetic field. Ampere's law and its applications. Applications in engineering.
- **Electromagnetic Induction**  
Electromagnetic induction, Faraday's law, Lenz's law, induced electric fields. Applications in engineering.

- **Inductance**  
Mutual- and self-inductance, inductors in series and parallel, magnetic-field energy.
- **Electromagnetic Waves**  
Maxwell's equations and electromagnetic waves, the electromagnetic spectrum.  
Applications in engineering.
- **Optics**

The nature of light, reflection and refraction, total internal reflection, dispersion, polarization, scattering of light, Huygens' principle, interference, diffraction, holography. Types of lens and mirrors and their applications in engineering.

*Prerequisites: PHY121*

|               |                                |                   |
|---------------|--------------------------------|-------------------|
| <b>CHE101</b> | <b>Chemistry for Engineers</b> | <b>(3-2-2, 4)</b> |
|---------------|--------------------------------|-------------------|

- **Introduction**  
Atoms, molecules and ions; formulas of ionic compounds, names of compounds, hydrates, problems.
- **Electronic structure and the periodic table**  
Hydrogen atom, quantum numbers, energy levels and orbitals.  
Electron configurations in atoms and monatomic ions. Orbital diagrams of atoms, problems.  
Periodical trends in the properties of atoms, problems.
- **Types of bonds**  
Ionic bond, covalent bond, atomic orbital, molecular orbital, hybridization.
- **Chemistry of the metals and semiconductors**  
Metallic bonding, band theory, chemistry of semiconductors and applications, solar cell, diodes, superconductors and ceramics.  
Reactions of alkali and alkaline earth metals, detergent, redox reactions, galvanic cells and batteries. Chemistry of transition metals, complex ions, coordination compounds, composition, naming, geometry, chelates, ligands, coordination number, charge of the complex ions. Solubility product  $K_{sp}$ , precipitation of metals, qualitative analysis of metal ions.
- **Introduction to organic chemistry**  
Bonding and types of hybridization in carbon atom, alkanes and cyclo-alkanes, nomenclature, alkyl and halogen substituents, conformation of ethane, halogenation of alkanes, free radicals problems.
- **Alkenes and alkynes**  
Nomenclature, cis-trans isomers, electrophilic addition reactions, Diels-Alder reaction, problems.
- **Polymer**  
Introduction to polymers, polymerization, types, properties and uses of polymers.

*Prerequisites: None*

## DEPARTMENT of MECHANICAL ENGINEERING

### Mission

The mission of the program is to bridge the gap between conventional engineering and industry through graduates who are equipped with the theoretical knowledge and practical skills necessary for successful professional career. The graduates can also pursue higher studies.

### Objectives

Mechanical Engineering program objectives are as follows:

Mechanical Engineering graduates are:

- Successful in applying theoretical knowledge and practical skills in the field of Mechanical Engineering.
- Gainfully employed.
- Successful in postgraduate studies.

## Bachelor of Science in Mechanical Engineering

### Program Learning Outcomes

By the time of graduation, the students must have:

- (a) an ability to apply knowledge of mathematics, science, and engineering
- (b) an ability to design and conduct experiments, as well as to analyze and interpret data
- (c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
- (d) an ability to function on multidisciplinary teams
- (e) an ability to identify, formulate, and solve engineering problems
- (f) an understanding of professional and ethical responsibility
- (g) an ability to communicate effectively
- (h) the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
- (i) a recognition of the need for, and an ability to engage in life-long learning
- (j) a knowledge of contemporary issues
- (k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice
- (l) broad knowledge in the field of mechanical engineering to be prepared to work professionally in either thermal or mechanical systems. The broad knowledge shall encompass topics in thermofluids & energy systems, and product design & manufacturing technology.



**Mapping of Program Learning Outcomes with Level-7 of the UAE's Qualifications Framework.**

| Strand No. | Strand                      | Program Outcomes |   |   |   |  |   |  |   |   |   |   |   |   |
|------------|-----------------------------|------------------|---|---|---|--|---|--|---|---|---|---|---|---|
|            |                             |                  |   |   |   |  |   |  |   |   |   |   |   |   |
| Strand 1   | Knowledge                   | X                |   |   |   |  | X |  |   | X |   | X |   | X |
| Strand 2   | Skills                      |                  | X | X |   |  |   |  | X |   |   |   | X |   |
|            | Aspects of Competence       |                  |   |   |   |  |   |  |   |   |   |   |   |   |
| Strand 3   | Autonomy and Responsibility |                  |   |   | X |  | X |  |   |   | X |   |   |   |
| Strand 4   | Role in Context             |                  |   |   | X |  |   |  |   |   |   |   |   |   |
| Strand 5   | Self-development            |                  |   |   |   |  | X |  |   |   | X |   |   |   |

**Admission Requirements**

Admission to the program requires a UAE Secondary School Certificate (Science Major) or its equivalent with a minimum grade of 70%. (For further information please refer to the University admissions policy.)

**Career Opportunities**

Mechanical engineering is one of the oldest and broadest disciplines in engineering. Graduates of mechanical engineering find career opportunities in a wide range of industries like power and energy, automation and manufacturing, aerospace and transportation, services and logistics, building and construction, healthcare and medical equipment.

Mechanical engineers work in technical and managerial positions in companies and as engineering consultants in both private and government sectors. The graduates are also in demand in areas of research and development as well as in engineering higher education.

**Graduation Requirements**

The Bachelor of Science Degree is awarded upon the fulfillment of the following:

1. Successful completion of all courses in the program curriculum.
2. Successful completion of 4 credit hours of Engineering Training (internship).
3. Cumulative Grade Point Average (CGPA) of at least 2.

**Degree Requirement**

The B.Sc. degree in mechanical engineering requires completion of 141 Cr. Hrs. classified as follows:

| Type of Courses                              | Credit hours |
|--|--------------|
| 1. University General Education Requirements | 24           |
| 2. College Required Courses                  | 36           |
| 3. Program Requirements                      |              |
| (a) Program Required Course                  | 59           |
| (b) Program Elective Courses                 | 12           |
| (c) Graduation Projects I & II               | 6            |
| 4. Engineering Training (Internship)         | 4            |
| Total Credit Hours                           | <b>141</b>   |

## 1. University General Education Requirements

### (a) University Required Courses (15 credit hours)

| Course Code | Course Title                              | Credit Hrs | Lec. Hrs | Lab. Hrs | Tut. Hrs | Prerequisite |
|-------------|---|------------|----------|----------|----------|--------------|
| ARB111      | Communication Skills in Arabic            | 3          | 3        | –        | –        | -----        |
| ARB112      | Com. Skills in Arabic - Non-Arabs         | 3          | 3        | –        | –        | -----        |
| ISL112      | Islamic Culture -Non-Arabs                | 3          | 3        | –        | –        | -----        |
| ISL114      | Islamic Culture                           | 3          | 3        | –        | 1        | -----        |
| INN311      | Innovation and Entrepreneurship (English) | 3          | 3        | –        | –        | 60 Cr. Hrs.  |
| COM111      | IT Fundamentals                           | 3          | 2        | 2        | –        | -----        |
| STA112      | Statistics (Sciences)                     | 3          | 2        | 2        | –        | -----        |

### (b) University Elective I (to select one course from the following – 3 credit hours)

| Course Code | Course Title                   | Credit Hrs | Lec. Hrs | Lab. Hrs | Tut. Hrs | Prerequisite |
|-------------|--------------------------------|------------|----------|----------|----------|--------------|
| ECO211      | Economic Concepts              | 3          | 3        | –        | –        | -----        |
| EMS111      | Emirates Society               | 3          | 3        | –        | –        | -----        |
| ENG111      | English Communication Skills   | 3          | 3        | –        | –        | -----        |
| INF113      | Library Information System     | 3          | 3        | –        | –        | -----        |
| PSY111      | General Psychology             | 3          | 3        | –        | –        | -----        |
| SOC112      | Communication between Cultures | 3          | 3        | –        | –        | -----        |
| THI211      | Critical Thinking              | 3          | 3        | –        | –        | -----        |

### (c) University Elective II (to select one course from the following – 3 credit hours)

| Course Code | Course Title                        | Credit Hrs | Lec. Hrs | Lab. Hrs | Tut. Hrs | Prerequisite |
|-------------|-------------------------------------|------------|----------|----------|----------|--------------|
| ARB113      | Art of Written Expression-Arab      | 3          | 3        | –        | –        | -----        |
| ART111      | Introduction to Art                 | 3          | 3        | –        | –        | -----        |
| ART112      | Introduction to Aesthetics          | 3          | 3        | –        | –        | -----        |
| ART211      | Introduction to Digital Photography | 3          | 3        | –        | –        | -----        |
| ENG113      | Academic Writing (English)          | 3          | 3        | –        | –        | -----        |
| ENG211      | Art of Public Speaking (Eng)        | 3          | 3        | –        | –        | -----        |
| FRE211      | French Language                     | 3          | 3        | –        | –        | -----        |
| ISL211      | Introduction to Hadeeth and Sunna   | 3          | 3        | –        | –        | -----        |

### (d) University Elective III (B. Sc. In Mechanical Engineering program: to select the following course – 3 credit hours)

| Course Code | Course Title          | Credit Hrs | Lec. Hrs | Lab. Hrs | Tut. Hrs | Prerequisite |
|-------------|-----------------------|------------|----------|----------|----------|--------------|
| ENV111      | Environmental Science | 3          | 3        | –        | –        | -----        |

**2. College Required Courses (36 credit hours)**

| Course Code | Course Title                    | Credit Hrs | Lec. Hrs  | Lab. Hrs | Tut. Hrs  | Prerequisite |
|-------------|---------------------------------|------------|-----------|----------|-----------|--------------|
| MTH121      | Engineering Mathematics I       | 3          | 3         | –        | 2         | -----        |
| MTH122      | Engineering Mathematics II      | 3          | 3         | –        | 2         | MTH121       |
| MTH221      | Engineering Mathematics III     | 3          | 3         | –        | 2         | MTH122       |
| MTH222      | Engineering Mathematics IV      | 3          | 3         | –        | 2         | MTH221       |
| MTH321      | Engineering Mathematics V       | 3          | 3         | –        | 2         | MTH122       |
| PHY121      | Engineering Physics I           | 4          | 3         | 2        | 2         | -----        |
| PHY122      | Engineering Physics II          | 4          | 3         | 2        | 2         | PHY121       |
| CHE101      | Chemistry for Engineers         | 3          | 2         | 2        | –         | -----        |
| MEC101      | Introduction to Engineering     | 1          | 1         | –        | 1         | -----        |
| MEC102      | Computer Programming            | 3          | 3         | –        | 2         | COM111       |
| MEC208      | Report Writing and Presentation | 3          | 3         | –        | 1         | MEC101       |
| MEC305      | Engineering Management          | 3          | 3         | –        | 1         | MEC208       |
|             |                                 | <b>36</b>  | <b>33</b> | <b>6</b> | <b>19</b> |              |

**3. Program Requirements**
**(a) Program Required Courses (59 credit hours)**

| Course Code | Course Title                                | Credit Hrs. | Lec. Hrs. | Lab. Hrs. | Tut. Hrs. | Prerequisite      |
|-------------|---|-------------|-----------|-----------|-----------|-------------------|
| MEC103      | Engineering Drawing and Mechanical Workshop | 3           | 1         | (2+2)*    | –         | -----             |
| MEC201      | Fundamentals of Electrical Engineering      | 4           | 3         | 2         | 1         | PHY122            |
| MEC202      | Engineering Mechanics - Statics             | 3           | 3         | –         | 1         | PHY121            |
| MEC203      | Engineering Materials                       | 3           | 2         | 2         | 1         | CHE101            |
| MEC204      | Thermodynamics                              | 3           | 3         | –         | 1         | PHY121            |
| MEC205      | Engineering Mechanics - Dynamics            | 3           | 3         | –         | 1         | MEC202            |
| MEC206      | Mechanics of Solids                         | 4           | 3         | 2         | 1         | MEC202            |
| MEC207      | Fluid Mechanics                             | 4           | 3         | 2         | 1         | PHY121            |
| MEC301      | Heat Transfer                               | 4           | 3         | 2         | 1         | MEC204            |
| MEC302      | Computational Methods in Engineering        | 3           | 3         | –         | 2         | MTH221,<br>MEC102 |
| MEC303      | Design of Machine Elements                  | 3           | 3         | –         | 1         | MEC103,<br>MEC206 |
| MEC304      | Control Systems                             | 4           | 3         | 2         | 2         | MTH321            |
| MEC306      | Machine Design                              | 4           | 3         | 2         | 1         | MEC303            |
| MEC307      | Manufacturing Technology                    | 4           | 3         | 2         | 1         | MEC206            |
| MEC401      | Directed Studies in Mechanical Engineering  | 3           | 3         | –         | –         | MEC305            |

|        |                                    |    |    |    |    |                   |
|--------|------------------------------------|----|----|----|----|-------------------|
| MEC402 | Turbo Machines                     | 3  | 3  | –  | –  | MEC207,<br>MEC301 |
| MEC403 | Refrigeration and Air Conditioning | 4  | 3  | 2  | –  | MEC301            |
|        |                                    | 59 | 48 | 22 | 15 |                   |

\* For the course MEC103, 1 hour of lecture, 2 hours of studio and 2 hours of workshop.

#### (b) Program Elective Courses (12 credit hours)

| Course Code | Course Title          | Credit Hrs. | Lec. Hrs. | Lab. Hrs. | Tut. Hrs. | Prerequisite       |
|-------------|-----------------------|-------------|-----------|-----------|-----------|--------------------|
| ----        | Program Elective I    | 3           | 3         | –         | –         | ----               |
| ----        | Program Elective II   | 3           | 3         | –         | –         | ----               |
| ----        | Program Elective III  | 3           | 3         | –         | –         | ----               |
| ----        | Program Free Elective | 3           | 3         | –         | –         | Advisor's approval |
|             |                       | 12          | 12        | –         | –         |                    |

#### (c) Graduation Projects I and II (6 credit hours)

| Course Code | Course Title                 | Credit Hrs. | Lec. Hrs. | Lab. Hrs. | Tut. Hrs. | Prerequisite      |
|-------------|------------------------------|-------------|-----------|-----------|-----------|-------------------|
| MEC491      | Graduation Design Project I  | 3           | 1         | 4         | –         | MEC306,<br>MEC307 |
| MEC492      | Graduation Design Project II | 3           | 1         | 4         | –         | MEC491            |
|             |                              | 6           | 2         | 8         | –         |                   |

#### 4. Engineering Training (Internship) (4 credit hours)

| Course Code | Course Title         | Credit Hrs. | Lec. Hrs. | Lab. Hrs. | Tut. Hrs. | Prerequisite       |
|-------------|----------------------|-------------|-----------|-----------|-----------|--------------------|
| MEC499      | Engineering Training | 4           | –         | –         | –         | Advisor's approval |

#### List of Program Elective Courses (to select three courses from the following – 9 credit hours )

| Course Code | Course Title                             | Credit Hrs. | Lec. Hrs. | Lab. Hrs. | Tut. Hrs. | Prerequisite      |
|-------------|--|-------------|-----------|-----------|-----------|-------------------|
| MEC451      | Industrial Automation and Mechatronics   | 3           | 3         | –         | 1         | MEC302,<br>MEC304 |
| MEC452      | Computer Aided Design and Manufacturing  | 3           | 3         | –         | 1         | MEC103,<br>MEC302 |
| MEC453      | Renewable Energy Systems                 | 3           | 3         | –         | 1         | MEC301            |
| MEC454      | Finite Element Methods with Applications | 3           | 3         | –         | 1         | MEC302            |
| MEC455      | Advanced Fluid Mechanics                 | 3           | 3         | –         | 1         | MEC207,<br>MEC302 |
| MEC456      | Water Desalination                       | 3           | 3         | –         | 1         | MEC207,<br>MEC301 |

List of Program Free Elective Courses (to select one course from the following with advisor's approval – 3 credit hours)

| Course Code | Course Title                         | Credit Hrs. | Lec. Hrs. | Lab. Hrs. | Tut. Hrs. | Prerequisite |
|-------------|--------------------------------------|-------------|-----------|-----------|-----------|--------------|
| BME308      | Biomechanics                         | 3           | 3         | –         | –         | MEC206       |
| BME304      | Biomaterials Basics and Applications | 3           | 3         | –         | –         | MEC203       |
| MGT211      | Production and Operations Management | 3           | 3         | –         | –         | MEC305       |
| MGT212      | Management of Small Business         | 3           | 3         | –         | –         | MEC305       |
| ELE480      | Fuzzy Logic and Neural Networks      | 3           | 3         | –         | –         | MEC302       |

## Study Plan

### First Year

#### First Semester:

| Course Code | Course Title                | Credit Hrs | Lec. Hrs  | Lab. Hrs | Tut. Hrs | Prerequisite |
|-------------|-----------------------------|------------|-----------|----------|----------|--------------|
| MTH121      | Engineering Mathematics I   | 3          | 3         | –        | 2        | -----        |
| PHY121      | Engineering Physics I       | 4          | 3         | 2        | 2        | -----        |
| COM111      | IT Fundamentals             | 3          | 2         | 2        | –        | -----        |
| CHE101      | Chemistry for Engineers     | 3          | 2         | 2        | –        | -----        |
| MEC101      | Introduction to Engineering | 1          | 1         | –        | 1        | -----        |
| ISL114      | Islamic Culture             | 3          | 3         | –        | 1        | -----        |
|             |                             | <b>17</b>  | <b>14</b> | <b>6</b> | <b>6</b> |              |

#### Second Semester

| Course Code | Course Title                                | Credit Hrs | Lec. Hrs  | Lab. Hrs | Tut. Hrs | Prerequisite |
|-------------|---|------------|-----------|----------|----------|--------------|
| MTH122      | Engineering Mathematics II                  | 3          | 3         | –        | 2        | MTH121       |
| PHY122      | Engineering Physics II                      | 4          | 3         | 2        | 2        | PHY121       |
| MEC102      | Computer Programming                        | 3          | 3         | –        | 2        | COM111       |
| MEC103      | Engineering Drawing and Mechanical Workshop | 3          | 1         | (2+2)*   | –        | -----        |
| ARB111      | Comm. Skills in Arabic Lang.                | 3          | 3         | –        | –        | -----        |
|             |   | <b>16</b>  | <b>13</b> | <b>6</b> | <b>6</b> |              |

\* For the course MEC103, 1 hour of lecture, 2 hours of studio and 2 hours of workshop.

#### Summer Semester

| Course Code | Course Title            | Credit Hrs | Lec. Hrs | Lab. Hrs | Tut. Hrs | Prerequisite |
|-------------|-------------------------|------------|----------|----------|----------|--------------|
| STA112      | Statistics              | 3          | 2        | 2        | –        | -----        |
| -----       | University Elective – I | 3          | 3        | –        | –        | -----        |
|             |                         | <b>6</b>   | <b>5</b> | <b>2</b> | <b>–</b> |              |

## Second Year

### First Semester

| Course Code | Course Title                           | Credit Hrs. | Lec. Hrs. | Lab. Hrs. | Tut. Hrs. | Prerequisite |
|-------------|--|-------------|-----------|-----------|-----------|--------------|
| MTH221      | Engineering Mathematics III            | 3           | 3         | –         | 2         | MTH122       |
| MEC201      | Fundamentals of Electrical Engineering | 4           | 3         | 2         | 1         | PHY122       |
| MEC202      | Engineering Mechanics - Statics        | 3           | 3         | –         | 1         | PHY121       |
| MEC203      | Engineering Materials                  | 3           | 2         | 2         | 1         | CHE101       |
| MEC204      | Thermodynamics                         | 3           | 3         | –         | 1         | PHY121       |
|             |  | <b>16</b>   | <b>14</b> | <b>4</b>  | <b>6</b>  |              |

### Second Semester

| Course Code | Course Title                     | Credit Hrs. | Lec. Hrs. | Lab. Hrs. | Tut. Hrs. | Prerequisite |
|-------------|----------------------------------|-------------|-----------|-----------|-----------|--------------|
| MTH222      | Engineering Mathematics IV       | 3           | 3         | –         | 2         | MTH221       |
| MEC205      | Engineering Mechanics - Dynamics | 3           | 3         | –         | 1         | MEC202       |
| MEC206      | Mechanics of Solids              | 4           | 3         | 2         | 1         | MEC202       |
| MEC207      | Fluid Mechanics                  | 4           | 3         | 2         | 1         | PHY121       |
| MEC208      | Report Writing and Presentation  | 3           | 3         | –         | 1         | MEC101       |
|             |                                  | <b>17</b>   | <b>15</b> | <b>4</b>  | <b>6</b>  |              |

## Third Year

### First Semester:

| Course Code | Course Title                         | Credit Hrs. | Lec. Hrs. | Lab. Hrs. | Tut. Hrs. | Prerequisite      |
|-------------|--------------------------------------|-------------|-----------|-----------|-----------|-------------------|
| MTH321      | Engineering Mathematics V            | 3           | 3         | –         | 2         | MTH122            |
| MEC301      | Heat Transfer                        | 4           | 3         | 2         | 1         | MEC204            |
| MEC302      | Computational Methods in Engineering | 3           | 3         | –         | 2         | MTH221,<br>MEC102 |
| MEC303      | Design of Machine Elements           | 3           | 3         | –         | 1         | MEC103,<br>MEC206 |
| ENV111      | Environmental Science                | 3           | 3         | –         | –         | -----             |
|             |                                      | <b>16</b>   | <b>15</b> | <b>2</b>  | <b>5</b>  |                   |

INTERNAL TRAINING (2 Weeks in Fall Break)

### Second Semester:

| Course Code | Course Title             | Credit Hrs. | Lec. Hrs. | Lab. Hrs. | Tut. Hrs. | Prerequisite |
|-------------|--------------------------|-------------|-----------|-----------|-----------|--------------|
| MEC304      | Control Systems          | 4           | 3         | 2         | 2         | MTH321       |
| MEC305      | Engineering Management   | 3           | 3         | –         | 1         | MEC208       |
| MEC306      | Machine Design           | 4           | 3         | 2         | 1         | MEC303       |
| MEC307      | Manufacturing Technology | 4           | 3         | 2         | 1         | MEC206       |

|        |  |           |    |   |   |             |
|--------|--|-----------|----|---|---|-------------|
| INN311 | Innovation and Entrepreneurship<br>(English) | <b>3</b>  | 3  | – | – | 60 Cr. Hrs. |
|        |  | <b>18</b> | 15 | 6 | 5 |             |

MEC499: ENGINEERING TRAINING I (6 Weeks in Summer Break)

## Fourth (Final) Year

### First Semester

| Course Code | Course Title                               | Credit Hrs. | Lec. Hrs. | Lab. Hrs. | Tut. Hrs. | Prerequisite      |
|-------------|--|-------------|-----------|-----------|-----------|-------------------|
| MEC401      | Directed Studies in Mechanical Engineering | <b>3</b>    | 3         | –         | –         | MEC305            |
| MEC402      | Turbo Machines                             | <b>3</b>    | 3         | –         | –         | MEC207,<br>MEC301 |
| MEC491      | Graduation Design Project I                | <b>3</b>    | 1         | 4         | –         | MEC306,<br>MEC307 |
| ----        | Program Elective I                         | <b>3</b>    | 3         | –         | –         | ----              |
| ----        | Program Elective II                        | <b>3</b>    | 3         | –         | –         | ----              |
|             |  | <b>15</b>   | 13        | 4         | –         |                   |

### Second Semester

| Course Code | Course Title                       | Credit Hrs. | Lec. Hrs. | Lab. Hrs. | Tut. Hrs. | Prerequisite          |
|-------------|------------------------------------|-------------|-----------|-----------|-----------|-----------------------|
| MEC403      | Refrigeration and Air Conditioning | <b>4</b>    | 3         | 2         | –         | MEC301                |
| MEC492      | Graduation Design Project II       | <b>3</b>    | 1         | 4         | –         | MEC491                |
| ----        | Program Elective III               | <b>3</b>    | 3         | –         | –         | ----                  |
| ----        | Program Free Elective              | <b>3</b>    | 3         | –         | –         | Advisor's<br>approval |
| ----        | University Elective – II           | <b>3</b>    | 3         | –         | –         | ----                  |
|             |                                    | <b>16</b>   | 13        | 6         | –         |                       |

MEC499: ENGINEERING TRAINING II (6 Weeks in Summer)

## Course Descriptions

### **MTH121 – Engineering Mathematics I (3, 3-0-2)**

Limits of functions, theorems about limits, evaluation of limit at a point and infinity, continuity. Derivatives of algebraic and trigonometric functions, maxima and minima, engineering applications of derivatives. The definite and indefinite integrals and their applications. Integration by parts, Integration using powers of trigonometric functions, Integration using trigonometric substitution, Integration by partial fractions. Integration of improper integrals. Transcendental functions.

Pre-requisite: ---.

### **MTH122 – Engineering Mathematics II (3, 3-0-2)**

Matrix addition, subtraction, multiplication and transposition. Complex numbers, algebraic properties of complex numbers, absolute values, complex conjugate, polar representation, powers and roots. Functions of several variables. Double and triple integrals in rectangular and polar coordinates. Applications of multiple integrals in engineering. Infinite sequences, tests for convergence, power series expansion of functions, Taylor series, Laurent series, Fourier series and their applications in engineering.

Pre-requisite: MTH121.

### **MTH221 – Engineering Mathematics III (3, 3-0-2)**

Vector Calculus and its engineering applications. First order differential equations. Homogeneous linear second-order differential equations with constant and variable coefficients, nonhomogeneous linear second-order differential equations with constant coefficients, higher-order linear differential equations with constant coefficients. Power series solution of differential equations. Laplace Transform, Inverse Laplace Transform. Application of Laplace Transform to solve ordinary differential equations. Introduction to partial differential equations (PDEs), first order PDEs, second order PDEs, boundary value problems, engineering applications.

Pre-requisite: MTH122.

### **MTH222 – Engineering Mathematics IV (3, 3-0-2)**

Linear Algebra: Matrices and determinants, solution of systems of linear equations, eigenvalues and eigenvectors, engineering applications, computer exercises. Complex Analysis: Complex functions, derivative of complex functions, analytic functions, Cauchy-Riemann equations, harmonic functions. Fourier analysis: Fourier Series, Fourier Integrals, Fourier series of even and odd functions with applications. Discrete Mathematics and its engineering applications.

Pre-requisite: MTH221.

### **MTH321 – Engineering Mathematics V (3, 3-0-2)**

To introduce the students, the fundamentals of probability, random variables, and random processes so that they can deal with randomness and uncertainty involved processes and systems.

Prerequisites: MTH122.



**PHY121 – Engineering Physics I (4, 3-2-2)**

Vectors, motion, and Newton's laws. Work, energy, momentum and conservation of momentum. Rotation of rigid bodies, dynamics of rotational motion. Equilibrium and elasticity. Stress and strain. Periodic motion. Engineering applications.

Pre-requisite: ---.

**PHY122 – Engineering Physics II (4, 3-2-2)**

Electric charge and electric field. Coulomb's law and Gauss's law with applications. Capacitance and dielectrics. DC circuits. Magnetic fields. Ampere's law and its applications. Electromagnetic induction, Faraday's law, Lenz's law, induced electric fields. Self- and mutual-inductance. Electromagnetic waves and Maxwell's equations. Optics and its engineering applications.

Pre-requisite: PHY121.

**CHE101 – Chemistry for Engineers (3, 2-2-0)**

Atoms, molecules, ions and formulas of ionic compounds. Electronic structure and the periodic table. Quantum numbers, energy levels and orbital. Orbital diagrams of atoms. Various types of bonds. Chemistry of the metals and semiconductors. Introduction to organic chemistry, bonding and types of hybridization in carbon atom, alkanes and cyclo alkanes, alkyl and halogen substituents. Alkenes and alkynes, Diels-Alder reaction. Types, properties, and use of polymers.

Pre-requisite: ---.

**MEC101 – Introduction to Engineering (1, 1-0-1)**

Career in engineering, various specializations in engineering, mechanical engineering degree requirements, application areas in mechanical engineering, career opportunities in mechanical engineering. Discussions of design problems, challenges and future directions in engineering, impact of engineering on society and environment, professional practice and ethical considerations, codes of ethics.

Pre-requisite: ---.

**MEC102 – Computer Programming (3, 3-0-2)**

The course introduces the basic concepts of computer programming with C++ and involves practice at basic to intermediate level utilizing fundamentals and main features and procedures such as problem solving and flow charts, data types, input, output and control statements. Use of functions, arrays and strings is also practiced with engineering problem solving assignments.

Pre-requisite: COM111.

**MEC103 – Engineering Drawing and Mechanical Workshop (3, 1-(2+2)-0)**

Engineering drawing techniques; orthographic and pictorial projections; dimensioning and tolerance; limits and fits; screw fasteners; cam; gears; computer aided drafting and modeling; product design.

The students will also be introduced to basic workshop skills such as safety, hand tools applications and basic machine tool operations, (hand drills, grinding, welding, etc.).

Pre-requisite: ---.



#### **MEC201 – Fundamentals of Electrical Engineering (4, 3-2-1)**

Basic principles of circuit; steady-state A.C. circuit theory; magnetic circuits; transformers; direct-current motors; three-phase power system; induction motors; step motors. Introduction to Electronics. Introduction to microprocessors and microcontrollers.

Pre-requisite: PHY122.

#### **MEC202 – Engineering Mechanics – Statics (3, 3-0-1)**

Fundamental concepts and principles of mechanics, vectors and force systems, concept of free-body-diagram, principle of equilibrium, analysis of structures, trusses, frames and machines, shear and bending moment in beams, center of gravity, centroids, moment of inertia, and friction.

Pre-requisite: PHY121.

#### **MEC203 – Engineering Materials (3, 2-2-1)**

Introduction to fundamental concepts related to structure and properties of materials, metals and alloys, non-metals, polymers, ceramics and composites with applications.

Pre-requisite: CHE101.

#### **MEC204 – Thermodynamics (3, 3-0-1)**

Basic concepts of thermodynamics, properties of matter, processes and cycles, energy transfer, first law of thermodynamics for closed systems and control volumes, second law of thermodynamics, entropy, applications on engineering devices, basics of vapor power and gas power cycles. Introduction to internal combustion engines.

Pre-requisite: PHY121.

#### **MEC205 – Engineering Mechanics – Dynamics (3, 3-0-1)**

Fundamental concepts of kinematics and kinetics with application to motion of particles and plane motion of rigid bodies, rectilinear and curvilinear motion, Newton's second law, impulse and momentum methods, impact, dynamics of systems of particles, kinematics of rigid bodies; plane motion of rigid bodies, forces and accelerations, energy and momentum methods.

Pre-requisite: MEC202.

#### **MEC206 – Mechanics of Solids (4, 3-2-1)**

Stress and strain; mechanical properties of materials; axial load, torsion, bending and transverse shear; combined loadings; stress transformation; deflection of beams and shafts; and buckling of columns; thin-walled pressure vessels.

Pre-requisite: MEC202.

#### **MEC207 – Fluid Mechanics (4, 3-2-1)**

Fundamental concepts and properties of fluids; fluid statics, units and measurement of pressure; forces on planar and curved surfaces, and buoyancy; kinematics of fluid motion; conservation equations with applications; continuity, momentum and energy equations, Bernoulli's equation; velocity and flow rate measurements; dimensional analysis and modeling; frictional losses in pipes and introduction to fluid dynamic forces on immersed bodies.

Pre-requisite: PHY121.

**MEC208 – Report Writing and Presentation (3, 3-0-1)**

To develop engineering students' skills in technical report writing, business correspondence, and effective oral presentation.

Pre-requisite: MEC101.

**MEC301 – Heat Transfer (4, 3-2-1)**

Mechanisms of heat transfer, steady-state conduction solution in various geometries, electric network analogy, fins, numerical methods in heat transfer, transient conduction, internal and external forced and natural convection with applications to heat exchangers, and fundamentals of thermal radiation.

Pre-requisite: MEC204.

**MEC302 – Computational Methods in Engineering (3, 3-0-2)**

An introductory course on computational methods for solving problems in engineering using faster and more efficient approximate numerical solution techniques with the help of computers. Examples of applications from mechanical engineering will be used.

Prerequisite: MTH221, MEC102.

**MEC303 – Design of Machine Elements (3, 3-0-1)**

Mechanical systems and elements, overall design considerations, safety, economy and societal considerations in design. Design codes and standards. Load, stress and critical sections in machine parts. Theories of Failure. Torque Transmission Systems: Design of shaft, axle, keys. Selection of bearings; other machine elements: Selection of springs, Design of power screws;

Pre-requisites: MEC103, MEC206.

**MEC304 – Control Systems (4, 3-2-2)**

To develop students' concepts of control systems, familiarize them with different analysis techniques, and to enable them to design and analyze the performance of feedback control systems.

Prerequisite: MTH321.

**MEC305 – Engineering Management (3, 3-0-1)**

This course presents an overview of the functions of engineering management and business fundamentals for engineering managers. The course aims at teaching the students how to contribute and manage the organization's people, technology, facilities and other resources effectively to achieve its business objectives. Introduction to engineering economy.

Pre-requisite: MEC208.

**MEC306 – Machine Design (4, 3-2-1)**

Power Transmission System - Design of gear system; Design of brakes & clutches. Selection of flexible drives, Design of mechanical systems.

Pre-requisite: MEC303.



### **MEC307 – Manufacturing Technology (4, 3-2-1)**

Fundamentals of manufacturing processes, including casting, forming, welding and machining operations, powder metallurgy. Surface treatment. Basics of economics of metal cutting, statistical quality control, non-metals manufacturing and other contemporary topics in manufacturing.

Pre-requisite: MEC206.

### **MEC401 – Directed Studies in Mechanical Engineering (3, 3-0-0)**

The course permits students to investigate possible research fields or pursue topics of interest through reading, presentation and seminars under the supervision and guidance of a faculty member. At the beginning of the semester, the course instructor gives students a list of the course topics with brief introductions. Students are required to investigate and research each topic and prepare a reports and a presentation. Topics will be in areas that are not covered in other courses or topic that deal with broad knowledge and professional practice.

Pre-requisite: MEC305.

### **MEC402 – Turbo Machines (3, 3-0-0)**

Fundamental concepts of compressible and incompressible flow turbomachines dimensional analysis and similitude, basic governing equations for turbomachines, cascades, Euler equation and head losses, centrifugal pumps and piping systems, net positive displacement machines, hydraulic turbines, compressible flow turbomachines (compressors, fans and turbines), safety, specifications and standards.

Prerequisite: MEC207, MEC301.

### **MEC403 – Refrigeration and Air Conditioning (4, 3-2-0)**

Introduction to refrigeration and air conditioning. Heating, ventilating, and air conditioning (HVAC) systems including psychometrics, ventilation requirements, load estimates, and building energy system design, simulation, and control.

Pre-requisite: MEC301.

### **MEC491 – Graduation Design Project I (3, 1-4-0)**

The course is aimed at the development of conceptual and applied design skills through discussions, meetings and laboratory work involving the completion of a mechanical engineering design project. The project experience is intended to develop students' skill in problem solving, team work, design, innovation, use information technology, engineering, ethics, and social responsibility.

Pre-requisites: MEC306, MEC307.

### **MEC492 – Graduation Design Project II (3, 1-4-0)**

The course is aimed at the development of conceptual and applied design skills through discussions, meetings and laboratory work involving the completion of a mechanical engineering design project. The project experience is intended to develop students skill in problem solving, team work, design, innovation, information technology, engineering, medical ethics, and social responsibility. Students are expected to complete a design project that demonstrates the skills and knowledge gained through applying engineering principles to solve a design problem.

Pre-requisite: MEC491.

**Program Electives:****MEC451 – Industrial Automation and Mechatronics (3, 3-0-0)**

The course introduces the current practices and trends in manufacturing industry in terms of automation and use of mechatronics. Fundamentals of electronics, microprocessors and controllers. Use of sensors, transducers, devices for data acquisition and data processing. Engineering applications. System components and system integration. CNC machines and part programming.

Pre-requisites: MEC201, MEC302, MEC304.

**MEC452 – Computer Aided Design and Manufacturing (3, 3-0-0)**

Introduction to the use of computers in product design and manufacturing. An overview of CAD. Product design. Modern prototyping and machining methods. NC programming. Design for manufacturing and assembly.

Pre-requisites: MEC103, MEC302.

**MEC453 – Renewable Energy Systems (3, 3-0-0)**

Introduction to renewable and non-renewable energy resources. Environmental and social impact of renewable energy and its uses. Renewable energy technologies such as solar, wind, geothermal, ocean. Operation, maintenance, efficiency and related issues. Future technologies.

Pre-requisite: MEC301.

**MEC454 – Finite Element Methods with Applications (3, 3-0-0)**

Basics of finite element methods (FEM) as an introductory course. FEM as a tool for solving differential equations with a variety of applications such as in structural frameworks, stress analysis, heat flow, and fluid flow.

Pre-requisite: MEC302.

**MEC455 – Advanced Fluid Mechanics (3, 3-0-0)**

Introduction to fluid dynamics. Viscous flow in pipes. Flow over immersed bodies. Introduction to compressible flow. Numerical methods in fluid flow. Introduction to computational fluid dynamics.

Pre-requisites: MEC207, MEC302.

**MEC456 – Water Desalination (3, 3-0-0)**

The course introduces the need for water desalination, basic science and technology related to water desalination, water properties, basics of water desalination, desalination processes and technologies problems in water desalination.

Pre-requisites: MEC207, MEC301.

**Program Free Electives:****BME308 – Biomechanics (3, 3-0-0)**

Basics of Anatomy and Mechanics, Applications involving forces and moments, Statics: Analysis of systems in equilibrium: Applications to human joints: Properties of deformable bodies: Basics of Dynamics, Impulse and momentum, Applications from real-life problems: Applications to various sports, Contemporary issues: Motion / gait analysis.

Pre-requisites: MEC206.

#### **BME304 – Biomaterials Basics and Applications (3, 3-0-0)**

Introduction to biomaterials, structure and properties of materials, crystalline and non-crystalline materials, properties of biological materials, tissue response to implants (biocompatibility). Metallic implant materials – properties and applications. Ceramic implant materials – properties and applications. Polymeric implant materials – properties and applications, polymerization. Composite implant materials. Applications and major considerations of materials in various areas, such as cardiovascular, ophthalmologic, orthopedic, dental implants.

Pre-requisites: MEC203.

#### **MGT211 – Production and Operations Management (3, 3-0-0)**

Operations Management is concerned with efficient and effective transformation of inputs – raw materials, personnel, machines, technology, capital, information, and other resources – into marketable and competitive outputs. The course will introduce students to the main principles, standards and methodologies of Production and Operations Management (POM). It will explore past and present topics in production and operations management that have had a significant impact in the management of Manufacturing and Service operations.

Pre-requisites: MEC305, STA112.

#### **MGT212 – Management of Small Business (3, 3-0-0)**

The course is designed to answer the fundamental question that most students and aspiring entrepreneurs often ask: How to start and manage my own business? With this objective the course discusses different types of businesses, legal organizations, accounting and financial requirements. Other specific topics covered in the course include: obtaining capital, controlling inventory, selling prices, staffing, marketing strategies, growth and expansion decisions and strategies.

Pre-requisites: MEC305.

#### **ELE480 – Fuzzy Logic and Neural Networks (3, 3-0-0)**

To introduce students to the theory of fuzzy logic and artificial neural networks and develop their understanding of neural/fuzzy technology applications and implementations.

Pre-requisites: MEC302.

## College of Architecture, Art and Design

### Vision

Ajman University, College of Architecture, Art and Design vision is to be a leading provider of architecture and interior design education focused on improving the quality of life in the built and natural environments on the local and global regions supported by research, focused on professional practice, and committed to sustainability.

### Mission

Our mission within the College of Architecture, Art and Design is to cultivate a design-and technology-based 21st-century professional education. We seek this through a pedagogy that is critical, ethical and responsive to the natural, technological, cultural, social and futuristic environments.

### Core values, or educational aspirations

- *Building Technology*, which highlights the importance we put on technology within our coursework. This value is manifested in a well developed academic environment.
- *Design Intelligence*, which refers to broad-based skills and intellectual accuracy that students learn by completing a challenging curriculum that emphasizes individual creativity.
- *Futuristic awareness*, which means changing the way of doing things much different than people get used to, since people need to experience new surprising built environments.
- *Leadership*, which is developed through the holistic and ethical educational experience at AU by working in collaboration with other institutions and organizations.

### Departments

- Department of Architecture
- Department of Interior Design

### Programs Offered

The College of Architecture offers the following programs:

- **Undergraduate Programs:** Bachelor of Architecture, Bachelor of Science in Building Engineering & Construction Management, Bachelor of Interior Design
- **Graduate Program:** Master of Science in Urban Design

### Admission Requirements for Undergraduate Programs

Admission to the College of Architecture, Art and Design requires a UAE secondary school certificate (science major) or its equivalent with a minimum grade of 70 percent for Architecture and Building

Engineering & Construction Management programs. For admission to the Interior Design program, the minimum acceptable grade is 60 percent (science or arts major).

For further information please refer to the University admissions policy.

### **Academic Staff**

College members hold terminal degrees from internationally-recognized universities and are well versed in their areas of specialization.

### **Studios**

The college provides a numerous number of studios which fulfil the needs of the students; to practice their design courses in an efficient way. All studios have the needful requirements and tools to perform healthy and practical sessions with good outcomes.

### **Lecture rooms**

Students have a big spacious lecture hall, which is equipped with an interactive-board that facilitates the media of teaching. Lecture rooms are equipped to facilitate the use of audiovisual aids such as overhead projectors, slide projectors, computer projection devices and video players.

### **CAAD LAB**

A CAAD laboratory has a set of software that are needed as a tool for the students to draw and express their design vision in 2D and 3D dimensional virtual environment. Our staff and technicians keep updating software frequently with respect to the students' requirements and the study of the market needs.

### **FABLAB**

The Fabrication lab is a very vibrant laboratory that provides the tools and equipment for the students to explore and practice their capacities in model making. They have laser cutting machines and a 3D printer that exposes students to the up-to-date techniques and ease their approach to find out the best trials in modeling. The lab-supervisor keeps assisting and helping them along the time.

### **Building Science and lighting Lab**

Building Construction Materials and the lighting types used in project are displayed in this lab. Students get to know the most trendy and used materials in executing buildings. They understand the usage of each of them and their application. The lab provides a showroom like experience for students and encourages them to explore more about such materials and lights.

### **Other Facilities**

College of Architecture, Art and Design students have access to a wide range of university facilities including reading & reserve room, exhibition area, archive room, glass room, printing center, sports and recreation facilities, swimming pool, cafeteria and clinics.

### **Training**

External training is an essential part of the curriculum of the College of Architecture, Art and Design. Students are required to complete external training lasting from three to four months (depending on the program). The College has extensive links with local organizations such as engineering companies and interior design companies, who offer on-site external training to college students. The aim of the



external training program is to enable students to acquire practical skills, gain an understanding of the work environment and improve their communication skills.

## DEPARTMENT of ARCHITECTURE

The department of architecture is one of the main branches of the Collage of Architecture Art and Design. The department has three programs: Bachelor ofArchitecture, Bachelor of Building Engineering and Construction Management and Master in Urban Design. The department of architecture has worked locally, regionally and internationally to bring up to date programs that has significant impact in the society, and provide quality professional fields. The Department has accreditation form the higher minister in these programs and international validation from UIA UNISCO for the Architecture Program.

### Bachelor of Science in Architecture

#### Mission

The mission of the Department of Architecture is to provide the society with graduates qualified for successful professional career in Architecture. The department focuses on teaching students the fundamental theoretical and practical principles of Architecture and their application to solving real-world problems. Consistent with its mission, the Department of Architecture developed a learning program consisting of a number of practical and theoretical courses.

#### Goals

The main goals of the Architecture curriculum are to produce graduates who are:

- Equipped with design abilities to meet the requirements of architectural profession. This is based on theoretical knowledge and practical skills.
- Equipped with technical skills and their applications to solving design problems.
- Equipped with knowledge of local needs to enable them to adequately compete within the local and international professional environments.

#### AE Program Learning Outcomes

| No.              |     | Architectural Engineering Program Outcomes   |
|------------------|-----|--|
| <b>Knowledge</b> | POs |  |
| K1               | PO1 | Demonstrate basic philosophy and ideology of architecture.                                 |
| K2               | PO2 | Coordinate environmental studies in design proposals.                                      |
| K3               | PO3 | Comprehend and apply and the knowledge of social and cultural studies in design proposals. |
| K4               | PO4 | Comprehend and apply the knowledge of science, mathematics and technology                  |
| K5               | PO5 | Comprehend and apply the knowledge of architectural practice and management.               |
| <b>Skills</b>    |     |  |

|   |      |   |
|---|------|---|
| S1  | PO6  | Conceptualize, conceive and coordinated design in realm of contemporary issues and challenges of built environment.             |
| S2  | PO7  | Communicate, demonstrate and implement the architectural solutions clearly  |
| S3  | PO8  | Propose the architectural design in context of modern technology and engineering  |
| S4  | PO9  | Design and evaluate the architectural design solutions through computers  |
| S5  | PO10 | Analyze the design critically and foresee its consequences at occupational stage  |
| <b>Competencies Autonomy and responsibility</b> |      |   |
| C1  | PO11 | Apply the problem solving approach in conducting experiments, analyzing and interpreting data in proposed architectural design. |
| C2  | PO12 | Work independently as well as in teams across technical or professional activities .  |
| <b>Role in context</b>                          |      |   |
| C3  | PO13 | Team with multidisciplinary professions engaged in building design and construction process.                                    |
| C4  | PO14 | Identify , formulate and solve design management problems   |
| <b>Self-development</b>                         |      |   |
| C5  | PO15 | Comprehend and apply the professional and ethical responsibilities in architectural practice                                    |
| C6  | PO16 | Identify and adopt the market trends to compete in professional market.   |

## MAPPING THE ARCHITECTURAL PROGRAM OUTCOMES

### UAE'S QUALIFICATIONS FRAMEWORKS/ LEARNING OUTCOMES STRANDS

| No. | Architectural Engineering Program Outcomes   | UAE Qualifications Framework Strands of Learning Outcomes |          |          |          |          |
|-----|--|---|----------|----------|----------|----------|
|     |  | Strand 1  | Strand 2 | Strand 3 | Strand 4 | Strand 5 |
| 1   | Demonstrate basic philosophy and ideology  | X   |          |          |          |          |
| 2   | Coordinate environmental studies in design   | X   |          |          |          |          |
| 3   | Comprehend and apply and the knowledge of social and cultural studies in design proposals. | X   |          |          |          |          |
| 4   | Comprehend and apply the knowledge of science, mathematics and technology                  | X   |          |          |          |          |
| 5   | Comprehend and apply the knowledge of architectural practice and management.               | X   |          |          |          |          |

|    |   |  |   |   |   |   |
|----|---|--|---|---|---|---|
| 6  | Conceptualize, conceive and coordinated design in realm of contemporary issues and  |  | X |   |   |   |
| 7  | Communicate, demonstrate and implement the architectural solutions clearly  |  | X |   |   |   |
| 8  | Propose the architectural design in context of modern technology and engineering  |  | X |   |   |   |
| 9  | Design and evaluate the architectural design solutions through computers  |  | X |   |   |   |
| 10 | Analyze the design critically and foresee its consequences at occupational stage  |  | X |   |   |   |
| 11 | Apply the problem solving approach in conducting experiments, analyzing and interpreting data in proposed architectural design. |  |   | X |   |   |
| 12 | Work independently as well as in teams across technical or professional activities  |  |   | X |   |   |
| 13 | Team with multidisciplinary professions engaged in building design and construction   |  |   |   | X |   |
| 14 | Identify , formulate and to solve the design management problems  |  |   |   | X |   |
| 15 | Comprehend and apply the professional and ethical responsibilities in architectural   |  |   |   |   | X |
| 16 | Identify and adopt the market trends to compete in professional market.   |  |   |   |   | X |

### Admission Requirements

Admission to the Architecture program requires a UAE secondary school certificate (science major), or its equivalent, with a minimum acceptable grade of 70 percent. For more information please refer to the university admissions policy.

### Career Opportunities

Because of the multidisciplinary nature of the curriculum, graduates are qualified for employment in a variety of areas. They can work, for example, as designers and construction managers, or join city planning or community agencies and governmental authorities. Alternatively they can become building contractors. As graduates are trained in problem-solving they are able to adapt to a range of jobs in both the public and private sector.

### Graduation Requirements

The Bachelor of Science in Architecture is awarded upon fulfillment of the following:

- Successful completion of all courses in the prescribed curriculum
- Successful completion of four months' engineering training
- The Cumulative Grade Point Average CGPA is at least 2.0.

## Degree Requirement

The B.Sc. degree in Architecture requires the completion of 170 Cr. Hrs. circulated according to the following plan:

| Type of Courses                              | Credit hours |
|--|--------------|
| 1. University General Education Requirements |              |
| (a) University Required Courses              | 15           |
| (b) University Elective Courses              | 9            |
| 2. College Required courses                  | 9            |
| 4. Specialization required courses           | 118          |
| 4. Specialization Elective courses           | 9            |
| 5 Graduation projects I & II                 | 10           |
| Total Credit Hours                           | 170          |

### UNIVERSITY GENERAL EDUCATION REQUIREMENTS

#### (a) University Required Courses (15 Cr.Hrs.)

| Course No. | Course Title                   | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite |
|------------|--------------------------------|-----|------|------|----------|--------------|
| ORN111     | Orientation                    | 1   | 0    | 0    | 0        | -            |
| ISL 114    | Islamic Culture                | 3   | 0    | 1    | 3        | -            |
| ARB 111    | Communication Skills in Arabic | 3   | 0    | 0    | 3        | -            |
| STA 112    | Statistics                     | 2   | 2    | 0    | 3        | -            |
| COM 111    | IT Fundamentals                | 2   | 2    | 0    | 3        | -            |
| ENV 111    | Innovation & Entrepreneurship  | 3   | 0    | 0    | 3        | -            |

#### (b)University Elective Courses (9 Cr.Hrs.)

| Course No. | Course Title                         | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite |
|------------|--------------------------------------|-----|------|------|----------|--------------|
| ISL 113    | The Miraculousness of the Holy Koran | 3   | 0    | 0    | 3        | -            |
| RES 211    | Research Methodology                 | 3   | 0    | 0    | 3        | -            |
| ARC 211    | Principles of Architecture & Art     | 3   | 0    | 0    | 3        | -            |
| DES 211    | Principles of Interior Design        | 3   | 0    | 0    | 3        | -            |
| SOC 211    | Modern Technology and Society        | 3   | 0    | 0    | 3        | -            |
| INT 211    | Internet Concepts                    | 3   | 0    | 0    | 3        | -            |
| INF 212    | Introduction to Information Systems  | 3   | 0    | 0    | 3        | -            |
| ECO 211    | Economic Concepts                    | 3   | 0    | 0    | 3        | -            |
| ENT 211    | Entrepreneurship Development         | 3   | 0    | 0    | 3        | -            |
| ISH 111    | History of science in Islam          | 3   | 0    | 0    | 3        | -            |

|         |   |   |   |   |   |   |
|---------|---|---|---|---|---|---|
| PIO 211 | Scientific pioneering                   | 3 | 0 | 0 | 3 | - |
| PSY 111 | General psychology                      | 3 | 0 | 0 | 3 | - |
| MTH 111 | Principle of mathematics                | 3 | 0 | 0 | 3 | - |
| ARB 113 | The Art of Expression and writing       | 3 | 0 | 0 | 3 | - |
| EMS 111 | Emirates Society                        | 3 | 0 | 0 | 3 | - |
| EDT 211 | Education Technology                    | 3 | 0 | 0 | 3 | - |
| CHM 111 | General chemistry                       | 3 | 0 | 0 | 3 | - |
| NUT 111 | Fundamental of Human Nutrition          | 3 | 0 | 0 | 3 | - |
| AID 111 | First Aid                               | 3 | 0 | 0 | 3 | - |
| GIS 211 | Applications of Remote sensing          | 3 | 0 | 0 | 3 | - |
| ETH 111 | Principles of Ethics                    | 3 | 0 | 0 | 3 | - |
| BIO 111 | General Biology                         | 3 | 0 | 0 | 3 | - |
| ORH 211 | Oral Health                             | 3 | 0 | 0 | 3 | - |
| EPI 111 | General principles of Epidemiology      | 3 | 0 | 0 | 3 | - |
| CPR 111 | CPR-Cardio Pulmonary Resuscitation      | 3 | 0 | 0 | 3 | - |
| ENG 111 | Communication Skills                    | 3 | 0 | 0 | 3 | - |
| SOC 111 | Introduction to Communication Sociology | 3 | 0 | 0 | 3 | - |
| INF 211 | Information Society                     | 3 | 0 | 0 | 3 | - |
| LAW 211 | Legal Culture                           | 3 | 0 | 0 | 3 | - |

**College Required Courses (9 Cr. Hrs.)**

| Course No. | Course Title              | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite |
|------------|---------------------------|-----|------|------|----------|--------------|
| ARC 112    | Engineering Graphics      | 2   | 2    | 0    | 3        | ---          |
| MTH 121    | Engineering Mathematics I | 3   | 0    | 2    | 3        | ---          |
| ARC 171    | Building Sciences         | 3   | 0    | 0    | 3        | ---          |

**(b) Specialization Required Courses & Graduation Projects (128 Cr.Hrs.)**

| Course No. | Course Title                 | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite |
|------------|------------------------------|-----|------|------|----------|--------------|
| ARC 100    | Introduction to Design       | 1   | 4    | 0    | 3        |              |
| ARC 113    | Perspective, Shade & Shadows | 1   | 4    | 0    | 3        | ARC 112      |
| ARC 533    | Engineering Training         | 4   | 0    | 0    | 4        |              |
| ARC 101    | Architectural Design I       | 2   | 4    | 0    | 4        | ARC 100      |
| ARC 200    | Architectural Design II      | 2   | 4    | 0    | 4        | ARC 101      |
| ARC 201    | Architectural Design III     | 2   | 6    | 0    | 5        | ARC 200      |
| ARC 221    | Ancient Architecture         | 3   | 0    | 0    | 3        |              |

| Course No. | Course Title                        | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite      |
|------------|-------------------------------------|-----|------|------|----------|-------------------|
| ARC 222    | Islamic Architecture                | 3   | 0    | 0    | 3        | ARC 221           |
| ARC 251    | CAAD I                              | 1   | 4    | 0    | 3        | COM 111 & ARC 112 |
| ARC 252    | CAAD II                             | 1   | 4    | 0    | 3        | ARC 251           |
| ARC 300    | Architectural Design IV             | 2   | 6    | 0    | 5        | ARC 201           |
| ARC 301    | Architectural Design V              | 2   | 6    | 0    | 5        | ARC 300           |
| ARC 321    | Modern & Contemporary Architecture  | 3   | 0    | 0    | 3        | ARC 221           |
| ARC 361    | Housing Design & Theory             | 3   | 0    | 0    | 3        | ARC 201           |
| ARC 362    | Landscape Architecture              | 2   | 2    | 0    | 3        | ARC 200           |
| ARC 400    | Architectural Design VI             | 2   | 6    | 0    | 5        | ARC 301           |
| ARC 371    | Active Thermal Control              | 2   | 0    | 2    | 3        | ARC 171           |
| ARC 461    | Urban Planning                      | 3   | 0    | 0    | 3        | ARC 362           |
| ARC 401    | Urban Design                        | 2   | 6    | 0    | 5        | ARC 400           |
| ARC 261    | Environmental Behavior              | 3   | 0    | 0    | 3        |                   |
| ARC 421    | Heritage Conservation               | 3   | 0    | 0    | 3        | ARC 222           |
| ARC 372    | Sustainable Architecture            | 3   | 0    | 0    | 3        | ARC 371           |
| ARC 531    | Architectural Practice              | 3   | 0    | 0    | 3        |                   |
| ARC 500    | Graduation Project I                | 3   | 4    | 0    | 5        | ARC 361 & ARC 401 |
| ARC 501    | Graduation Project II               | 1   | 8    | 0    | 5        | ARC 500           |
| ARC 231    | Building Construction I             | 2   | 2    | 0    | 3        | ARC 112           |
| ARC 232    | Building Construction II            | 2   | 2    | 0    | 3        | ARC 231           |
| ARC 331    | Advanced Building Technology        | 3   | 0    | 0    | 3        | ARC 232&ARC 242   |
| ARC 431    | Working Drawing I                   | 1   | 4    | 0    | 3        | ARC 331           |
| ARC 332    | Building Services                   | 3   | 0    | 0    | 3        | ARC 331           |
| ARC 432    | Working Drawing II                  | 1   | 4    | 0    | 3        | ARC 431           |
| ARC 471    | Lighting & Acoustics                | 3   | 0    | 0    | 3        | ARC 171 & ARC 332 |
| ARC 532    | Project Management                  | 3   | 0    | 0    | 3        | ARC 432           |
| ARC 241    | Surveying for Architects            | 1   | 2    | 0    | 2        |                   |
| ARC 242    | Structural Design for Architects I  | 3   | 0    | 0    | 3        | ARC 171 & MTH 121 |
| ARC 341    | Structural Design for Architects II | 3   | 0    | 0    | 3        | ARC 242           |
| ARC 111    | Freehand Drawing                    | 2   | 4    | 0    | 4        |                   |

**(c) Specialization Electives courses (9 Cr.Hrs.)**

The student will take three of the following Specialization Electives as approved by the academic advisor.

The registration in these courses is conditioned by having passed and earned 100 Cr.Hrs.

| Course No. | Course Title                    | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite |
|------------|---------------------------------|-----|------|------|----------|--------------|
| ARC 580    | Selected Topics in Architecture | 3   | 0    | 0    | 3        |              |
| ARC 581    | Interior Design & Coloring      | 1   | 4    | 0    | 3        |              |
| ARC 582    | Real Estate Development         | 3   | 3    | 0    | 3        |              |
| ARC 583    | Photography                     | 1   | 4    | 0    | 3        |              |
| ARC 584    | Advanced CAAD Applications      | 1   | 4    | 0    | 3        | ARC 252      |
| ARC 585    | Research & Design Methods       | 3   | 0    | 0    | 3        |              |
| ARC 586    | Geographic Information Systems  | 1   | 4    | 0    | 3        | ARC 252      |
| ARC 587    | Contemporary Arab Architecture  | 3   | 0    | 0    | 3        | ARC 321      |

## Study Plan

### FIRST SEMESTER

| Course Code | Course Name                             | Credit Hours |     |     |         | Prerequisite |
|-------------|---|--------------|-----|-----|---------|--------------|
|             |   | Lec          | Lab | Tut | Cr.Hrs. |              |
|             | Orientation                             | 1            | 0   | 0   | 0       |              |
| ARC 100     | Introduction to Design                  | 1            | 4   | 0   | 3       |              |
| ARC 111     | Freehand Drawing I                      | 2            | 4   | 0   | 4       |              |
| ARC 112     | Engineering Graphics                    | 2            | 2   | 0   | 3       |              |
| ARC 171     | Building Sciences                       | 3            | 0   | 0   | 3       |              |
| ARB 111     | Communication Skills in Arabic Language | 3            | 0   | 0   | 3       |              |
| COM 111     | Computer Applications                   | 2            | 2   | 0   | 3       |              |
| TOTAL       |   | 14           | 12  | 0   | 19      |              |

### SECOND SEMESTER

| Course Code | Course Name                 | Credit Hours |     |     |         | Prerequisite |
|-------------|-----------------------------|--------------|-----|-----|---------|--------------|
|             |                             | Lec          | Lab | Tut | Cr.Hrs. |              |
| ARC 101     | Architectural Design I      | 2            | 4   | 0   | 4       | ARC 100      |
| ARC 113     | Perspective Shades & Shadow | 1            | 4   | 0   | 3       | ARC 112      |
| ENV 111     | Environmental Sciences      | 3            | 0   | 0   | 3       |              |
| MTH 121     | Engineering Math. I         | 3            | 0   | 2   | 3       |              |
| xxxxxx      | University Elective I       | 3            | 0   | 0   | 3       |              |
| ISL 114     | Islamic Culture             | 3            | 0   | 0   | 3       |              |
| TOTAL       |                             | 15           | 8   | 2   | 19      |              |

### THIRD SEMESTER

| Course Code | Course Name             | Credit Hours |     |     |         | Prerequisite   |
|-------------|-------------------------|--------------|-----|-----|---------|----------------|
|             |                         | Lec          | Lab | Tut | Cr.Hrs. |                |
| ARC 200     | Architectural Design II | 2            | 4   | 0   | 4       | ARC 101        |
| ARC 221     | Ancient Architecture    | 3            | 0   | 0   | 3       |                |
| ARC 231     | Building Construction I | 2            | 2   | 0   | 3       | ARC 112        |
| ARC 241     | Surveying               | 1            | 2   | 0   | 2       |                |
| ARC 251     | CAAD I                  | 1            | 4   | 0   | 3       | ARC 112&104110 |
| ARC 261     | Environmental behavior  | 3            | 0   | 0   | 3       |                |
| TOTAL       |                         | 12           | 12  | 0   | 18      |                |



**FOURTH SEMESTER**

| Course Code | Course Name                        | Credit Hours |     |     |         | Prerequisite      |
|-------------|------------------------------------|--------------|-----|-----|---------|-------------------|
|             |                                    | Lec          | Lab | Tut | Cr.Hrs. |                   |
| ARC 201     | Architectural Design III           | 2            | 6   | 0   | 5       | ARC 200           |
| ARC 222     | Islamic Architecture               | 3            | 0   | 0   | 3       | ARC 221           |
| ARC 232     | Building Construction II           | 2            | 2   | 0   | 3       | ARC 231           |
| ARC 242     | Structural Design for Architects I | 3            | 0   | 0   | 3       | ARC 171 & MTH 121 |
| ARC 252     | CAAD II                            | 1            | 4   | 0   | 3       | ARC 251           |
| TOTAL       |                                    | 11           | 12  | 0   | 17      |                   |

**FIFTH SEMESTER**

| Course Code | Course Name                         | Credit Hours |     |     |         | Prerequisite       |
|-------------|-------------------------------------|--------------|-----|-----|---------|--------------------|
|             |                                     | Lec          | Lab | Tut | Cr.Hrs. |                    |
| ARC 300     | Architectural Design IV             | 2            | 6   | 0   | 5       | ARC 201            |
| ARC 321     | Modern & Contemporary Architecture  | 3            | 0   | 0   | 3       | ARC 221            |
| ARC 331     | Advanced Building Technology        | 3            | 0   | 0   | 3       | ARC 232<br>ARC 242 |
| ARC 341     | Structural Design for Architects II | 3            | 0   | 0   | 3       | ARC 242            |
| ARC 371     | Active Thermal Env.Control          | 2            | 2   | 0   | 3       | ARC 171            |
| TOTAL       |                                     | 13           | 8   | 0   | 17      |                    |

**SIXTH SEMESTER**

| Course Code | Course Name              | Credit Hours |     |     |         | Prerequisite |
|-------------|--------------------------|--------------|-----|-----|---------|--------------|
|             |                          | Lec          | Lab | Tut | Cr.Hrs. |              |
| ARC 301     | Architectural Design V   | 2            | 6   | 0   | 5       | ARC 300      |
| ARC 361     | Housing Design & Theory  | 2            | 2   | 0   | 3       | ARC 201      |
| ARC 332     | Building Services        | 3            | 0   | 0   | 3       | ARC 331      |
| ARC 372     | Sustainable Architecture | 3            | 0   | 0   | 3       | ARC 371      |
| ARC 362     | Landscape Architecture   | 2            | 2   | 0   | 3       | ARC 200      |
| TOTAL       |                          | 12           | 10  | 0   | 17      |              |

**SEVENTH SEMESTER**

| Course Code | Course Name             | Credit Hours |     |     |         | Prerequisite |
|-------------|-------------------------|--------------|-----|-----|---------|--------------|
|             |                         | Lec          | Lab | Tut | Cr.Hrs. |              |
| ARC 400     | Architectural Design VI | 2            | 6   | 0   | 5       | ARC 301      |
| ARC 461     | Urban Planning          | 3            | 0   | 0   | 3       | ARC 362      |

|         |                        |    |    |   |    |         |
|---------|------------------------|----|----|---|----|---------|
| ARC 431 | Working Drawing I      | 1  | 4  | 0 | 3  | ARC 331 |
| STA 112 | Statistics             | 2  | 2  | 0 | 3  |         |
| xxxxxxx | University Elective II | 3  | 0  | 0 | 3  |         |
| TOTAL   |                        | 11 | 12 | 0 | 17 |         |

#### EIGHTH SEMESTER

| Course Code | Course Name                          | Credit Hours |     |     |         | Prerequisite      |
|-------------|--------------------------------------|--------------|-----|-----|---------|-------------------|
|             |                                      | Lec          | Lab | Tut | Cr.Hrs. |                   |
| ARC 401     | Urban Design                         | 2            | 6   | 0   | 5       | ARC 400           |
| ARC 471     | Lighting & Acoustics in Architecture | 3            | 0   | 0   | 3       | ARC 171 & ARC 332 |
| ARC 432     | Working drawing II                   | 1            | 4   | 0   | 3       | ARC 431           |
| ARC 421     | Heritage Conservation                | 3            | 0   | 0   | 3       | ARC 222           |
| xxxxxx      | University Elective III              | 3            | 0   | 0   | 3       |                   |
| TOTAL       |                                      | 14           | 6   | 0   | 17      |                   |

#### NINTH SEMESTER

| Course Code | Course Name               | Credit Hours |     |     |         | Prerequisite       |
|-------------|---------------------------|--------------|-----|-----|---------|--------------------|
|             |                           | Lec          | Lab | Tut | Cr.Hrs. |                    |
| ARC 500     | Graduation Project I      | 3            | 4   | 0   | 5       | ARC 361<br>ARC 401 |
| ARC 531     | Architectural Practice    | 3            | 0   | 0   | 3       | ARC 332            |
| ARC 532     | Project Management        | 3            | 0   | 0   | 3       | ARC 432            |
| xxxxxx      | Specialization Elective I | /            | /   | /   | 3       |                    |
| TOTAL       |                           | 12           | 4   | 0   | 14      |                    |

#### TENTH SEMESTER

| Course Code | Course Name                 | Credit Hours |     |     |         | Prerequisite |
|-------------|-----------------------------|--------------|-----|-----|---------|--------------|
|             |                             | Lec          | Lab | Tut | Cr.Hrs. |              |
| ARC 501     | Graduation project II       | 1            | 8   | 0   | 5       | ARC 500      |
|             | Specialization Elective II  | /            | /   | /   | 3       |              |
|             | Specialization Elective III | /            | /   | /   | 3       |              |
| ARC 533     | Engineering Training        | /            | /   | /   | 4       |              |
| TOTAL       |                             | /            | /   | /   | 15      |              |

## Course Descriptions

### **ARC 100 Introduction to Design (1, 4, 0: 3)**

pre-requisite: none

The course covers the development of the sensory perception of abstract form and its ultimate conversion into specific architectonic configurations, relevant to a variety of solutions to a specific problem and leading to the process of selection and decision making. Basic principles of aesthetics through the study of form, space, proportion, texture analysis of color theory conditioned by different media and materials are also covered.

### **ARC 113 Perspective, Shades and Shadows (1, 4, 0: 3)**

pre-requisite: ARC 112

The course covers one point and two points exterior and interior perspectives, and fundamentals of drawing shades and shadows as presented in two-dimensional and three-dimensional parallel-line drawings by applying projection.

### **ARC 112 Engineering Graphics (2, 2, 0: 3)**

pre-requisite: none

The course covers the basics of 2-D and 3-D architectural drawing and presentation. Parallel-line drawings and orthogonal projections are covered. Drawing of all architectural elements, renderings (abstraction, textures, and materials), and lettering are also practiced.

### **ARC 171 Building Sciences (3, 0, 0: 3)**

pre-requisite: none

This course aims to familiarize students with the basic principles and means of measurement and design of technical aspects of building science. It also covers incorporating structural design, environmental principles, material science and human factors and how these topics rely upon and influence one another in architectural design.

### **ARC 101 Architectural Design I (2, 4, 0: 4)**

pre-requisite: ARC 100

The course covers elements and principles of architectural design; form, space/volume, and function and their interrelationships, in addition to basic design requirements through a small-scale project(s) (e.g. single family house, studio).

### **ARC 200 Architectural Design II (2, 4, 0: 4)**

pre-requisite: ARC 101

The course covers simple and single-use architectural project(s); aspects of spatial arrangements, site, climate and traditions are to be examined. (e.g., kindergarten, small clinic, art workshop).

### **ARC 201 Architectural Design III (2, 6, 0: 5)**

pre-requisite: ARC 200

Design process, conceptualization, and creativity are practiced by students. The problem of space formation, and form/function interaction are also covered. Students handle design problems related to large span single-use spaces; issues of structural systems and light weight material are applied.

Contextual design elements of site, topography, climate and traditional architecture are identified, and conceptual design solution(s) analyzed.

#### **ARC 221 Ancient Architecture (3, 0, 0: 3: 3)**

pre-requisite: none

This course introduces students to the Architecture of Ancient Civilizations: Prehistoric, Early Historic, and brief preview of Classical Architectural Eras extended from Early Christian period to Gothic Epoch. Students will be taught about major features and design concepts that helped shape historic buildings of these ancient, classical and medieval periods. A major concern of the course is the discussion of various themes, principles, theories, and terms needed to develop such architectural heritage. Students will be given the right knowledge and skills to analyze and assess building forms, design concepts/ elements, materials and techniques employed in those historic periods.

#### **ARC 231 Building Construction I (2, 2, 0: 3)**

pre-requisite: ARC 112

This course aims to introduce students to basic concepts and properties of building structural components and their materials. The students will acquire the necessary theoretical background in building technology. Students will be able to analyze main stress directions and select a relevant structural system (short/ medium span) for the project at hand.

#### **ARC 241 Surveying (1, 2, 0: 2)**

pre-requisite: none

The course covers basic surveying, errors in surveying operations, distance measurements, chain surveying, angles measurements and bearings, coordinate geometry, leveling of profiles and cross section contour lines, areas and volume computations. Lab work includes the use of the theodolite and planimeter for area measurement.

#### **ARC 232 Building Construction II (2, 2, 0: 3)**

pre-requisite: ARC 231

This course aims to familiarize students with water, damp proofing, and enclosure system (partitions, windows and doors), finishing materials, means of vertical circulation. In this course students identify main building structural systems and their relation to secondary systems. They will be acquainted with various finishing materials, their properties, and their means of application.

#### **ARC 242 Structural Design for Architects I (3, 0, 0: 3)**

pre-requisites: ARC 171 & 217 1010

The course provides an introduction to the statics of structures and structural members and deals with supports and springs. It discusses the analysis of determinate and indeterminate structures.

#### **ARC 251 CAAD I (1, 4, 0: 3)**

**pre-requisites: 104 1100 & ARC 112**

This course aims to introduce students to 2D Computer Aided Architectural Design drafting process. The course introduces students to computer aided architectural design tool, giving them an opportunity to develop computer skills in their architectural design projects. They will use,

manipulate and apply CAAD software, enabling them to make drafting and presentation of their projects. After taking this course, students should be able to use this tool in their respective design courses and studios.

**ARC 222 Islamic Architecture (3, 0, 0: 3)**

pre-requisite: ARC 221

This course aims to familiarize students with Islamic Architecture during several eras of the Islamic civilization. Students will learn the general circumstances behind the emergence of main features of Art and Architecture of the Islamic World. The major themes, principles and theories connected with Islamic architectural heritage, elements such unity, proportion, composition, rhythm and balance form an essential part of this course. The study follows a chronological order of historical development of these elements which were behind the rise of the much renowned Islamic architecture.

**ARC 300 Architectural Design IV (2, 6, 0: 5)**

pre-requisite: ARC 201

The course offers a comprehensive approach to context in response to vital aspects in design process, site analysis/selection, environmental/climatic impacts, culture and tradition. Problem-solving techniques in terms of complexity, form of the circulation path, configuration of path-space interaction, structural system, and building form are manipulated by students throughout the course (e.g., recreational facilities, local library, bank).

**ARC 331 Advanced Building Technology (3, 0, 0: 3)**

pre-requisites: ARC 232 & ARC 242

The course covers advanced building systems and technologies, and means of deploying them in buildings. Emphasis is placed on prefabrication, modular coordination, mechanization, super structures and long spans in concrete, steel and wood.

**ARC 341 Structural Design for Architects II (3, 0, 0: 3)**

pre-requisite: ARC 242

The course covers the strength of materials, the design of tension and compression members, beams and columns, with a major concentration on steel design.

**ARC 252 CAAD II (1, 4, 0: 3)**

Pre-requisite: ARC 251

This course aims to introduce students to Computer 3d modelling programs such as 3DMax or Sketchup, and how to use them to model an architectural project. The course introduces students to virtual three dimensional space and modelling through the use of 3d modelling software. The course set up students to use CAAD in their respective design studios to visualize concepts and proposed designs.

**ARC 301 Architectural Design V (2, 6, 0: 5)**

pre-requisite: ARC 300

The course introduces the manipulation of a complex multiuse/mixed-used project(s), and experimentation with the vocabulary of architectural form, space and order. Aspects of the inter-relationship of architectural form and function are analyzed and evaluated to be applicable to the potential design concept. Expression in the context of traditional architecture is a considerable aspect for developing design solution(s).

#### **ARC 321 Contemporary Architecture (3, 0, 0: 3)**

pre-requisite: ARC 221

New theories in Architecture, based on revolutionary design concepts, unique built forms, the use of new materials and techniques are introduced. Emphasis is placed on understanding the process of design and building through the masterpieces of pioneering architects of selected historic eras. A review of the various early 19C revivals of historic forms and eclecticism, which triggered the rise of modern architecture, is presented. Post-modern theories and the current evolution of architectural theories are also explored.

#### **ARC 431 Working Drawings 1 (1, 4, 0: 3)**

pre-requisite: ARC 331

The course Introduces students to basic skills and concepts of architectural working drawings and details. Students will learn the basic language of the architectural drafting and understand the process of producing a set of architectural drawings. They will be taught how to produce detailed drawings for their architectural design projects.

#### **ARC 361 Housing Theory & Design (3, 0, 0: 3)**

pre-requisite: ARC 201

The course covers the major processes, design considerations and computations for accomplishing residential housing development projects. Other topics include phases of the development process, site evaluation considerations include those relating to boundary surveys, topographic evaluation, soil analysis, traffic evaluation, hydrographic analysis, plus environmental, aesthetic and cultural considerations.

#### **ARC 362 Landscape Architecture (2, 2, 0: 3)**

pre-requisite: ARC 200

The course offers an introduction to the history and development of landscape architecture, and the technology and methods of landscape design. The processes of landscape design as applied to complex projects in landscape architecture, including proposal, programming, analysis, concept development and presentation are also covered.

#### **ARC 332 Building Services (3, 0, 0: 3)**

pre-requisite: ARC 331

This course provides students with the knowledge of various aspects of building technical installations required. The course will cover various technical issues such as mechanical and sanitary in buildings, water and air quality, waste, fire protection and safety. In addition it will cover air conditioning systems, and electrical installations in buildings.

**ARC 400 Architectural Design VI (2, 6, 0: 5)**

pre-requisite: ARC 301

The course covers process of developing a program for functional/environmental requirements of the determined project, setting up solutions for the concerned design problem and selecting the relevant site for the developed program. Taking into account the real needs of local society, students are also introduced to the process of analysis and synthesis, and evaluation of large scale design problems.

**ARC 432 Working Drawings 2 (1, 4, 0: 3)**

pre-requisite: ARC 431

The purpose of this course is to utilize drafting skills in architectural drafting procedures, practices, and symbols including the preparation of detailed working drawings for a large building, with emphasis on commercial construction methods.

**ARC 371 Active Thermal Environmental Control (2, 2, 0: 3)**

pre-requisite: ARC 242

The course covers the basics of active thermal systems and their technology, energy demand limits, heat loss and gain, calculations, measurements and applications, and offers a link up with architectural design.

**ARC 471 Lighting & Acoustics in Architecture (3, 0, 0: 3)**

pre-requisite: ARC 242& ARC 332

The course introduces lighting and acoustic terms and means of measurement and design, characteristics of light and sound, building standards and materials.

**ARC 461 Urban Planning (3, 0, 0: 3)**

pre-requisite:ARC 362

Course topics include the evolution of city form and structure, the development of order and organization in cities, theories of planning, the politics of planning, social and cultural contexts, the planning process and models, and planning management and implementation.

**ARC 401 Urban Design (2, 6, 0: 5)**

pre-requisite: ARC 400

The course introduces urban design concepts and urban scale architecture, urban design structure and elements, the urban design process; surveying, analysis and evaluation. Project management and presentation are also covered.

**ARC 261 Environmental Behavior ( 3,0,0:3)**

Pre-requisite: None

The aim of this course is to teach students how to apply the psychological and aesthetic factors in their design projects, as well as to improve the students' creativity and thinking ability. Students will learn basics of human behavior and draw from what drives us forward in life, what are our expectations and demands from space. They will be taught how to analyse the Principles of how we see and understand space. They will also study the concept of human spatial behavior and how

spatial behavior and spatial characteristics can be measured Investigate and draw upon the relationship of spatial behavior and characteristics

#### **ARC 421 Heritage Conservation (3, 0, 0: 3)**

pre-requisite: ARC 222

This course aims to introduce students to methods and techniques of architectural conservation. Students will learn how the historical development and emergence of historic conservation, preservation and their consequences. They will be able to differentiate between the main approaches of heritage conservation, restoration, rehabilitation, reconstruction, renovation and preservation. They will be taught the skills to apply the different techniques of analysis and treatment of historic buildings and areas.

#### **ARC 500 Graduation Project 1 (3, 4, 0: 5)**

pre-requisites: ARC 401& ARC 361

Students carry out a substantial work of design research presented as a short thesis report, entailing practical application to a researched topic of a specific building type (a complex multi-use design problem). Project selection is based on the real needs of UAE society. Methodology in architectural design through a process of programming is covered, together with a literature review, data collection, statistics, case study critique, developed architectural program and schematic design concepts.

#### **ARC 531 Architecture Practice (3, 0, 0: 3)**

Pre-requisite: ARC 332

An overview to the professional practice in architecture in general with special emphasis on the UAE. Professionalism, the architect's role in the building process in real life, how architects work and get work, becoming and being an architect are also covered. Course topics also include code of ethics, team work, design and design approvals, decision making field investigation, engineers and other consultants, construction contractors, building contracts, bill of quantities and book of specifications, phases of construction and construction management process.

#### **ARC 501 Graduation Project II (1, 8, 0: 5)**

Pre-requisite: ARC 500

The course covers the development of the schematic concept formulated during Graduation Project I, the development of design preliminary drawings in accordance with the architectural design program formulated in Graduation Project I, rendering and presentation of the design final drawings, and the use of advanced CAAD application.

#### **ARC 372 Sustainable Architecture (3, 0, 0, 3)**

Pre-requisite: ARC 371

This course aims to introduce students to basic concepts of sustainable design and its application in architecture considering environment and lifecycle of buildings, and also to provide students with comprehensive understanding of many ecological approaches.



**ARC 532 Project Management (3, 0, 0, 3)**

Pre-requisite: ARC 432

The course will assist the student to understand the position of a manager on site. The in depth study will train the student to apply various aspects of project management such as; organization planning, implementation, controlling tasks, project scheduling, cost controlling, and performance evolution.

**ARC 580 Selected Topics in Architecture (3, 0, 0: 3)**

Pre-requisite: None

This course introduces students to how to discuss and trigger the most important issues vital to their academic and professional development. It helps them organize their thoughts and interests in a systematic way in relation to their architecture education. The course also enables students to express various progress in architectural education of a special field both orally, by writing and graphically.

**ARC 581 Interior Design and Coloring (1, 4, 0: 3)**

Pre-requisite: None

The course covers interior design and coloring with emphasis on water color technique, poster color and pencil color and interior space coloring.

**ARC 584 Advanced CAAD Application (1, 4, 0: 3)**

Pre-requisite: ARC 252

The course concentrates on basics of BIM. AutoDesk Revit is the program of choice. Students are taught how to use building elements and put them in the BIM database.

**ARC 585 Research and Design Methods (3, 0, 0: 3)**

**Pre-requisite: None**

The course covers a comprehensive survey of qualitative and quantitative research methods and their method-specific hypothesis formulation, data acquisition, verification and analysis.

**ARC 586 Geographic Information Systems (1, 4, 0: 3)**

pre requisite ARC 252

The development and history of GIS, present applications of the technology. Essential elements of a Geographic Information System. Basic concepts and principles of Geographic Information Systems.

**ARC 583 Photography (1, 4, 0: 3)**

pre requisite none

This is an introductory course to photography. It deals with the principles of photography such as light exposures, compositions, and film developing. Types and uses of cameras, lenses, flashes, filters, and other accessories are discussed and applied. The course also involves photographing buildings and students' projects, portfolio design, and the use of digital cameras.



### ARC 587 Contemporary Architecture in the Arab World (3, 0, 0: 3)

pre requisite ARC 321

This course will introduce students with recent architectural trends and developments in the Arab World during the 20th century and the present time. Architectural changes and transformations from tradition to modernity during the 20th century are to be investigated. The different architectural trends and attitudes in Arab countries are explored through analyzing examples of the pioneers of contemporary Arab architecture, such as Fathy, Badran, Makkiyyeh and Chadirji.

### ARC 582 Real Estate Development (3, 0, 0: 3)

pre requisite none

The course will conduct market surveys and analysis studies, site consideration and selection, financial feasibility and documentation for real estate development. The students will be introduced to carry forth a real estate development project from the proposal (project formation) stage into final proposal. Manage project more effectively. Keep a project notebook, or digital file. Develop a scope of work, diagram workflow on a timeline, and use it to plan and manage activities effectively. Also, draw upon what they have learned in other courses.

## Bachelor of Science in Building Engineering and Construction Management (BSc.BE & CM)

### The Mission of BSc. (BE & CM) Program

The principal mission of this program is to prepare the professional technologist able to handle two major phases of built environment i.e. retrofit designing, construction management. In addition, a successful graduate of this program will also be able to play vital role in professions of facility management and costing and estimation. The graduate of program can pursue a career in various fields of built environment such as quantity surveying, building surveying, estate management, technical consulting firms, and companies offering appraisals and related services, public authorities and materials industry.

### Goals of Program

The goals of the Building Engineering and Construction Management program are to produce the graduate able to:

1. Serve as engineering technologist employed in retrofit designing, building surveying, building maintenance management, construction management, manufacturing industry, civil and Architecture, or other allied fields.
2. Pursue graduate or professional education in construction engineering, materials technology, construction law, architecture, etc.
3. Work as licensed Professional or Builder & Constructors.
4. Engage in lifelong learning, through on-the-job training, participation in professional societies, additional formal education, continuing education and professional development, research, and self-study, in order to use state-of-the-art knowledge to design and build safe and effective

buildings and/or provide high quality service to the public, employers, clients, and other professionals.

### Program Learning Outcomes

Learning outcomes describe what students are expected to know and be able to do by the time of graduation. These relate to the *knowledge, skills, competencies and self-development* that students will acquire as they progress through the program.

#### Knowledge

At completion of BSc. (BE & CM) program, the graduate will be:

1. Able to relate and apply knowledge of mathematics, science, engineering and other core courses in design and management
2. Able to comprehend and apply knowledge of modern construction technology, construction management, materials, and building science
3. Able to comprehend the fundamental knowledge and concepts of retrofit and adoptive designing
4. Able to comprehend the knowledge of professional practice and ethics
5. Able to comprehend the knowledge of construction laws and legal issues

#### Skills

At completion of BSc. (BE & CM) program, the graduate will be able to;

1. Conduct research, acquire data and its analyses for retrofit and adoptive designing
2. Prepare schematic proposals for regenerative and retrofit designing
3. Explicate design solution through illustrative, physical modes , writing and orally
4. Prepare estimations, BOQs and costing of projects
5. Prepare procurement, management and contract documentation

#### Competencies

##### Autonomy and Responsibility:

At completion of BSc. (BE & CM) program, the graduate will be able to;

1. Identify, formulates, and solves Bdg.Engr design and construction management problems.
2. Team with multidisciplinary professions engaged in building design and construction management process.
3. Design a system, component, or process to meet desired needs within realistic scenario and constraints such as economic, environmental, social, political, ethical, health and safety.
4. Comprehend and apply the professional and ethical responsibilities in Building Eng. and Management practice.

- Conduct building evaluation and suggest the viable solutions for its reuse.

#### Self-Development:

At completion of BSc. (BE & CM) program, the graduate will be able to;

- Recognize the need for life-long learning in field of Bdg.Engr design and construction management
- Professionally compete in the market and play an active role in the community

#### Role in Context:

At completion of BSc. (BE & CM) program, the graduate will be able to;

- Demonstrate professionalism and regard for his fellow professionals.
- Show good working ethics.

### BE & CM Mapping under Program Learning Outcomes

The current BSc in BE & CM program complies with CAA standards and AU policies and procedures manuals which include all academic requirements. The learning outcomes of the courses that are mapped according to QF Emirates program outcomes. Table 1 is showing the mapping of BSc in BE & CM program and learning outcome in QF Emirates Framework and Table 2: is showing the mapping courses according to QF Emirates Standards.

Table 1: The Mapping of Program Learning Outcomes and UAE's Qualifications Frameworks

| P.O No. | Building Engineering and Construction Management Program Outcomes (PO)  | Framework Strands of Learning Outcomes |          |          |          |          |
|---------|---|--|----------|----------|----------|----------|
|         |   | Strand 1                               | Strand 2 | Strand 3 | Strand 4 | Strand 5 |
| 1       | An ability to relate and apply knowledge of mathematics, science, engineering and other core courses in design and management | X                                      |          |          |          |          |
| 2       | Able to comprehend and apply knowledge of modern technology, management, materials, and building science                      | X                                      |          |          |          |          |
| 3       | Able to comprehend the fundamental knowledge and concepts of retrofit/adoptive designing                                      | X                                      |          |          |          |          |
| 4       | Able to comprehend the knowledge of professional practice and ethics  | X                                      |          |          |          |          |
| 5       | Able to comprehend the knowledge of construction laws and legal issues  | X                                      |          |          |          |          |
| 6       | An ability to acquire data and its analyses for retrofit / adoptive designing   |  | X        |          |          |          |
| 7       | An ability to prepare schematic proposals for regenerative and retrofit designing   |  | X        |          |          |          |

|    |   |  |   |  |  |  |  |  |  |  |  |  |   |  |  |  |   |   |
|----|---|--|---|--|--|--|--|--|--|--|--|--|---|--|--|--|---|---|
| 8  | An ability to explicate design solution through illustrative, physical modes , writing and orally   |  | X |  |  |  |  |  |  |  |  |  |   |  |  |  |   |   |
| 9  | An ability to prepare estimations, BOQs and costing of projects   |  | X |  |  |  |  |  |  |  |  |  |   |  |  |  |   |   |
| 10 | An ability to prepare procurement, management and contract documentation  |  | X |  |  |  |  |  |  |  |  |  |   |  |  |  |   |   |
| 11 | An ability to identify, formulates, and solves Bdg.Engr design and construction management problems.  |  |   |  |  |  |  |  |  |  |  |  | X |  |  |  |   |   |
| 12 | Team with multidisciplinary professions engaged in building design and construction process.  |  |   |  |  |  |  |  |  |  |  |  | X |  |  |  |   |   |
| 13 | An ability to design a system, component, or process to meet desired needs within realistic scenario and constraints such as economic, environmental, social, political, ethical, health and safety |  |   |  |  |  |  |  |  |  |  |  |   |  |  |  | X |   |
| 14 | Comprehend and apply the professional and ethical responsibilities in architectural practice  |  |   |  |  |  |  |  |  |  |  |  |   |  |  |  | X |   |
| 15 | An ability to conduct building evaluation and suggest the viable solutions for its reuse.   |  |   |  |  |  |  |  |  |  |  |  |   |  |  |  | X |   |
| 16 | An Ability to recognize the need for life-long learning in field of Bdg.Engr design and construction management   |  |   |  |  |  |  |  |  |  |  |  |   |  |  |  |   | X |
| 17 | An ability to professionally compete in the market and play an active role in the community   |  |   |  |  |  |  |  |  |  |  |  |   |  |  |  |   | X |

Table 2: Mapping of Courses to Program Outcomes

| P.O No. | Course ID | Course Name                             | Related Program Outcomes (PO) |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |
|---------|-----------|---|-------------------------------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|
|         |           |   | 1                             | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 1       | BCM 140   | Building Materials                      | X                             | X |   |   |   |   |   |   |   |    |    | X  |    |    |    |    |    |
| 2       | BCM 141   | Engineering Graphics for BE             | X                             |   |   |   |   | X | X |   |   |    | X  |    |    |    |    |    |    |
| 3       | BCM 100   | Building Science for BE                 | X                             |   |   |   |   |   |   |   |   |    | X  |    |    |    |    |    |    |
| 4       | BCM 101   | Introduction to Design for BE           | X                             | X |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |
| 5       | BCM 142   | Impact of Technology on Society & Arch. | X                             | X |   |   |   | X |   |   |   |    | X  |    |    |    |    |    |    |
| 6       | BCM 200   | Building Eng. Design I                  | X                             | X | X |   |   | X | X |   |   |    |    |    | X  |    | X  | X  |    |
| 7       | BCM 220   | Building Const. I for BE                | X                             | X |   |   |   | X | X |   |   |    | X  | X  | X  |    |    |    |    |
| 8       | BCM 221   | Surveying for BE                        | X                             |   |   |   |   | X | X |   |   |    | X  |    |    |    |    |    |    |
| 9       | BCM 240   | CAAD-I for BE                           | X                             |   |   |   |   | X |   |   |   |    |    |    |    |    |    |    |    |
| 10      | BCM 223   | Building Construction Codes & Practice  | X                             |   | X | X |   |   | X |   |   |    |    | X  |    | X  |    |    | X  |

|    |         |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |   |
|----|---------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|---|---|---|---|
| 11 | BCM 201 | Building Condition Surveying             | X |   | X |   |   | X |   |   |   |   |   |   |   |   |  | X |   |   |   |
| 12 | BCM 241 | Construction Drawings –I                 | X | X |   |   |   |   | X |   |   |   |   |   |   |   |  | X |   |   |   |
| 13 | BCM 222 | Building Const. II for BE                | X | X |   |   |   | X | X |   |   |   |   | X | X | X |  |   |   |   |   |
| 14 | BCM 242 | Structural Design - I                    | X |   |   |   |   | X | X |   |   |   |   | X |   |   |  |   |   |   |   |
| 15 | BCM 243 | CAAD II for BE                           | X |   |   |   |   | X |   |   |   |   |   |   |   |   |  |   |   |   |   |
| 16 | BCM 202 | Building Façade Engineering              | X |   | X |   |   |   | X |   |   |   |   | X |   |   |  | X |   |   |   |
| 17 | BCM 300 | Building Eng. Design II                  | X | X | X |   |   |   | X | X |   |   |   |   |   |   |  | X | X | X |   |
| 18 | BCM 320 | Construction Estimation –I               | X | X |   |   |   | X |   |   | X | X |   |   |   |   |  | X |   |   |   |
| 19 | BCM 321 | Construction Project Management I        | X | X |   | X | X |   |   |   |   | X | X |   |   |   |  | X |   |   |   |
| 20 | BCM 342 | Structural Design- II                    | X |   |   |   |   |   | X | X |   |   |   | X |   |   |  |   |   |   |   |
| 21 | BCM 301 | Building Maintenance Management          | X |   |   | X |   |   |   | X |   |   |   |   |   |   |  | X |   |   |   |
| 22 | BCM 322 | Construction Project Management II       | X | X |   | X | X |   |   |   |   | X | X |   |   |   |  | X |   |   |   |
| 23 | BCM 341 | Construction Drawings II                 | X | X |   |   |   |   | X |   |   |   |   | X | X |   |  |   |   |   |   |
| 24 | BCM 302 | Building Services for BE                 | X |   | X |   |   |   | X |   |   |   |   | X | X |   |  |   |   |   |   |
| 25 | BCM 340 | Advanced& Sustainable Construction Tech. | X | X |   |   |   |   |   |   |   |   |   | X |   |   |  |   | X |   |   |
| 26 | BCM 343 | Strength of Materials                    | X |   |   |   |   |   | X |   |   |   |   |   |   |   |  | X |   |   |   |
| 27 | BCM 420 | Construction Estimation –II              | X | X |   |   |   | X |   |   | X |   |   |   |   |   |  | X |   | X |   |
| 28 | BCM 421 | Legal issues in Construction laws        | X |   | X | X |   |   |   | X |   |   |   |   | X |   |  | X |   |   | X |
| 29 | BCM 400 | Active Thermal Env. Control for BE       | X | X |   |   |   | X | X |   |   |   |   | X |   |   |  | X |   |   |   |
| 30 | BCM 401 | Graduation Project                       | X | X | X |   |   |   | X | X |   |   |   |   |   |   |  | X | X | X |   |
| 31 | BCM 402 | Building Conservation                    |   | X |   |   |   |   |   | X |   |   |   |   |   |   |  | X |   |   |   |
| 32 | BCM 501 | Engineering Training I                   |   |   |   | X |   |   | X |   |   |   |   |   |   |   |  | X |   | X | X |
| 33 | BCM 502 | Engineering Training II                  |   |   |   | X |   |   | X |   |   |   |   |   |   |   |  | X |   | X | X |
| 34 | BCM 601 | Building Pathology                       | X |   |   | X | X |   |   |   |   |   |   |   | X |   |  | X |   |   | X |
| 35 | BCM 600 | Control Systems in Buildings             | X |   | X |   |   |   | X |   |   |   |   |   | X |   |  |   |   |   |   |
| 36 | BCM 602 | Lighting & Acoustics                     | X |   |   |   |   |   | X | X |   |   |   |   | X |   |  | X |   |   |   |

### Core Fields of Program

BE & CM program is based on three core fields of built environment that constitute to the BSc.(BE & CM). The following core fields are based on various courses mentioned in Table 3.

**Table 3: The Core Fields in the BSc.BE & CM.**

| No | Core Fields                                    | Course No  | Credit Hours |
|----|--|--|--------------|
| 1  | <b>Construction Management</b>                 | BCM 220, BCM 321, BCM 322, BCM 421, BCM 320, BCM 420, BCM 221, BCM 222, BCM 223  | 26           |
| 2  | <b>Building Engineering</b>                    | BCM 100, BCM 101, BCM 200, BCM 300, BCM 302, BCM 400, BCM 201, BCM 301, BCM 601, BCM 600, BCM 402, BCM 202, BCM 401, BCM 602 | 45           |
| 3  | <b>Construction &amp; Materials Technology</b> | BCM 140, BCM 141, BCM 142, BCM 240, BCM 241, BCM 242, BCM 243, BCM 342, BCM 341, BCM 340, BCM 343                            | 33           |

### Admission Requirements

The College of Engineering and Department of Architecture follows the policy established by Ajman University. A Secondary School Certificate, science section, or its equivalent with the Grade Point Average not less than B or an 70% overall average and the priority is given to students with a higher Grade Point Average or overall percentage in the following subjects.

1. Mathematics
2. Physics
3. Chemistry
4. English proficiency test (TOEFL score of 500 or above; or ILETS 5.0 Band).
5. Personal interview.

Students who do not satisfy the English proficiency requirement (TOEFL score of 500 or above; or ILETS 5.0 Band) may begin their studies with conditional admission. During their first semester, Holders of TOEFL, with score between 450 and 499 or equivalent, will be required to enroll in the Intensive English Program (IEP) offered by the College of University Requirements and Academic Counseling, until they obtain at least 500 in the TOEFL, or its equivalent. Admitted students with a score below 450 (TOEFL) are required to enroll for an English preparation course (lower level) at the on-campus Continuing Education Centre. However, colleges will reserve a seat for them, for one semester only, if they obtain a score of at least 450 in TOEFL, IBT 45, or Band 4.0 in IELTS, at the end of the first semester of registration.

### Career Opportunities

The graduate of program can pursue a career in various fields of built environment such as

- retrofit designing (building remodeling & adaptation)
- quantity surveying,
- building estimation & costing,

- building surveying,
- estate and facility management,
- builder & constructors,
- civil & architectural consulting firms,
- companies offering building appraisals & related services,
- public & private authorities,
- construction management and
- construction materials manufacturing & sales industry.

### Degree Completion Requirements

The BSc degree in BE & CM requires the completion of 132 credit hours including graduation project in BE & CM and Supervised Training. The student will be declared a BSc in BE & CM if she or he completes 132 credit hours and has an AGPA of  $\geq 2.0$ .

| No | Type of Courses                           | Total credit Hours |
|----|---|--------------------|
| 1. | University General Education Requirements |                    |
|    | (a) University Required Courses           | 15                 |
|    | (b) University Elective Courses           | 9                  |
| 2. | College Required courses                  | 9                  |
| 3. | Specialization required courses           | 93                 |
| 4. | Specialization Elective courses           | 6                  |
|    | <b>Total Credit Hours</b>                 | <b>132</b>         |

### Graduation Time Frame

The student can complete the study plan in a minimum of 3 and a half years, however the study plan is designed to be completed in 4 years/8 semesters. Usually the students take minimum of 4 years to complete the study plan. The maximum length of the BSc.BE & CM study plan is 8 years/16 semesters. A student transferring from another University should be from a University accredited by the CAA, complete at least 50% of the study plan at AU and completes the last semester at AU.



## UNIVERSITY GENERAL EDUCATION REQUIREMENTS

## University Required Courses (15 Cr.Hrs.)

| Course ID | Course Title                            | TH | LAB | TUT | Cr.H | Prerequisite     |
|-----------|---|----|-----|-----|------|------------------|
| ISL114    | Islamic Culture                         | 3  | 0   | 1   | 3    | -                |
| ARB111    | Communication Skills in Arabic Language | 3  | 0   | 0   | 3    | -                |
| STA112    | Statistics (Sciences)                   | 2  | 2   | 0   | 3    | -                |
| COM111    | IT fundamentals                         | 2  | 2   | 0   | 3    | -                |
| INN311    | Innovation and Entrepreneurship         | 3  | 0   | 0   | 3    | Min. 60 Cr. Hrs. |

## University Elective Courses (9 Cr.Hrs.)

| Course ID | Course Title                     | TH | LAB | TUT | Cr.H | Prerequisite |
|-----------|----------------------------------|----|-----|-----|------|--------------|
| ARB113    | Art of Written Expression-Arab   | 3  | 0   | 0   | 3    | -            |
| ENG113    | Academic Writing (English)       | 3  | 0   | 0   | 3    | -            |
| ART112    | Intro. to Aesthetics             | 3  | 0   | 0   | 3    | -            |
| ART111    | Introduction to Art              | 3  | 0   | 0   | 3    | -            |
| ART211    | Intro. to Digital Photography    | 3  | 0   | 0   | 3    | -            |
| FRE211    | French Language                  | 3  | 0   | 0   | 3    | -            |
| ENG211    | Art of Public Speaking (English) | 3  | 0   | 0   | 3    | -            |
| ISL211    | Intro. to Hadeeth & Sunna        | 3  | 0   | 0   | 3    | -            |
| ENV111    | Environmental Science            | 3  | 0   | 0   | 3    | -            |
| RES211    | Research Methodology             | 3  | 0   | 0   | 3    | -            |
| ISH111    | History of Science in Islam      | 3  | 0   | 0   | 3    | -            |
| NUT111    | Fundamental of Human Nutrition   | 3  | 0   | 0   | 3    | -            |
| AID111    | First Aid                        | 3  | 0   | 0   | 3    | -            |
| PIO211    | Scientific Pioneering            | 3  | 0   | 0   | 3    | -            |
| AST211    | Astronomy (Arabic)               | 3  | 0   | 0   | 3    | -            |
| INF212    | Information System (Arabic)      | 3  | 0   | 0   | 3    | -            |
| PSY111    | General Psychology               | 3  | 0   | 0   | 3    | -            |
| EMS111    | Emirates Society                 | 3  | 0   | 0   | 3    | -            |
| ECO211    | Economic Concepts                | 3  | 0   | 0   | 3    | -            |
| ENG111    | English Communication Skills     | 3  | 0   | 0   | 3    | -            |
| SOC112    | Communication Between Cultures   | 3  | 0   | 0   | 3    | -            |
| INF113    | Library Information System       | 3  | 0   | 0   | 3    | -            |
| THI211    | Critical Thinking                | 3  | 0   | 0   | 3    | -            |

### College Required Courses (9 Cr. Hrs.)

| Course ID | Course Title              | TH | LAB | TUT | Cr.H | Prerequisite |
|-----------|---------------------------|----|-----|-----|------|--------------|
| BCM 141   | Engineering Graphics      | 2  | 2   | 0   | 3    | ---          |
| MTH 121   | Engineering Mathematics I | 3  | 0   | 2   | 3    | ---          |
| BCM 100   | Building Sciences         | 3  | 0   | 0   | 3    | ---          |

### BE & CM Specialization Required Courses & Graduation Projects (93 Cr.Hrs.)

| Course ID | Course Title                           | TH | LAB | TUT | Cr.H | Prerequisite       |
|-----------|--|----|-----|-----|------|--------------------|
| BCM 140   | Building Materials                     | 3  | 0   | 0   | 3    | -                  |
| BCM 101   | Introduction to Design for BE          | 1  | 4   | 0   | 3    |                    |
| BCM 142   | Impact of Technology on Society & Arch | 3  | 0   | 0   | 3    | BCM 100            |
| BCM 200   | Building Eng. Design I                 | 1  | 6   | 0   | 4    | BCM 101<br>BCM 141 |
| BCM 220   | Building Const. I for BE               | 2  | 2   | 0   | 3    | BCM 141            |
| BCM 221   | Surveying for BE                       | 1  | 2   | 0   | 2    | -                  |
| BCM 240   | CAAD I for BE                          | 1  | 4   | 0   | 3    | BCM 141<br>COM111  |
| BCM 223   | Building Construction Codes & Practice | 3  | 0   | 0   | 3    | -                  |
| BCM 201   | Building Condition Surveying           | 2  | 2   | 0   | 3    | BCM 140<br>BCM 220 |
| BCM 241   | Construction Drawings I                | 1  | 4   | 0   | 3    | BCM 220            |
| BCM 222   | Building Const. II for BE              | 2  | 2   | 0   | 3    | BCM 220            |
| BCM 242   | Structural Design - I                  | 2  | 2   | 0   | 3    | BCM 100<br>MTH 121 |
| BCM 243   | CAAD II for BE                         | 1  | 4   | 0   | 3    | BCM 240            |
| BCM 202   | Building Façade Engineering            | 3  | 0   | 0   | 3    | BCM 140<br>BCM 220 |
| BCM 300   | Building Eng. Design II                | 1  | 6   | 0   | 4    | BCM 200            |
| BCM 320   | Construction Estimation –I             | 3  | 0   | 0   | 3    | BCM 241            |
| BCM 321   | Construction Project Management I      | 3  | 0   | 0   | 3    | BCM 200<br>BCM 222 |
| BCM 342   | Structural Design- II                  | 2  | 2   | 0   | 3    | BCM 242            |
| BCM 301   | Building Maintenance Management        | 3  | 0   | 0   | 3    | BCM 223            |
| BCM 322   | Construction Project Management II     | 3  | 0   | 0   | 3    | BCM 321            |
| BCM 341   | Construction Drawings II               | 1  | 4   | 0   | 3    | BCM 241            |

|         |  |   |   |   |   |                    |
|---------|--|---|---|---|---|--------------------|
| BCM 302 | Building Services for BE                 | 2 | 2 | 0 | 3 | BCM 222            |
| BCM 340 | Advanced& Sustainable Construction Tech. | 3 | 0 | 0 | 3 | BCM 222            |
| BCM 343 | Strength of Materials                    | 2 | 2 | 0 | 3 | BCM 342            |
| BCM 420 | Construction Estimation –II              | 3 | 0 | 0 | 3 | BCM 320            |
| BCM 421 | Legal issues in Construction laws        | 3 | 0 | 0 | 3 | BCM 223            |
| BCM 400 | Active Thermal Env. Control for BE       | 2 | 2 | 0 | 3 | BCM 302            |
| BCM 401 | Graduation Project                       | 1 | 6 | 0 | 4 | BCM 300<br>BCM 502 |
| BCM 402 | Building Conservation                    | 2 | 2 | 0 | 3 | BCM 140<br>BCM 341 |
| BCM 501 | Engineering Training I                   | 2 | 0 | 0 | 2 | BCM 200<br>BCM 241 |
| BCM 502 | Engineering Training II                  | 2 | 0 | 0 | 2 | BCM 300<br>BCM 322 |

**BE & CM Specialization Elective Courses (06 Cr.Hrs)**

| Course ID | Course Title                     | TH | LAB | TUT | Cr.H | Prerequisite |
|-----------|----------------------------------|----|-----|-----|------|--------------|
| ARC 580   | Selected Topics in Arch.         | 3  | 0   | 0   | 3    | -            |
| ARC 581   | Interior Design & Coloring       | 1  | 4   | 0   | 3    | -            |
| ARC 589   | Geographical Information Systems | 1  | 4   | 0   | 3    | BCM 243      |
| ARC 582   | Real Estate Development          | 3  | 0   | 0   | 3    | -            |
| BCM 601   | Building Pathology               | 3  | 0   | 0   | 3    | -            |
| ARC 583   | Photography                      | 1  | 4   | 0   | 3    | -            |
| ARC 584   | Advanced CAAD Application        | 1  | 4   | 0   | 3    | BCM 243      |
| ARC 585   | Research & Design Methods        | 3  | 0   | 0   | 3    | -            |
| BCM 600   | Control Systems in Buildings     | 3  | 0   | 0   | 3    | -            |
| BCM 602   | Lighting & Acoustics             | 3  | 0   | 0   | 3    | -            |

## Study Plan

Table 4: 4-Year Study Plan for BSc. (BE & CM)

### PROPOSED SEQUENCE OF STUDY BSc.BE & CM

#### Semester 1

| Course# | Course Name                             | Cr. Hrs | Lectures | Tut/<br>Lab | Pre-req. |   |
|---------|---|---------|----------|-------------|----------|---|
| BCM 140 | Building Materials                      | 3       | 3        | 0           | -        | - |
| BCM 141 | Engineering Graphics for BE             | 3       | 2        | 2           | -        | - |
| BCM 100 | Building Science                        | 3       | 3        | 0           | -        | - |
| ARB111  | Communication Skills in Arabic Language | 3       | 3        | 0           | -        | - |
| COM111  | IT fundamentals                         | 3       | 2        | 2           | -        | - |

#### Semester 2

| Course# | Course Name                            | Cr. Hrs | Lectures | Tut/<br>Lab | Pre-req. |  |
|---------|--|---------|----------|-------------|----------|--|
| BCM 101 | Introduction to Design for BE          | 3       | 1        | 4           | -        |  |
| BCM 142 | Impact of Technology on Society & Arch | 3       | 3        | 0           | BCM 100  |  |
| ISL114  | Islamic Culture                        | 3       | 3        | 1           | -        |  |
| MTH 121 | Engineering Math I                     | 3       | 3        | 2           | -        |  |
| -       | University Elective – I                | 3       |          |             | -        |  |

#### Semester 3

| Course# | Course Name                            | Cr. Hrs | Lectures | Tut/<br>Lab | Pre-req. |         |
|---------|--|---------|----------|-------------|----------|---------|
| BCM 200 | Building Eng. Design I                 | 4       | 1        | 6           | BCM 101  | BCM 141 |
| BCM 220 | Building Construction-I for BE         | 3       | 2        | 2           | BCM 141  | -       |
| BCM 221 | Surveying for BE                       | 2       | 1        | 2           | -        | -       |
| BCM 240 | CAAD-I for BE                          | 3       | 1        | 4           | BCM 141  | COM111  |
| BCM 223 | Building Construction Codes & Practice | 3       | 3        | 0           |          |         |
|         | University Elective – II               | 3       |          |             | -        |         |

#### Semester 4

| Course# | Course Name                  | Cr. Hrs. | Lectures | Tut/<br>Lab | Pre-req. |         |
|---------|------------------------------|----------|----------|-------------|----------|---------|
| BCM 201 | Building Condition Surveying | 3        | 2        | 2           | BCM 140  | BCM 220 |
| BCM 241 | Construction Drawings I      | 3        | 1        | 4           | BCM 220  | -       |

|         |                             |   |   |   |         |         |
|---------|-----------------------------|---|---|---|---------|---------|
| BCM 222 | Building Const. II for BE   | 3 | 2 | 2 | BCM 220 | -       |
| BCM 242 | Structural Design-I         | 3 | 2 | 2 | BCM 100 | MTH 121 |
| BCM 243 | CAAD-II for BE              | 3 | 1 | 4 | BCM 240 | -       |
| BCM 202 | Building Façade Engineering | 3 | 3 | 0 | BCM 220 | BCM 140 |

**Summer**

| Course# | Course Name            | Cr. Hrs | Lectures | Tut/Lab | Pre-req. |         |
|---------|------------------------|---------|----------|---------|----------|---------|
| BCM 501 | Engineering Training I | 2       | 2        |         | BCM 200  | BCM 241 |

**Semester 5**

| Course# | Course Name                       | Cr. Hrs | Lectures | Tut/Lab | Pre-req. |         |
|---------|-----------------------------------|---------|----------|---------|----------|---------|
| BCM 300 | Building Eng. Design II           | 4       | 1        | 6       | BCM 200  | -       |
| BCM 320 | Construction Estimation-I         | 3       | 3        | 0       | BCM 241  | -       |
| BCM 321 | Construction Project Management-I | 3       | 3        | 0       | BCM 200  | BCM 222 |
| BCM 342 | Structural Design –II             | 3       | 2        | 2       | BCM 242  | -       |
| BCM 301 | Building Maintenance Management   | 3       | 3        | 0       | BCM 223  | -       |
|         | University Elective – III         | 3       |          |         | -        | -       |

**Semester 6**

| Course# | Course Name                              | Cr. Hrs | Lectures | Tut/Lab | Pre-req.         |   |
|---------|--|---------|----------|---------|------------------|---|
| BCM 322 | Construction Project Management-II       | 3       | 3        | 0       | BCM 321          | - |
| BCM 341 | Construction Drawing-II                  | 3       | 1        | 4       | BCM 241          | - |
| BCM 302 | Building Services for BE                 | 3       | 2        | 2       | BCM 222          | - |
| BCM 340 | Advanced& Sustainable Construction Tech. | 3       | 3        | 0       | BCM 222          | - |
| BCM 343 | Strength of Materials                    | 3       | 2        | 2       | BCM 342          | - |
| INN311  | Innovation and Entrepreneurship          | 3       |          |         | Min. 60 Cr. Hrs. |   |

### Summer

| Course# | Course Name             | Cr. Hrs | Lectures | Tut/ Lab | Pre-req. |         |
|---------|-------------------------|---------|----------|----------|----------|---------|
| BCM 502 | Engineering Training II | 2       | 2        |          | BCM 300  | BCM 322 |

### Semester 7

| Course# | Course Name                        | Cr. Hrs | Lectures | Tut/ Lab | Pre-req |   |
|---------|------------------------------------|---------|----------|----------|---------|---|
| BCM 420 | Construction Estimation-II         | 3       | 3        | 0        | BCM 320 | - |
| BCM 421 | Legal Issues in Construction laws  | 3       | 3        | 0        | BCM 223 | - |
| BCM 400 | Active Thermal Env. Control for BE | 3       | 2        | 2        | BCM 302 | - |
| STA 112 | Statistics                         | 3       | 2        | 2        | -       | - |
| -       | Specialization Elective-I          | 3       |          |          | -       | - |

### Semester 8

| Course# | Course Name                | Cr. Hrs | Lectures | Tut/ Lab | Pre-req. |         |
|---------|----------------------------|---------|----------|----------|----------|---------|
| BCM 401 | Graduation Project         | 4       | 1        | 6        | BCM 300  | BCM 502 |
| BCM 402 | Building Conservation      | 3       | 2        | 2        | BCM 140  | BCM 340 |
| -       | Specialization Elective-II | 3       |          |          | -        | -       |

## Course Descriptions

### **BCM 140-BUILDING MATERIALS, (3, 0, 0: 3)**

**Pre-Requisite: None**

This course will cover the engineering properties of basic and modern building materials to materials such as plastics, synthetic fibers, adhesives, sealants, caulking compounds, foams, sandwich panels, composites, polymer concrete systems, fiber-reinforced concretes, plastic mortars, polymers for flooring, roofing, synthetic wall papers. Moisture properties of modern building materials and their structural, thermal, and acoustical properties. Consideration of corrosion, bio- and thermal degradation, stability to ultraviolet and solar radiation. In addition, the materials will be discussed in context of sustainability and its lifecycle under various conditions of application.

### **BCM 141 Engineering Graphics for BE (1,4,0:3)**

**Pre-Requisite: None**

This course aims to explain and teach students about graphic communication, the language of building engineers. The student will learn about principles of parallel-line drawings, orthogonal projections, and rendering, and preparing a set of construction drawings.

### **BCM 100 Building Sciences for BE (3,0,0:3)**

**Pre-Requisite: None**

This course aims to familiarize students with basic principles and means of measurement and design of technical aspects of building.

### **BCM 101 Introduction to design for BE (1,4,0:3)**

**Pre-Requisite: None**

This course aims to introduce students to the basic elements of design, its principles, and the perception and understanding of building elements within an analytical method.

### **BCM 142 Impact of Technology on Society & Arch. (3,0,0:3)**

**Pre-Requisite: BCM 100**

This course will highlight the history of built environment and architecture as the confluence of social and technological evolution. Methodology and thought processes in the theory and design of cities and the human habitat. The impact of technology on society. Energy conservation, environmental constraints and sustainability issues.

### **BCM 200 Building Eng. Design – I (1, 6, 0:4)**

**Pre-Requisite: BCM 141 - BCM 101**

This course will encompass the conceptual and preliminary adaptive design of small/medium size building. The student will complete the project individually or in the team. However, each student will learn BE design process, methodology, identification of objectives, building Codes, formulation of design problems. Development and evaluation of sustainable building design alternatives. Conceptual building design: spatial requirements, the design of space layout.

### **BCM 220 Building Construction I for BE (2,2,0:3)**

**Pre-Requisite: BCM 141**

This course aims to introduce students to basic concepts and properties of building structural components and their materials. The students will acquire the necessary theoretical background in

building technology. He will be able to analyse main stress directions and select a relevant structural system (short/ medium span) for the project at hand.

#### **BCM 221 Surveying for BE (1, 2, 0:2)**

**Pre-Requisite: None**

The aim of this course is to introduce and teach the basic rules and techniques of land surveying.

#### **BCM 240 CAAD I for BE ( 1,4,0:3)**

**Pre-Requisite: BCM 141 -COM111**

This course aims to introduce students to 2D Computer Aided BE Design drafting process. The course introduces students to computer-aided construction design tool, giving them an opportunity to develop computer skills in their BE design projects. They will use, manipulate and apply CAAD software, enabling them to make drafting and presentation of their projects.

#### **BCM 223 Building Construction Codes and Practice (3,0,0:3)**

**Pre-Requisite: None**

This course will encompass the general survey of Codes and regulations affecting the design and construction of buildings. It focuses on the UAE/International Building Code.

#### **BCM 201 Building Condition Surveying (2,2,0:3)**

**Pre-Requisite: BCM 140 – BCM 220**

This course will focus on teaching students to carry out many different types of building inspection, each for a particular reason and each resulting in a report with specific information produced for a particular purpose. This course will prepare the student to detect the faults in building at pre and post-occupational stage. In addition, to detect the design faults, this course will also enable the students to use the techniques to evaluate the effects of climatic factors such as flooding, dampness and structural factors such as sinking, structural damage or decay plus the presence of dangerous substances are typical problems. This course will also train the student for comprehensive checking, anticipate problems and to plan maintenance techniques.

#### **BCM 241 Construction Drawings –I (1,4,0:3)**

**Pre-Requisite: BCM 220**

This course will encompass the fundamentals of technical drawing, dimensioning practices, orthographic projections, auxiliary and sectional views of buildings. Theory and applications of descriptive geometry in building design. Computer aided building drawing. subsystems and related graphics standards; architectural and BE drawing at preliminary and final stages and introduction to the design of light frame buildings.

#### **BCM 222 Building Construction II for BE (2,2,0:3)**

**Pre-Requisite: BCM 220**

This course aims to familiarize students with water, damp proofing, and enclosure system (partitions, windows and doors), finishing materials, and means of vertical circulation. In this course students identify main building structural systems and their relation to secondary systems. They will be acquainted with various finishing materials, their properties, and their means of application.



**BCM 242 Structural Design I (2,2,0:3)****Pre-Requisite: BCM 100 - MTH 121**

The aim of this course is to introduce the concepts and principles of structural analysis and behavior of materials and structural elements.

**BCM 243 CAAD II for BE (1,4,0:3)****Pre-Requisite: BCM 240**

This course aims to introduce students to Computer 3D modelling programs such as 3DMax or Sketch up, and how to use them to model a BE project. The course introduces students to virtual three-dimensional space and modelling through using 3D modelling software.

**BCM 202 Building Façade Engineering (3,0,0:3)****Pre-Requisite: BCM 140-BCM 220**

This course will focus on issues of building facades design in general and particularly emphasis on facades of tight buildings. This course includes the learning about effects of environmental and climatic factors on vertical surfaces and openings /glazed surfaces. This course will train the student to suggest appropriate design of façade with active consideration of construction and material technology.

**BCM 300 Building Eng. Design – II (1,6,0:4)****Pre-Requisite: BCM 200**

This course will encompass the conceptual and preliminary design of a medium size adaptive and civil engineering project. Students learn Building Eng. design process, methodology, identification of objectives, Codes, formulation of design problems. Development and evaluation of sustainable design alternatives through an application of computer-aided design tools.

**BCM 320 Construction Estimation-I (3,0,0:3)****Pre-Requisite: BCM 241**

This course will encompass the techniques and procedures used for estimating the cost of construction projects. Cost estimation process; elements of the project cost; conceptual and detailed cost estimation methods; risk assessment and range estimating; case studies; computer-aided estimating. Particularly a focus on concrete foundation-related work, earthwork, masonry, above-grade concrete, concrete frame, and structural steel work items.

**BCM 321 Construction Project Management-I (3,0,0:3)****Pre-Requisite: BCM 200, BCM 222**

This course construction project management will deliver the knowledge about the nature of construction and the environment in which the industry works; organizational structures for project delivery; construction contracts and documents; introduction to construction processes, project planning, scheduling, control; construction safety, bidding planning and scheduling, cash flow analysis, project tracking and control

**BCM 342 Structural Design II (2,2,0:3)****Pre-Requisite: BCM 242**

The aim of this course is to introduce the design of structural members of concrete and steel elements.



### BCM 301 Building Maintenance Management (3,0,0:3)

**Pre-Requisite: BCM 223**

This course will encompass on issues of fundamental and long-term maintenance and management plans for physical assets such as airports, government buildings, office buildings, factory buildings, apartment complexes (large- and small-scale), hotels, hospitals, shopping malls, sports and entertainment venues, and other large facilities.

### BCM 322 Construction Project Management II (3,0,0 :3)

**Pre-Requisite: BCM 321**

This course will cover two interrelated fields of construction engineering and management. The first part of course focuses on a study of contemporary construction methods and techniques. Whereas second part of course is, consist of learning based on effective management and control for timely completion of the project as per contract. This course aims to provide the students with an advanced body of knowledge in specific sectors of the site production process. Students shall be given an exposure of the production problems and the available strategies/methods of resolving these problems from both the theoretical and practical perspectives.

### BCM 341 Construction Drawings II (1, 4, 0: 3)

**Pre-Requisite: BCM 241**

This course will encompass the construction detail in the formation and thematic development of a work of BE design. Students in this course will explore and research building details of medium to large span structures of space frames, steel structures, precast beams, etc. The study will enable the student to consider their appropriateness and document through analytical drawing their intent and assembly.

### BCM 302 Building Services for BE (2, 2, 0:3)

**Pre-Requisite: BCM 222**

This course will prepare the students to deal with the various aspects concerning installations of various services in buildings. It allows students to participate in the development of building designs within a multidisciplinary team.

### BCM 340 Advanced & Sustainable Construction Technology (3, 0, 0:3)

**Pre-Requisite: BCM 222**

This course aims to introduce students to advanced and sustainable building systems & technologies and means of deploying them in buildings.

### BCM 343 Strength of Materials (2,2,0:3)

**Pre-Requisite: BCM 342**

This course covers the study of behavior of various building materials subjected to various structural forces present in building frame. This course will prepare the student to evaluate the use of construction material in particular condition. This course will be offered in combination of formal theoretical learning and practical in designated laboratory.

### BCM 420 Construction Estimation-II (3,0,0:3)

**Pre-Requisite: BCM 320**

This course covers the analysis and determination of costs of construction operations, including all the normal bid-preparation activities that take place in a constructor's estimating section. This course also includes construction cost accounting and control, micro IT fundamentals, and professional ethics.

**BCM 421 Legal Issues in Construction Laws (3,0,0:3)**

**Pre-Requisite: BCM 223**

This course will encompass the issues of labor legislation with special emphasis on the construction industry, union organization, theory and practice of negotiations, mediation, contract administration, and arbitration. Review of actual contracts, discussion of future trends. Legal concepts and processes applicable to the development of constructed facilities and to the operation of the construction firm, emphasis on UAE law and institutions.

**BCM 400 Active Thermal Environmental Control for BE (2,2,0:3)**

**Pre-Requisite: BCM 302**

This course aim is to introduce students to basic concepts of active thermal systems, their design and applications.

**BCM 401 Graduation Project (1,6,0:4)**

**Pre-Requisite: BCM 300 - BCM 502**

This course is designed for the final year undergraduate students who have an interest in pursuing a solution for the special problem, through individual or as a group research and design project. The selection of project requires the consent of the instructor and approval of the Department Chairman.

**BCM 402 Building Conservation (2,2,0:3)**

**Pre-Requisite: BCM 140, BCM 341**

This course aims to introduce students to methods and techniques of building conservation.

**BCM501 Engineering Training I (2,0,0:2)**

**Pre-Requisite: BCM 200, BCM 241**

Students taking Training-I need to be engaged/trained in professional consulting offices of constructors, builders, retrofit designers, facility and estate management, civil engineering and architectural firms.

**BCM 502 Engineering Training II (2,0,0:2)**

**Pre-Requisite: BCM 300, BCM 322**

Students taking Training-II need to be engaged/trained in professional consulting offices of quantity surveyors, building estimation and costing, building surveyors, building appraisal and related services, public and private organizations, construction management, construction materials manufacturing and marketing industry.

### Specialisation Electives

**BCM 601 Building Pathology (3,0,0:3)**

**Pre-Requisite: None**

This course will provide an interdisciplinary approach to the study of defects and performance in order to develop appropriate remedial and management solutions. It considers how the structure and materials of a building relate to its environment, its occupants, and the way the building is used. This course will also help the student to develop a better understanding about building failures and to improve the design practice.

**BCM 600 Control Systems in Buildings (3,0,0:3)****Pre-Requisite: None**

This course will focus on design and installations of smart control system used in various types of building, serves different function ranges from; security, accessibility, privacy, fire safety ventilation, energy conservation and resource conservation. ‘

**BCM 602 Lighting and Acoustics (3,0,0:3)****Pre-Requisite: None**

This course aims to familiarize students with basic principles and means of the Design and Measurement of Lighting and Acoustics, as well as its Impact on the Environment.

**ARC 580 Selected Topics in Architecture (3, 0, 0: 3) Pre-requisite: None**

This course introduces students to how to discuss and trigger the most important issues vital to their academic and professional development. It helps them organize their thoughts and interests in a systematic way in relation to their architecture education. The course also enables students to express various progress in architectural education of a special field both orally, by writing and graphically.

**ARC 581 Interior Design and Coloring (1, 4, 0: 3) Pre-requisite: None**

The course covers interior design and coloring with emphasis on watercolor technique, poster color and pencil color and interior space coloring.

**ARC 584 Advanced CAAD Application (1, 4, 0: 3)****Pre-requisite: BCM 243**

The course concentrates on basics of BIM. AutoDesk Revit is the program of choice. Students are taught how to use building elements and put them in the BIM database.

**ARC 585 Research and Design Methods (3, 0, 0: 3)****Pre-requisite: None**

The course covers a comprehensive survey of qualitative and quantitative research methods and their method-specific hypothesis formulation, data acquisition, verification and analysis.

**ARC 589 Geographic Information Systems (1, 4, 0: 3)****Pre requisite BCM 243**

The development and history of GIS, present applications of the technology. Essential elements of a Geographic Information System. Basic concepts and principles of Geographic Information Systems.

**ARC 583 Photography (1, 4, 0: 3)****Pre-requisite: None**

This is an introductory course to photography. It deals with the principles of photography such as light exposures, compositions, and film developing. Types and uses of cameras, lenses, flashes, filters, and other accessories are discussed and applied. The course also involves photographing buildings and students' projects, portfolio design, and the use of digital cameras.

**ARC 582 Real Estate Development (3, 0, 0: 3)****Pre-requisite: None**

The course will conduct market surveys and analysis studies, site consideration and selection, financial feasibility and documentation for real estate development. The students will be introduced to carry forth a real estate development project from the proposal (project formation) stage into final proposal. Manage project more effectively. Keep a project notebook, or digital file.

## DEPARTMENT of INTERIOR DESIGN

The Bachelor of Interior Design (BID) program at Ajman University started in 1999 as a four-year program. Its first batch of students graduated in 2003 in the same year of receiving the first eligible accreditation. The second batch of students in BID graduated in 2008 a year after the re-accreditation received in 2007. ID department has carried out minor/slight modifications requested by CAA, and the latest re-accreditation was approved in April 2013, and it was applied in September 2013 taking into consideration all requirements and improvements.

The BID program requires 134 Credit Hours for graduation. The total program credit hours includes four credit hours of practical training (Internship) in interior design organization (governmental or private). The remaining 130 Credit Hours (Cr. Hrs.) of coursework are distributed over eight full semesters. Therefore, students can only complete all the requirements for graduation in four years. For graduation, a student must have cumulative GPA of at least 2.0. After the completion of 4 years study, students are awarded a Bachelor in Interior Design.

The program is designed to develop and enhance artistic abilities as well as scientific engineering knowledge to graduate students capable to design, supervise, and implement any Interior Design project.

The program will prepare the students to provide services to the community keeping in view its interests and needs. It provides a strong foundation and helps the students to achieve their full potential. In addition, it develops a self-motive approach to perform work in a team and utilization of vision in the workplace.

Interior Design program, objectives and outcomes definitions have been stated according to the latest guidelines from Ministry of Education (CAA January 2011).

### Bachelor in Interior Design

#### Mission

The Department of Interior Design provides high-quality interior design education to its students by focusing on developing their technical as well as generic skills so that they are well qualified for gainful employment in interior design discipline and can effectively contribute to the advancement of the community. The Interior Design program also aims to prepare its students for postgraduate study.

#### Goals

The ID Program Goals, also referred to as Program Educational Objectives (PEOs) are stated below.

Graduates of Interior Design program shall have:

1. A foundation in basic skills and the ability to apply those skills in their design process and presentation.
2. Skills and abilities required for data collection, analysis, design, and evaluation of interior design projects including technical details.
3. The ability to utilize up-to-date technology in the field of interior design, for example, computer-aided design and other software applications, and working drawings and presentations.
4. The ability to work as an efficient team member in multi-professional groups.

5. The ability to recognize environmental factors and cultural, traditional and heritage aspects.
6. The ability of critical thinking and life-long learning.
7. Gained basic information about the interior environment, with the application of lighting, acoustics and human factors.

**Alignment of Program Outcomes to QFEmirates**

| Program Outcomes   | Strand 1 Knowledge | Strand 2 Skills | Strand 3 Autonomy & Responsibility | Strand 4 Role in Context | Strand 5 Self-Development |
|--|--------------------|-----------------|------------------------------------|--------------------------|---------------------------|
| 1. Apply the concepts and principles of interior design drawings and techniques  | X                  |                 |                                    |                          |                           |
| 2. Apply a systematic method in data collection in the process in project design and technical details   | X                  |                 |                                    |                          |                           |
| 3. Implement broad knowledge in the field of interior design through, construction details, working drawings, technical specifications and project documents | X                  |                 |                                    |                          |                           |
| 4. Communicate effectively in multidisciplinary teams and work effectively with other professionals in the ID industry                                       | X                  |                 |                                    |                          |                           |
| 5. Apply and identify the application of chosen interior design product taking into consideration sustainability, culture, tradition, and heritage aspects   | X                  |                 |                                    |                          |                           |
| 6. Employ and adjust communication professionally in design, conduct development stages, analyze and interpret satisfactory results                          |                    | X               |                                    |                          |                           |



|  |  |   |   |   |  |
|--|--|---|---|---|--|
| 7. Direct knowledge in practice, through critical thinking and lifelong self-learning  |  | X |   |   |  |
| 8. Evaluate, select, and apply modern media as well as software package and information technology   |  | X |   |   |  |
| 9. Communicate effectively, visually, orally and in written format, and deploy up-to-date presentation techniques to present and explain project                     |  | X |   |   |  |
| 10. Evaluate the theories and design development of the interior design products that reflect the critical thinking  |  | X |   |   |  |
| 11. Work independently as well as part of a team in a variety of design project process  |  |   | X |   |  |
| 12. Take responsibility for developing appropriate resolutions to any interior design outcomes   |  |   | X |   |  |
| 13. Demonstrate professional quality appropriate to the design project   |  |   |   | X |  |
| 14. Manage the achievement of desired outcomes individually or within the teamwork   |  |   |   | X |  |
| 15. Express the ability to follow contemporary issues and describe the impact of different interior design solutions in local and international community frameworks |  |   |   | X |  |



|   |  |  |  |          |
|---|--|--|--|----------|
| <p>16. Find out from credible resources as well as from experiences earned in various circumstances, and thus enhance their knowledge and skills throughout their professional career</p> |  |  |  | <p>X</p> |
| <p>17. Apply and analyze ethical standards in professional practice</p>   |  |  |  | <p>X</p> |

**Admission Requirements**

Admission to the Interior Design program requires a UAE Secondary School Certificate, or its equivalent, with a minimum acceptable grade of 60 percent. For more information, please refer to the university admissions policy

**Career Opportunities**

A graduate from the Interior Design program is qualified by education, experience and examination to develop interior designs for the purpose of improving the quality of life, increasing productivity, and protecting the health, safety, and welfare the public.

A graduate is able to take up a job position as an:

- Interior Designer
- Furniture Designer
- Retail Designer
- Event /Set Designer
- Exhibition Designer
- Color Consultants
- Interior Design Teachings Assistant
- Principle designer for design consultancies
- Spatial designer
- Editor in Interior Design Magazines
- Visualizer/ artist – design blogger (influencer)
- Hospitality Designers
- Lighting Designers
- Quantity Surveyor

**Graduation Requirements**

The Bachelor in Interior Design will be awarded upon the fulfillment of the following:

Successful completion of all courses in the program curriculum (134 Credit Hours), including a successful completion of four Credit Hours of Interior Design Training.

A minimum cumulative AGPA of 2.0

## Degree Requirement

The Bachelor degree in Interior Design requires the completion of 134 Cr. Hrs. distributed according to the following plan:

| Classification                       | No. of Courses | Total Credit Hours |
|--------------------------------------|----------------|--------------------|
| University Requirements( Compulsory) | 5              | 15                 |
| University Requirements( Elective)   | 3              | 9                  |
| College Requirements (Compulsory)    | 1              | 3                  |
| Department requirements (Compulsory) | 30             | 98                 |
| Interior Design Elective Courses     | 3              | 9                  |
| Total                                | 42             | 134                |

### University Requirements – Compulsory: (15Cr. Hrs.)

| Compulsory  | Course Code | Course Name  | Credit Hours |
|---|-------------|--|--------------|
| Arabic<br>(3 credit hours)                              | ARB 111     | Communication Skills in Arabic (Arabic Medium Schools)     | 3            |
|   | ARB 112     | Arabic for Non-Arabs                                       | 3            |
|   | ARB 111     | Communication Skills in Arabic-E- (English Medium Schools) | 3            |
| Islamic<br>(3 credit hours)                             | ISL 114     | Islamic Culture (Arabic)                                   | 3            |
|   | ISL 112     | Islamic Culture (English)                                  | 3            |
| Innovation and Entrepreneurship<br>(3 credit hours)     | INN 311     | Innovation and Entrepreneurship                            | 3            |
| Information Technology<br>(3 credit hours)              | COM 111     | IT Fundamentals  | 3            |
| Quantitative and Critical Reasoning<br>(3 credit hours) | STA 111     | Statistics   | 3            |

### University Requirements – Elective: (9Cr. Hrs.)

| Area                          | Course Name  | Course code |
|-------------------------------|--|-------------|
| <i>The humanities or arts</i> | <b>One course (3 credits) from the following list:</b> |             |
|                               | Introduction to Hadeeth and Sunna                      | ISL211      |
|                               | Academic Writing (English)                             | ENG113      |

|  |  |         |
|--|--|---------|
|  | Introduction to Digital Photography                    | ART211  |
|  | French Language  | FRE211  |
|  | Principles of Architecture and Art                     | ARC211  |
|  | Principles of Interior design                          | DES211  |
|  | Introduction to Art                                    | ART112  |
|  | The Art of Written Expression (Arabic)                 | ARB113  |
|  | The Art of Public Speaking (English)                   | ENG211  |
|  | Islamic Civilization (Arabic)                          | ISH211  |
|  | Islamic Civilization (English)                         | ISH211  |
|  | Legal Culture  | LAW211  |
| <i>The natural sciences</i>              | <b>One course (3 credits) from the following list:</b> |         |
|  | General Physics  | PHY111  |
|  | Astronomy  | AST211  |
|  | General Chemistry                                      | CHM111  |
|  | General Biology  | BIO111  |
| <i>The social or behavioral sciences</i> | <b>One course (3 credits) from the following list:</b> |         |
|  | Family System  | SOC113  |
|  | Library Information System                             | INF113  |
|  | Economic Concepts                                      | ECO211  |
|  | Entrepreneurship development                           | ENT 211 |
|  | Emirates Society (English)                             | EMS111  |
|  | Emirates Society (Arabic)                              | EMS111  |
|  | English Communication Skills                           | ENG111  |
|  | Introduction to communication Sociology                | SOC111  |
|  | Information Society                                    | INF211  |
|  | Media Culture  | INF 112 |
|  | Communication Between Cultures                         | SOC 112 |
|  | General Psychology (English)                           | PSY111  |
|  | General Psychology (Arabic)                            | PSY111  |

**College Requirements (3Cr. Hrs.)**

| Course No. | Course Title        | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite |
|------------|---------------------|-----|------|------|----------|--------------|
| MTH 131    | Math for Management | 2   | 0    | 2    | 3        | ---          |

### Specialization Requirements Compulsory: (98Cr. Hrs.)

| Course No. | Course Title                            | Th. | St. | Tut.  | Cr. Hrs. | Prerequisite         |
|------------|---|-----|-----|-------|----------|----------------------|
| BID 111    | Introduction to Interior Design         | 1   | 4   | ---   | 3        | ---                  |
| BID 249    | Psychology of Design                    | 3   | --- | ---   | 3        | BID 231              |
| BID 121    | CAD I For Interiors                     | 1   | 4   | ----  | 3        | COM 111              |
| BID 235    | CAD II For Interiors                    | 1   | 4   | ----  | 3        | BID 121              |
| BID 115    | Technical writing for ID                | 3   | --- | ---   | 3        | ---                  |
| BID 113    | Freehand Drawing I                      | 1   | 4   | ----  | 3        | ---                  |
| BID 128    | Freehand Drawing II                     | 1   | 4   | ----- | 3        | BID 113              |
| BID 112    | Engineering Graphics for Interiors      | 2   | 2   | 0     | 3        | ---                  |
| BID 114    | Materials Technology                    | 2   | --- | ---   | 2        | ---                  |
| BID 126    | Interior Design I                       | 1   | 6   | ----  | 4        | BID 111              |
| BID 232    | Model Building                          | 1   | 4   | ----  | 3        | BID 114 &<br>BID 112 |
| BID 231    | Interior Design II                      | 1   | 6   | ----  | 4        | BID 126              |
| BID 246    | Interior Design III                     | 1   | 6   | ----  | 4        | BID 231              |
| BID 233    | History of Interior Design I            | 3   | --- | ---   | 3        | BID 126              |
| BID 248    | History of Interior Design II           | 3   | --- | ---   | 3        | BID 233              |
| BID 127    | Color in Interior Design                | 2   | 2   | ----  | 3        | ---                  |
| BID 247    | Interior Construction I                 | 2   | 2   | ----  | 3        | BID 114 &<br>BID 112 |
| BID 129    | Furniture Design                        | 1   | 4   | ----- | 3        | BID 111<br>& BID 112 |
| BID 234    | Lighting & Acoustics in Interior Design | 2   | 2   | ----  | 3        | BID 126              |
| BID 351    | Interior Design IV                      | 1   | 8   | ----  | 5        | BID 246              |
| BID 364    | Interior Design V                       | 1   | 8   | ----  | 5        | BID 351              |
| BID 352    | Interior Construction II                | 2   | 2   | ----  | 3        | BID 247              |
| BID 353    | Interiors in the UAE                    | 3   | --- | ----  | 3        | BID 246              |
| BID 365    | Working Drawings I                      | 2   | 2   | ----  | 3        | BID 352              |
| BID 484    | Practice in Interior Design             | 3   | --  | --    | 3        | BID 472              |
| BID 366    | Sustainability for ID                   | 3   | --- | ---   | 3        | BID 351              |
| BID 472    | Working Drawings II                     | 1   | 2   | ----  | 2        | BID 352              |
| BID 471    | Graduation Project I                    | 2   | 2   | ----  | 3        | BID 364              |
| BID 483    | Graduation Project II                   | 1   | 8   | ----  | 5        | BID 471              |
| BID 410    | ID Practical Training                   | --- | --- | ---   | 4        | BID 364              |

**Specialization Requirements Electives: (9 Cr. Hrs.)**

The student will take three of the following Specialization Electives as approved by the academic advisor.

| Course No. | Course Title                       | Th. | St. | Tut. | Cr. Hrs. | Prerequisite      |
|------------|------------------------------------|-----|-----|------|----------|-------------------|
| BID 501    | Selected Topics in Fur. Des        | 1   | 4   | ---  | 3        | BID 351 & BID 129 |
| BID 502    | Islamic Interiors                  | 3   | --- | ---  | 3        | BID 351           |
| BID 503    | Theory of Interior Design          | 3   | --- | ---  | 3        | BID 351           |
| BID 504    | Selected Topics in Interior Design | 1   | 4   | ---  | 3        | BID 351           |
| BID 505    | Architectural Design for Interiors | 1   | 4   | ---  | 3        | BID 351           |

**Study Plan**
**First-Year – Fall Semester**

| Course Code | Course Title                       | Credit Hrs. | Lec. Hrs. | St. Hrs. | Pre-req. |
|-------------|------------------------------------|-------------|-----------|----------|----------|
| BID 111     | Introduction to Interior Design    | 3           | 1         | 4        | ---      |
| BID 112     | Engineering Graphics for Interiors | 3           | 2         | 2        | ---      |
| BID 113     | Freehand Drawing I                 | 3           | 1         | 4        | ---      |
| BID 114     | Materials Technology               | 2           | 2         | --       | ---      |
| COM 111     | IT Fundamentals                    | 3           | 2         | 2        | ---      |
| ISL 114     | Islamic Culture                    | 3           | 3         | 1 Tut.   | ---      |
| Total       |                                    | 17          |           |          |          |

**First-year – Spring Semester**

| Course Code | Course Title        | Credit Hrs. | Lec. Hrs. | St. Hrs. | Lab Hrs. | Pre-req.          |
|-------------|---------------------|-------------|-----------|----------|----------|-------------------|
| BID 126     | Interior Design I   | 4           | 1         | 6        | 0        | BID 111           |
| BID 127     | Color in Interior   | 3           | 1         | 4        | 0        | BID 111           |
| BID 128     | Freehand Drawing II | 3           | 1         | 4        | 0        | BID 113           |
| BID 129     | Furniture Design    | 3           | 1         | 4        | 0        | BID 111 & BID 112 |
| BID 121     | CAD I for Interiors | 3           | 1         | 0        | 4        | COM 111           |
| BID 115     | Technical Writing   | 3           | 3         | --       | 0        |                   |
| Total       |                     | 19          |           |          |          |                   |

### Second-Year – Fall Semester

| Course Code | Course Title                | Credit Hrs. | Lec. Hrs. | St. Hrs. | Lab. Hrs. | Pre-req.          |
|-------------|-----------------------------|-------------|-----------|----------|-----------|-------------------|
| BID 231     | Interior Design II          | 4           | 1         | 6        | 0         | BID 126           |
| BID 233     | History of Interior Design  | 3           | 3         | ---      | 0         | BID 126           |
| BID 232     | Model Building              | 3           | 1         | 0        | 4         | BID 112 & BID 114 |
| BID 234     | Lighting & Acoustics for ID | 3           | 2         | 2        | 0         | BID 126           |
| BID 235     | CAD II for Interiors        | 3           | 1         | 0        | 4         | BID 121           |
| STA 111     | Statistics/Art Major        | 3           | 2         | 2 (Tut.) | 0         |                   |
| Total       |                             | 19          |           |          |           |                   |

### Second-Year – Spring Semester

| Course Code | Course Title                   | Credit Hrs. | Lec. Hrs. | St. Hrs. | Pre-req.          |
|-------------|--------------------------------|-------------|-----------|----------|-------------------|
| BID 246     | Interior Design III            | 4           | 1         | 6        | BID 231           |
| BID 248     | History of Interior Design II  | 3           | 3         | 0        | BID 233           |
| BID 247     | Interior Construction I        | 3           | 2         | 2        | BID 112 & BID 114 |
| BID 249     | Psychology of Design           | 3           | 3         | 0        | BID 231           |
| ARB 111     | Communication skills in Arabic | 3           | 3         | 0        | ---               |
|             | University Elective            | 3           | ---       | ---      |                   |
| Total       |                                | 19          |           |          |                   |

### Third-Year - Fall Semester

| Course Code | Course Title                    | Credit Hrs. | Lec. Hrs. | St. Hrs. | Pre-req. |
|-------------|---------------------------------|-------------|-----------|----------|----------|
| BID 351     | Interior Design IV              | 5           | 1         | 8        | BID 246  |
| BID 352     | Interior Construction II        | 3           | 2         | 2        | BID 247  |
| BID 353     | Interiors in the UAE            | 3           | 3         | 0        | BID 248  |
| INN 311     | Innovation and Entrepreneurship | 3           | 3         | 0        | ---      |
| MTH 131     | Math for Management             | 3           | 3         | 2 (Tut.) | ---      |
| Total       |                                 | 17          |           |          |          |

### Third-Year - Spring Semester

| Course Code | Course Title      | Credit Hrs. | Lec. Hrs. | St. Hrs. | Pre-req. |
|-------------|-------------------|-------------|-----------|----------|----------|
| BID 364     | Interior Design V | 5           | 1         | 8        | BID 351  |

|         |                        |    |   |   |         |
|---------|------------------------|----|---|---|---------|
| BID 365 | Working Drawings I     | 3  | 2 | 2 | BID 352 |
|         | Special Elective I     | 3  |   |   |         |
| BID 366 | Sustainability for ID  | 3  | 3 | 0 | BID 351 |
|         | University Elective II | 3  |   |   |         |
| Total   |                        | 17 |   |   |         |

**EXTERNAL TRAINING I [ 2 Cr. Hrs. (6 weeks) ]**

**Fourth-Year – Fall Semester**

| Course Code | Course Title            | Credit Hrs. | Lec. Hrs. | St. Hrs. | Pre-req. |
|-------------|-------------------------|-------------|-----------|----------|----------|
| BID 471     | Graduation Project I    | 3           | 2         | 2        | BID 364  |
| BID 472     | Working Drawings II     | 2           | 1         | 2        | BID 365  |
|             | University Elective III | 3           |           |          |          |
|             | Special Elective II     | 3           |           |          |          |
| Total       |                         | 11          |           |          |          |

**Fourth-Year – Spring Semester**

| Course Code | Course Title                | Credit Hrs. | Lec. Hrs. | St. Hrs. | Pre-req. |
|-------------|-----------------------------|-------------|-----------|----------|----------|
| BID 483     | Graduation Project II       | 5           | 1         | 8        | BID 471  |
|             | Special Elective III        | 3           |           |          |          |
| BID 484     | Practice in Interior Design | 3           | 3         | 0        | BID 472  |
| Total       |                             | 9           |           |          |          |

**EXTERNAL TRAINING II [ 2 Cr. Hrs. (6 weeks) ]**



## Course Descriptions

### Introduction to Interior Design Course Code: BID 111

*Credit Hours: **3Cr. Hrs.:** Theory (1 hr.), Studio (4 hrs.)*

*Pre-Requisite: None*

*Co-Requisite: BID 112 & BID 114*

This course aims to introduce students to the basic elements of design, its principles, visual aspects with their perception, design vocabulary and their application in design. It also familiarizes the students with the implementation of fundamental concepts and elements of Interior Design.

### Engineering Graphics for Interiors Course Code: BID 112

*Credit Hours: **3Cr. Hrs.:** Theory (2 hrs.), Studio (2 hrs.)*

*Pre-Requisite: None*

*Co-Requisite: None*

This course aims to familiarize students with basic drafting skills and essential fundamental concepts of interior design drafting by introducing the principle of parallel- line drawings, orthogonal projections, and rendering techniques. It enables students to understand the use of 2-D, 3-D parallel and orthographic projections in interior design projects.

### Freehand Drawing I Course Code: BID 113

*Credit Hours: **3Cr. Hrs.:** Theory (1 hr.), Studio (4 hrs.)*

*Pre-Requisite: None*

*Co-Requisite: None*

This course aims to introduce a solid grounding in the principles of freehand drawing. The emphases are on teaching basics of drawing and composition, including how to create sketch perspectives, assume scale, and introduce textures and tones into their illustrations of interior spaces. It enables students to conceptualize their imagination in the field of interior design.

### Materials Technology Course Code: BID 114

*Credit Hours: **2 Cr. Hrs.:** Theory (2 hrs.)*

*Pre-Requisite: None*

*Co-Requisite: None*

This course aims to provide the interior design students the technical aspects of surface and structural materials. It enables students to learn how to apply innovative material concepts of three-dimensional design to the reality of finished space in respect of human behavior, environmental needs, and regulations.

### Technical Writing for Interior Design Course Code: BID 115

*Credit Hours: **3Cr. Hrs.:** Theory (3 hrs.)*

*Pre-Requisite: None*

*Co-Requisite: None*

This course intends to develop interior design students' proficiency and communicative competence in technical/professional writing and oral presentation skills.

Following the statement that "Write to communicate," in Design should be focused on showing rather telling, students learn how to organize and express facts and ideas about their profession through written words. Coursework focuses on the production of technical and research documents used in industry for possible audiences, simultaneously practical and interactive assignments designed



specially to improve their verbal communication.

**Interior Design I      Course Code: BID 126**

*Credit Hours: **4 Cr. Hrs.:** Theory (1 hr.), Studio (6 hrs.)*

*Pre-Requisite: Introduction to Interior Design (BID 111)*

*Co-Requisite: BID 127, BID 129*

This course introduces the students to residential interior design and its requirements, including interior space planning, furniture arrangements, and design treatments. Students should be introduced to the basics of interior design concept, gathering data of several client's needs and types. Classify the residential activities and functions to arrange the elements of interiors, like furniture, accessories, and floor wall ceiling materials, in a unified design.

**Color in Interior Design      Course Code: BID 127**

*Credit Hours: **3 Cr. Hrs.:** Theory (2 hrs.), Studio (2 hrs.)*

*Pre-Requisite: None*

*Co-Requisite: Interior Design I (BID 126)*

This course provides students with a background in color theories as it relates to interior design including color schemes. The class consists of lectures, discussions and in-class exercises through individual and group work. Lectures explain the physics of color, color theories, physiology of color, the psychology of color, color in art and practical assignments focusing on the application of color in residential design project in the design studio.

**Freehand Drawing II      Course Code: BID 128**

*Credit Hours: **3 Cr. Hrs.:** Theory (1 hr.), Studio (4 hrs.)*

*Pre-Requisite: Freehand Drawing I (BID 113)*

*Co-Requisite: None*

This course is the one built on the knowledge and skills acquired in freehand I. Students continue developing the cognitive process associated with the drawing studies of space in multiple relationships. Variety of assignments emphasize on students learning the development of personal, introspective illustrations and rapid concept development as well as an exploration of various media in experimental applications.

**Furniture Design      Course Code: BID 129**

*Credit Hours: **3 Cr. Hrs.:** Theory (1 hr.), Studio (4 hrs.)*

*Pre-Requisite: Introduction to Interior Design (BID 111), Engineering Graphics for Interiors (BID 112)*

*Co-Requisite: Interior Design I (BID 126)*

This course is an introduction to the furniture design process considering all its aspects such as aesthetic design issues, structure, ergonomics, anthropometry functionality, materials technology, and manufacturability. The course also incorporates the study of history and design of residential and commercial furniture styles and periods along with the contemporary design, which leads the Students to utilize the design process to explore and formulate concepts, communicate those design ideas, and fabricate a quality furniture piece based on their research and design solutions.

**CAD I for Interiors      Course Code: BID 121**

*Credit Hours: **3 Cr. Hrs.:** Theory (1 hr.), Lab (4 hrs.)*

*Pre-Requisite: IT Fundamental (COM 111)*

*Co-Requisite: None*



This course aims to introduce students to Computer Aided Design and drafting (CADD) and its application for interior design projects using AutoCAD software. Topics include 2D tool palette, object information, resources and command box windows, dimensioning tool, scale, layers, line weight and symbols. It is also includes file management, printing and plotting methods enable students to demonstrate their understanding, skills and proficiency in producing both "presentation" and "technical" styles of Interior design drawings.

### **Interior Design II**

**Course Code: BID 231**

**Credit Hours: 4 Cr. Hrs.:** Theory (1 hr.), Studio (6 hrs.)

**Pre-Requisite:** Interior Design I (BID 126)

**Co-Requisite:** BID 232, BID 234

This course introduces students to the factors important in the successful design of retail stores, cafés, restaurants and hair salons in urban and shopping mall settings. Students learning comprises many aspects from interior space utilization, façade design, display fixtures fitting and furniture design, visual merchandising to signage and lighting design principles as well as the role of the interior designer in branding and the selling of a product by understanding customer behavior.

### **Model Building**

**Course Code: BID 232**

**Credit Hours: 3 Cr. Hrs.:** Theory (1 hr), Lab(4 hrs).

**Pre-Requisite:** Engineering Graphics for Interiors (BID 112), Materials Technology (BID 114).

**Co-Requisite:** Interior Design II (BID 231)

This course is an introduction to understanding the way that designers use models in their design project. Students are encouraged to learn that three-dimensional model is making from a variety of simple materials, sculpting, mold-making, wood joinery, laser cutting and 3D printing to support design development for their design projects. In addition, an induction lecture helps students to arrange the materials on samples board for their design project.

### **History of Interior Design I**

**Course Code: BID 233**

**Credit Hours: 3 Cr. Hrs.:** Theory (3 hrs.)

**Pre-Requisite:** Interior Design I (BID 126)

**Co-Requisite:** None

This course aims to introduce students a critical overview of the history of interior design, its connection to different periods and cultures, and its integral relationship with the interior, architecture, and decorative arts. Lecture, readings, and field trips focus on the development of major forms, period styles, and ornament from ancient Egypt, Greece, and Rome through the Renaissance, Baroque, Rococo, and Neoclassical eras.

### **Lighting & Acoustics for Interior Design**

**Course Code: BID 234**

**Credit Hours: 3 Cr. Hrs.:** Theory (2 hrs.), Studio (2 hrs.)

**Pre-Requisite:** Interior Design I (BID 126)

**Co-Requisite:** Interior design II (BID 231)

The course aims to introduce interior design students with lighting design system, lighting graphics, the creation of specifications' legend and basic control systems as well as special topics such as decorative luminaires and energy efficiency. The course explores the physical influence of lighting on color. The course includes in-depth mathematical calculations used to determine the amount of natural and artificial lighting and acoustic treatment required to meet specific codes and clients' needs. Various

factors of sound and vibration control are also included to understand acoustic behavior in interior space.

**CAD II for Interiors      Course number: BID 235**

*Credit hours: **3 Cr. Hrs.:** Theory (1 hr.), Lab (4 hrs.)*

*Pre-Requisite: CAD I for Interiors (BID 121)*

*Co-Requisite: None*

Building on the skills from CAD I, this course aims to teach students an advanced three dimensional, rendering and presentation software packages. In addition, students will utilize their learning skills to develop their projects and design analyses outcome, which will enhance their 3D computer visualization skills, as well as generative types of CAD concepts.

**Interior Design III      Course Code: BID 246**

*Credit Hours: **4 Cr. Hrs.:** Theory (1 hr.), Studio (6 hrs.)*

*Pre-Requisite: Interior Design II (BID 231)*

*Co-Requisite: BID 249*

The course aims to introduce students to commercial interior design such as offices' interiors in the setting of administrative and public buildings. The course contents would then enable the students to design office interiors with emphasis placed on planning, circulation, furniture arrangement, color, lightings and other design treatments. The students can recognize the organizational charts and the nature of the business to provide the successful design.

**Interior Construction I      Course Code: BID 247**

*Credit Hours: **3 Cr. Hrs.:** Theory (2 hrs.), Studio (2 hrs.)*

*Pre-Requisite: Engineering Graphics for Interiors (BID 112), Materials Technology (BID 114)*

*Co-Requisite: Interior Design III (BID 246)*

This course would help students, both in exploring the finishing materials, and in understanding, the principle involved in selecting materials for interior spaces. They will identify the elements of interior structure, and recognize physical and visual properties, dimensional characteristics of common used finishes for interior spaces by using the graphic material symbols in their drawings.

**History of Interior Design II      Course Code: BID 248**

*Credit Hours: **3 Cr. Hrs.:** Theory (3 hrs.)*

*Pre-Requisite: History of Interior Design I (BID 233)*

*Co-Requisite: None*

This course introduces students to ideas and approaches to the study of design history and theories with particular emphasis on the contemporary interior environment. Lectures, discussion and field trips help students to explore wide range of built environment and the use of historical documents. Analysis of various movement and their development phase enable students to understand broad historical frameworks.

**Psychology of Design      Course Code: BID 249**

*Credit Hours: **3 Cr. Hrs.:** Theory (3 hrs.)*

*Pre-Requisite: Interior Design II (BID 231)*

*Co-Requisite: Interior Design III (BID 246)*

The course introduces the students to the basic psychology of designing spaces that deals with human occupancy. The study of interaction between human behavior and physical environment enable the students to examine perception and cognition, cultural differences in spatial context, proxemics and the role of values in the design of interior environment. Focusing on socio- psychology and aesthetics,

students analyze all other aspects of human behavior in interior atmosphere to design comfortable environment for the end user.

**Interior Design IV Course Code: BID 351**

*Credit Hours: **5 Cr. Hrs.**: Theory (1 hr.), Studio (8 hrs.)*

*Pre-Requisite: Interior Design III (BID 246)*

*Co-Requisite: Interior Construction II (BID 352)*

This course provides students with an introduction to the process of designing hospitality areas specifically hotel interiors. Lectures from guest speakers and industry professionals enable students to gain an overview of all aspects of hotel design including designing for communal areas and understanding room typologies. Students learn how to create a concept based on local culture its influence and how to respond to a brief from a client. Their learnings extended to the field of interior landscape design. The off-site visits take place at a luxury hotel to understand the operation of these hotels that help them to create successful design.

**Interior Construction II Course Code: BID 352**

*Credit Hours: **3 Cr. Hrs.**: Theory (2 hrs.), Studio (2 hrs.)*

*Pre-Requisite: Interior Construction I (BID 247)*

*Co-Requisite: Interior Design IV (BID 351)*

This course would assist the students exploring the interiors' structural elements such as load bearing structure, partitions, door construction, ceiling and floor design system including interior furnishing and its construction details, based on information gathered within the previous pre-request course interior construction I. In addition, it improves their understanding of custom design working.

**Interiors in the UAE Course Code: BID 353**

*Credit Hours: **3 Cr. Hrs.**: Theory (3 hrs.)*

*Pre-Requisite: Interior Design III (BID 246)*

*Co-Requisite: None*

The aim of the course is to allow the students to research and study the various UAE, traditional and contemporary residential interiors. This course would then enable students to develop knowledge for the local culture, customs and materials used in UAE constructions, which would help them to utilize this in their current and future design projects.

**Interior Design V Course Code: BID 364**

*Credit Hours: **5 Cr. Hrs.**: Theory (1 hr.), Studio (8 hrs.)*

*Pre-Requisite: Interior Design IV (BID 351)*

*Co-Requisite: BID 365, BID 366*

This course aims to introduce students to design various types of exhibitions areas i.e. Temporary exhibitions, permanent exhibitions, museum and trade shows etc. Students refine their skills and knowledge while designing an exhibition using an existing plan with focus on how the various elements of an exhibition plan (such as architecture, lighting, display furniture, and didactics) aid the audiences' interpretation of the artefacts. Students learn how to select the appropriate form of documentation for the exhibitions they create for their projects (trade shows and museums).

**Working Drawings I Course Code: BID 365**

*Credit Hours: **3 Cr. Hrs.**: Theory (2 hrs.), Studio (2 hrs.)*

*Pre-Requisite: Interior Construction II (BID 352)*

*Co-Requisite: Interior Design V (BID 364)*

The aim of this course is to introduce students to working drawings sets provide dimensioned, graphical information that can be use by a contractor to construct the interiors, or by suppliers to fabricate components of design to assemble or install them as per requirement on site. Focusing on design project detailing, students also learn the construction techniques of their custom design components in this course.

**Sustainability for Interior Design**

*Course Code: BID 366*

*Credit Hours: **3 Cr. Hrs.**: Theory (3 hrs.)*

*Pre-Requisite: Interior Design IV (BID 351)*

*Co-Requisite: None*

The aim of this course is to introduce the methodology of sustainability to the interior design students. The environmental issues are an important part in our life and in our future. The interior design field is concerned about the welfare of the people and their interior, so they need to have a sound knowledge of sustainability and its impact on the individual and society. This course should have as a primary objective to explain and recognize the basic meaning of sustainability as philosophy, concept, and principles to guide our students from the first level of the design to construction as well as post construction phase.

**Graduation Project I** *Course Code: BID 471*

*Credit Hours: **3 Cr. Hrs.**: Theory (2 hrs.), Studio (2 hrs.)*

*Pre-Requisite: Interior Design V (BID 364)*

*Co-Requisite: None*

The aim of this course is to help the students in the preparation of an analytical and technical report of their individually chosen graduation project, and would be able to gather data successfully of any chosen project, to collect and analyze needed information for the chosen project, develop in aesthetics and functional needs in interior design spaces.

**Working Drawings II** *Course Code: BID 472*

*Credit Hours: **2 Cr. Hrs.**: Theory (1 hr.), Studio (2 hrs.)*

*Pre-Requisite: Working Drawings I (BID 365)*

*Co-Requisite: None*

Follow-up with the course working drawing I, students prepare a complete set of contract documents means by which interior design communicate to the building construction industry, code officials, product manufacturers, suppliers, vendor and fabricators. These documents includes Working drawings, specifications, bill of quantities, work schedule etc. While working on given design project, students will acquire a logical approach of these document preparations.

**Graduation Project II** *Course number: BID 483*

*Credit hours: **5 Cr. Hrs.**: Theory (1 hr.), Studio (8 hrs.)*

*Pre-Requisite: Graduation Project I (BID 471)*

*Co-Requisite: None*

The course gives the student an opportunity to explore his/her ability and knowledge of dealing with actual existing project in interior design. By using the suitable furnishing requirements, student can create an aesthetic and functional interior design through two main objectives, theoretical and practical to define the different functions applications and its positive and negative points.



**Practice in Interior Design**      *Course Code: BID 484*

*Credit Hours: 3 Cr. Hrs.: Theory (3hrs.)*

*Pre-Requisite: Working Drawing II (BID 472)*

*Co-Requisite: Graduation Project II (BID 483)*

The aim of this course is to incorporate the basic business theories into the practice of Interior Design. It covers the various principles, which constitute the pillars of business science, to the Interior Design professional. The course develop the skills required in the field of interior design marketing and prepares the students both for employment as well as for future opportunities to set up their own design office as a professional business.

**Selected Topics in Furniture Design**      *Course Code: BID 501*

*Credit Hours: 3 Cr. Hrs.: Theory (1 hr.), Studio (4 hrs.)*

*Pre-Requisite: Furniture Design (BID 129), Interior Design IV (BID 351)*

*Co-Requisite: None*

The aims of the course is to make students more familiar with programming and conceptual design expressed in sketches, and models, as well as with shop drawings and presentation drawings, understanding the aesthetic and functional/ ergonomic aspects of furniture as well as the technological aspects of producing furniture. This course should help students understand some sociological factors that influence the methodologies of educational investigation in interior and furniture design. This project will assess their presentation skill, imagination and creativity.

**Islamic Interiors**      *Course number: BID 502*

*Credit hours: 3 Cr. Hrs.: Theory (3 hrs)*

*Pre-Requisite: Interior Design IV (BID 351)*

*Co-Requisite: None*

The aim of the course is to allow the students to search and understand the philosophy of Islamic interiors, with emphasis on decorative elements and accessories. At the end of the course students would be able to implement the basic rules of Islamic interiors depend on the chosen style, using basically the decorative components of Islamic interiors such as; pattern, color, trims and accessories.

**Theory of Interior Design**      *Course Code: BID 503*

*Credit Hours: 3 Cr. Hrs.: Theory (3 hrs).*

*Pre-Requisite: Interior Design IV (BID 351)*

*Co-Requisite: None*

The aim of this course is to strengthen the students' theoretical background throughout analyze, criticize, and methods and discovering the contemporary theories of designing interiors.

**Selected Topics in Interior Design**      *Course Code: BID 504*

*Credit Hours: 3 Cr. Hrs.: Theory (1 hr.), Studio (4 hrs.)*

*Pre-Requisite: Interior Design IV (BID 351)*

*Co-Requisite: None*

The aim of this course is to enable the students to develop in research, analysis and criticism capability in the interior design project not covered in design courses. It aims also to explore and present selected topics in interior design. Guiding study and exploration of subjects not covered by other courses in the discipline and successfully analyze, criticize interior design spaces through recognize the program design for divers' project type.

**Architectural Design for Interiors****Course Code: BID 505**

*Credit Hours: **3 Cr. Hrs.**: Theory (1 hr.), Studio (4 hrs.)*

*Pre-Requisite: Interior Design IV (BID 351)*

*Co-Requisite: None*

The aim of the course is to enhance the interior design students' skills in creating and solving special problem related to the function of interior spaces; re-designing partitions based on structure information, adding new spaces to success the interior design function, to integrate the interior design with the architectural building. As well as to complete the interior design curriculum by designing the landscape spaces with its need of light building structures as an artistically sculpted structures to fit the aesthetical need of this area.

**Interior Design Practical Training****Course Code: BID 410**

*Credit Hours: **4 Cr. Hrs.**: (2-2 Hrs. External Training)*

*Pre-Requisite: Interior Design V (BID 364)*

*Co-Requisite: None*

The aim of this training is to enable students gaining basic professional interior design knowledge, such as; interior finishing materials, suppliers, materials specification, bill of quantity, cost estimation.

## College of Pharmacy and Health Sciences

The College of Pharmacy and Health Sciences (COPHS) was founded in accordance with the university's policy of establishing an innovative medical environment which embraces health sciences, i.e. dentistry, medical technology, etc., in addition to pharmacy. The establishment of COPHS is intended to meet the demand for pharmacists in hospitals and community pharmacies, and to provide manpower for the increasing number of private pharmacies and the growing pharmaceutical industry in the UAE and the region.

### Mission

The mission of the College of Pharmacy and Health Sciences is to create an environment that promotes excellence in pharmaceutical education, practice and research. It is committed to the continuous improvement of its programs to keep abreast with the rapid advances in the profession of pharmacy and the provision of pharmaceutical care. It strives to prepare students to become competent, reliable and ethical health care professionals.

### Degree Programs

The College offers the following two programs:

Bachelor of Pharmacy (BPharm)

Master of Science in Pharmacy

### Facilities

#### Laboratory Facilities

The college has several laboratories, covering the various branches of pharmaceutical science, which have the latest equipment. These laboratories have the instrumental apparatus which will enable students to gain sound practical skills as well as integrate theoretical study with real practical methods and techniques.

#### Computer Facilities

The college receives full technical support and assistance from the University Computer Center which provides its services all year round to administrators, staff and students. The computer laboratories at the center are well-equipped and are available for use throughout the day; they are administered by trained staff who assist in solving problems and answering queries.

#### Research Facilities

The College has dedicated state-of-the-art research laboratory facilities equipped with essential modern equipment and instruments to conduct faculty and student research projects. Sophisticated equipment are annually added to the existing ones, and internal research grants are provided to faculty to accomplish their research tasks.



### **Dedicated OSCE and Collaborative Learning Room**

The College provides spacious room to assist in conducting objective structured clinical exams (OSCE) and for collaborative student learning sessions. The room is equipped with large LED TV and video camera to record role playing.

### **Virtual Pharmacy**

The College has its own virtual pharmacy room with large range of medicines. It has 20 computers in 5 round tablets and a large LED TV. It is utilized to simulate real experience and equip students with the necessary skills they need in their real experiential courses.

## **Bachelor of Pharmacy**

### **Program Objectives**

To prepare students for the practice of pharmacy by providing them with the scientific background, clinical and technical skills that they will need to successfully complete their program of study.

To provide an educational environment that enables students to acquire the behavior, and moral and ethical attitudes they will need to practice the profession competently and ethically.

### **Program Outcomes**

The intended outcomes of the program are that students will be able to:

- Demonstrate knowledge of the basic and clinical science background of pharmacy practice.
- Demonstrate knowledge of the basic skills and techniques involved in drug manufacture and development, drug design and screening and quality assurance of pharmaceutical products.
- Demonstrate knowledge of the rational use of herbal supplements, fundamentals of phytotherapy and the hazards of poisonous and abused natural products.
- Implement the processes of compounding and dispensing medications, interpreting prescription orders and applying calculations related to the compounding and dispensing of medicines.
- Participate in patient care by influencing optimal drug choice, type of dosage form and the design of dosage regimens.
- Develop problem solving and critical thinking abilities and the ability to retrieve, evaluate and manage information in the literature.
- Demonstrate the ability to write clear and organized reports, and to present oral communications.
- Demonstrate the ability to lead and to function both independently and as a member of a team.
- Display legal, moral and ethical attitudes and behaviors consistent with the standards of the profession.
- Develop communication skills in order to effectively counsel patients on their medications.
- Develop the necessary skills in information use and management to educate health care professionals and the public in optimal drug therapy.
- Develop independent study skills for life-long learning and continuous professional development.

### Mapping of the B. Pharm PLOs to the UAE's qualification framework.

| UAE's Qualifications Frameworks Learning Outcomes Strands                          |                                    | B. Pharm. Program learning outcomes (PLOs)   |
|--|------------------------------------|--|
| <b>On successful completion of the B.Pharm program, graduates will be able to:</b> |                                    |  |
| <b>Knowledge</b>   |                                    | K1. Demonstrate knowledge of the basic and clinical science background of pharmacy practice.   |
|  |                                    | K2. Demonstrate knowledge of the basic skills and techniques involved in drug manufacture and development, drug design and screening and quality assurance of pharmaceutical products.   |
|  |                                    | K3. Demonstrate knowledge of the rational use of herbal supplements, fundamentals of phytotherapy and the hazards of poisonous and abused natural products.  |
| <b>Skill</b>   |                                    | S1. Implement the processes of compounding and dispensing medications, interpreting prescription orders and applying calculations related to the compounding and dispensing of medicines.  |
|  |                                    | S2. Participate in patient care by influencing optimal drug choice, type of dosage form and the design of dosage regimens.   |
|  |                                    | S3. Develop problem solving and critical thinking abilities and the ability to retrieve, evaluate and manage information in the literature.  |
|  |                                    | S4. Demonstrate the ability to write clear and organized reports, and to present oral communications.  |
| <b>Aspects of Competence</b>   | <b>Autonomy and responsibility</b> | C1. Demonstrate the ability to lead and to function both independently and as a member of a team.  |
|  | <b>Role in context</b>             | C2. Display legal, moral and ethical attitudes and behaviours consistent with the standards of the profession.<br>C3. Develop communication skills in order to effectively counsel patients on their medications.<br>C4. Develop the necessary skills in information use and management to educate health care professionals and the public in optimal drug therapy. |
|  | <b>Self-development</b>            | C5. Develop independent study skills for life-long learning and continuous professional development.   |

### Admission Requirements

Prospective candidates seeking admission to the Bachelor of Pharmacy (BPharm) program should fulfill the following requirements:

Secondary school certificate (science section), or its equivalent, with a minimum grade of 70 percent, approved by the UAE Ministry of Education.

A score of 500 or higher in the TOEFL English proficiency test, or the equivalent.

### Personal interview

Demonstration of good conduct and maturity.

Please see the university admission requirements for more detail.

### Career Opportunities

The curriculum is designed and continuously improved with the aim of preparing graduates to be able to effectively deliver pharmaceutical services in the private sector as well as in governmental agencies. Pharmacy graduates have the opportunity to work in different placements related to pharmacy profession:

- Community pharmacies
- Hospital pharmacies
- Pharmaceutical industry
- Pharmaceutical scientific laboratories
- Wholesale drug stores
- Medical representatives
- Pharmaceutical administration
- Food control and analysis
- Pharmaceutical education and research

### Graduation Requirements

The degree of Bachelor of Pharmacy (BPharm) will be awarded after successful completion of least one hundred and fifty credit hours (150 Credit Hours), including the university requirement courses. The period of study normally takes eight regular semesters and two-three summer semesters. In addition, every student should have field training in community pharmacies, hospital pharmacies and pharmaceutical industry of not less than 600 contact hours which is equivalent to 15 credit hours. The minimum cumulative grade point average (CGPA) for graduation is 2.0.

The 150 credit hours including university requirement courses are distributed according to the following plan:

| Type of Courses                              | Credit/hour |
|--|-------------|
| 1. University General Education Requirements |             |
| (a) University Required Courses              | 15          |
| (b) University Elective Courses              | 9           |
| 2. College Requirements                      |             |
| (a) College Required Courses                 | 108         |
| (b) College Required Training Courses        | 15          |
| (c) College Electives Courses                | 3           |
| Total Credit Hours                           | 150         |

## UNIVERSITY GENERAL EDUCATION REQUIREMENTS

### (a) University Obligatory Courses ( 15 Cr.Hrs.)

| Course No. | Course Title  | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite |
|------------|---|-----|------|------|----------|--------------|
| ARB111     | Communication Skills in Arabic Language (For Arabs) | 3   | 0    | 0    | 3        | -            |
| ARB112     | Communication Skills in Arabic Language (Non Arabs) | 3   | 0    | 0    | 3        | -            |
| ARB114     | Communication Skills in Arabic Language - E         | 3   | 0    | 0    | 3        | -            |
| ISH211     | Islamic Civilization (Arabic)                       | 3   | 0    | 0    | 3        | -            |
| ISH211     | Islamic Civilization (English)                      | 3   | 0    | 0    | 3        | -            |
| ISL114     | Islamic Culture (For Arabs)                         | 3   | 0    | 1    | 3        | -            |
| ISL112     | Islamic Culture (Non Arabs)                         | 3   | 0    | 0    | 3        | -            |
| INN311     | Innovation and Entrepreneurship (English)           | 3   | 0    | 0    | 3        | -            |
| COM111     | IT Fundamental                                      | 2   | 2    | 0    | 3        | -            |
| STA112     | Statistics (Health Sciences)                        | 2   | 2    | 0    | 3        | -            |

### (b) University Elective Courses ( 9 Cr.Hrs.)

| Course No. | Course Title                              | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite |
|------------|---|-----|------|------|----------|--------------|
| LAW111     | Legal Culture                             | 3   | 0    | 0    | 3        | -            |
| ART111     | Introduction to Art (English)             | 3   | 0    | 0    | 3        | -            |
| ART211     | Introduction to Digital Photography       | 3   | 0    | 0    | 3        | -            |
| ART112     | Introduction to Aesthetics (English)      | 3   | 0    | 0    | 3        | -            |
| FRE211     | French Language                           | 3   | 0    | 0    | 3        | -            |
| ISL211     | Introduction to Hadeeth and Sunna         | 3   | 0    | 0    | 3        | -            |
| ENG113     | Academic Writing (English)                | 3   | 0    | 0    | 3        | -            |
| ENG211     | The Art of Public Speaking (English)      | 3   | 0    | 0    | 3        | -            |
| AST211     | Astronomy (Arabic)                        | 3   | 0    | 0    | 3        | -            |
| PHY111     | Physics                                   | 3   | 0    | 0    | 3        | -            |
| NUT111     | Fundamentals of Human Nutrition (English) | 3   | 0    | 0    | 3        | -            |
| AID111     | First Aid (English)                       | 3   | 0    | 0    | 3        | -            |
| ISH111     | History of Science in Islam               | 3   | 0    | 0    | 3        | -            |
| PIO211     | Scientific Pioneering                     | 3   | 0    | 0    | 3        | -            |
| ENV111     | Environmental Sciences (English)          | 3   | 0    | 0    | 3        | -            |
| RES211     | Research Methodology (English)            | 3   | 0    | 0    | 3        | -            |

|        |                                |   |   |   |   |   |
|--------|--------------------------------|---|---|---|---|---|
| INF212 | Information System (Arabic)    | 3 | 0 | 0 | 3 | - |
| ECO211 | Economic Concepts (English)    | 3 | 0 | 0 | 3 | - |
| PSY111 | General Psychology (English)   | 3 | 0 | 0 | 3 | - |
| EMS111 | Emirates Society (English)     | 3 | 0 | 0 | 3 | - |
| ENG111 | English Communication Skills   | 3 | 0 | 0 | 3 | - |
| THI211 | Critical Thinking (English)    | 3 | 0 | 0 | 3 | - |
| SOC112 | Communication Between Cultures | 3 | 0 | 0 | 3 | - |
| INF113 | Library Information System     | 3 | 0 | 0 | 3 | - |

## COLLEGE REQUIREMENTS

### (a) College Required Courses:

#### 1. Department of Pharmaceutical Sciences

| Course No. | Course Title                             | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite      |
|------------|--|-----|------|------|----------|-------------------|
| PHA111     | Introduction to Pharmacy                 | 2   | 2    | 0    | 3        | xxxxx             |
| PHA112     | Physical Pharmacy I                      | 2   | 2    | 0    | 3        | PHA111            |
| PHA124     | Pharmaceutical Botany                    | 2   | 2    | 2    | 3        | xxxxx             |
| PHA125     | General Pharmacognosy                    | 3   | 2    | 0    | 4        | PHA124            |
| PHA141     | Pharmaceutical Organic Chemistry I       | 2   | 2    | 0    | 3        | xxxxx             |
| PHA142     | Pharmaceutical Organic Chemistry II      | 2   | 2    | 0    | 3        | PHA141            |
| PHA143     | Pharmaceutical Analytical Chemistry I    | 2   | 2    | 0    | 3        | PHA141            |
| PHA212     | Physical Pharmacy II                     | 2   | 2    | 0    | 3        | PHA112            |
| PHA213     | Pharmaceutical Dosage Forms I            | 2   | 2    | 0    | 3        | PHA112            |
| PHA214     | Pharmaceutical Dosage Forms II           | 2   | 2    | 0    | 3        | PHA213            |
| PHA244     | Pharmaceutical Analytical Chemistry II   | 2   | 2    | 0    | 3        | PHA143            |
| PHA245     | Instrumental Analysis I                  | 2   | 2    | 0    | 3        | PHA244            |
| PHA311     | Biopharmaceutics and Pharmacokinetics I  | 2   | 2    | 0    | 3        | PHA214+<br>PHA245 |
| PHA312     | Biopharmaceutics and Pharmacokinetics II | 2   | 2    | 0    | 3        | PHA311            |
| PHA313     | Pharmaceutical Technology                | 3   | 2    | 0    | 4        | PHA212+PHA214     |
| PHA346     | Instrumental Analysis II                 | 2   | 2    | 0    | 3        | PHA245            |
| PHA347     | Phytochemistry                           | 3   | 2    | 0    | 4        | PHA125+PHA346     |
| PHA354     | Medicinal and Pharmaceutical Chemistry I | 2   | 2    | 0    | 3        | PHA142+PHA253     |

|        |   |   |   |   |   |        |
|--------|---|---|---|---|---|--------|
| PHA356 | Medicinal and Pharmaceutical Chemistry II | 2 | 2 | 0 | 3 | PHA354 |
| PHA414 | Pharmaceutical Technology Training        | 2 | 2 | 0 | 3 | PHA313 |

## 2. Department of Clinical Sciences

| Course No. | Course Title                                  | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite       |
|------------|---|-----|------|------|----------|--------------------|
| DDS318     | Pathology / Pharmacy                          | 2   | 0    | 0    | 2        | PHA253             |
| PHA135     | Principles of Human Anatomy and Physiology I  | 3   | 2    | 0    | 4        | xxxxx              |
| PHA136     | Principles of Human Anatomy and Physiology II | 2   | 2    | 0    | 3        | PHA135             |
| PHA221     | Community Pharmacy Training I                 | 0   | 0    | 0    | 3        | PHA236             |
| PHA235     | Pharmacology and Therapeutics I               | 2   | 2    | 0    | 3        | PHA136             |
| PHA236     | Pharmacology and Therapeutics II              | 2   | 2    | 0    | 3        | PHA235             |
| PHA251     | Biochemistry I                                | 2   | 2    | 0    | 3        | PHA142             |
| PHA252     | Biochemistry II                               | 2   | 2    | 0    | 3        | PHA251             |
| PHA253     | Pharmaceutical Microbiology and Immunology    | 3   | 2    | 0    | 4        | PHA251             |
| PHA337     | Pharmacology and Therapeutics III             | 2   | 2    | 0    | 3        | PHA236             |
| PHA422     | Community Pharmacy Training II                | 0   | 0    | 0    | 3        | PHA221+PHA462      |
| PHA438     | Toxicology and Chemotherapy                   | 3   | 0    | 0    | 3        | PHA337+DDS318      |
| PHA439     | Bioassays and Drug Screening                  | 2   | 2    | 0    | 3        | STA112+PHA337      |
| PHA451     | Project                                       | 2   | 2    | 0    | 3        | After 115 Crd. Hrs |
| PHA461     | OTC Drugs and Products                        | 2   | 2    | 0    | 3        | PHA337             |
| PHA462     | Clinical Pharmacy I                           | 2   | 2    | 0    | 3        | PHA312+PHA337      |
| PHA463     | Clinical Pharmacy II and First Aid            | 2   | 2    | 0    | 3        | PHA462             |
| PHA464     | Marketing and Sales                           | 1   | 0    | 0    | 1        | PHA462             |
| PHA465     | Pharmaceutical Legislations                   | 1   | 0    | 0    | 1        | PHA438             |
| PHA471     | Hospital Pharmacy Training                    | 0   | 0    | 0    | 3        | PHA337             |
| PHA472     | Clinical Pharmacy Training                    | 0   | 0    | 0    | 3        | PHA461+PHA462      |

**(b) College Elective Courses:**

Students have to study one course of the following (3 Cr. Hrs)

| Course No. | Course Title                    | Th. | Lab. | Tut. | Cr. Hrs. | Prerequisite  |
|------------|---------------------------------|-----|------|------|----------|---------------|
| PHA423     | Community Pharmacy Training III | 0   | 0    | 0    | 3        | PHA422        |
| PHA441     | Nuclear Pharmacy                | 3   | 0    | 0    | 3        | PHA337        |
| PHA448     | Phytotherapy                    | 3   | 0    | 0    | 3        | PHA347        |
| PHA453     | Pharm. Biotechnology            | 3   | 0    | 0    | 3        | PHA252        |
| PHA454     | Clinical Microbiology           | 2   | 2    | 0    | 3        | PHA253        |
| PHA455     | Gene Therapy                    | 3   | 0    | 0    | 3        | PHA252+PHA253 |

**Study Plan**
**First Year:**
**Fall Semester:**

| Course No. | Course Title                                 | Th. | Lab. | Tut. | Cr.Hrs | Pre-req. |
|------------|--|-----|------|------|--------|----------|
| COM111     | IT Fundamental                               | 2   | 2    | 0    | 3      | xxxxx    |
| PHA111     | Introduction to Pharmacy                     | 2   | 2    | 0    | 3      | xxxxx    |
| PHA124     | Pharmaceutical Botany                        | 2   | 2    | 2    | 3      | xxxxx    |
| PHA141     | Pharmaceutical Organic Chemistry-I           | 2   | 2    | 0    | 3      | xxxxx    |
| PHA135     | Principles of Human Anatomy and Physiology-I | 3   | 2    | 0    | 4      | xxxxx    |
|            | Total  | 11  | 10   | 0    | 16     |          |

**Spring Semester:**

| Course No. | Course Title                                | Th. | Lab. | Tut. | Cr.Hrs | Pre-req. |
|------------|---|-----|------|------|--------|----------|
| PHA112     | Physical Pharmacy-I                         | 2   | 2    | 0    | 3      | PHA111   |
| PHA125     | General Pharmacognosy                       | 3   | 2    | 0    | 4      | PHA124   |
| PHA142     | Pharmaceutical Organic Chemistry-II         | 2   | 2    | 0    | 3      | PHA141   |
| PHA136     | Principles of Human Anatomy & Physiology-II | 2   | 2    | 0    | 3      | PHA135   |
| PHA143     | Pharmaceutical Analytical Chemistry I       | 2   | 2    | 0    | 3      | PHA141   |
|            | Total                                       | 11  | 10   | 0    | 16     |          |

### Summer Semester:

| Course No. | Course Title                              | Th. | Lab. | Tut. | Cr.Hrs | Pre-req. |
|------------|---|-----|------|------|--------|----------|
| INN311     | Innovation and Entrepreneurship (English) | 3   | 0    | 0    | 3      | -        |
| Xxxxxx     | University Elective course I              | 3   | 0    | 0    | 3      | -        |
|            | Total                                     | 6   | 0    | 0    | 6      |          |

### Second Year:

#### Fall Semester:

| Course No. | Course Title  | Th. | Lab. | Tut. | Cr.Hrs | Pre-req. |
|------------|---|-----|------|------|--------|----------|
| ARB111     | Communication Skills in Arabic Language (For Arabs) | 3   | 0    | 0    | 3      | -        |
| PHA212     | Physical Pharmacy II                                | 2   | 2    | 0    | 3      | PHA112   |
| PHA213     | Pharmaceutical Dosage Forms I                       | 2   | 2    | 0    | 3      | PHA112   |
| PHA244     | Pharmaceutical Analytical Chemistry II              | 2   | 2    | 0    | 3      | PHA143   |
| PHA251     | Biochemistry I                                      | 2   | 2    | 0    | 3      | PHA142   |
| PHA235     | Pharmacology and Therapeutics I                     | 2   | 2    | 0    | 3      | PHA136   |
|            | Total   | 10  | 10   | 0    | 18     |          |

#### Spring Semester:

| Course No. | Course Title                               | Th. | Lab. | Tut. | Cr.Hrs | Pre-req. |
|------------|--|-----|------|------|--------|----------|
| PHA214     | Pharmaceutical Dosage Forms II             | 2   | 2    | 0    | 3      | PHA213   |
| PHA252     | Biochemistry II                            | 2   | 2    | 0    | 3      | PHA251   |
| PHA236     | Pharmacology and Therapeutics II           | 2   | 2    | 0    | 3      | PHA235   |
| PHA253     | Pharmaceutical Microbiology and Immunology | 3   | 2    | 0    | 4      | PHA251   |
| PHA245     | Instrumental Analysis I                    | 2   | 2    | 0    | 3      | PHA244   |
|            | Total                                      | 11  | 10   | 0    | 16     |          |

#### Summer Semester:

| Course No. | Course Title                 | Th. | Lab. | Tut. | Cr.Hrs | Pre-req. |
|------------|------------------------------|-----|------|------|--------|----------|
| STA112     | Statistics (Health Sciences) | 3   | -    | 0    | 3      | Xxxxx    |
| ISL114     | Islamic Culture (For Arabs)  | 3   | 0    | 0    | 3      | Xxxxx    |
|            | Total                        | 6   | 0    | 0    | 6      |          |



**Third Year:**
**Fall Semester:**

| Course No. | Course Title                             | Th. | Lab. | Tut. | Cr.Hrs | Pre-req.      |
|------------|--|-----|------|------|--------|---------------|
| PHA311     | Biopharmaceutics & Pharmacokinetics I    | 2   | 2    | 0    | 3      | PHA214+PHA245 |
| PHA354     | Medicinal and Pharmaceutical Chemistry I | 2   | 2    | 0    | 3      | PHA142+PHA253 |
| PHA337     | Pharmacology and Therapeutics III        | 2   | 2    | 0    | 3      | PHA236        |
| PHA346     | Instrumental Analysis II                 | 2   | 2    | 0    | 3      | PHA245        |
| DDS318     | Pathology / Pharmacy                     | 2   | 0    | 0    | 2      | PHA253        |
| Xxxxxx     | University Elective Course II            | 3   | 0    | 0    | 3      | Xxxxx         |
|            | Total                                    | 13  | 8    | 0    | 17     |               |

**Spring Semester:**

| Course No. | Course Title                              | Th. | Lab. | Tut. | Cr.Hrs. | Pre-req.      |
|------------|---|-----|------|------|---------|---------------|
| PHA312     | Biopharmaceutics and Pharmacokinetics II  | 2   | 2    | 0    | 3       | PHA311        |
| PHA347     | Phytochemistry                            | 3   | 2    | 0    | 4       | PHA125+PHA346 |
| PHA356     | Medicinal and Pharmaceutical Chemistry II | 2   | 2    | 0    | 3       | PHA354        |
| PHA313     | Pharmaceutical Technology                 | 3   | 2    | 0    | 4       | PHA212+PHA214 |
| Xxxxxx     | University Elective course III            | 3   | 0    | 0    | 3       | Xxxxx         |
|            | Total                                     | 12  | 10   | 0    | 17      |               |

**Summer Semester:**

| Course No. | Course Title                  | Th. | Lab. | Tut. | Cr.Hrs | Pre-req. |
|------------|-------------------------------|-----|------|------|--------|----------|
| PHA221     | Community Pharmacy Training-I | 0   | 0    | 0    | 3      | PHA236   |
|            | Total                         | 3   | 0    | 0    | 3      |          |

**Fourth Year:**
**Fall Semester:**

| Course No. | Course Title                       | Th. | Lab. | Tut. | Cr.Hrs | Pre-req.          |
|------------|------------------------------------|-----|------|------|--------|-------------------|
| PHA471     | Hospital Pharmacy Training         | 0   | 0    | 0    | 3      | PHA337            |
| PHA414     | Pharmaceutical Technology Training | 0   | 0    | 0    | 3      | PHA313            |
| PHA461     | OTC Drugs and Products             | 2   | 2    | 0    | 3      | PHA337            |
| PHA438     | Toxicology & Chemotherapy          | 3   | 0    | 0    | 3      | DDS318+PHA337     |
| PHA462     | Clinical Pharmacy I                | 2   | 2    | 0    | 3      | PHA312+PHA337     |
| Xxxxxx     | College Elective course            | 2   | 2    | 0    | 3      | after 115 Crd.Hrs |
|            | Total                              | 9   | 6    | 0    | 18     |                   |

Spring Semester:

| Course No. | Course Title                     | Th. | Lab. | Tut. | Cr.Hrs | Pre-req.          |
|------------|----------------------------------|-----|------|------|--------|-------------------|
| PHA422     | Community Pharmacy Training-II   | 0   | 0    | 0    | 3      | PHA221+PHA462     |
| PHA472     | Clinical Pharmacy Training       | 0   | 0    | 0    | 3      | PHA461+PHA462     |
| PHA465     | Pharmaceutical Legislations      | 1   | 0    | 0    | 1      | PHA438            |
| PHA464     | Marketing & Sales                | 1   | 0    | 0    | 1      | PHA462            |
| PHA451     | Project                          | 2   | 2    | 0    | 3      | after 115 Crd.Hrs |
| PHA439     | Bioassays and Drug Screening     | 2   | 2    | 0    | 3      | PHA337+STA112     |
| PHA463     | Clinical Pharmacy-II & First Aid | 3   | 0    | 0    | 3      | PHA462            |
|            | Total                            | 9   | 4    | 0    | 17     |                   |

## Course Descriptions

### Department of Pharmaceutical Sciences

#### **PHA111 Introduction to Pharmacy (2-2-3)**

This course provides students with basic knowledge of pharmaceutical calculations needed for compounding and dispensing of medications. It includes an introduction to prescriptions, general dispensing procedures, dosage forms with special emphasis on pharmaceutical solutions and basic techniques of compounding simple solutions. The course also covers basic skills and abilities needed to identify various pharmaceutical incompatibilities and basic techniques needed for extraction of crude drugs.

Pre-requisite: None

#### **PHA112 Physical Pharmacy I (2-2-3)**

The course is designed to acquaint students with physical pharmacy principles in order for them to have strong foundation in the physical sciences which apply to pharmaceutical dosage forms and formulations. This course will be complemented by and is a prerequisite to Physical Pharmacy II. The course covers states of matter, phase equilibria and phase rule, electrolyte and nonelectrolyte solutions and their colligative properties and solubility and distribution phenomena.

Pre-requisite: PHA111

#### **PHA124 Pharmaceutical Botany (2-2-3)**

This course deals of the study of the medicinal plants and their botanical structure including cell differentiation, cell contents and the general study of the plant organs macroscopically and microscopically.

Pre-requisite: None.

#### **PHA125 General Pharmacognosy (3-2-4)**

Pharmacognosy is the subject that deals with the general study of the important medicinal plants. The study includes their origin, morphology, histology, constituents and uses. The drugs are classified into groups according to their main therapeutic values.

Pre-requisite: PHA124

#### **PHA141 Pharmaceutical Organic Chemistry I (2-2-3)**

This course presents the fundamentals of certain topics in organic chemistry. It covers some important areas in organic chemistry, which include aliphatic and aromatic hydrocarbons, alkyl- and aryl halides, alcohols, ethers and epoxides. It emphasizes the pharmaceutical importance of these functional groups.

Pre-requisites: None

#### **PHA142 Pharmaceutical Organic Chemistry II (2-2-3)**

This course is continuation to Pharm. Organic chemistry I. The course includes basic chemical reactions and mechanisms, Stereochemistry, phenols, aldehydes, ketones, and carboxylic acid and their derivatives, properties and reactions of dysfunctional compounds, amines, aromatic and heterocyclic compounds, and introduction to organic natural products. Laboratory work concerning specific chemical reactions, organic synthesis and identification of organic compounds.

Pre-requisite: PHA141

#### **PHA143 Pharmaceutical Analytical Chemistry I (2-2-3)**

This course covers the theoretical basis and introductory to quantitative analysis techniques including chemical equilibrium, dissociation of acids and bases, pH calculations, and buffer solutions. It also involves covering the fundamentals and applications of volumetric quantitative methods based on acid-base reactions in both aqueous and non-aqueous media.

Pre-requisite: PHA141

#### **PHA212 Physical Pharmacy II (2-2-3)**

This course aims to provide students with basic physicochemical principles needed to explain characteristics & behavior of pharmaceutical dispersions like colloids, suspensions, emulsions, ointments, creams & aerosols. It also covers rheological properties of both Newtonian & non-Newtonian systems.

Pre-requisite: PHA112

#### **PHA213 Pharmaceutical Dosage Form I (2-2-3)**

The course comprised of principles and techniques involved in the formulation, preparation and evaluation of solid dosage forms. It covers physical properties of powders, preparation of bulk and divided powders, as well as effervescent and non-effervescent granules. Capsules and tablets types, methods of production/filling and storage are described. The course also covers rectal drug absorption, formulation and evaluation of suppositories.

Pre-requisite: PHA112

#### **PHA214 Pharmaceutical Dosage Form II (2-2-3)**

This course covers basic principles of drug stability, routes of drug degradation and various means of avoiding them. It also covers sterile products including parenteral and ophthalmic preparations; their advantages & disadvantages, formulations, quality control tests and various sterilization procedures. In addition, aseptic techniques applied during the preparations of sterile products shall be covered. The course also includes an introduction to sustained released products, as well as packaging materials.

Pre-requisite: PHA213

#### **PHA244 Pharmaceutical Analytical Chemistry II (2-2-3)**

The first part of the course focuses on the basics of titrimetric methods based on precipitation and oxidation-reduction reactions. The applications of these methods for the analysis of pharmaceutical compounds in pure forms, dosage forms, and biological fluids will be covered. In the second part, the course covers the fundamentals and pharmaceutical applications of gravimetric methods of analysis, and the different classes of chemicals based on their purity.

Pre-requisite: PHA143

#### **PHA245 Instrumental Analysis I (2-2-3)**

The course provides an introduction to the instrumental methods of analysis including spectroscopic methods of analysis such as UV-VIS and fluorimetry; in addition to a number of electrochemical methods of analysis.

Pre-requisite: PHA244

**PHA311 Biopharmaceutics and Pharmacokinetics I (2-2-3)**

This course focuses on biopharmaceutics aspects of how drugs get to the site of absorption, drug dissolution, membrane permeability, bioavailability and bioequivalence. More specifically, students are introduced to the importance of drug plasma levels, and the physiological and cell biology background related to gastrointestinal tract drug absorption. The routes of drug administration and formulation factors are covered as they influence its bioavailability. Emphasis are given to discuss bioavailability and bioequivalence along with the new drug development process.

Pre-requisite: PHA214, PHA245

**PHA312 Biopharmaceutics and Pharmacokinetics II (2-2-3)**

Pharmacokinetic concepts are introduced, including the concepts of pharmacokinetic models, linear and nonlinear pharmacokinetics, clearance and volume of distribution as they relate to drug concentration-time relationships for common routes of administration. Physiologic determinates of variability including age, body composition, renal and hepatic disease are also covered in relation to clinical application of pharmacokinetics.

Pre-requisite: PHA311

**PHA313 Pharmaceutical Technology (3-2-4)**

This course covers theoretical background & practical demonstration of different manufacturing unit processes like; heat transfer, filtration, particle size reduction, particle size analysis, mechanisms of mixing, powder flow, granulation, and drying that are applied in pharmaceutical industries. The course also comprises the design & operation of clean rooms with special emphasis on quality assurance & good manufacturing practice guidelines.

Pre-requisite: PHA212, PHA214

**PHA346 Instrumental Analysis II (2-2-3)**

This course aims to introduce to the students a concept of applying the available instruments used for separation of mixtures as well as qualitative and quantitative analysis of medicinal and pharmaceutical raw materials and formulated medicines. The course covers different chromatographic methods and techniques (PC, TLC, GC, and HPLC). In addition, it involves certain spectroscopic methods such as infrared, nuclear magnetic resonance and mass spectroscopy.

Pre-requisite: PHA245

**PHA347 Phytochemistry (3-2-4)**

This course covers the study of the chemistry of crude drugs such as volatile oils, glycosides, alkaloids bitter principles, resins and saponins etc. The study covers the chemical and physical properties, identification tests, methods of isolation and methods of assays.

Pre-requisites: PHA125, PHA346

**PHA354 Medicinal and Pharmaceutical Chemistry I (2-2-3)**

This course covers the basic principle of medicinal chemistry. It deals with the relationship between chemical structure and biological activity. Topics covered include the effect of physicochemical properties on biological response, the effect of molecular modification on receptor binding and drug metabolism. The second part of the course is devoted to the study of chemotherapeutic agents.

Pre-requisites: PHA142, PHA253

### **PHA356 Medicinal and Pharmaceutical Chemistry II (2-2-3)**

This course covers synthesis, pharmacological mechanism/ classification, structural features and structure activity relationship (SAR) studies and metabolism of major classes of medicinal agents. The detailed knowledge and understanding about targets by various medicinal compounds are discussed with emphasis given on the chemical basis of drug action. The new approaches to tackle the disease/ disorders are looked at briefly. Topics covered include adrenergic and cholinergic drugs, CNS depressants, analgesics, antihistamines, local anesthetics and cardiovascular drugs.

Pre-requisite: PHA354

### **PHA414 Pharmaceutical Technology Training (3-3)**

This training program was designed to provide pharmacy students with the main principle of drug industry and to understand the main role of pharmacists in such filed. Students during the training program will be asked to attend and to take part in all sections of drug industry such as: production line, quality control, quality assurance, raw material handling, and marketing department.

Pre-requisite: PHA313

### **PHA441 Nuclear Pharmacy (College Elective Course) (3-3)**

This course covers the fundamentals of nuclear pharmacy, radiopharmaceuticals compounding, stability prediction, packaging as well as uses and applications of radiopharmaceuticals as a diagnostic and therapeutic agents. The nuclear pharmacy practice guideline of APHA Academy of Pharmacy Practice and Management (APHA-APPM) will be discussed to cover the responsibility of pharmacist in maintaining quality of radiopharmaceuticals, safety of coworkers and environments and providing pharmaceutical care to patient with optimal outcome

Pre-requisite: PHA337

### **PHA448 Phytotherapy (College Elective Course) (3-3)**

Study of medicinal plants and their active constituents . The study includes pharmacokinetic and pharmacodynamic effects of these constituents, as well as the appropriate dosage forms for administration of their preparations. Monographs on *Materia Medica* of selected medicinal plants are included in the study.

Pre-requisite: PHA347

### **PHA453 Pharmaceutical Biotechnology**

This course introduces the student to the field of biotechnology with especial emphasis on its applications in the preparation of biopharmaceuticals. The course entails definitions, brief history and major areas of contribution of biotechnology. The course shall also cover recombinant DNA technology including cloning of DNA, PCR and Gene libraries. In addition, different methods adopted for the preparation of biotechnology drug products and their evaluation, handling and storage shall be covered. Current marketed biotechnology drug products, as well as the future prospects of biotechnology shall be discussed.

Pre-requisite: PHA252

## Department of Clinical Sciences

### **DDS318 Pathology (2-2)**

This course will introduce the concepts of injury and the alterations in normal structure and function of the human body, as occurring in diseases. It is aimed to provide students a comprehensive knowledge of key concepts of general pathology which include cell injury, inflammation, wound healing, regeneration and repair, neoplasia, hemodynamic disorders, pathology of infectious diseases, metabolic and nutritional diseases. This course is useful in understanding the etiology, pathogenesis, morphological features and diagnosis of diseases that affect different organs of the body in order to establish a sound foundation for clinical practice in pharmacy.

Pre-requisite: PHA253

### **PHA135 Principles of Human Anatomy and Physiology I (3-2-4)**

The course provides basic knowledge of normal human body structure and function necessary for students of College of Pharmacy to be capable of understanding other related pathological and clinical medical courses. It also assists students to properly understand the pharmacology of drugs and its application in clinical pharmacy.

Pre-requisite: None

### **PHA136 Principles of Human Anatomy and Physiology II (2-2-3)**

The course provides basic knowledge of normal human body structure and function necessary for students of Faculty of Pharmacy & Medical Sciences to be capable of understanding other related pathological and clinical medical courses. It also assists students to properly understand the pharmacology of drugs and its application in clinical pharmacy.

Pre-requisite: PHA135

### **PHA221 Community Pharmacy Training I (3-3)**

The objectives of this initial training is to develop students' communication skills, knowledge of community pharmacy practice and to become familiar with different trade of the over-the-counter (OTC) and generic names of some drugs available in the market. In addition, students are expected to understand how to respond to commands in the different types of prescriptions.

Pre-requisites: PHA236

### **PHA235 Pharmacology and Therapeutics I (2-2-3)**

This course deals with the general aspects of pharmacokinetics and pharmacodynamics, the pharmacological actions and the therapeutic uses of drugs acting on the autonomic nervous system, the respiratory system and drugs acting on local hormones (autacoids). Various groups of drugs are studied including their pharmacokinetics, mechanism of actions, adverse effects, indications and contraindications.

Pre-requisite: PHA136

### **PHA236 Pharmacology and Therapeutics II (2-2-3)**

Deals with the pharmacological actions and the therapeutic uses of drugs acting on the cardiovascular system, the renal system, the gastrointestinal tract and the hematopoietic system. Various groups of

drugs are studied including their pharmacokinetics, mechanism of actions, adverse effects, indications and contraindications.

Pre-requisite: PHA235

#### **PHA251 Biochemistry I (2-2-3)**

This course deals with the general aspects of Chemistry of carbohydrates, amino acids polypeptides and proteins, nucleic acids, lipids, vitamins and enzymes. This includes: the structure of these compounds, their classification and biomedical importance. The course relates structure of the compounds to their function.

Pre-requisite: PHA142

#### **PHA252 Biochemistry II (2-2-3)**

The course covers the following topics: bioenergetics, metabolism of carbohydrates lipids, proteins, energy releasing and energy consuming metabolic processes. The regulation of synthesis and breakdown of sugars, lipids, nucleic acids and amino acids. The biochemistry of specialized biological materials. Biosynthesis of the macromolecules proteins, DNA, and RNA.

Pre-requisite: PHA251

#### **PHA253 Pharmaceutical Microbiology and Immunology (3-2-4)**

This course takes in consideration the microbiology as an explosive subjects with many ramification .It is designed to introduce the students to the microbes world exemplified by Prokaryotes, Eukaryotes and the unique properties of the viruses. Trying to give a brief and up-date presentation of those aspects of medical organisms that can inflict damages to human health. Antibiotics will be discussed at length. Immunology as rapidly developing field plays a pivoted role in health and disease so it deserve a fair share in this course.

Pre-requisite: PHA251

#### **PHA337 Pharmacology and Therapeutics III (2-2-3)**

Deals with the pharmacological actions and the therapeutic uses of drugs acting on the central nervous system and endocrine system. Various groups of drugs are studied including their pharmacokinetics, mechanism of actions, adverse effects, indications and contraindications.

Pre-requisite: PHA236

#### **PHA422 Community Pharmacy Training II (3-3)**

Through the utilization of selected community pharmacies and competency-based objectives, the student will gain an appreciation for the profession of pharmacy as practiced in the community and develop professional attitudes, judgment and skills needed to function in this setting.

Pre-requisite: PHA221+462

#### **PHA438 Toxicology and Chemotherapy (2-2-3)**

This course is designed to give the student basic information about the general principles of clinical and environmental toxicology and the clinical management of poisoned patients. The study of chemotherapeutic drugs aimed at allowing the student to gain a basic understanding of drugs used for the treatment of various types of infections, infestation and malignancy and then commencing the



development of an understanding of the therapeutic applications of these drugs based on their underlying pharmacodynamic and pharmacokinetic properties.

Pre-requisite: PHA337, DDS318

#### **PHA439 Bioassays and Drug Screening (2-2-3)**

This course is designed to give the student basic knowledge of the methods used in the preclinical drug development. These include general methods used in the screening for a new drug and the determination of the potency using biological objects. The general methods used in the screening and bioassay of drugs on different systems of the body are covered.

Pre-requisites: STA112, PHA337

#### **PHA451 Project (2-2-3)**

By the time students reach this level (115Crd.Hrs) they will have studied a range of pharmaceutical topics, and have gained some experience of the techniques used in research, through lecture and workshop. Students will initially undertake a period of open-learning time covering research methodology and then spend a period of time on a course of specialist study. The faculty project committee has recently decided that this project should be run across both semesters in the final year. This will enable students to investigate an area of clinical pharmacy in significant detail, under supervision.

Pre-requisite: 115 Credit Hours

#### **PHA454 Clinical Microbiology (College Elective Course)(2-2-3)**

This course explores various diseases and their causative agent and relate such information with the diagnostic procedures aiming to identify those agents and determine the most suitable treatment. The course is primarily intended to provide a firm grounding in the understanding of infection and its control.

Pre-requisite: PHA253

#### **PHA455 Gene Therapy (College Elective Course) (3-3)**

Discussion of the diagnosis of genetic disorders and how the causal genes be identified and isolated. The course teaches the basic science of gene therapy, gene delivery vectors, expression of transferred genes, and current gene therapy protocols in humans. The course allows the students to assess the current status and promise of gene therapy and recognize the advantages, disadvantages, and limitations of gene therapy.

Pre-requisites: PHA252, PHA253

#### **PHA461 OTC Drug and Products (2-2-3)**

This OTC course is designed to establish a strong knowledge of OTC drugs in all of its aspects and making pharmacist's job to be patient oriented and not product oriented. This will include monitoring, screening and evaluating drug treatment regimens either in community or hospital settings. In particular, symptoms associated with: gastro-intestinal tract, respiratory, skin, central nerves system, pediatrics, women's health, men's health, eyes and ears, holiday healthcare will be considered with respect to: possible causes; symptoms and signs; treatment available; counseling points; and when to refer to doctors.

Pre-requisites: PHA337

### **PHA462 Clinical Pharmacy I (2-2-3)**

Clinical Pharmacy I (PHA462) course offered for B.Pharm degree, pharmacy students build on the prior knowledge gained in pharmacology, biopharmaceutics and kinetics. The overall aim of the module is to develop skills students require to understand new aspects of pharmacy practice and the concept of pharmaceutical care. Patient assessment and documentation available to conduct and analyze patient assessment are covered. The role of laboratory values in patient assessment will be introduced. Pathophysiology and management of major organ disease, namely, the respiratory system and infectious diseases are detailed.

Pre-requisites: PHA312, PHA337

### **PHA463 Clinical Pharmacy II and First Aid (2-2-3)**

Clinical Pharmacy II (PHA463) course offered for B.Pharm degree, pharmacy students build on the prior knowledge gained in clinical Pharmacy I (PHA462). The overall aim of the module is to help students to access the knowledge base and skills required for assessment of the pharmaceutical needs of patients in either primary or secondary health care settings. Understanding of how major diseases present and are managed including the options available for drug therapy and the importance of establishing therapeutic goals for the patient will be emphasized throughout the course time schedule. Upon completion of the course, students should be able to demonstrate sound knowledge and understanding of the pathophysiology of the major diseases and the mechanisms action and rational clinical use and major side-effects and contraindications of the drugs that are currently used to treat or manage different diseases.

Pre-requisite: PHA462

### **PHA464 Marketing and Sales (1-1)**

The course will concepts of personal, human resource and business management in general and in pharmacy practice. It also covers the principles of marketing theories and applications.

Pre-requisite: PHA462

### **PHA465 Pharmaceutical Legislations (1-1)**

The course will cover ethical principles and codes that govern the practice of pharmacy and medicine in patient care; the different ethical issues pharmacists encounter in daily pharmacy practice; competency of pharmacists and standards of practice expected to be met by regulatory and licensing bodies locally and internationally; the laws and regulations governing pharmacy practice and drug control in the UAE.

Pre-requisite: PHA438

### **PHA471 Hospital Pharmacy Training (3-3)**

This training course will familiarize the student to hospital pharmacy practice in the inpatient and outpatient settings. The training is designed to provide students with the preparation needed to understand the practice environments they will enter and to expose them to areas of pharmacy practice they may have not previously considered within the hospital environment. The student will learn different concepts in the hospital pharmacy, the philosophy of pharmacy consultant services and how to implement pharmaceutical care services. Moreover, the student will develop professional attitudes, judgment and skills needed to function in this setting. He will learn methods used to monitor drug therapy in the patient, treatment of common disease states seen, and how to effectively communicate

with patients and health professionals regarding drug utilization. Where available, the student will be involved in the different operations carried out in the inpatient setting.

Pre-requisite: PHA337

#### **PHA472 Clinical Pharmacy Training (3-3)**

This training course (clerkship) will introduce the student to clinical pharmacy practice in the inpatient setting through clinically oriented patient-specific and non patient-specific activities. The student will learn clinical pharmacy concepts, the philosophy of pharmacy consultant services and how to implement pharmaceutical care. In addition, the student will be exposed to methods used to monitor drug therapy in the patient, clinical manifestations, treatment and monitoring parameters of common disease states seen, and how to effectively communicate with patients and health professionals regarding drug utilization.

Pre-requisites: PHA461, PHA462

## College of Medicine

### Introduction

Consonant with Ajman University's vision of enhancing its standing as one of the leading comprehensive institutions of higher education in the Gulf region and an active contributor to the advancement and development of UAE society, the University decided to establish a College of Medicine offering the Bachelor of Medicine and Bachelor of Surgery (MBBS) program in 2018. The new MBBS program adds to the lineup of distinguished programs already on offer at Ajman University and push the envelope in scholarship and community service.

### Vision

The Ajman University College of Medicine (AUCoM) is committed to carving out a place for itself as a national and international leader in Medicine, Medical Education, research and service delivery within the context of meeting the aspirations of the UAE for excellence and leadership in regional and global standards.

### Mission

To train healthcare professionals who strive for professional excellence while contributing to the social, economic, and cultural development of the UAE and inculcating in graduates an attitude of lifelong learning, ethical conduct, and excellence in service and research.

### Goals

To fulfill the mission and vision of the AUCoM, the following goals are set forth:

- To establish a premier CoM that will prepare outstanding socially responsible physicians for an illustrious career in clinical practice, teaching and research.
- To develop an academic atmosphere conducive to the development of a high degree of scientific knowledge and clinical skill.
- To develop a state-of-the-art health care delivery system that will serve as a model for the nation that will provide extended health care for the region in an innovative program that will be emulated elsewhere.

### Program Offered

The College offers a highly innovative 6-year full time program consisting of one year of Foundation and 5 years of medical studies leading to the award of the degree of Bachelor of Medicine and Bachelor of Surgery (MBBS)

### Admission Requirements to the Foundation Year:

Admission is open to students from all types of curriculum (UAE National Curriculum, American, British, CBSE (Indian), French, etc.)

The criteria for admission are summarized below:

- Complete at least 12 years of schooling**
- Requirements according to high school curricula:**
  - UAE National Curriculum (Science Stream)**
    - Minimum high school grade **90%**
  - American Curriculum**

- a. Minimum high school grade **90%**
  - b. SAT I Test – minimum **1000/1600**
  - c. SAT II Test – any **2** subjects (Biology, Chemistry, Physics, and Math II) with minimum **550/800** per subject
3. **British Curriculum**
- a. 12<sup>th</sup> grade report card from school
  - b. ‘O’ level with minimum 4 **Bs** in Biology, Chemistry, Physics and Math  
**Plus** AS level with an **A** and a **B** in any 2 of the 4 subjects (Biology, Chemistry, Physics and Math)
- OR** ‘O’ level with minimum 4 **Bs** in Biology, Chemistry, Physics and Math
- Plus** A2 level with minimum of 2 **Bs** in any 2 of the 4 subjects (Biology, Chemistry, Physics and Math)
4. **International Baccalaureate (IB)**
- a. 12<sup>th</sup> grade report card from school
  - b. IB High Level (HL) in 3 of the 4 subjects (Biology, Chemistry, Physics and Math) with scores of **5, 4, 4**  
**Plus** IB Diploma Total of at least **26**
5. **Other Curricula**
- a. India/Pakistan Boards (e.g. **CBSE**), **at least 75%**
  - b. Students from other international systems can submit documents that prove that they have finished 12 years of schooling in their home countries and have their high school documents equalization completed in the UAE Ministry of Education.
- C. **English Language Proficiency for ALL Curricula**  
Need to fulfil any **ONE** of the following requirements (or equivalent):
- **EmSAT English – Achieve – 1400+**
  - **TOEFL IBT – 60**
  - **OOPT – B1**
  - **IELTS – 5.5**
- D. **Personal Interview**  
Candidates who fulfilled the requirements A – C may be shortlisted for a personal interview. A ‘Pass’ in the interview will be required for final admission.

For further information please refer to the University admissions policy.

## Facilities

### Academic Staff

To attain our projected high standards, the AU CoM is in the process of recruiting highly experienced and motivated faculty for an academically challenging but highly rewarding experience for the students. Our experienced faculty will be expected to not only deliver in their area of specialization, but nurture and inspire the students as well.

### Laboratories

The College has a Multipurpose Laboratory for training in human physiological recordings, gross and microscopic Pathology and Microbiology. Our Anatomy dry and dissection laboratories, equipped with a

virtual reality (VR)/AR setup will be used to teach human structure. We also have a state-of-the-art clinical skills laboratory to ensure that students acquire the necessary techniques (including communication skills, history taking, physical examination and basic investigative skills), before practicing on real patients.

### **Clinical Training Sites**

Ajman University College of Medicine has key training arrangements with Sheikh Khalifa Medical City Ajman (a large UAE Ministry of Presidential Affairs Hospital under the management of the Swedish Healthcare Management firm Global Health Partners). Our second clinical training site is the very modern Amina Hospital, a private hospital in the heart of downtown Ajman.

## **MBBS PROGRAM LEARNING OUTCOMES**

### **Knowledge**

On successful completion of the MBBS program, graduates will be able to:

1. Recognize the normal structure and function of the human body (as an intact organism) and of each of its major organ systems, taking cognizance of the molecular, biochemical, and cellular mechanisms that are important in maintaining the body's homeostasis.
2. Recognize and relate the various causes (genetic, developmental, metabolic, toxic, microbiologic, autoimmune, neoplastic, degenerative, and traumatic) of illness/disease and the ways in which they interfere with normal function of the body (pathogenesis).
3. Recognize the altered structure and function (pathology and pathophysiology) of the body and its major organ systems that are seen in various diseases and conditions.
4. Recognize the important non-biological determinants of health and of the economic, psychological, social, and cultural factors that contribute to the development and/or continuation of disease.
5. Identify the most frequent clinical, laboratory, radiological, and pathologic manifestations of common diseases.
6. Recognize the power of "the scientific method" in establishing the causation of disease and efficacy of traditional and non-traditional therapies.
7. Describe the principles of disease prevention and epidemiology of common diseases appropriate for specific populations.
8. Demonstrate knowledge of the laws and systems of professional regulation through the UAE Ministry of Health, relevant to medical practice and abide by the UAE's Code of Ethics and Professional Conduct.
9. Understand the framework in which medicine is practiced in the UAE, and the roles of, and relationships between the MOH, Health Authorities and the private health sector in protecting and promoting individual and population health.

### **Skill**

1. The ability to obtain an accurate holistic medical history that covers all essential aspects of a patient and his/her problem, including issues related to age, gender and socio-economic status.
2. Apply a medical problem-solving process in order to arrive at a clinical diagnosis.
3. Perform both a complete and a focused organ system specific examination, including a mental status examination.

4. Perform routine technical procedures at a level suitable to a fresh medical graduate.
5. Construct appropriate management strategies (both diagnostic and therapeutic) for patients with common conditions related to different age groups and genders, both acute and chronic, including medical, psychiatric, and surgical conditions, and those requiring short- and long-term rehabilitation.
6. Formulate a treatment plan, demonstrating the ability to take action by balancing the relative risks and benefits of outcomes and treatment options.
7. Recognize patients with immediately life threatening cardiac, pulmonary, or neurological conditions regardless of etiology, and to institute appropriate initial therapy applying Basic Life Support and Advanced Life Support principles.
8. Interpret laboratory tests (recognizing their limitations), and integrate clinical and laboratory findings in the diagnosis and management of a patient's problem.
9. Document and share patient-specific information, demonstrating the ability to record in the hospital management systems, specific findings about a patient and orders directing the further care of the patient.
10. Define and describe the characteristics of a population, to include its demography, cultural and socioeconomic constitution, circumstances of living, and health status, and to relate these factors to the health and health care of patients and their families.
11. Recognize own personal and professional limits and seek help from colleagues and supervisors when necessary.

## Competence

### Autonomy and Responsibility

1. Acquire, assess, apply and integrate new knowledge, learn to adapt to changing circumstances and ensure that patients receive the highest level of professional care.
2. Show responsibility and independent technical and clinical decision-making to evaluate and manage complex and unpredictable clinical work appropriate to a primary care practice.
3. Illustrate adherence to current best practice methods in a mature manner.

### Role in Context

1. Function effectively as a mentor and teacher including contributing to the appraisal, assessment and review of colleagues, giving effective feedback, and taking advantage of opportunities to develop these skills.
2. Understand and respect the roles and expertise of health and social care professionals in the context of working and learning as an interdisciplinary team.
3. Demonstrate ability to build team capacity and positive working relationships and undertake various team roles including leadership and the ability to accept leadership by others.
4. Demonstrate awareness of the role of doctors as managers, including seeking ways to continually improve the use and prioritization of resources.

### Self-development

1. Establish the foundations for lifelong learning and continuing professional development appropriate to a fresh medical graduate.
2. Continually and systematically reflect on practice to evaluate and improve care of patients with aim of safeguarding a high quality of clinical care.

3. Recognize own personal health needs, consult and follow the advice of a suitably qualified professional, and protect patients from any risk posed by own health.
4. Value professional ethics, positive criticism and feedback, and engage in a life-long learning.
5. Be polite, considerate, trustworthy and honest, act with integrity, maintain confidentiality, respect patients' dignity and privacy, and understand the importance of appropriate consent and respect all patients, colleagues and others regardless of their age, colour, religion, culture, disability, ethnic or national origin, gender, or social or economic status.

## Career Opportunities

A career in Medicine can be quite rewarding indeed. Upon graduation and completion of the pre-registration internship (known as housemanship in certain jurisdictions), career options in the many specialties of Medicine abound.

## Graduation Requirements

Students will be awarded the MBBS degree upon fulfilment of the following requirements:

Completing successfully the required credit hours (224 Credit Hours), including the University requirement courses, with an cumulative grade point average (CGPA) not less than 2.5 (out of 4) and obtaining a minimum grade of C in every course.

The courses to be completed, including University general education courses are as follows:

## CURRICULUM DESCRIPTION

The curriculum consists of full-time one year of Foundation and five years of medical studies.

### The Foundation Year

It was decided to start with a foundation year as we expect most of our potential students to come from diverse backgrounds with varying levels of high school attainment, depending on the type of curriculum they studied (e.g. UAE National, American, British, Indian, French, etc curricula are on offer in the UAE). The Foundation Year is necessary to raise levels of science knowledge before commencing the five-year medical program. The courses to be taken include Human Biology (Anatomy & Physiology), Introduction to Biochemistry, Medical Physics and Medical Terminology. In addition, the students will complete four of the five University required general education courses during the foundation year. This helps to ensure that they can comfortably complete all University general education compulsory and elective courses before the clinical years, when it is logistically very difficult.

### The Five-Year Medical Program

The program is designed as an integrated, systems based, spiral curriculum, which is divided into three phases. There is both horizontal and vertical integration such that as the student progresses through the phases, they revisit the same organ systems at higher levels of complexity and clinical content until graduation.

A unique feature of the AUCoM curriculum is the application of "Parallel Courses". These are semester long courses running alongside (parallel to) the integrated blocks. In many instances, the parallel courses align their content to the blocks but they do not have to. For example, the content of the Molecular Medicine parallel course in Semester I (MOL 114) will be aligned with the GIT 113 block such that GI Biochemistry (digestion/absorption), will be taught at the appropriate time.



Parallel courses address one of the main criticisms in integrated PBL-type curricula; the niggling feeling that the students are not learning core concepts in sufficient depth. In this regards certain subject areas tend to lose out more than others. These include Molecular Medicine and Genetics (so important in the medicine of the future), Behavioral Science, Biostatistics, Evidence Based Medicine, etc. Quite often it is difficult to come up with PBL cases that would generate fundamental concepts in these areas as “learning needs”.

A secondary advantage of the parallel courses option is that the program has greater flexibility in formally introducing new or topical subjects into the curriculum, e.g. simple one credit hour courses in Complementary and Alternative Medicine (CAM), Forensic Medicine, Medical Informatics, etc, has potential to greatly enrich the curriculum. Such flexibility is lacking or limited in the common integrated curricula on offer at most medical schools in the region. Experience at a young medical school (<10 years), applying a similar mix of integrated and parallel courses has produced graduates who are exceptionally competitive in external benchmarking and licentiate assessments.

### Phase I (4 Semesters)

- Semesters I and II: In these two semesters, the core curriculum is presented as integrated organ systems concentrating essentially on structure and function only. In addition to the lectures and labs being copiously illustrated with clinical examples, there are TBL (Team-Based Learning) sessions at the end of each week where cases for problem solving are used to consolidate learning.
- Semesters III and IV: A ten-week block called pathogenesis of disease (POD), is introduced in Semester III. During the POD block, the students are introduced to fundamentals of Pathology, Pharmacology, Microbiology and Immunology. The cases and TBLs in this block are richer in clinical content. Semester IV is the transition between Phase I and Phase II. In the core blocks during this semester (Head and Neck and Skin, Neuroscience and Special Senses), structure function is fully integrated with the clinical sciences. The learning in each week is anchored by a clinical case which drives the theme for the lectures, labs and clinical skills sessions.

### Phase II (2 Semesters)

- Semesters V and VI: During these two semesters in Phase II, the organ systems are revisited but the blocks are disease-based with limited structure function overviews only. Each week’s learning is themed according to the clinical case of the week.
- The principal rationale for this phase is to get the students to study most of the key pathological conditions in each organ system. This addresses an important challenge in medical education in the UAE and the region at large. Medical schools generally lack leverage when it comes to recruitment of hospital consultants involved in clinical training of medical students during the clerkship years. This is especially problematic when existing government or other hospital facilities are used for training. Although this has improved somewhat, the training of adjunct clinical faculty involved in teaching medical students remains a challenge. An additional challenge is the difficulties encountered by medical students in accessing patients to complete their prescribed number of patients they must interview (clerk) and examine. The Phase II program helps the student to be much better prepared for the clinical clerkship phase, minimizing the need for a lot of handholding by the clinical adjunct faculty.

### Phase III (Four 20-week Semesters)

- Consists of four semesters (7-10) of clinical rotations in designated hospitals, including Medicine, Surgery, Paediatrics and Obstetrics and Gynaecology; and their sub-specialties.

Each rotation is 10 weeks in the major specialties and two to three weeks in each sub-specialties.

### Sequence of Courses

| AJMAN UNIVERSITY COLLEGE OF MEDICINE |                       |                                   |                                   |        |              |  |                      |         |         |
|--------------------------------------|-----------------------|-----------------------------------|-----------------------------------|--------|--------------|--|----------------------|---------|---------|
| MBBS PROGRAM                         |                       |                                   |                                   |        |              |  |                      |         |         |
| Phase                                | S#                    | Course Code                       | Year                              | Sem    | Course Title | Credit Hrs                               |                      |         |         |
|                                      |                       |                                   |                                   |        |              |  | ***                  |         |         |
| Foundation Year                      | Foundation Semester 1 | 1                                 | BIC011                            | F      | 1            | Biochemistry I                           | 3                    | (3+0+0) |         |
|                                      |                       | 2                                 | BIL011                            | F      | 1            | Biochemistry I lab                       | 0*                   | (0+0+1) |         |
|                                      |                       | 3                                 | HBG012                            | F      | 1            | Human Biology I                          | 3                    | (3+0+0) |         |
|                                      |                       | 4                                 | HBL012                            | F      | 1            | Human Biology I Lab                      | 0*                   | (0+0+1) |         |
|                                      |                       | 5                                 | MPY013                            | F      | 1            | Medical Physics                          | 3                    | (3+0+0) |         |
|                                      |                       | 6                                 | MPL013                            | F      | 1            | Medical Physics Lab                      | 1                    | (0+0+2) |         |
|                                      |                       | 7                                 | ARB111                            | F      | 1            | Arabic Language (University requirement) | 3                    | (3+0+0) |         |
|                                      |                       | 8                                 | ISL112                            | F      | 1            | Islamic culture (University requirement) | 3                    | (2+2+0) |         |
|                                      |                       |                                   | Total Credit Hours for Semester-1 |        |              |  | 16                   |         |         |
|                                      |                       |                                   |                                   |        |              |  | ***                  |         |         |
|                                      |                       | Foundation Semester 2             | 1                                 | BIC021 | F            | 2  | Biochemistry II      | 3       | (3+0+0) |
|                                      |                       |                                   | 2                                 | BIL021 | F            | 2  | Biochemistry II lab  | 1       | (0+0+1) |
|                                      |                       |                                   | 3                                 | HBG022 | F            | 2  | Human Biology II     | 3       | (3+0+0) |
|                                      |                       |                                   | 4                                 | HBL022 | F            | 2  | Human Biology II Lab | 1       | (0+0+1) |
|                                      |                       |                                   | 5                                 | MTL023 | F            | 2  | Medical Terminology  | 3       | (3+0+0) |
|                                      | 6                     |                                   | COM111                            | F      | 2            | IT fundamentals (University requirement) | 3                    | (3+0+0) |         |
|                                      | 7                     |                                   | STA112                            | F      | 2            | Statistics (University requirement)      | 3                    | (3+0+0) |         |
|                                      |                       | Total Credit Hours for Semester-1 |                                   |        |              | 17                                       |                      |         |         |

|                                   |  |   |        |   |   |  |           | ***       |
|-----------------------------------|--|---|--------|---|---|--|-----------|-----------|
| Phase I - Man and His Environment | Semester 1                               | 1 | GCT111 | 1 | 1 | General Concepts Block (General anatomy, histology, embryology and cell physiology; 4 weeks) | 2         | (1+0+2)   |
|                                   |  | 2 | MSK112 | 1 | 1 | Musculoskeletal Block (8 weeks)  | 5         | (3+2+2)   |
|                                   |  | 3 | GIT113 | 1 | 1 | Gastrointestinal Block (4 weeks)   | 4         | (2+2+2)   |
|                                   |  | 4 | MOL114 | 1 | 1 | Molecular Medicine I (Biochemistry & Cell Biology) (parallel course)                         | 2         | (1+2+0)   |
|                                   |  | 5 | PRO115 | 1 | 1 | Communications Skills (parallel course)  | 1         | (0+2+0)   |
|                                   |  | 6 | COM116 | 1 | 1 | Primary Health Care & Rural Health (parallel course)   | 1         | (0+2+0)   |
|                                   |  | 7 | THI211 | 1 | 1 | Critical thinking (University requirement)   | 3         | (3+0+0)   |
|                                   |  | 7 | EMS111 | 1 | 1 | Emirates Society (University requirement)  | (OR)<br>3 | (3+0+0)   |
|                                   | <b>Total Credit Hours for Semester-1</b> |   |        |   |   |  |           | <b>18</b> |

|   |            |        |        |   |                                |  |           |           |  |
|---|------------|--------|--------|---|--------------------------------|--|-----------|-----------|--|
|   | Semester 2 | 1      | CVB121 | 1 | 2                              | Cardiovascular + Blood Block (8 weeks)   | 5         | (3+2+2)   |  |
|   |            | 2      | RSP122 | 1 | 2                              | Respiratory Block (3 weeks)  | 2         | (1+0+2)   |  |
|   |            | 3      | REN123 | 1 | 2                              | Renal Block (5 weeks)  | 4         | (2+2+2)   |  |
|   |            | 4      | GEN124 | 1 | 2                              | Genetics   | 2         | (2+0+0)   |  |
|   |            | 5      | MOL125 | 1 | 2                              | Molecular Medicine II (Biochemistry & Cell Biology)                                    | 2         | (2+0+0)   |  |
|   |            | 6      | ART111 | 1 | 2                              | Introduction to Art  | 3         | (3+0+0)   |  |
|   |            | 6      | ART211 | 1 | 2                              | Introduction to digital photography  | (OR)<br>3 | (3+0+0)   |  |
|   |            |        |        |   |                                |  |           | <b>18</b> |  |
|   | Semester 3 | 1      | ENR231 | 2 | 3                              | Endocrine and Reproductive System Block (6 Weeks)                                      | 4         | (2+2+2)   |  |
|   |            | 3      | POD232 | 2 | 3                              | Pathogenesis of Diseases (Basic Principles of Pharma, Micro, Patho & Immuno; 10 Weeks) | 6         | (4+2+2)   |  |
| 4 |            | PRO233 | 2      | 3 | Introduction to Medical Skills | 1  | (0+2+0)   |           |  |

|  |  |   |        |   |   |  |           |           |  |
|--|--|---|--------|---|---|--|-----------|-----------|--|
|  |  | 5 | BSE234 | 2 | 3 | Basics of Biostatistics & Epidemiology                     | 3         | (2+0+2)   |  |
|  |  | 6 | ISH111 | 2 | 2 | History of Science in Islam                                | 3         | (3+0+0)   |  |
|  |  | 6 | PIO211 | 2 | 2 | Scientific Pioneering                                      | OR 3      | (3+0+0)   |  |
|  |  | 7 | INN311 | 2 | 3 | Innovation and Entrepreneurship                            | 3         | (3+0+0)   |  |
|  | <b>Total Credit Hours for Semester 3</b> |   |        |   |   |  |           | <b>20</b> |  |
|  | Semester 4                               | 1 | HNS241 | 2 | 4 | Head & Neck and Integumentary System (5 weeks)             | 4         | (2+2+2)   |  |
|  |  | 2 | NEU242 | 2 | 4 | Neuroscience and Special Senses (8 weeks)                  | 5         | (3+2+2)   |  |
|  |  | 3 | SPS243 | 2 | 4 | Special Senses (3 weeks)                                   | 3         | (1+2+2)   |  |
|  |  | 4 | BHS244 | 2 | 4 | Behavioral Science   | 2         | (2+0+0)   |  |
|  |  | 5 | PRO245 | 2 | 4 | Professional Skills IV (Integrated with Clinical Sessions) | 2         | (0+2+2)   |  |
|  |  | 6 | COM246 | 2 | 4 | Evidence Based Medicine & Research                         | 1         | (0+2+0)   |  |
| <b>Total Credit Hours for Semester 4</b> |  |   |        |   |   |  | <b>17</b> |           |  |

|                             |  |   |        |   |   |   |   |           |  |
|-----------------------------|--|---|--------|---|---|---|---|-----------|--|
| Phase II - The Organ System | Semester 5                               | 1 | MSK351 | 3 | 5 | Musculoskeletal block (4 weeks)                           | 3 | (2+2+0)   |  |
|                             |  | 2 | GIT352 | 3 | 5 | Gastrointestinal Block (4 weeks)                          | 3 | (2+2+0)   |  |
|                             |  | 3 | END353 | 3 | 5 | Endocrine Block (4 Weeks)                                 | 3 | (2+2+0)   |  |
|                             |  | 4 | REP354 | 3 | 5 | Reproductive & Beast Block (4 weeks)                      | 3 | (2+2+0)   |  |
|                             |  | 5 | PRO355 | 3 | 5 | Professional Skills V (Integrated with Clinical Sessions) | 2 | (0+4+0)   |  |
|                             |  | 6 | ELC356 | 3 | 5 | End of Life Care & Geriatrics                             | 1 | (0+2+0)   |  |
|                             |  | 7 | MIF357 | 3 | 5 | Medical Informatics                                       | 2 | (1+2+0)   |  |
|                             |  | 8 | COM358 | 2 | 5 | Occupational & Environmental Medicine                     | 1 | (0+2+0)   |  |
|                             | <b>Total Credit Hours for Semester-5</b> |   |        |   |   |   |   | <b>18</b> |  |
|                             | Semester 6                               | 1 | CVS361 | 3 | 6 | Cardiovascular Block (4 weeks)                            | 4 | (3+2+0)   |  |
|                             |  | 2 | RES362 | 3 | 6 | Respiratory Block (4 weeks)                               | 3 | (2+2+0)   |  |
|                             |  | 3 | REN363 | 3 | 6 | Renal Block (4 weeks)                                     | 3 | (2+2+0)   |  |

|  |   |  |        |    |   |  |           |           |  |
|--|---|--|--------|----|---|--|-----------|-----------|--|
| Phase III - The Clerkship  |   | 4  | HEM364 | 3  | 6   | Hematology/Oncology Block (4 weeks)                        | 2         | (1+2+0)   |  |
|  |   | 5  | PRO365 | 3  | 6   | Professional Skills VI (Integrated with Clinical Sessions) | 2         | (0+4+0)   |  |
|  |   | 6  | COM366 | 3  | 6   | Family Medicine  | 1         | (0+2+0)   |  |
|  |   | 7  | NTN367 | 3  | 6   | Nutrition  | 1         | (0+2+0)   |  |
|  |   | <b>Total Credit Hours for Semester-6</b>                   |        |    |   |  |           | <b>16</b> |  |
|  | Semester 7 & 8  | 1  | MED471 | 4  | 7   | Medicine (10 weeks)  | 10        | (2+16+0)  |  |
|  |   | 2  | PED472 | 4  | 7   | Paediatrics (10 weeks)                                     | 10        | (2+16+0)  |  |
|  |   | 3  | HMQ473 | 4  | 7   | Health Economics & Management                              | 2         | (2+0+0)   |  |
|  |   | 4  | SUR481 | 4  | 8   | Surgery (10 weeks)   | 10        | (2+16+0)  |  |
|  |   | 5  | GYN482 | 4  | 8   | Obstetrics & Gynaecology (10 weeks)                        | 10        | (2+16+0)  |  |
|  |   | <b>Total Credit Hours for Year-4 (Semesters 7 &amp; 8)</b> |        |    |   |  |           | <b>42</b> |  |
| Semester 9 & 10  | 1   | IMD591   | 5      | 9  | Sub-Specialty Medicine (10w: Cardio 4w, Hem/Onc 4w)       | 10   | (2+16+0)  |           |  |
|  | 2   | INS592   | 5      | 9  | Integrated Neuroscience (10w: Neuro 4w, Psy 4w)           | 10   | (2+16+0)  |           |  |
|  | 3   | SSP5X1   | 5      | 10 | Surgical Sub-Specialty (10w: ER & Anesthesia 4w, Orth 4w) | 10   | (2+16+0)  |           |  |
|  | 4   | AMB5X2   | 5      | 10 | Ambulatory Care (10 weeks: ENT+Ophth 4w, FM+Derma 4w)     | 10   | (2+16+0)  |           |  |
|  | 5   | CEL483   | 4      | 8  | Electives (6 weeks Summer of Yr 4)                        | 2  | (0+4+0)   |           |  |
|  | <b>Total Credit Hours for Year-5 (Semesters 9 &amp; 10)</b> |  |        |    |   |  | <b>42</b> |           |  |
|  | <b>Aggregate Credit Hours for UG Course</b>                 |  |        |    |   |  |           | 224       |  |
| *** (1+2+0) 1 is Didactic session, 2 is Tutorial, Practicals, Clinical or Field training session and 0 is Laboratory |   |  |        |    |   |  |           |           |  |

University compulsory and elective general education courses are shown in red

Semester long “parallel courses” are shown in brown

## General Education (embedded in the sequence of courses in phases I and II shown above)

### Offered General Education Courses:

Every AU student is required to complete 30 credit hours of General Education covering the following areas: Mathematics, Science, Information Technology, Languages, and Social Sciences & Humanities. After a review of all offered programs at AU, the Council of Academic Affairs identified 24 out of the 30 credit hours of General Education that could be taken by all AU students independently of their specialization. Of these hours covered by the General education Program, 15 credit hours are compulsory to all students and 9 credit hours are electives.

### Obligatory (15 Credit Hours):

| Sr | Compulsory  | Course Code | Course Name  | Credit Hours |
|----|---|-------------|--|--------------|
| 1  | Orientation   | ORN111      | Orientation  | 0            |
| 2  | Arabic<br>(3 credit hours)                              | ARB111      | Communication Skills in Arabic (Arabic Medium Schools)     | 3            |
|    |   | ARB112      | Arabic for Non-Arabs                                       | 3            |
|    |   | ARB114      | Communication Skills in Arabic-E- (English Medium Schools) | 3            |
| 3  | Islamic<br>(3 credit hours)                             | ISL114      | Islamic Culture (Arabic)                                   | 3            |
|    |   | ISL112      | Islamic Culture (English)                                  | 3            |
|    |   | ISH211      | Islamic Civilization (Arabic)                              | 3            |
|    |   | ISH211      | Islamic Civilization (English)                             | 3            |
| 4  | Innovation and Entrepreneurship<br>(3 credit hours)     | INN311      | Innovation and Entrepreneurship                            | 3            |
| 5  | Information Technology<br>(3 credit hours)              | COM111      | IT Fundamentals  | 3            |
|    |   | COM111      | IT in Health Sciences                                      | 3            |
|    |   | COM111      | IT in Business   | 3            |
|    |   | COM111      | IT Fundamentals (Arabic)                                   | 3            |
| 6  | Quantitative and Critical Reasoning<br>(3 credit hours) | STA112      | Statistics for Sciences                                    | 3            |
|    |   | STA112      | Statistics for Health Sciences                             | 3            |
|    |   | STA111      | Statistics for Business                                    | 3            |
|    |   | STA111      | Critical and Analytic Thinking                             | 3            |
|    |   | STA111      | Applied Quantitative Analysis for Social Sciences (Arabic) | 3            |

### Elective courses (9 credit hours):

Elective general education courses to be chosen from a large number of courses covering the different areas of General Education. University elective general education courses are categorized into three groups:

1. Humanities and arts.
2. Natural and applied sciences.
3. Social or behavioral sciences.

Students are required to choose one elective from the social or behavioral sciences group, another elective from the humanities or arts group and the third from the natural and applied science.

### Electives (9 Credit Hours)

| Course Code                     | Course Name                              | Credit Hours |
|---------------------------------|--|--------------|
| 1. Humanities / Arts            |  |              |
| ENG112                          | Academic Writing (English)               | 3            |
| ART211                          | Introduction to Digital Photography      | 3            |
| FRE211                          | French Language                          | 3            |
| ARC211                          | Principles of Architecture               | 3            |
| DES211                          | Principles of Interior design            | 3            |
| ART111                          | Introduction to Art                      | 3            |
| ARB113                          | The Art of Written Expression (Arabic)   | 3            |
| ENG211                          | The Art of Public Speaking (English)     | 3            |
| LAW111                          | Legal Culture                            | 3            |
| 2. Natural and Applied Sciences |  |              |
| ENV111                          | Environmental Science                    | 3            |
| RES211                          | Research Methodology                     | 3            |
| PHY111                          | General Physics                          | 3            |
| SOC211                          | Modern Technology and Society            | 3            |
| ECO211                          | Internet Concepts                        | 3            |
| INF212                          | Introduction to information System       | 3            |
| ISH111                          | History of Science in Islam              | 3            |
| PIO211                          | Scientific Pioneering                    | 3            |
| MTH111                          | Principles of Mathematics                | 3            |
| EDT211                          | Educational Technology                   | 3            |
| AST211                          | Astronomy                                | 3            |
| CHM111                          | General Chemistry                        | 3            |
| NUT111                          | Fundamental of Human Nutrition (English) | 3            |

|                                  |   |   |
|----------------------------------|---|---|
| NUT111                           | Fundamental of Human Nutrition (Arabic) | 3 |
| AID111                           | First Aid (English)                     | 3 |
| AID111                           | First Aid (Arabic)                      | 3 |
| GIS211                           | Application of Remote Sensing and GIS   | 3 |
| BIO111                           | General Biology                         | 3 |
| ORH211                           | Oral Health                             | 3 |
| 3. Social or Behavioral Sciences |   |   |
| THI211                           | Critical Thinking                       | 3 |
| SOC113                           | Family System                           | 3 |
| INF113                           | Library Information System              | 3 |
| ECO211                           | Economic Concepts                       | 3 |
| ENT211                           | Entrepreneurship development            | 3 |
| EMS111                           | Emirates Society (English)              | 3 |
| EMS111                           | Emirates Society (Arabic)               | 3 |
| ENG111                           | English Communication Skills            | 3 |
| SOC111                           | Introduction to communication Sociology | 3 |
| INF211                           | Information Society                     | 3 |
| INF112                           | Media Culture                           | 3 |
| SOC112                           | Communication Between Cultures          | 3 |
| PSY111                           | General Psychology (English)            | 3 |
| PSY111                           | General Psychology (Arabic)             | 3 |



## Course Descriptions

### Undergraduate Foundation and Phases I and II

#### **BIC011 Biochemistry I**

This course introduces the students to chemical methods and measurement; structure of the atom; structure and properties of ionic and covalent compounds; calculations of chemical equation; states of matter: gases, liquids, and solids; solutions; osmotic pressure and electrolytes; energy, rate, and equilibrium; acids and bases and oxidation-reduction reactions; the nucleus, radioactivity, and nuclear medicine and introduction to saturated and unsaturated hydrocarbons.

#### **BIL011 Biochemistry I lab**

This course includes safety procedures in the laboratory, perform qualitative and quantitative acid base titrations, perform crystallization, determination of melting points and freezing points, use data to calculate amounts of reactants and products, perform extractions using vacuum, perform chromatography experiments, classify tests functional groups such as ketones and aldehydes, alcohols and phenols, amines and amides, carry out a variety of synthetic organic compounds such as, esters, amides, aspirin and benzoic Acid.

#### **HBG012 Human Biology I**

This course covers an overview of anatomy and physiology of the human body, introduces the students to cells and tissues, general embryology including fertilization and embryogenesis, skin and body membranes, integumentary system, developmental aspects of skin, the muscular system, microscopic anatomy, skeletal muscle activity, muscle movements, types and names and the special senses including the eye and the ear.

#### **HBL012 Human Biology I Lab**

This course covers the following 7 labs: covering parts of the microscope and its use, the structure of epithelial tissue, connective tissue proper, skeletal connective tissue cartilage, skeletal connective tissue bone, the muscular tissue and the integumentary tissue.

#### **MPY013 Medical Physics**

This course covers atomic spectra, nuclear physics, x-ray applications in biology and medicine, fluids, electricity and magnetism, geometrical optics and waves and sounds.

#### **MPL013 Medical Physics Lab**

This course includes experiments covering the following topics : General instructions, analysis and graphing data, measuring devices, density, forces at equilibrium, motion along a straight line(A), motion along a straight line(B), force of buoyancy, heat equivalent of electrical energy, linear thermal expansion, simple DC circuits, electrical instruments and DC measurements, magnetic field of current carrying conductors, reflection refraction and total internal reflection, radiation detection.

#### **BIC021 Biochemistry II**

This course includes the structure and molecular properties of biomolecules, the structure and functions of carbohydrates, proteins and metabolic defects in amino acids metabolism leading to metabolic diseases; the structure and functions of haemoglobin and myoglobin and abnormal haemoglobin including sickle cell anaemia and thalassaemia; the classification of enzymes, enzyme kinetics, inhibition and allosteric enzymes; the bioenergetics including glycolysis, TCA and electron

transport chain; the biological important sugars; gluconeogenesis, glycogen metabolism and glycogen storage diseases; galactose metabolism and galactosaemia.

**BIL021 Biochemistry II Lab**

This course includes practical sessions in biochemistry including enzyme kinetics, the determinations between  $K_m$  and  $V_{max}$ , the effect pH and enzyme inhibitions on  $K_m$  and  $V_{max}$ , and reducing sugars, properties of proteins, electrophoresis of haemoglobin, sickle cell anaemia and thalassaemia, the difference between glycogen and starch.

**HBG022 Human Biology II**

The course focuses on the physiology and structure of the human body systems including the cardiovascular system, renal, respiratory, digestive and endocrine systems. This course introduces the students to the basic structures and physiological functions of the above systems and the composition and functions of the immune and blood systems and relate it to the homeostatic imbalance in these systems.

**HBL023 Human Biology II Lab**

This course covers the following three topics: osmosis and tonicity, blood, plasma, WBC, RBC and Platelets, human cardiovascular system covers permeability properties of membranes and the effect of various solutions on RBC. Platelets experiments include total white blood cell count, hemocytometer, differential white blood cell count, peripheral blood film. The RBC includes: Haematocrit/packed cell volume (PCV), haemoglobin concentration, erythrocyte sedimentation rate (ESR), blood typing (ABO Rh). Platelets and include: bleeding time & coagulation time. Part three including heart sounds, pulse determinations, blood pressure and electrocardiogram ECG.

**MTL023 Medical Terminology**

This course helps the students to communicate with the language used in medicine and familiarizing them with the medical terminology in their respective fields. Special attention will be given to teaching students the principles of the construction of medical terms. The course also aims to develop students' general academic skills and independent learning skills. Academic vocabulary and relevant grammatical structures will be highlighted and practiced. Oral communication skills will be developed through encouraging students to make short oral presentations. It is also expected to apply this knowledge to understanding texts in their fields of study. Students will become familiar with case studies, and be introduced to the conventions of medical records, writing, team work, etc. The course will link the basic concepts with some clinical applications related to the fields of study in the clinical years.

**GCT111 General Concepts (General anatomy, histology, embryology and cell physiology)**

This introductory general concepts course introduces the first year medical student to key concepts in general anatomy, histology, embryology and general/cell physiology. This is a lecture and laboratory course that introduces the students to the structural and functional organization of the human body and how cells, organs, and systems function together to maintain homeostasis. Common histologic methods, principles of tissue staining, cell structure and organization, the electrical properties of cell membranes and transport of substances across the cell membrane, are also covered in this block.

**MSK112 Musculoskeletal Block**

The Musculoskeletal system is concerned with the study of muscles, bones and joints with their blood vessels, lymphatics and nerves. This block will consist mainly of the anatomy of the upper and lower limbs, including the development of musculoskeletal system (embryonic development of dermatomes

and myotomes and congenital anomalies. In addition, muscle (muscle contraction and excitation-contraction coupling), and bone physiology will be covered.

#### **GIT113      Gastrointestinal Block**

The Gastrointestinal Tract (GIT) Block is designed to help students acquire basic knowledge of the morphologic and histological features and specific physiologic functions of the various organs comprising the GIT. The overall objective is to stress structural/functional correlates of the different organ systems within the GIT and how they contribute to the digestion and absorption of ingested nutrients. The knowledge acquired should provide a solid foundation for the understanding of GIT diseases in Phase II.

#### **MOL114      Molecular Medicine I (Biochemistry & Cell Biology)**

This course describes the structure and function of lipids including free fatty acids, triglycerides, cholesterol, eicosanoids and polyunsaturated fatty acids. It explains the synthesis and metabolic role of omega-3, omega-6, phospholipid, sphingolipid, steroids, lipoproteins, chylomicrons, VLDL, LDL and HDL in human health and disease. It explains the detail mechanisms for the synthesis of the components of plasma proteins and their role in health and disease. It explains the role of lipoprotein lipase enzyme in the incidence of myocardial infarction.

#### **PRO115      Communications Skills**

Learning in Communication Skills is designed to assist the student in developing fundamental clinical skills upon which they will build throughout their professional lives. This course highlights the communicative methodology, as practiced by senior physicians, residents, interns and medical students during their daily interaction with patients, health care teams, nurses and supervising consultants. Simulated clinical encounters are underpinned by the use of Simulated Patient's (SP's) and Small Group Discussions which serve to polish each student's individual communication skills. This technique is set against a background of the Patient Centered Interview (PCI) and other methods which embrace empathetic strategies to connect with each patient's concerns. Students explore communicative methods that work best for them. This a semester-long parallel course.

#### **COM116      Primary Health Care & Rural Health**

The goal of this semester-long parallel course is to introduce first year medical students to the field of Public Health, by highlighting its important implications on the health and safety of the entire community by combining historical as well as examples from their daily activities. This interactive course will allow students to share their opinions, provide their own examples and challenge their assumptions all in safe and scientific environment. Towards the end of each weekly session, students will leave class with a take-home message related to the module being taught which will summarize and solidify their learning experience.

#### **CVB121      Cardiovascular + Blood Block**

This course deals with the metabolic pathways in the kidney and describes how the kidney filters the blood, activates vitamin D, and describes how it balances the blood pH. This course describes the structure, function and energy supply to skeletal muscle, and describes the catabolic pathways of nucleotides resulting in the production of uric acid and the medical effects of hyperuricaemia. This course also describes the fuels available to the brain in the fed and fasting states, and stem cell therapy. It finally deals with how hormones are classified and the functions of the different hormones, as well as explains the biochemical bases of semen analysis and pregnancy tests.

**RSP122      Respiratory Block**

This module builds upon an understanding of the structure and function of the cardiovascular system, and enables students to integrate basic science and clinical concepts related to this system, with emphasis on the structure-function relationships. Appropriate examples of medical imaging and diagnostic techniques are also introduced. In this block, major concepts related to blood and various blood cells shall be addressed. Specific emphasis will be placed on blood types, transfusion, and tissue and organ transplantation. Students shall also be exposed to basic concepts of haemostasis and thrombosis. Further, the various functions of white blood cells and lymphatics will be addressed with an emphasis on their role in resisting infection. It will include issues such as inflammation and immunity. Finally, complementary clinical issues will be introduced, such as, classification of anaemias, bleeding disorders and various coagulation deficiencies, thrombotic disorders as well as diseases of leucocytes, spleen and thymus. This section will include an introduction to approaches to patients with these disorders.

**REN123      Renal Block**

During the renal block, the student will be exposed to normal renal function and understand how failure of any of these renal functions can have a significant effect on other systems as well as a significant impact on homeostasis. The above learning objectives will be achieved by a combination of didactic lectures, structural and functional laboratories, large group discussion sessions, and Team-Based Learning (TBL) sessions. All these discussion sessions will emphasize learning normal renal anatomy and normal renal physiology.

**GEN124      Genetics**

This course deals with areas of genetics, which was crowned by the completion of the Human Genome Project a decade ago. This course helps the students who are the future physicians to understand the essence of health and disease; paving the way for myriads of medical and research applications. The course links the principles of human genetics and its applications in medicine to the integral part in the clinical practice. The course aims to provide future physicians with core knowledge in genetics as well as an understanding of the role of genetic factors in health and disease.

**MOL125      Molecular Medicine II (Biochemistry & Cell Biology)**

This course deals with the metabolic pathways in the kidney and describes how the kidney filters the blood, activates vitamin D, and describes how it balances the blood pH. This course describes the structure, function and energy supply to skeletal muscle, and describes the catabolic pathways of nucleotides resulting in the production of uric acid and the medical effects of hyperuricaemia. This course also describes the fuels available to the brain in the fed and fasting states, and stem cell therapy. It finally deals with how hormones are classified and the functions of the different hormones, as well as explains the biochemical bases of semen analysis and pregnancy tests.

## كلية القانون

### مقدمة

أنشئت كلية القانون في جامعة عجمان لتكون أحد صروح التعليم القانوني على المستويين المحلي والإقليمي ولتؤدي دورها بين مؤسسات التعليم الجامعي الإماراتية في إعداد أجيال قانونية قادرة على العطاء. ولكلية القانون جذور ترجع إلى عام 2003 حيث بدأت الكلية أولى خطواتها من خلال طرح برنامج البكالوريوس في القانون، الذي قدم إلى هيئة الاعتماد الأكاديمي بوزارة التربية والتعليم، وحصل على وضعية الأهلية للاعتماد الأكاديمي عام 2005، وقد تطور هذا البرنامج عبر مدخلات متعددة استجابة لمتطلبات الاعتماد التي أسهمت في تجديد اعتماده سنة 2011.

وفي مرحلة لاحقة من مراحل تطور كلية القانون جامعة عجمان شرعت الكلية في طرح برامج الماجستير في القانون، مُستهلة ذلك بطرح برنامج الماجستير في القانون العام في الفصل الدراسي الثاني من العام الجامعي 2008-2009، ثم طرحت الكلية برنامج الماجستير في القانون الخاص في الفصل الدراسي الأول من العام الجامعي 2009-2010. وقد نال برنامجا الماجستير في القانون العام والقانون الخاص الاعتماد النهائي في مايو 2015، كما طرحت الكلية برنامج دكتوراه الفلسفة في القانون في الفصل الدراسي الثاني من العام الجامعي 2017/2018م بعد أن نال الاعتماد المبدئي في سبتمبر 2017.

### رسالة الكلية

تسعى الكلية إلى توفير البيئة العلمية المناسبة لإطلاق الإبداع في مختلف العلوم القانونية، وذلك عن طريق اعتماد برامج أكاديمية متميزة تهدف إلى تخريج الكوادر المؤهلة والمُدرّبة على ممارسة الأعمال القانونية والشرعية وتعميق البحث القانوني المقارن في ضوء المشكلات المحلية والإقليمية والعالمية وذلك لتلبية متطلبات المجتمع في دولة الإمارات العربية المتحدة خاصة، ودول مجلس التعاون الخليجي والدول العربية عامة.

### أهداف الكلية

- \* بناء هيكل تنظيمي علمي وإداري مؤهل لتفعيل منظومة المعرفة.
- \* التسخير الأمثل للموارد المتاحة بما يضمن تحقيق الموازنة بين الأهداف الأكاديمية والاجتماعية والأهداف الاقتصادية للكلية.
- \* تقديم المشورة العلمية في مجالات اختصاص الكلية والتعاون في مجال البحوث والدراسات الخاصة بالمجتمع المحلي، وعقد المؤتمرات والندوات والحلقات النقاشية التي تعزز ذلك وإعداد برامج دراسية للتعليم المستمر، والإسهام في التنمية البشرية في المجتمع بالقدر الذي لا يؤثر في التزامات الهيئة التدريسية.
- \* إعداد برامج منهجية للتعليم المستمر، وتنمية الكفاءات وخدمة المجتمع، وذلك بإنشاء التنظيمات الإدارية التي تتولى التخطيط لتلك البرامج وتنفيذها وتقويمها.
- \* تخريج كفاءات مؤهلة تأهيلاً علمياً رفيعاً قادرة على تحصيل المعرفة بأنفسهم وتثميرها وتوظيفها.
- \* تهيئة احتياجات المجتمع المحلي والخليجي والعربي من الكفاءات المؤهلة لخدمته وتطويره وتحقيق التنمية الشاملة فيه
- \* مد جسور التواصل والتعاون بين الكلية وبين المؤسسات والجامعات ومراكز البحث العلمي إقليمياً ودولياً.
- \* الحرص على الربط الوثيق بين مخرجات العمليات التعليمية والبحثية وبين متطلبات المجتمع وسوق العمل في شتى قطاعاته.

### الأقسام العلمية

يوجد بالكلية قسمان علميان هما: قسم القانون العام وقسم القانون الخاص، يرأس كل منهما رئيس قسم يدير شؤون القسم بالاشتراك مع مجلس القسم الذي يضم في عضويته أعضاء هيئة التدريس التابع للقسم.

هذان القسمان العلميان معنيان بالإشراف على حسن سير العملية التعليمية بالقسم ولكنهما لا يمنحان درجات علمية تخصصية.

### البرامج التي تطرحها الكلية

تطرح كلية القانون ثلاثة برامج أكاديمية، وهي:

1. برنامج البكالوريوس في القانون
2. برنامج الماجستير في القانون العام
3. برنامج الماجستير في القانون الخاص
4. دكتوراه الفلسفة في القانون

تمنح درجة دكتوراه الفلسفة في القانون، مع إضافة عنوان التخصص الفرعي الذي تدخل رسالة الدكتوراه في إطاره (تخصص قانون عام أو تخصص قانون خاص).

### المختبرات

يتوفر في مبنى الكلية (مبنى الجرف 1) المختبرات الآتية: -

\* مختبر للطلاب يحتوي 23 جهاز حاسوب

\* مختبر للطالبات يحتوي 23 جهاز حاسوب

ويتوفر في الكلية قاعة مخصصة للمحكمة التعليمية.

### التدريب العملي

يلتزم طلبة البرنامج بإنجاز مساق التدريب العملي ضمن مساقات البرنامج، وتتولى لجنة التدريب بالكلية متابعة شؤون التدريب العملي من خلال القيام بالواجبات الآتية:

أ) إعداد الخطط المتعلقة بالتدريب والإشراف على تنفيذها وفقاً لمراحلها الزمنية المقررة في الخطة، والتنسيق في ذلك مركز التدريب بالجامعة.

ب) التنسيق مع مركز التدريب في الجامعة، لتنظيم كل ما يتعلق بعملية تدريب الطلبة في المؤسسات ذات الصلة بتخصصاتهم العلمية.

ت) التنسيق مع المشرفين الأكاديميين في القسم وتزويدهم بالتعليمات والنماذج الخاصة بالتدريب لمتابعة الطلبة المتدربين أثناء مدة التدريب.

ث) الإشراف على مناقشة تقارير التدريب وتهيئة البيئة المناسبة لعرض ومناقشة هذه التقارير، بالتنسيق مع أعضاء هيئة التدريس المشرفين على التدريب.

ج) متابعة ملفات توثيق أنشطة التدريب مع السادة أعضاء هيئة التدريس وتدقيقها وفقاً للضوابط والمعايير المعمول بها في مركز التدريب في الجامعة ومتطلبات الاعتماد الأكاديمي.

### مواقع التدريب العملي

من منطلق حرص الكلية على تنوع جهات التدريب وتوسيع فرص الاختيار أمام طلبة مساق التدريب العملي لتلقي أنشطة التدريب في الجهة الأكثر تلبية لحاجاتهم، عقدت الكلية أكثر من اتفاقية تسهم في تلبية هذا الهدف، ومن ذلك اتفاقية مع كل من الجهات الآتية:

أ - مركز الشارقة للتحكيم التجاري الدولي،

ب - القيادة العامة لشرطة عجمان،

ج - المحكمة الاتحادية العليا،

د - محاكم DIFC بمركز دبي المالي العالمي،

هـ - مكتب زايد الشامسي للمحاماة والاستشارات القانونية.

و - غرفة تجارة عجمان،

ز - معهد دبي القضائي

### مراحل التدريب العملي

يتلقى طلبة البرنامج التدريب العملي على مرحلتين:

**أولاً - مرحلة التدريب الداخلي:** وهي المرحلة التي يتلقى فيها الطالب مهارات التدريب داخل الكلية من خلال المحكمة الصورية، وقد تم إنشاء نموذج "المحكمة الصورية" بالكلية لتسهم في تطوير مهارات الطلبة في مساق التدريب العملي من خلال تمكينهم من الممارسة الذاتية، وبحيث يصبح الطالب قادراً بذاته على تنفيذ إجراءات قانونية، وبما يجعلهم أكثر إحاطة بالجوانب العملية لمساقات البرنامج.

**ثانياً - مرحلة التدريب الخارجي:** وهي المرحلة التي ينتقل فيها الطالب لمواقع التدريب الخارجية (أي خارج الكلية)، ليتعرف وليمارس كل ما يكلف به من إجراءات وأعمال يطبق من خلالها المعارف التي تلقاها أثناء دراسته بالكلية.

## برنامج البكالوريوس في القانون

### مقدمة

قُدِّم برنامج البكالوريوس في القانون إلى هيئة الاعتماد الأكاديمي بوزارة التربية والتعليم حيث حصل على وضعية الأهلية للاعتماد الأكاديمي في العام الجامعي 2005-2006 بعدد ساعات يبلغ (141) ساعة معتمدة، وقد تطور هذا البرنامج عبر مدخلات متعددة استجابة لمتطلبات الاعتماد التي أسهمت في حصوله بموجب القرار الوزاري رقم (103) لسنة 2011 على الاعتماد النهائي بتاريخ 28 أبريل 2011 وبعدد ساعات يبلغ 132 ساعة معتمدة.

### أهداف برنامج البكالوريوس القانون

1. تمكين الطالب من الإلمام بالمعارف الأساسية في فروع القانون التي تمكنه من العمل في مختلف المجالات القانونية.
2. بناء الطالب بناءً منهجياً وفق القيم والفضائل المحلية والعالمية.
3. تنمية ملكات البحث العلمي لدى الطالب في المجالات القانونية والشرعية.
4. الربط الوثيق بين النظرية والتطبيق بما يضمن الاستفادة من المخرجات التعليمية في الواقع القانوني العملي.
5. استخدام التقنيات الحديثة لرفع المستوى العلمي وتحسين الأداء المهني.

### شروط القبول

تقبل الكلية الطلبة الحاصلين على الثانوية العامة (أو ما يعادلها) بمعدل لا يقل عن 60% شريطة أن تكون مصدقة من وزارة التربية والتعليم في دولة الإمارات العربية المتحدة.

### فرص العمل

يملك خريجو البرنامج العديد من الفرص المتزايدة في سوق العمل سواء داخل دولة الإمارات أو خارجها، ومن ذلك:

- العمل في السلك الجامعي
- العمل في سلك القضاء والنيابة
- العمل في السلك الدبلوماسي
- العمل في الإدارات القانونية بالجهات المختلفة الحكومية والخاصة
- العمل في قطاع الشرطة
- العمل في القطاع الخاص بمهنة المحاماة (حيث يفترض أن النشاط الاقتصادي المتنامي لدولة الإمارات يترك المجال للتنازع بين أصحاب المصالح بما يفسح المجال للعديد من خريجي البرنامج لمباشرة مهنة المحاماة).
- كما يوفر البرنامج فرص واضحة للترقى داخل مجال الوظيفة التي يشغلها طالب البرنامج، ويبدو ذلك بوضوح في نطاق العمل الشرطي.

### توظيف خريجي البرنامج

تسعى الكلية إلى ضمان إيجاد فرص عمل مناسبة لخريجي البرنامج وذلك من خلال ما يقيمه قسم استقطاب الكفاءات في إدارة الموارد البشرية من معارض توظيف، يلتقي فيها الباحثون مع أصحاب الفرص الوظيفية، ومحاولة إرشاد كل خريج إلى الفرصة الأكثر ملاءمة مع مهاراته ومعارفه.

### متطلبات الدرجة العلمية

للحصول على درجة البكالوريوس في القانون، يتعين توافر الشروط الآتية:

1. أن ينجز الطالب بنجاح (132) ساعة معتمدة بما فيها التدريب العملي.
2. ألا يقل المعدل التراكمي للطلاب عند استكمال متطلبات التخرج عن (2.0) نقطة.
3. أن يتقيد الطالب بالمدة القصوى (8 أعوام جامعية) والمدة الدنيا (3.5 عام جامعي) للبقاء في البرنامج.

## الخطة الدراسية لبرنامج البكالوريوس في القانون

مجموع المساقات والساعات المعتمدة (132 ساعة)

| نوع المتطلب | عدد ساعات المساقات الإلزامية | عدد ساعات المساقات الاختيارية | إجمالي عدد الساعات |
|-------------|------------------------------|-------------------------------|--------------------|
| متطلب جامعة | 15                           | 9                             | 24                 |
| متطلب تخصص  | 96                           | 12                            | 108                |
| المجموع     | 111                          | 21                            | 132                |

أولاً: متطلبات الجامعة الإلزامية ( 5 مساقات، 15 ساعة معتمدة)

| المساق  | رقم المساق | م |
|---|------------|---|
| Islamic Culture (For Arabs)                         | ISL114     | 1 |
| Communication Skills in Arabic Language (For Arabs) | ARB111     | 2 |
| Statistics (Arabic)                                 | STA111     | 3 |
| IT Fundamentals (Arabic)                            | COM111     | 4 |
| Innovation and Entrepreneurship (Arabic)            | INN311     | 5 |

ثانياً: متطلبات الجامعة الاختياري

( 3 مساقات، 9 ساعات معتمدة) على الطالب أن يختار مساقاً واحداً من المجموعات المذكورة أدناه:

مجموعة العلوم الإنسانية:

| المساق                                 | رقم المساق | م |
|--|------------|---|
| The Art of Written Expression (Arabic) | ARB113     | 1 |
| Introduction to Art( Arabic)           | ART111     | 2 |
| Intro. to Aesthetics ( Arabic)         | ART112     | 3 |
| Introduction to Digital Photography    | ART211     | 4 |
| French Language                        | FRE211     | 5 |



|                                      |                                   |            |   |
|--------------------------------------|-----------------------------------|------------|---|
| Academic Writing (English)           | الكتابة الاكاديمية ( الإنجليزية ) | ENG11<br>3 | 6 |
| Introduction to Hadeeth and Sunna    | مقدمة في الحديث والسنة            | ISL211     | 7 |
| The Art of Public Speaking (English) | فن الخطابة                        | ENG21<br>1 | 8 |

مجموعة العلوم الطبيعية:

| المساق                                 | رقم المساق                    | م          |    |
|--|-------------------------------|------------|----|
| First Aid ( Arabic)                    | الإسعافات الأولية ( عربي)     | AID111     | 1  |
| Astronomy (Arabic)                     | علم الفلك ( عربي)             | AST211     | 2  |
| General Biology                        | علم الأحياء العام             | BIO111     | 3  |
| General Chemistry                      | الكيمياء العامة               | CHM11<br>1 | 4  |
| Information System (Arabic)            | نظم المعلومات ( عربي)         | INF212     | 5  |
| History of Science in Islam            | تاريخ العلوم عند المسلمين     | ISH111     | 6  |
| Fundamental of Human Nutrition(Arabic) | أساسية التغذية البشرية (عربي) | NUT11<br>1 | 7  |
| Physics                                | فيزياء                        | PHY11<br>1 | 8  |
| Scientific Pioneering                  | الريادة العلمية               | PIO211     | 9  |
| Research Methodology(Arabic)           | طرائق البحث العلمي(عربي)      | RES211     | 10 |
| Environmental Science(Arabic)          | علوم البيئة (عربي)            | ENV11<br>1 | 11 |

مجموعة العلوم الاجتماعية:

| المساق                       | رقم المساق                       | م      |   |
|------------------------------|----------------------------------|--------|---|
| Emirates Society( Arabic)    | مجتمع الإمارات (عربي)            | EMS111 | 1 |
| English Communication Skills | مهارات الإتصال باللغة الإنجليزية | ENG111 | 2 |
| General Psychology( Arabic)  | علم النفس العام(عربي)            | PSY111 | 3 |
| Library Information System   | نظم معلومات المكتبة              | INF113 | 4 |



|                                |                      |        |   |
|--------------------------------|----------------------|--------|---|
| Communication Between Cultures | التواصل بين الثقافات | SOC112 | 5 |
|--------------------------------|----------------------|--------|---|

ثالثاً: مساقات التخصص الإجبارية ( 96 ساعة ):

المستوى الأول - الفصل الدراسي الأول

| م | رقم المساق | المساق                         | المتطلب السابق | س م  |      |        |
|---|------------|--------------------------------|----------------|------|------|--------|
|   |            |                                |                | نظري | عملي | إجمالي |
| 1 | LAW100     | المدخل لدراسة القانون          | --             | 3    | --   | 3      |
| 2 | LAW110     | تاريخ التشريع الإسلامي ومصادره | --             | 3    | --   | 3      |

المستوى الأول - الفصل الدراسي الثاني

| م | رقم المساق | المساق   | المتطلب السابق                  | س م  |      |        |
|---|------------|--|---------------------------------|------|------|--------|
|   |            |  |                                 | نظري | عملي | إجمالي |
| 1 | LAW370     | مبادئ علم الاقتصاد                                       |                                 | 3    | --   | 3      |
| 2 | LAW101     | قانون المعاملات المدنية (1)<br>(مصادر الالتزام الإرادية) | المدخل لدراسة القانون<br>LAW100 | 3    | --   | 3      |
| 3 | LAW280     | القانون الدولي العام                                     | المدخل لدراسة القانون<br>LAW100 | 3    | --   | 3      |
| 4 | LAW160     | القانون الدستوري   | المدخل لدراسة القانون<br>LAW100 | 3    | --   | 3      |

المستوى الثاني - الفصل الدراسي الثالث

| م | رقم المساق | المساق  | المتطلب السابق   | س/م  |      |        |
|---|------------|---|--|------|------|--------|
|   |            |   |  | نظري | عملي | إجمالي |
| 1 | LAW211     | الأحوال الشخصية للمسلمين  | تاريخ التشريع الإسلامي<br>LAW110<br>وقانون المعاملات المدنية (1)<br>LAW101 | 3    | --   | 3      |
| 2 | LAW250     | قانون عقوبات عام (1)  | المدخل لدراسة القانون<br>LAW100  | 3    | --   | 3      |
| 3 | LAW202     | قانون المعاملات المدنية (2)<br>مصادر الالتزام غير الإرادية        | قانون المعاملات المدنية (1)<br>LAW101                                      | 2    | --   | 2      |
| 4 | LAW120     | قانون المعاملات التجارية (1)<br>(نظرية التاجر - الأعمال التجارية) | قانون المعاملات المدنية (1)<br>LAW101                                      | 3    | --   | 3      |
| 5 | LAW266     | القانون الإداري (1)   | القانون الدستوري<br>LAW160   | 2    | --   | 2      |
| 6 | LAW290     | مناهج البحث في العلوم القانونية                                   | المدخل لدراسة القانون<br>LAW100  | 2    | --   | 2      |

المستوى الثاني - الفصل الدراسي الرابع

| م | رقم المساق | المساق  | المتطلب السابق                         | س/م  |      |        |
|---|------------|---|--|------|------|--------|
|   |            |   |  | نظري | عملي | إجمالي |
| 1 | LAW291     | مصطلحات وقراءات قانونية باللغة الإنجليزية                   | قانون المعاملات المدنية (2)<br>LAW202  | 3    | 1    | 3      |
| 2 | LAW251     | قانون عقوبات عام (2)  | قانون العقوبات عام (1)<br>LAW250       | 2    | -    | 2      |
| 3 | LAW221     | قانون المعاملات التجارية (2)<br>(الشركات التجارية والإفلاس) | قانون المعاملات التجارية (1)<br>LAW120 | 3    | --   | 3      |
| 4 | LAW305     | أحكام الإثبات   | قانون المعاملات المدنية (2)<br>LAW202  | 2    | --   | 2      |
| 5 | LAW471     | المالية العامة والتشريع الضريبي                             | مبادئ الاقتصاد<br>LAW370               | 3    | --   | 3      |

المستوى الثالث - الفصل الدراسي الخامس

| م | رقم المساق | المساق  | المتطلب السابق  | س/م  |      |        |
|---|------------|---|---|------|------|--------|
|   |            |   |   | نظري | عملي | إجمالي |
| 1 | LAW252     | قانون عقوبات خاص (1)                            | قانون العقوبات عام (2)<br>LAW251                                    | 2    | --   | 2      |
| 2 | LAW203     | قانون المعاملات المدنية (3)<br>(أحكام الالتزام) | قانون المعاملات المدنية (2)<br>LAW202                               | 3    | --   | 3      |
| 3 | LAW267     | القانون الإداري (2)                             | القانون الإداري (1)<br>LAW266                                       | 2    | --   | 2      |
| 4 | LAW312     | فقه الموارث والوصايا والوقف                     | الأحوال الشخصية<br>LAW211<br>وقانون المعاملات المدنية (2)<br>LAW202 | 3    | --   | 3      |

المستوى الثالث - الفصل الدراسي السادس

| م | رقم المساق | المساق  | المتطلب السابق                        | س/م  |      |        |
|---|------------|---|---------------------------------------|------|------|--------|
|   |            |   |                                       | نظري | عملي | إجمالي |
| 1 | LAW353     | عقوبات خاص (2)                                  | عقوبات خاص (1)<br>LAW252              | 2    | --   | 2      |
| 2 | LAW304     | قانون المعاملات المدنية (4)<br>(العقود المسماة) | قانون المعاملات المدنية (3)<br>LAW203 | 3    | --   | 3      |
| 3 | LAW307     | قانون العمل والتشريعات الاجتماعية               | قانون المعاملات المدنية (3)<br>LAW203 | 3    | --   | 3      |

|   |    |   |                                       |  |        |   |
|---|----|---|---------------------------------------|--|--------|---|
| 3 | -- | 3 | قانون المعاملات المدنية (2)<br>LAW202 | قانون الإجراءات المدنية (1)<br>(التقاضي والقضاء) | LAW330 | 4 |
| 2 | -- | 2 | قانون العقوبات عام (2)<br>LAW251      | النظام الجزائي الإسلامي                          | LAW354 | 5 |

#### المستوى الرابع - الفصل الدراسي السابع

| س/م    |      |      | المتطلب السابق  | المساق  | رقم المساق | م |
|--------|------|------|---|---|------------|---|
| إجمالي | عملي | نظري |   |   |            |   |
| 2      | --   | 2    | قانون المعاملات المدنية (4)<br>LAW304                                 | قانون المعاملات المدنية (5)<br>(الحقوق العينية الأصلية)                 | LAW306     | 1 |
| 3      | --   | 3    | فقه المواريث والوصايا<br>LAW312<br>والنظام الجزائي الإسلامي<br>LAW354 | أصول الفقه  | LAW413     | 2 |
| 3      | --   | 3    | قانون الإجراءات المدنية (1)<br>LAW330                                 | قانون الإجراءات المدنية (2)<br>(التنفيذ الجبري)                         | LAW433     | 3 |
| 2      | --   | 2    | قانون المعاملات المدنية (2)<br>LAW202                                 | القانون الدولي الخاص (1)<br>(الجنسية ومركز الأجانب)                     | LAW440     | 4 |
| 3      | --   | 3    | قانون المعاملات التجارية (2)<br>LAW221                                | قانون المعاملات التجارية (3)<br>(الأعمال المصرفية والأوراق<br>التجارية) | LAW422     | 5 |
| 2      | 2    | --   | قانون الإجراءات المدنية (1)<br>LAW330                                 | التدريب العملي الداخلي  | LAW493     | 6 |

#### المستوى الرابع - الفصل الدراسي الثامن

| س/م    |      |      | المتطلب السابق                         | المساق   | رقم المساق | م |
|--------|------|------|--|--|------------|---|
| إجمالي | عملي | نظري |  |  |            |   |
| 3      | --   | 3    | عقوبات خاص (2)<br>LAW353               | قانون الإجراءات الجزائية   | LAW457     | 1 |
| 3      | --   | 3    | القانون الدولي الخاص (1)<br>LAW440     | القانون الدولي الخاص (2)<br>(تنازع القوانين والاختصاص<br>القضائي وتنفيذ الأحكام) | LAW441     | 2 |
| 3      | --   | 3    | قانون المعاملات التجارية (3)<br>LAW422 | القانون البحري والقانون الجوي  | LAW424     | 3 |
| 2      | --   | 2    | قانون المعاملات المدنية (5)<br>LAW306  | قانون المعاملات المدنية (6)<br>(ضمانات الائتمان العينية<br>والشخصية)             | LAW408     | 4 |

|   |   |  |                        |        |   |
|---|---|--|------------------------|--------|---|
| 1 | 1 | التدريب العملي الداخلي<br>LAW493<br>وإجراءات مدنية (2) التنفيذ<br>الجبري<br>LAW433 | التدريب العملي الخارجي | LAW494 | 5 |
|---|---|--|------------------------|--------|---|

رابعاً: مساقات التخصص الاختيارية ( 4 مساقات 12 ساعة معتمدة ):  
يدرس الطالب 4 مساقات فقط من هذه القائمة طوال فترة دراسة البرنامج:

| م  | المساق                                | رقم المساق | المتطلب السابق   |
|----|---------------------------------------|------------|--|
| 1  | قانون حماية البيئة                    | LAW364     | -  |
| 2  | قانون الملكية الفكرية                 | LAW224     | قانون المعاملات المدنية (1)                                      |
| 3  | حقوق الإنسان                          | LAW262     | القانون الدستوري   |
| 4  | قانون المعاملات الرياضية              | LAW309     | قانون المعاملات المدنية (3)                                      |
| 5  | الجوانب القانونية للتجارة الإلكترونية | LAW325     | قانون المعاملات المدنية (3)<br>و<br>قانون المعاملات التجارية (2) |
| 6  | علم الإجرام والعقاب                   | LAW357     | عقوبات خاص (1)   |
| 7  | الإدارة العامة                        | LAW265     | القانون الإداري (2)  |
| 8  | المنظمات الدولية                      | LAW381     | القانون الدولي العام   |
| 9  | النظام القانوني للاستثمار             | LAW426     | مبادئ علم الاقتصاد<br>و<br>قانون المعاملات التجارية (2)          |
| 10 | النظام القانوني للأسواق المالية       | LAW427     | مبادئ علم الاقتصاد   |
| 11 | التحكيم التجاري الدولي والمحلي        | LAW332     | قانون الإجراءات المدنية (1)                                      |
| 12 | التشريعات الجزائية الخاصة             | LAW459     | عقوبات خاص (2)   |

## توصيف مساقات برنامج بكالوريوس القانون

### أولاً: توصيف المساقات الإجبارية

#### اسم المساق: المدخل لدراسة القانون

رقم المساق: LAW 100 عدد الساعات: 3 س م

يتناول المساق دراسة نظريتي القانون والحق، فيتناول في الأولى (نظرية القانون) دراسة: تعريف القانون، وخصائص القاعدة القانونية، وعلاقتها بالقواعد الاجتماعية الأخرى، وفروع القانون (القانون العام – القانون الخاص)، ومصادر القانون الإماراتي الرسمية والتفسيرية، ونطاق تطبيق القانون من حيث المكان والزمان، وتفسير القانون.

أما في نظرية للحق فيتناول المساق دراسة: التعريف بالحق، وبيان صلته بالقانون، وأنواع الحقوق وتقسيماته، وأشخاص الحق (الشخص الطبيعي - الشخص الاعتباري)، ومحل الحق، ووسائل حمايته، ومصادره، واستعماله، وإثباته، وطرق انقضائه.

#### اسم المساق: تاريخ التشريع الإسلامي ومصادره

رقم المساق: law 110 عدد الساعات: 3 س م

يتناول المساق أبواباً ومدخل مهمة للعلوم الشرعية، تبين ضرورة وجود التشريعات لتنظيم الحياة الاجتماعية والشخصية للإنسان وتعريفها بالشريعة والفقه وبيان أقسامهما ، ومصادر التشريع الإسلامي والأدوار التاريخية للتشريع الإسلامي وخصائصها، وبعض القواعد الكلية في الفقه الإسلامي وشرحاً وافياً لبعض النظم الإسلامية .

#### اسم المساق: قانون المعاملات المدنية (1) مصادر الالتزام الإرادية

رقم المساق: law 101 عدد الساعات: 3 س م

يتناول المساق دراسة المصادر الإرادية للالتزام (العقد – الإرادة المنفردة) من حيث: تعريف العقد، ودور مبدأ سلطان الإرادة في العقود، وتقسيماتها، وأركان العقد وآثاره سواء بالنسبة لطرفيه أو الغير، وجزاء الإخلال بالعقد وأركان المسؤولية العقدية، ودراسة الإرادة المنفردة من حيث : التعريف، وأحكام الوعد بجائزة الموجه للجمهور (شروطه - آثاره).

#### اسم المساق: عقوبات عام 1

رقم المساق: law 250 عدد الساعات: 3 س م

يتناول المساق تعريف قانون العقوبات وأقسامه وطبيعته ونطاق تطبيقه (مبدأ الشرعية وقاعدة عدم الرجعية) وعلاقته ببعض فروع القانون الجنائي الأخرى، ودراسة النظرية العامة للجريمة (تعريفها وأركانها) والمشاركة الإجرامية وأسباب الإباحة وموانع المسؤولية الجنائية.

#### اسم المساق : قانون المعاملات التجارية ( 1 ) ( نظرية التاجر والأعمال التجارية)

رقم المساق: law 120 عدد الساعات: 3 س م

دراسة النظرية العامة للقانون التجاري، من حيث تعريف القانون التجاري ومصادره ومفهوم العمل التجاري وتمييزه عن العمل المدني ونظامه القانوني وأنواع الاعمال التجارية واشخاص القانون التجاري، التاجر وشروط اكتساب الصفة والتزاماته واكتساب الشخص المعنوي لصفة التاجر وأخيراً النظام القانوني للمتجر وعناصره وحماية المتجر والتصرف فيه.

#### اسم المساق: القانون الدستوري

رقم المساق: law 160 عدد الساعات: 3 س م

يتناول المساق دراسة القانون الدستوري من حيث : إيضاح طبيعته وتمييزه عن فروع القانون الأخرى والتعريف بالدستور وبيان مصادر الأحكام الدستورية وأنواع الدساتير وطرق نشأتها وانقضائها ووسائل الحفاظ على سيادة الدستور من خلال بيان أنواع الرقابة على دستورية القوانين ، ودراسة النظام الدستوري في دولة الإمارات من خلال بيان طبيعة نظام الحكم وأثر طبيعة الدولة الاتحادية على النظام الدستوري، ثم دراسة السلطات المختلفة من خلال تشكيلها واختصاصاتها والعلاقات المتبادلة فيما بينها .

## اسم المساق: الأحوال الشخصية للمسلمين

عدد الساعات: 3 س م

رقم المساق: law211

يتناول المساق أهم الأبواب الخاصة بالأحوال الشخصية، ودراستها دراسة مقارنة مستوفية لأهم آراء العلماء وأدلتهم فيما ذهبوا إليه وصححوه. من ذلك مباحث الزواج وأحكامه، وحقوق الزوجين، وفرق النكاح وأحكامه كالطلاق والخلع والعدة. وأحكام الرضاع والنسب التبني والحضانة وأحكام التفريق للضرر وللعيب ولغيبية الزوج، والفرق التلقائية من الخلع والظهار والإيلاء واللعان، وأحكام العدة، وما إلى ذلك.

## اسم المساق: عقوبات عام 2

عدد الساعات: 2 س م

رقم المساق: law 251

يتناول المساق دراسة العقوبة من حيث جوهرها وخصائصها وآثارها وأغراضها وتقسيماتها وأنواعها في قانون العقوبات الاتحادي، وتنفيذ العقوبة وتفريدها وتعددتها، وانقضاء العقوبات وسقوطها وزوال الأحكام الصادرة بها، ودراسة التدابير الاحترازية (تطورها وخصائصها وشروط تطبيقها).

## اسم المساق: قانون المعاملات المدنية (2) – مصادر الالتزام غير الإدارية

عدد الساعات: 2 س م

رقم المساق: law 202

يتناول المساق التعريف بالمسؤولية التقصيرية والتميز بينها وبين المسؤولية العقدية، والجمع والخيرة بين المسؤوليةين، وأركان المسؤولية التقصيرية (الخطأ التقصيري – الضرر – علاقة السببية): الفعل الضار، المسؤولية عن الخطأ الشخصي والمسؤولية عن عمل الغير والمسؤولية عن الأشياء، والضرر بنوعيه المادي والأدبي، وعلاقة السببية بين الفعل الضار والضرر. ودراسة دعوى المسؤولية التقصيرية، ودراسة الفعل النافع (الكسب دون سبب) والقانون باعتبارهما مصدرين غير إراديين للالتزام.

## اسم المساق: القانون الإداري 1-

عدد الساعات: 2 س م

رقم المساق: law 266

يتناول المساق بيان ماهية القانون الإداري والتنظيم الإداري والنشاط الإداري، فيشمل التنظيم الإداري تعريفاً بالقانون الإداري وخصائصه ومصادره وعلاقته بفروع القانون الأخرى، كما يتضمن التنظيم الإداري دراسة الشخصية المعنوية والمركزية واللامركزية- ويتناول النشاط الإداري موضوعات الضبط الإداري والمرافق العامة، فيشمل الضبط الإداري بيان ماهية الضبط الإداري وأهدافه ووسائله وحدوده في الظروف العادية والظروف الاستثنائية، أما المرافق العامة فتشمل دراستها التعريف بالمرفق العام وبيان أنواع المرافق العامة والمبادئ التي تحكمها وأساليب إدارة المرافق العامة.

## اسم المساق: القانون الإداري 2-

عدد الساعات: 2 س م

رقم المساق: law 267

يتناول هذا المساق الوظيفة العامة متضمنة شروط شغل الوظيفة العامة وحقوق الموظفين وواجباتهم والمخالفات الوظيفية وتأديب الموظفين وضمونات التأديب، وانتهاء خدمة الموظفين، كما يدرس هذا المساق القرارات الإدارية شاملة التعريف بالقرار الإداري وأركانه وتمييزه عن غيره من المصطلحات القانونية وأوصافه وأنواعه، ونفاذه، كما تتضمن دراسة هذا المساق العقود الإدارية من حيث التعريف بالعقد الإداري وخصائصه وطرق إبرام العقود الإدارية وحقوق وواجبات أطراف العقد الإداري ووسائل تسوية المنازعات هذه العقود، مع الاهتمام بدراسة التحكيم في العقود الإدارية والصعوبات المرتبطة بهذا النوع من وسائل تسوية المنازعات.، أخيراً يدرس هذا المساق الأموال العامة من حيث تعريفها ووسائل اكتساب صفة المال العام والحماية القانونية للأموال العامة.

### اسم المساق: مصطلحات وقراءات قانونية باللغة الإنجليزية

رقم المساق law 291 عدد الساعات: 3 س م

يتناول المساق التعريف ببعض المصطلحات القانونية بدءاً بمعنى كلمة القانون وفروع القانون العام والخاص ومصادر القانون وأهداف القانون وتطبيقات القانون، والتعريف بالدستور ونشأته وأنواعه وسمو الدستور ومبدأ الرقابة على دستورية القوانين، والنظم السياسية والسلطات الثلاث والمؤسسات الدستورية في الدولة كرئيس الدولة ومجلس الوزراء والبرلمان وغيرهم، ومصادر الالتزام، وأهم الجرائم وعقوباتها، ونبذة عن قانون العمل.

### اسم المساق: عقوبات خاص 1

رقم المساق law 252 عدد الساعات: 2 س م

يتناول المساق دراسة جرائم الاعتداء على الأشخاص: الجرائم الماسة بالحق في الحياة والأحكام المشتركة في القتل ومحل الاعتداء فيه والركن المادي بعناصره، والأحكام الخاصة بالقتل العمد، وأسباب الإباحة، وعقوبة القتل العمد والظروف المشددة والظروف المخففة، والأحكام الخاصة بالقتل غير العمد، والجرائم الماسة بسلامة الجسم، والجرائم الواقعة على العرض، والجرائم الواقعة على السمعة.

### اسم المساق: قانون المعاملات المدنية (3) – أحكام الالتزام

رقم المساق law 203 عدد الساعات: 3 س م

يتناول المساق دراسة الالتزام من حيث آثاره: التنفيذ العيني ووسائله، التنفيذ بمقابل أو بطريق التعويض، والوسائل التي تكفل حقوق الدائنين (الدعوى غير المباشرة – دعوى الصورية – دعوى عدم نفاذ التصرف – الحجر على المدين المفلس – حق الاحتباس)، وأوصاف الالتزام: الشرط والأجل، تعدد محل الالتزام – تعدد طرفي الالتزام، وانتقاله (حوالة الحق – حوالة الدين)، وانقضائه سواء بالوفاء، أو بما يعادل الوفاء، أو دون الوفاء به.

### اسم المساق قانون المعاملات التجارية (2) - الشركات التجارية والإفلاس

رقم المساق law 221 عدد الساعات : 3 س م

يتناول هذا المساق الأحكام العامة للشركة من حيث تكوينها، انقضاءها وتصنيفاتها تليها دراسة مفصلة لمختلف أشكال الشركات وفق قانون الشركات الإماراتي مع التأكيد على خصائص كلٍّ منها، شروط تأسيسها وإدارتها. كما يتناول المساق بياناً لأحكام الإفلاس التجاري من حيث شروطه وآثاره وإدارة التفليسة وانتهائها.

### اسم المساق: مناهج البحث في العلوم القانونية

رقم المساق law 290 عدد الساعات : 2 س م

يتناول المساق دراسة منهجية البحث القانوني ومقوماته الأساسية، وتكليف الطالب بإعداد بحث تخرج في أحد الموضوعات القانونية تحت إشراف أستاذ المادة، ودراسة منهجية تحليل الأحكام القضائية وكيفية استخلاص القواعد القانونية منها وأوجه الطعن فيها. ومنهجية تحليل النصوص التشريعية والوقوف على حقيقة إرادة المشرع من خلال تفسيرها.

### اسم المساق: القانون الدولي العام

رقم المساق law 280 عدد الساعات: 3 س م

يتضمن المساق بيان نشأة القانون الدولي العام وتطوره، ثم بيان ماهيته من حيث تعريفه وبيان فروعه وتمييزه عن غيره من فروع القانون الأخرى، وبيان سماته وخصائصه، وبيان طبيعته القانونية، والقوة الإلزامية لقواعده وطبيعة العلاقة بينه وبين القانون الداخلي، ثم تحديد مصادر الأصلية والاحتياطية، ثم أشخاصه وهي الدول والمنظمات الدولية، ثم بيان قواعد القانون الدولي للبحار، وقواعد القانون الدبلوماسي والقنصلي، والوسائل السلمية لتسوية المنازعات الدولية.

### اسم المساق الإجراءات المدنية (1) - أصول التقاضي

رقم المساق law 330 عدد الساعات : 3 س م



يتناول المساق دراسة التنظيم القضائي في دولة الإمارات، وأحكام تعيين ورد القضاة، والاختصاص القضائي الولائي والنوعي والقبلي والمحلي، والدعوى وإجراءاتها والأحكام المختلفة المتعلقة بها، والأحكام القضائية وأقسامها ومشمولاتها وشروط صحتها، وطرق الطعن العادية (الاستئناف) وغير العادية (النقض والتماس إعادة النظر)، والأوامر القضائية.

#### اسم المساق: عقوبات خاص 2

رقم المساق: law 353 عدد الساعات: 2 س م

يتناول المساق دراسة جرائم السرقة وتعريفها وأقسامها وأركانها والجرائم الملحقة بها، والسرقة الموجبة للحد، وعقوبة السرقة في الشريعة والظروف المشددة، والاحتيايل والجرائم الملحقة به، وجريمة خيانة الأمانة وما يتصل بها والجرائم الملحقة بها، وجريمة الشيك بدون رصيد (بسوء نية)، والجرائم المتعلقة بالوظيفة العامة (الرشوة - استغلال الوظيفة وإساءة استعمال السلطة - التعدي على الموظفين - انتحال الوظائف والصفات).

#### اسم المساق: قانون المعاملات المدنية (4) - العقود المسماة (البيع والتأمين والمقاوله)

رقم المساق: law 304 عدد الساعات: 3 س م

يتناول المساق دراسة عقد البيع وهو العقد المسمى الأساسي في هذا المساق من حيث: تعريفه وأركانه وآثاره: التزامات البائع (نقل الملكية - تسليم المبيع - ضمان التعرض والاستحقاق - ضمان العيوب الخفية)، والتزامات المشتري (تسلم المبيع - الوفاء بالثمن). ثم يتم بالتناوب دراسة عقد التأمين، من حيث التعريف به وخصائصه وانعقاده وإثباته وتفسيره وآثاره وانتهائه. أو دراسة عقد المقاوله من حيث: تعريفه، وأركانه، وآثاره، وانقضائه، وأحكام عقد المقاوله من الباطن وآثاره.

#### اسم المساق: أحكام الإثبات

رقم المساق: law 305 عدد الساعات: 2 س م

يتناول المساق دراسة المبادئ العامة في الإثبات من حيث: تعريفه وبيان أهميته، ومحلّه، ومن يتحمل عبء الإثبات، وطرق الإثبات: الكتابة - شهادة الشهود - القرائن - الإقرار - اليمين، ودراسة حجية المستند الإلكتروني في الإثبات.

#### اسم المساق: المالية العامة والتشريع الضريبي

رقم المساق: law 471 عدد الساعات: 3 س م

يتناول المساق دراسة القانون المالي من حيث مصادر إيرادات الدولة "الضرائب والقروض والرسوم والموارد الأخرى والمصرفيات والنفقات العامة وآثارها المالية. والموازنة العامة للدولة، وكيفية ربطها وإصدارها والحساب الختامي وأنواع الموازنات العامة.

#### اسم المساق: فقه المواريث والوصايا والوقف

رقم المساق: law 312 عدد الساعات: 3 س م

يتناول المساق دراسة أحكام المواريث من حيث أركان الإرث وأسبابه وشروطه وموانع الإرث، وأصحاب الفروض والعصبات وميراث ذوي الأرحام، وميراث الحمل والمفقود والغرقى والهدى. ودراسة الوصية من حيث أركانها وشروطها ومبطلاتها، والوصية الواجبة وتزاحم الوصايا، والوقف من حيث: تعريفه ومشروعيته وصفته وأنواعه وأركانه وشروطه وطرق الانتفاع بالوقف والولاية عليه.

#### اسم المساق: مبادئ علم الاقتصاد

رقم المساق: law 370 عدد الساعات: 3 س م

يتناول المساق تعريف المصطلحات الأساسية في علم الاقتصاد، ثم توضيح الأسس الرئيسية للنظم الاقتصادية، ثم شرح نظريات العرض والطلب، ثم عرض مبادئ الاقتصاد الكلي (النقود والبنوك وبعض المشكلات الاقتصادية المعاصرة)، ثم عرض لأهم قضايا الاقتصاد الدولي مثل نظريات التجارة الدولية والشركات دولية النشاط ومنظمة التجارة العالمية.

### اسم المساق: قانون المعاملات المدنية (5) - الحقوق العينية الأصلية

رقم المساق : law 306 عدد الساعات : 2 س م

يتناول المساق التعريف بالحقوق العينية وأنواعها والتميز بينها وبين الحقوق الشخصية ، ودراسة حق الملكية من حيث التعريف به وخصائصه وعناصره والقيود الواردة عليه سواء قيوداً قانونية أو قيوداً إرادية ( الشرط المانع من التصرف) ، وأحكام الملكية الشائعة وأسباب كسب الملكية .  
ودراسة الحقوق العينية الأصلية الأخرى (حق الانتفاع، حق الاستعمال وحق السكني، حق المساطحة – حق الارتفاق ) .

### اسم المساق: قانون العمل والتشريعات الاجتماعية

رقم المساق: law 307 عدد الساعات: 3 س م

يتناول المساق دراسة المبادئ العامة في قانون العمل من حيث التعريف به وأهميته والخصائص المميزة له ومصادره، ونطاق تطبيقه من حيث الأشخاص. وتعريف عقد العمل وعناصره المميزة (التبعية – الأجر: ماهيته وضمائنه الوفاء به وحمايته ) ، وإبرامه وإثباته وآثاره من حيث الالتزامات التي يربتها على طرفيه ( العامل وصاحب العمل ) ، ووقف العقد وانقضائه . ودراسة التأمينات الاجتماعية: أنواعها والمستحقين لها وشروط استحقاقها.

### اسم المساق: النظام الجزائي الاسلامي

رقم المساق: law 354 عدد الساعات 2 س م

التعريف بالمبادئ العامة للعقوبات وأنواعها في الفقه الإسلامي مقارنة بين المذاهب الفقهية المختلفة وقانون دولة الإمارات العربية المتحدة، بتعريف الجناية في الفقه الإسلامي، ودراسة جرائم الاعتداء على الحق العام "الحدود" كحد الزنا والقتل وشرب الخمر والردة والحراية، والعقوبات المقررة لهذه الجرائم. وجرائم الاعتداء على الأشخاص مثل: القتل العمد والإيذاء والجرح العمد وعقوبات هذه الجرائم من قصاص أو دية، وجرائم التعازير وعقوباتها غير المقدره، ونظام الإثبات في الفقه الجنائي الإسلامي من شهادة وإقرار في مختلف الجرائم .

### اسم المساق: قانون الإجراءات الجزائية

رقم المساق: law 457 عدد الساعات: 3 س م

يتناول المساق التعريف بقانون الإجراءات الجزائية وفلسفته وأهدافه، والأنظمة المختلفة للإجراءات الجزائية، والتفريق بين النظامين الاتهامي والتنقيبي والتحري، والدعوى الناشئة عن الجريمة وأطرافها وقيود رفع الدعوى وانقضائها، واختصاصات مأموري الضبط القضائي العادية والاستثنائية، والضبط القضائي وجمع الاستدلالات، والتحقيق المبدئي وخصائصه والاستجواب وأوامر التصرف في التحقيق الابتدائي والطعن فيه.

كما يتناول هذا المساق الجانب التطبيقي من الإجراءات الجزائية، وعلى وجه التحديد: المحاكمة وطرق الطعن في الأحكام، وأنواع المحاكم وتشكيلها واختصاصاتها، وإجراءات المحاكمة والمبادئ العامة للتحقيق النهائي، وأدلة الإثبات الجنائي، والإجراءات الخاصة ببعض المحاكمات والمتهمين، والحكم الجنائي بأنواعه المختلفة، وطرق الطعن في الأحكام والبطلان وإشكالات تنفيذ الأحكام.

### اسم المساق: أصول الفقه

رقم المساق: law 413 عدد الساعات : 3 س م

يتناول المساق تعريف علم أصول الفقه وأهميته، ثم شرحاً لأهم مباحثه مثل المباحث المتعلقة بالحكم الشرعي وأقسامه كالمندوب والحرام والمكروه والمباح والعزيمة والرخصة والحكم الوضعي وأقسامه، والسبب والشرط المانع والصحة والبطلان، والحاكم والمحكوم فيه وشروطه، والمحكوم عليه. والأهلية وعوارضها وأقسامها، وأدلة الأحكام وطرق استنباطها، والقواعد الأصولية اللغوية.

## اسم المساق: القانون الدولي الخاص ( 1 ) - الجنسية ومركز الأجانب

رقم المساق: law 440 عدد الساعات : 2 س م

يتناول المساق دراسة أحكام الجنسية ومركز الأجانب بشكل عام وفي دولة الإمارات العربية المتحدة على وجه الخصوص ، بدءاً بالنظرية العامة للجنسية وقواعد كسبها والتجرد منها وأثر الزواج في هذا الخصوص وحل مشكلة تنازع الجنسيات ، وقواعد كسب الجنسية الإماراتية وفقدانها واستردادها ، وتمتع الأجانب بالحقوق في دولة الإمارات .

## اسم المساق " قانون المعاملات التجارية ( 3 ) - الأوراق التجارية - العمليات المصرفية و العقود التجارية

رقم المساق: law 422 عدد الساعات: 3 س م

يتناول هذا المساق الجوانب القانونية لمختلف العمليات المصرفية (الودائع والحسابات المصرفية، الاعتمادات المصرفية، العمليات على الأوراق التجارية...) . كما يتناول المساق دراسة الأوراق التجارية (الكبيالة والسند الأذني والشيك) من حيث تعريفها، وظائفها، طبيعتها القانونية، كيفية إنشائها وشروطها الموضوعية والشكلية، تداول الورقة التجارية، ضمانات الوفاء بقيمتها، انقضاء الالتزام الثابت بها والامتناع عن الوفاء بقيمتها وآثاره. كما يتطرق المساق الى الاحكام العامة للعقود التجارية، ودراسة خاصة لبعض العقود التجارية كعقد الوكالة بالعمولة وعقد السمسرة.

## اسم المساق: القانون الدولي الخاص ( 2 ) - تنازع القوانين وتنازع الاختصاص القضائي الدولي وتنفيذ الأحكام الأجنبية

رقم المساق: law 441 عدد الساعات : 3 س م

يتناول المساق دراسة ثلاثة موضوعات من موضوعات القانون الدولي الخاص وأهمها موضوع تنازع القوانين الذي يتناول المنازعات في مجال القانون الخاص والتي تتزاحم عدة من القوانين المختلفة من أجل ان تطبق احكامها على تلك المنازعات ، فكيف يمكن للقاضي تحديد القانون الواجب التطبيق من بينها ، ويتم تناول موضوع تنازع القوانين وفقاً للمبادئ العامة ومن ثم وفقاً لاحكام قواعد الإسناد الاماراتية ، اما الموضوع الثاني فهو موضوع تنازع الاختصاص القضائي الدولي ، والذي نتناول فيه الضوابط المعتمدة في تحديد حالات الاختصاص القضائي في مختلف التشريعات ، ثم نركز على حالات اختصاص القضاء الاماراتي في المنازعات الخاصة ذات العنصر الاجنبي ، وأخيراً موضوع تنفيذ الاحكام الاجنبية ، حيث يتم تحديد مدى إمكانية تنفيذ الاحكام الصادرة في الدول الاجنبية على الاراضي الوطنية ، ويتحد ذلك من خلال الاتفاقيات الدولية في هذا المجال والشروط المنصوص عليها في القوانين الداخلية .

## اسم المساق : القانون البحري والقانون الجوي

رقم المساق: law 424 عدد الساعات : 3 س م

يتناول المساق التعريف بالقانون البحري وخصائصه ونشأته ومصادره، وتوضيح عناصر الملاحة البحرية: الوضع القانوني للسفينة، أشخاص الملاحة البحرية، عقد إيجار السفينة وأنواعه، عقد النقل البحري وخصائصه، مسؤولية الناقل البحري والبيوع البحرية، عقد نقل الأشخاص بحراً، الحوادث البحرية، المساعدة والإنقاذ والخسائر المشتركة وفقاً للتشريع التجاري البحري والاتفاقيات الدولية بهذا الخصوص.

ودراسة مجموعة القواعد القانونية التي تنظم الملاحة في الغلاف الجوي، والعلاقات التي تنشأ عن استعمال المركبات الهوائية أو الطائرات، والاتفاقيات الدولية التي تنظم هذا الموضوع.

## اسم المساق الإجراءات المدنية (2) - التنفيذ الجبري

رقم المساق: law 433 عدد الساعات : 3 س م

يتناول المساق دراسة مفهوم التنفيذ الجبري وشروطه، ووسائل إجبار المدين على تنفيذ التزامه، والسند التنفيذي وأنواعه، والتنفيذ العادي والمعجل للأحكام القضائية وشروط وحالات كل منهما، ومفهوم كل من الحجز التحفظي والحجز التنفيذي، وحجز المنقول لدى المدين، وحجز ما للمدين لدى الغير، وحجز العقار، والبيع الجبري وتوزيع حصيلة التنفيذ، ومنازعات التنفيذ المختلفة.

## اسم المساق: قانون المعاملات المدنية (6) - ضمانات الائتمان والعينية والشخصية

رقم المساق: law 408 عدد الساعات : 2 س م

يتناول المساق دراسة الرهن التأمين من حيث تعريفه، وخصائصه، والشروط الموضوعية لإنشائه سواء تلك التي يلزم توافرها في الراهن أو الدين المضمون بالرهن أو العقار المرهون، والشروط الشكلية، وآثار العقد سواء بالنسبة لطرفيه أو للغير، وانقضائه. كما

يشمل دراسة الرهن الحيازي وشروطه، وآثاره، وانقضائه. أيضا يتضمن المساق دراسة حقوق الامتياز: أنواعها، ومراتبها. كما يشمل المساق دراسة الكفالة من حيث: تعريفها، ومحل التزام الكفيل، وأنواعها، وآثارها سواء بالنسبة للعلاقة بين الكفيل والدائن أو بين الكفيل والمدين، وانقضائها.

#### اسم المساق: التدريب الداخلي

رقم المساق: law 493 عدد الساعات: 2 عملي

يشمل هذا المساق تدريب الطلبة على كيفية تحرير العقود وغيرها من المحررات القانونية (صحيفة الدعوى، المذكرات، المحاضر...) بالإضافة الى تدريبهم على طرق رفع دعاوى المدنية والجزائية وإجراءات سيرها من خلال جلسات تتم في المحكمة الصورية بالكلية تحت اشراف ممارسي إجراءات التقاضي من القضاة وأعضاء النيابة والمحامين.

#### اسم المساق: التدريب الخارجي

رقم المساق: law 494 عدد الساعات: 1 نظري

يتناول المساق تدريب الطالب عمليا على ما تم دراسته في مساق التدريب الداخلي ومساقات الإجراءات المدنية من حيث كيفية إجراء المرافعات وإقامة دعاوى والتبليغات القضائية وإجراءات دائرة التوجيه الأسري وقسم المصالحة والتدريب على المرافعات في المحاكم كافة.

### ثانيا: توصيف المساقات الاختيارية

يختار الطالب (4) مساقات من المساقات التالية:

#### اسم المساق: الملكية الفكرية

رقم المساق: law 224 الساعات : 3 س م

يتناول المساق المقصود ببراءة الاختراع، وامتيازات صاحب الاختراع، والحماية القانونية لبراءة الاختراع على المستويين المحلي والدولي، وآثارها والتزامات مالكيها، وأحكام الترخيص الإجباري باستغلال البراءة، وأحكام انقضاء البراءة ودعوى إبطالها، ودراسة تعريف الرسوم والنماذج الصناعية، وشروط الحماية القانونية لها، والاستثناءات والقيود الواردة عليها، ودراسة التصميمات التخطيطية للدوائر المتكاملة، وشروط الحماية القانونية لها، والاستثناءات والقيود الواردة عليها، تعريف الأصناف النباتية الجديدة، وشروط حمايتها على المستويين المحلي والدولي، وحقوق المربي، ومدة الحماية، وحالات انقضائها، والعلامات التجارية والبيانات التجارية وشروط حمايتها وتسجيلها، والإشارة إلى جرائم الاعتداء عليها وعقوباتها، والإجراءات التحفظية. مفهوم حق المؤلف بجانبه الأدبي والمالي، والحماية القانونية المقررة له، وتعريف الحقوق المجاورة ومضمونها والحماية القانونية لها.

#### اسم المساق: حقوق الإنسان

رقم المساق: law 262 عدد الساعات: 3 س م

يشمل هذا المساق التعريف بالحق وأقسامه، حقوق الإنسان، موقعها بين الحقوق الأخرى، مراحل تطورها ووسائل حمايتها في المواثيق الدولية والشريعة الإسلامية مع إشارة إلى هذه الحقوق في دستور دولة الإمارات العربية المتحدة.

#### اسم المساق: المنظمات الدولية

رقم المساق: law 381 عدد الساعات : 3 س م

يتضمن المساق بيان نشأة المنظمات الدولية وتطورها، ثم دراسة النظرية العامة للمنظمات الدولية من حيث تعريفها، وبيان عناصرها، وكذلك أنواعها، ثم أحكام العضوية فيها، وأهدافها، وهيكلها الداخلي، من حيث أجهزتها الرئيسية والفرعية، وسلطاتها، وشخصيتها القانونية وما يترتب عليها من آثار، وحصاناتها ومواردها المالية، والموظف الدولي، والعلاقات الخارجية للمنظمات

الدولية، وبذلك تطبيق هذه القواعد على الأمم المتحدة كمنظمة دولية عالمية، وبعض المنظمات المتخصصة، و ثم جامعة الدول العربية، ومنظمة التعاون الإسلامي، ومجلس التعاون لدول الخليج العربية كمنظمات دولية إقليمية.

#### اسم المساق: النظام القانوني للاستثمار

رقم المساق: law 426 عدد الساعات : 3 س م

يتناول المساق النظام القانوني للاستثمار خاصة في البلدان العربية والمشاكل القانونية الخاصة بذلك ومدى كفاية الضمانات الموجودة حالياً للمستثمر وكيفية تعزيزها والاستفادة من صيغ حماية الاستثمار في البلدان المتقدمة .

#### اسم المساق : النظام القانوني للأسواق المالية

رقم المساق: law 427 عدد الساعات : 3 س م

يتناول المساق ماهية الأوراق المالية المتداولة وأنواعها وحقوق والتزامات طرفي العلاقة وواجب الإفصاح وبيان المعلومات الجوهرية المتعلقة بالأوراق والمركز القانوني لوسطاء السوق وأشكال ملكية الأوراق المالية ، وأحكام تداولها في الأسواق المالية عموماً وفي دولة الإمارات العربية خاصة ، وهيئات الرقابة المختصة ودور إدارة السوق المالي ومسؤولياتهم مع الحرص على إجراء الدراسة المقارنة بالنظام القانوني للأسواق المالية العربية في الأردن ودول ومجلس التعاون الخليجي ومصر

#### اسم المساق: قانون حماية البيئة

رقم المساق: law 364 عدد الساعات: 3 س م

يتناول المساق دراسة نصوص القانون الاتحادي رقم (24) لسنة 1999 في شأن حماية البيئة وتنميتها ، ولائحته التنفيذية الصادرة بقرار مجلس الوزراء رقم (37) لسنة 2001م ، وذلك من حيث: بيان التأثير البيئي للمنشآت وخطط الطوارئ لمواجهة الكوارث البيئية، وحماية البيئة المائية والبحرية، والحماية من التلوث من المصادر البرية، وحماية مياه الشرب والمياه الجوفية، وحماية التربة، وحماية الهواء من التلوث وضمن التداول الآمن للمواد والنفايات الخطرة والمحرمات الطبيعية، والمسؤولية والتعويض عن الأضرار البيئية .

#### اسم المساق: علم الإجرام والعقاب

رقم المساق: law 357 عدد الساعات: 3 س م

يتناول المساق في جزئه الأول بيان أهمية علم الإجرام وتطوره ومفهومه وعلاقته بالعلوم الأخرى ، ومحاور البحث في علم الإجرام ونطاقه ومنهج البحث فيه، وموضوع البحث في علم الإجرام ( المجرم والجريمة )، والنظريات العلمية المختلفة في تفسير الظاهرة الإجرامية والسلوك الإجرامي. ويتناول الجزء الثاني دراسة علم العقاب وأهميته وموضوعه وتطور الفلسفة العقابية، وعلاقته ببعض فروع القانون الأخرى ، وفكرة الجزاء الجنائي وأنواعه والمؤسسات العقابية وأنواعها، وطريقة وأسلوب المعاملة التي تطبق على المحكوم عليهم.

#### اسم المساق: التشريعات الجزائية الخاصة

رقم المساق: law 459 عدد الساعات: 3 س م

يتناول المساق دراسة الجرائم الدولية المنظمة وطرق محاكمة المجرمين الدوليين والمحاكم الدولية والجهات المختصة لتنفيذ تلك الأحكام. ونشأة الإنتربول الدولي وأحكامه وطرقه لتنفيذ الأحكام الدولية والجزائية. وأهم أحكام المنشآت العقابية وطرق حمايتها قانوناً وصلتها بالقوانين والمعاهدات الدولية ذات الصلة، وجرائم: المخدرات، وحيازة الأسلحة والذخائر، وغسيل الأموال، وجرائم الإرهاب، وأركان كل منها وعقوباتها، وقواعد حماية المستهلك جنائياً (يتم اختيار تشريع من التشريعات الجزائية الخاصة بناءً على اقتراح من قسم القانون العام وموافقة مجلس الكلية لتدريسه خلال العام الدراسي)

### اسم المساق: التحكيم التجاري الدولي والمحلي

رقم المساق: law 332 عدد الساعات: 3 س م

يتناول المساق التعريف بالتحكيم وأنواعه ومزاياه وبيان الفارق بينه وبين النظم المتشابهة في تسوية المنازعات، ونطاقه وأساليب اختيار المحكمين والقانون الواجب التطبيق، ودراسة اتفاق التحكيم وصوره وانقضائه، ودراسة حكم التحكيم وأنواعه وآثاره وإبطاله وتنفيذه.

### اسم المساق: الجوانب القانونية للتجارة الإلكترونية

رقم المساق: law 325 عدد الساعات: 3 س م

يتناول المساق دراسة ملامح النظام القانوني للتجارة الإلكترونية ومستجداتها والمزايا والمشاكل المترتبة بموجبها، خاصة ما يتعلق بانعقاد العقود بوسائل الاتصال الحديثة والتوقيع عليها ( التوقيع الإلكتروني ) مع استعراض لبعض العقود المصرفية الخاصة بالتجارة الإلكترونية كبطاقات الائتمان، ودراسة النظام القانوني لها.

### اسم المساق: قانون المعاملات الرياضية

رقم المساق: law 309 عدد الساعات: 3 س م

يتناول المساق كل ما يتعلق بالجانب القانوني من الرياضة والمعاملات المالية التي تم بمناسبةها مع التأكيد على معنى الرياضة قانوناً، وضرورة قانون المعاملات الرياضية ودواعي استقلاله ومصادره والمنظمات الرياضية المختلفة الوطنية منها والدولية وما تقوم به من واجبات، والنظام القانوني للاعب المحترف والهاوي ودور وكلاء الرياضة (وكيل المباريات ووكيل اللاعبين) والجمهور ومركزه القانوني وحكم المباراة وحقوقه والتزاماته والمنشطات الرياضية وآثارها والنظام القانوني للتأديب والقضاء الرياضي.

### اسم المساق: الإدارة العامة

رقم المساق law 265 عدد الساعات: 3 س م

يهدف هذا المساق الى استعراض تطور وأهمية علم الادارة بشكل عام والادارة العامة على وجه الخصوص.. كما سيتعرض المساق الى مفاهيم ونظم ادارية ذات صلة في الادارة العامة مثل: ادارة الجودة الشاملة، الادارة الاستراتيجية، الحوكمة، ادارة التغيير، ادارة الموارد البشرية، ادارة الأزمات، ادارة الوقت، الادارة العامة في دولة الامارات العربية المتحدة.

## كلية الإعلام

### رؤية الكلية:

نحو بيئة أكاديمية تحفز على الابداع لإعداد خريجين قادرين على المنافسة في سوق العمل في ضوء معايير الاعتماد الوطنية والدولية

### رسالة الكلية:

إعداد خريجين متميزين في مجالات الاعلام قادرين على مواكبة أحدث التطورات والمستجدات التكنولوجية، يمتلكون مهارات الممارسة المهنية بمستوى عال من الجودة لتحقيق معايير الاعتماد الوطنية ، وإجراء البحوث العلمية التي تخدم قضايا المجتمع وتحقق التنمية المستدامة.

### الأهداف:

- اكساب الخريجين مهارات عملية ونوعية قادرة على المنافسة.
- تحقيق التميز الأكاديمي وفق معايير الاعتماد الوطنية في كافة التخصصات
- أن تكون الكلية هي النافذة التي تطل منها الجامعة على المجتمع والعكس
- أن تكون كلية الإعلام بيتاً للخبرة ومركزاً للاستشارات والتدريب

### المرافق

المصادر التعليمية التكنولوجية:

في إطار توفير وتهيئة البيئة المواتية والمتوافقة للتحصيل العلمي والمتوافق مع المعايير المعتمدة لدى هيئة الاعتماد الأكاديمي والاستراتيجيات التربوية، عملت الجامعة على توفير القاعات الدراسية المناسبة المزودة بكافة الأجهزة التي تحتاجها العملية التعليمية، مثل نظام التعليم الإلكتروني (مودل Moodle) وأجهزة العرض الـ Smart-Board، Data Show، وإتاحة التواصل عبر الشبكة الإلكترونية، مما يساعد في عرض التجارب والمواد العملية خلال عملية التدريس في القاعات وخارجها،

### المختبرات:

تراعي الكلية - ضمن خططها التطويرية المستمرة- عملية دعم المختبرات وجعلها متسقة مع المعايير المطلوبة في هذا الشأن، وتضم أحدث الأجهزة والبرمجيات. وتضم الكلية مختبرين للماكنتوش ومختبرين للوسائط المتعددة.

### الاستديوهات:

تضم الكلية:

#### 1. استوديو التصوير الرقمي الفوتوغرافي:

استوديو التصوير الرقمي الفوتوغرافي للطلاب، وآخر للطالبات، ضمن تخصص التصميم الجرافيكي، ويستخدم في تعريف الطلبة بالأدوات والخامات المستخدمة والأساليب المختلفة للتصوير الرقمي، من خلال تمارين عدة يمارس الطلبة فيها تجارب لتصوير موضوعات متنوعة.

#### 2. أستوديوهات الإذاعة والتلفزيون

استوديو التصوير الإذاعي والتلفزيوني (1):

الاستوديو الإذاعي والتلفزيوني (2):

تم إنشاء هذا الاستديو وتصميمه على النظام الرقمي عالي الجودة (HD)؛ حتى يواكب عملية تدريب الطلبة لمواكبة التطور الكبير والتحول التي تشهدها مجالات الإعلام المسموع والمرئي، وقد تم تزويد الاستوديو بأحدث أنواع الكاميرات الرقمية للتصوير التلفزيوني والأجهزة المستخدمة في عملية إنتاج برامج الإذاعة والتلفزيونية، وضماناً للسلامة فقد زود الاستديو بنظام آلي لإطفاء الحرائق، ضمن الإطار العام للمبنى J2، ووفقاً لمتطلبات الدفاع المدني.

## المرسم:

تم إنشاء مرسم لطلبة تخصص التصميم الجرافيكي، ويستخدم في تعريف الطلبة بالأدوات والخامات المستخدمة والأساليب المختلفة للرسم، من خلال تمارين عدة يمارس الطلبة فيها تجارب المحاكاة للأشكال المتعددة بخامات مختلفة. كما يتيح للطلبة إدراك العلاقات التشكيلية بين العناصر بعضها ببعض، والملامس المختلفة والظل والنور عن طريق معرفة الهيئة للتصميم، وتأكيد عنصر التكوين، ومفهوم الحلول التصميمية، وذلك برسم عناصر هندسية بسيطة، وينتهي بالمحاكاة من خلال رسم الطبيعة الصامتة. ويخدم هذا المرسم العديد من المساقات مثل الرسوم المعلوماتية وغيرها.

## مطبعة:

هدفت فكرتها إلى تقديم خدمات طلابية من إنتاج وطباعة جميع أعمال الطلبة على مستوى المساقات ومشاريع التخرج كما تم التخطيط لأن تكون المطبعة مركزاً لتدريب الطلبة من تخصص التصميم الجرافيكي، وقد تم تطوير المطبعة وتزويدها بالأجهزة والمتطلبات اللازمة لتسد حاجة الجامعة من جميع المطبوعات.

## التدريب

### مقدمة:

يعد التدريب ثمرة للجهد الأكاديمي الذي يتم استثماره في سوق العمل لخدمة المجتمع، ويمثل التدريب العملي في كلية الإعلام إضافة مهمة للبرنامج الأكاديمي لطلبة الكلية من خال كسر الحاجز بين المجتمع الأكاديمي ومجتمع الفعاليات أو إتاحة الفرص للطلاب والطالبات بالانفتاح على سوق العمل أثناء الدراسة. ويتيح التدريب للطلاب الحصول على مهارات عملية في:- الصحافة المطبوعة والإلكترونية-الإذاعة والتلفزيون-العلاقات العامة والإعلان-التصميم الجرافيكي،

### أهداف التدريب

- تأهيل الطلبة لولوج سوق العمل من خلال المعرفة المباشرة لأهداف ووظائف المؤسسة وأقسامها التنظيمية، والتعرف على المستجدات التكنولوجية بصورة عملية.
- تطبيق ما حصل عليه الطالب من معارف ومداخل نظرية في مجال تخصصه ميدانياً.
- الحصول على خريج متدرب ذي صفات ومهارات مهنية عالية وخبرات عملية تتواءم مع مستجدات العصر.

### 1. خطوات ومراحل التدريب:

- يدخل مساق التدريب ضمن المساقات التي يدرسها الطالب في الفصل الدراسي (الأول أو الثاني، بعد أن يكون الطالب قد انتهى من دراسة نسبة معينة من عدد الساعات ومواد التخصص تؤهله لولوج المجتمع الخارجي لكي يبدأ في التدريب.
- بعد إنجاز الطالب لـ 90 ساعة معتمدة، يبدأ التدريب الخارجي في المؤسسات العاملة داخل الدولة وخارجها ويستمر شهر ونصف لمدة 6 أسابيع (كل أسبوع 4 ساعات 5x أيام) بإجمالي من الساعات 120 ساعة) وتحسب 3 ساعة معتمدة.
- يلغى تدريب الطالب الذي تجاوز نسبة الغياب 25% أو الذي لم يلتزم بالخطة التدريبية الموضوعية، شريطة أن يؤكد ذلك المشرف الميداني في التقرير الذي يقدمه للمشرف الأكاديمي.

### 2. الخطوات التنفيذية للتدريب:

- وضع الإعلان الخاص بالتسجيل لكل فصل دراسي على حده.
- يتم تسجيل الطلبة من خلال البرنامج الخاص بالمركز خلال الفترة المحددة للتسجيل (متضمنة أماكن التدريب ورسوم التسجيل).
- التواصل مع جهات التدريب والتأكد من موافقتها.
- وضع الجداول النهائية للمتدربين (متضمنة معلومات عن الطالب ومعلومات عن المؤسسة التي سيتدرب بها) وإرسال نسخة منها للكلية وأخرى للقبول والتسجيل (قبل بدء التدريب).
- اعداد الاستبانات الخاصة بتقييم أداء المركز وتقييم الطالب وتجميعها أو إرسالها للجهات المختصة



- ترسل الخطة التدريبية الخاصة بالطالب خال فترة التدريب والتي وضعها مجلس القسم متضمنة أهداف التدريب وبما يتناسب مع كل تخصص على حدة أو إرسالها إلى جهة التدريب لتكييفها وفقاً لإمكانيات المؤسسة.
- تقوم الكلية بدراسة بحثية لضمان جودة العملية التدريبية في المؤسسات والوزارات والهيئات بما يتضمن الجوانب التالية:
- دراسة الاحتياجات التي تتطلبها سوق العمل ومدى تطابقها مع المنهج الدراسي العلمي والتكنولوجي الذي يدرسه الطالب.
- اختيار الوزارات والمؤسسات والشركات ذات السمعة الجيدة في التدريب والتي يمكن أن يتدرب فيها الطالب بحيث تتناسب طبيعة عملها مع التخصصات المختلفة لكل كلية على حدى.

### 3. محتويات تقرير الطالب المتدرب

- يجب أن يتناول تقرير الطالب الذي يقدمه عن برنامج تدريبيه المحتويات الآتية:
- نبذة مختصرة عن المكان الذي تدرب فيه الطالب.
- توضيح المجال الذي تدرب فيه الطالب (علاقات عامة، إذاعة وتلفزيون، صحافة، تصميم جرافيكي)
- توضيح الأعمال و المهام التي قام بها الطالب أثناء التدريب و انجزها فعلاً مثل (التقارير، الأخبار، الملفات، الصور، الأفلام، التصميم،... الخ. على أن تُوزع هذه الأعمال والمهام على عدد أسابيع التدريب)
- الإنجازات أو المبادرات التي أضافها الطالب إلى جهة التدريب (إن وُجدت).
- توضيح الفوائد والخبرات التي اكتسبها الطالب المتدرب من التدريب والصعوبات التي واجهته.

### 4. أسس تقييم التدريب

- يقوم الطالب بتعبئة نموذج التقييم والذي يهدف إلى معرفة وجهة نظر الطالب في التدريب من حيث التنظيم والجدوى والإيجابيات والسلبيات بهدف التطوير المستمر لعملية التدريب والتغلب على السلبيات.
- يقوم المشرف الأكاديمي بتقييم التدريب بهدف الوقوف على إيجابيات وسلبيات و جدوى عملية التدريب بهدف قياسها وتقديمها وتطويرها المستمر.
- يقوم المشرف الميداني وأرباب العمل بتقييم عملية التدريب بهدف معرفة آراءهم في مستوى الطلبة المتدربين ومهاراتهم ومعدلات أدائهم أثناء فترة التدريب واقتراحاتهم لتحسين وتطوير عملية التدريب.

## 5. توزيع درجات التقييم:

| تكون درجات المساق على النحو التالي | نظام التقديرات |
|------------------------------------|----------------|
| أقل من 60                          | F              |
| من 60 إلى 64                       | D              |
| من 65 إلى 69                       | D+             |
| من 70 إلى 74                       | C              |
| من 75 إلى 79                       | C+             |
| من 80 إلى 84                       | B              |
| من 85 إلى 89                       | B+             |
| من 90 إلى 100                      | A              |

### تقييم المشرف الأكاديمي للطالب

يمنح المشرف الأكاديمي 70% من درجة المساق للطالب بعد تقييمه.

### تقييم المشرف الميداني للطالب

يمنح المشرف الميداني 30% من درجة المساق للطالب بعد تقييمه.

## 6. مهام المشرف الأكاديمي:

- يكلف المشرف الميداني بمتابعة مجموعة من الطلبة المتدربين في المؤسسات المختلفة، يكون المشرف الأكاديمي حلقة الوصل بين الكلية والمؤسسة وتتحدد مسئولية المشرف الأكاديمي بالمهام الآتية:
- متابعة الطلبة المتدربين في المؤسسات من خلال الزيارات الميدانية والتنسيق مع المشرف الميداني في مؤسسة التدريب.
- الإشراف على تقييم مستوى التدريب في المؤسسة التي يتدرب بها الطالب.
- كتابة تقرير تفصيلي عن تدريب الطالب في نهاية فترة التدريب، يوضح فيه مدى الاستفادة التي حققها الطالب في المؤسسة.
- تحديد موعد مناقشة تقرير الطالب المتدرب خلال المدة التي تحددها لجنة التدريب في الكلية.
- إعداد ملف تدريب لكل طالب متخرج يشتمل على كافة الضوابط التي تحددها لجنة التدريب في القسم وفقاً لمتطلبات معايير الجودة والاعتماد الأكاديمي.
- وتسلم الملفات في نهاية التدريب إلى لجنة التدريب.

### ملاحظات:

في حال متابعة الطالب خارج الدولة يتم استخدام البريد الإلكتروني أو الهاتف أو الفاكس أو الوسائط المتعددة بالإضافة إلى التقرير الأسبوعي.

## 7. مهام المشرف الميداني:

يتولى المشرف الميداني مهمة تدريب الطلبة في المجالات العلمية، ويتحمل المسئولية عن جودة المهارات الفنية التي تؤهل الطالب لسوق العمل في مجال تخصصه، كما يتولى مهمة تقييم الطالب الخريج من 30% من الدرجة الكلية التي يحصل عليها الطالب الخريج في مساق التدريب الميداني. ويقوم باعتماد التقرير الأسبوعي الذي يمأه الطالب، وفقاً للمهام الموكلة من خلال الخطة الموضوعية.

## 8. إجراءات التسجيل والتدريب:

- التقديم بطلب التدريب  
يقوم الطالب بتعبئة النموذج المخصص للتدريب، إلكترونياً، واعتماده من المرشد الأكاديمي في الوقت المخصص للتسجيل.
- التسجيل في مساق التدريب  
بعد موافقة المرشد الأكاديمي يتم التسجيل للطالب.

## البرامج المطروحة

### برنامج بكالوريوس الآداب في الإعلام

#### المقدمة

بدأ برنامج بكالوريوس الآداب في الإعلام في الفصل الدراسي الثاني من العام الجامعي 2008 . 2009 كأحد البرامج العلمية في كلية الإعلام في جامعة عجمان، وقد أطلق البرنامج بناء على التصريح المبدئي في هذا الشأن من هيئة الاعتماد الأكاديمي التابعة لوزارة التربية والتعليم في دولة الإمارات العربية المتحدة.

وفي إطار تطوير البرنامج بما يتماشى مع المعايير الحديثة والممارسات الجيدة المطبقة عالمياً والتي تشير إلى أهمية توسيع القاعدة المعرفية والثقافية العامة لطالب الإعلام، وبناء على توجيهات هيئة الاعتماد الأكاديمي بوزارة التربية والتعليم بمراعاة ألا تزيد نسبة الساعات المعتمدة المخصصة للمساقات التخصصية عن 40% من إجمالي الساعات المعتمدة للبرنامج فقد قامت الكلية بمراجعة البرنامج وإعداده بما يتلاءم مع المعايير السابق ذكرها؛ وذلك للحصول على الاعتماد النهائي للبرنامج.

#### رسالة البرنامج

توفير تعليم وتأهيل أكاديمي إعلامي رصين باللغة العربية في مسارات (الصحافة المطبوعة والإلكترونية والعلاقات العامة والإعلان والإذاعة والتلفزيون والتصميم الجرافيكي) بما يتماشى مع أرفع المعايير الدولية بهدف إعداد أجيال من القائمين بالاتصال قادرين على مواكبة أحدث التطورات والمستجدات التكنولوجية في مجالات الإعلام والاتصال بمستوى عال من الجودة والكفاءة والاحترافية.

#### أهداف البرنامج:

- تقديم أهم وأحدث المعارف النظرية في المسارات الأربعة للبرنامج (الصحافة المطبوعة والإلكترونية - العلاقات العامة والإعلان- الإذاعة والتلفزيون - التصميم الجرافيكي) من أجل تزويد الدارس بخلفية معرفية قوية وحديثة تمكنه من معرفة الجانب النظري وإتقان الممارسة العملية.
- تزويد الطلبة بالمهارات التطبيقية اللازمة لإنتاج مختلف المواد والبرامج الإعلامية في المسارات الأربعة للبرنامج، باستخدام أستوديو ومختبرات الكلية أو خلال فترة التدريب الميداني.
- الارتقاء بمستوى الأداء الإعلامي الملتزم بالتشريعات والأخلاقيات، وتعزيز دور الإعلام في تنمية وخدمة المجتمع.
- تنمية التفكير النقدي والإبداعي والقدرة على تقييم بيئة عمل وسائل الإعلام المحلية والإقليمية والدولية.
- تعزيز مهارات وأساليب البحث الإعلامي التي تمكن الخريجين من العمل بمراكز البحوث أو مواصلة الدراسات العليا.

#### شروط القبول

أن يكون الطالب حاصلًا على شهادة الثانوية العامة من دولة الإمارات العربية المتحدة (قسم علمي أو أدبي) أو ما يعادلها بمعدل لا يقل عن 60%.

اجتياز اختبار اللغة الإنجليزية توفل (Toefl) بمعدل 450 درجة أو ما يعادلها.

#### متطلبات التخرج:

- إتمام البرنامج بنجاح على الطالب:
- انجاز كل المساقات المطلوبة للتخصص الرئيس.
- الحصول على معدل تراكمي ( 2.0 ) أو أكثر.

#### فرص العمل:

- الصحف
- الإذاعة والتلفزيون
- المؤسسات المختلفة الأخرى للإنتاج الإعلامي
- إدارات الإعلام والاتصال والعلاقات العامة في المؤسسات العامة والخاصة
- وزارات الدولة.

## مخرجات البرنامج وفقاً لإطار المؤهلات في دولة الإمارات العربية المتحدة (Emirates QF)

بعد استكمال هذا البرنامج بنجاح يكون الخريج قادراً على أن:

### المعرفة:

- مخرج البرنامج 1: يبين المفاهيم والمبادئ الأساسية في التخصصات الإعلامية المختلفة التي درسها.  
مخرج البرنامج 2: يقارن المعارف العلمية بالخلفيات النظرية المشتركة.  
مخرج البرنامج 3: يربط بين المعارف التي يكتسبها والاتجاهات الحديثة في إعداد مختلف المواد الإعلامية.  
مخرج البرنامج 4: يتعرف إلى عناصر وتطبيقات واستراتيجيات التفكير الابتكاري.

### المهارة:

- مخرج البرنامج 5: يوظف المهارات التحليلية والعملية في إعداد وتصميم وإنتاج الرسالة الإعلامية.  
مخرج البرنامج 6: يُقيّم الأساليب المستخدمة في تناول القضايا الإعلامية.  
مخرج البرنامج 7: يقارن بين المنظمات الإقليمية والدولية وقيم أدوارها في النطاق الإقليمي والدولي.

### أوجه الكفاءة

### الاستقلالية والمسؤولية:

- مخرج البرنامج 8: يلتزم بالمعايير الأخلاقية والضوابط المهنية خلال ممارسته للعمل الإعلامي.  
مخرج البرنامج 9: يحدد الجوانب القانونية والدستورية التي تنظم مبادئ حقوق الإنسان.

### الدور في السياق:

- مخرج البرنامج 10: يساهم بإيجابية في إنجاز المشروعات الإعلامية بصورة متقنة ضمن فرق العمل الإعلامية.  
مخرج البرنامج 11: يتحمل المسؤولية في قيادة المجموعة واتخاذ قرارات مبتكرة؛ لإيجاد حلول في المواقف المهنية المختلفة.  
مخرج البرنامج 12: يكتسب المعارف المرتبطة بالظواهر الاجتماعية الجديدة وكيفية التعامل معها.

### التطور الذاتي

- مخرج البرنامج 13: يعدّ وينتج مادة إعلامية مختلفة بفاعلية ضمن الفريق الواحد.  
مخرج البرنامج 14: يُقيّم ذاته وممارساته الإعلامية، ويكتسب مهارات جديدة، ويعمل على تطويرها.  
مخرج البرنامج 15: يُقيّم الممارسات الإعلامية المستخدمة عبر وسائل الإعلام التقليدية والجديدة.

## الخطة الدراسية لبرنامج بكالوريوس الآداب في الإعلام

مجموع المساقات والساعات المعتمدة (126 ساعة)

| م | المساقات               | الإجبارية | الاختيارية | الحرّة   | عدد المساقات | عدد الساعات |
|---|------------------------|-----------|------------|----------|--------------|-------------|
| 1 | برامج الدراسات العامة  | 5         | 3          | -        | 8            | 24          |
| 2 | المساقات الحرّة        | -         | -          | 2        | 2            | 6           |
| 3 | المتطلبات المساندة     | 15        | -          | -        | 15           | 45          |
| 4 | متطلبات القسم          | 6         | -          | -        | 6            | 18          |
| 5 | متطلبات التخصص الرئيسي | 9         | 2          | -        | 11           | 33          |
|   | <b>المجموع</b>         | <b>35</b> | <b>5</b>   | <b>2</b> | <b>42</b>    | <b>126</b>  |

أولاً: متطلبات الجامعة الإلزامية (5 مساقات، 15 ساعة معتمدة)

| المساق            | رقم المساق      | م |
|-------------------|-----------------|---|
| الثقافة الإسلامية | ISL114          | 1 |
|                   | Islamic culture |   |

|   |        |   |                               |
|---|--------|---|-------------------------------|
| 2 | ARB111 | Communication Skills in Arabic          | مهارات الاتصال باللغة العربية |
| 3 | STA111 | Statistics                              | الإحصاء                       |
| 4 | COM111 | Computer Applications / IT Fundamentals | تطبيقات في الحاسوب            |
| 5 | INN311 | Innovation & Entrepreneurship           | الابتكار وريادة الأعمال       |

**ثانياً: متطلبات الجامعة الاختيارية (3 مساقات، 9 ساعة معتمدة) على الطالب أن يختار مساقاً واحداً من المجموعات المذكورة أدناه  
مجموعة العلوم الإنسانية والأدبية**

| المساق                                 | رقم المساق | م  |
|--|------------|----|
| The Art of Written Expression (Arabic) | ARB113     | 1  |
| Principles of Architecture & Art       | ARC211     | 2  |
| Introduction to Art                    | ART111     | 3  |
| Intro. to Aesthetics                   | ART112     | 4  |
| Introduction to Digital Photography    | ART211     | 5  |
| Principles of Ethics                   | ETH111     | 6  |
| French Language                        | FRE211     | 7  |
| Legal Culture                          | LAW111     | 8  |
| Academic Writing (English)             | ENG113     | 9  |
| Introduction to Hadeeth and Sunna      | ISL211     | 10 |

**مجموعة العلوم الطبيعية، العلوم التطبيقية، الرياضيات وتكنولوجيا المعلومات**

| المساق                                       | رقم المساق | م  |
|--|------------|----|
| First Aid                                    | AID111     | 1  |
| Astronomy (Arabic)                           | AST211     | 2  |
| General Biology                              | BIO111     | 3  |
| General Chemistry                            | CHM111     | 4  |
| Education Technology                         | EDT211     | 5  |
| Technical Writing                            | ENG112     | 6  |
| Applications of Remote Sensing & GIS         | GIS211     | 7  |
| Information System (Arabic)                  | INF212     | 8  |
| Internet Concepts                            | INT211     | 9  |
| History of Science in Islam                  | ISH111     | 10 |
| The Miraculousness of the Holy Koran & Sunna | ISL113     | 11 |

|                                |                              |        |    |
|--------------------------------|------------------------------|--------|----|
| Fundamental of Human Nutrition | أساسية التغذية البشرية       | NUT111 | 12 |
| Oral Health                    | صحة الفم                     | ORH211 | 13 |
| Physics                        | فيزياء                       | PHY111 | 14 |
| Scientific Pioneering          | الريادة العلمية              | PIO211 | 15 |
| Research Methodology           | طرائق البحث العلمي           | RES211 | 16 |
| Modern Technology & Society    | التكنولوجيا الحديثة والمجتمع | SOC211 | 17 |
| Environmental Science          | علوم بيئية                   | ENV111 | 18 |
| Principle of Mathematics       | مبدأ الرياضيات               | MTH111 | 19 |

### مجموعة العلوم الاجتماعية والسلوكية

| المساق                                  | رقم المساق                       | م      |    |
|---|----------------------------------|--------|----|
| Emirates Society                        | مجتمع الإمارات                   | EMS111 | 1  |
| English Communication Skills            | مهارات الاتصال باللغة الإنجليزية | ENG111 | 2  |
| Entrepreneurship Development            | تطوير ريادة الأعمال              | ENT211 | 3  |
| Information Literacy                    | معرفة المعلومات                  | INF111 | 4  |
| Media Culture                           | ثقافة إعلامية                    | INF112 | 5  |
| Information Society                     | مجتمع المعلومات                  | INF211 | 6  |
| General Psychology                      | علم النفس العام                  | PSY111 | 7  |
| Introduction to Communication Sociology | مقدمة في علم اجتماع الاتصالات    | SOC111 | 8  |
| Family System                           | نظام الأسرة                      | SOC113 | 9  |
| Critical Thinking                       | التفكير الناقد                   | THI211 | 10 |
| Library Information System              | نظام معلومات المكتبة             | INF113 | 11 |
| Communication Between Cultures          | التواصل بين الثقافات             | SOC112 | 12 |
| Economic Concepts                       | المفاهيم الاقتصادية              | ECO211 | 13 |

ثالثاً: متطلبات حرة (مساقين، 6 ساعات معتمدة)  
يختار الطالب مساقين من الجامعة أو الكلية في غير تخصصه

| المساق | رقم المساق | م |
|--------|------------|---|
|        |            | 1 |
|        |            | 2 |

رابعاً: المتطلبات المساندة (15 مساق، 45 ساعة معتمدة)

| الساعات المعتمدة |      |      | المساق                           | رقم المساق                              | م      |    |
|------------------|------|------|----------------------------------|---|--------|----|
| المجموع          | عملي | نظري |                                  |   |        |    |
| 3                | 0    | 3    | مبادئ علم الاقتصاد               | Principles of Economics                 | DES101 | 1  |
| 3                | 2    | 2    | الوسائط المتعددة                 | Multimedia                              | DES102 | 2  |
| 3                | 0    | 3    | مهارات التعلم باللغة الإنجليزية  | Study Skills in English                 | DES103 | 3  |
| 3                | 0    | 3    | مجتمع الإمارات حديثا             | Current Emirati Society                 | DES204 | 4  |
| 3                | 2    | 2    | التصوير الرقمي                   | Digital Photography                     | DES205 | 5  |
| 3                | 0    | 3    | مهارات الاتصال باللغة الانجليزية | Communication Skills in English         | DOS206 | 6  |
| 3                | 0    | 3    | مجتمع المعلومات                  | Information Society                     | DES207 | 7  |
| 3                | 0    | 3    | الأدب العربي الحديث والمعاصر     | Modern & Contemporary Arabic Literature | DES308 | 8  |
| 3                | 2    | 2    | تصميم مواقع شبكة الانترنت        | Web Design                              | DES309 | 9  |
| 3                | 0    | 3    | حقوق الإنسان في العصر الحديث     | Human Rights in the Modern Time         | DES310 | 10 |
| 3                | 0    | 3    | الرأي العام                      | Public Opinion                          | DES311 | 11 |
| 3                | 0    | 3    | المنظمات الإقليمية والدولية      | Regional & International Organizations  | DES312 | 12 |
| 3                | 0    | 3    | التفكير الناقد والابتكاري        | Critical & Creative Thinking            | DES413 | 13 |
| 3                | 0    | 3    | مناهج و طرق البحث                | Research Methods & Techniques           | DES414 | 14 |
| 3                | 0    | 3    | علم النفس الاجتماعي              | Social Psychology                       | DES415 | 15 |

خامساً: متطلبات القسم (6 مساقات 18 ساعة معتمدة)

| المتطلب السابق | الساعات المعتمدة |      |      | المساق                                 | رقم المساق                                      | م      |   |
|----------------|------------------|------|------|--|---|--------|---|
|                | المجموع          | عملي | نظري |  |   |        |   |
| -              | 3                | 0    | 3    | مدخل إلى الصحافة المطبوعة والإلكترونية | Introduction to Electronic & Printed Journalism | DER116 | 1 |
| -              | 3                | 0    | 3    | مدخل إلى الإذاعة والتلفزيون            | Introduction to Radio & TV                      | DER117 | 2 |



|   |   |   |   |                                   |  |        |   |
|---|---|---|---|-----------------------------------|--|--------|---|
| - | 3 | 0 | 3 | مدخل إلى العلاقات العامة والإعلان | Introduction to Public Relations & Advertising | DER118 | 3 |
| - | 3 | 4 | 1 | مدخل إلى التصميم الجرافيكي        | Introduction to Graphic Design                 | DER119 | 4 |
| - | 3 | 0 | 3 | نظريات الاتصال                    | Communication Theories                         | DER321 | 5 |
| - | 3 | 0 | 3 | أخلاقيات الإعلام وتشريعاته        | Media Laws & Ethics                            | DER420 | 6 |

سادسا: تخصص الصحافة المطبوعة والالكترونية

أ - متطلبات التخصص الإجبارية (9 مساقات، 27 ساعة معتمدة)

| المتطلب السابق                        | الساعات المعتمدة |      |      | المساق  | رقم المساق  | م      |   |
|---------------------------------------|------------------|------|------|---|---|--------|---|
|                                       | المجموع          | عملي | نظري |   |   |        |   |
| DER116                                | 3                | 2    | 2    | الكتابة الصحفية (1)                               | Journalistic Writing (1)                                | PEJ122 | 1 |
| PEJ122                                | 3                | 2    | 2    | الكتابة الصحفية (2)                               | Journalistic Writing (2)                                | PEJ223 | 2 |
| -                                     | 3                | 4    | 1    | التصوير الصحفي                                    | Journalistic Photography                                | PEJ224 | 3 |
| -                                     | 3                | 0    | 3    | الترجمة الصحفية                                   | Journalistic Translation                                | PEJ225 | 4 |
| PEJ122                                | 3                | 4    | 1    | الإخراج الصحفي (1)                                | Press Layout and Design(1)                              | PEJ226 | 5 |
|                                       | 3                | 4    | 1    | صحافة الانترنت                                    | Online Journalism                                       | PEJ327 | 6 |
| PEJ122                                | 3                | 0    | 3    | الصحافة المتخصصة                                  | Specialized Journalism                                  | PEJ328 | 7 |
| إنجاز 90 س م<br>Pass 90 Cr.<br>Hrs.   | 3                | 6    | 0    | التدريب الميداني في الصحافة المطبوعة والالكترونية | Training in Printed and Electronic Journalism           | PEJ429 | 8 |
| إنجاز 105 س م<br>Pass 105 Cr.<br>Hrs. | 3                | 6    | 0    | مشروع التخرج في الصحافة المطبوعة والإلكترونية     | Graduation Project in Printed and Electronic Journalism | PEJ430 | 9 |

ب- متطلبات التخصص الاختيارية (مساقان، 6 ساعة معتمدة)

| المتطلب السابق | الساعات المعتمدة |      |      | المساق   | رقم المساق  | م      |   |
|----------------|------------------|------|------|--|---|--------|---|
|                | المجموع          | عملي | نظري |  |   |        |   |
| -              | 3                | 2    | 2    | الإخراج الصحفي (2)                                     | Journalistic Layout and Design (2)                          | PEJ231 | 1 |
| -              | 3                | 0    | 3    | الاستخدامات الصحفية لشبكة الانترنت (باللغة الإنجليزية) | Journalistic Uses of the Internet (in English)              | PEJ132 | 2 |
| -              | 3                | 0    | 3    | النقد الأدبي والفني                                    | Literary and Art Criticism                                  | PEJ233 | 3 |
| -              | 3                | 4    | 1    | تصميم المواقع الإعلامية                                | Designing Media Web Sites                                   | PEJ334 | 4 |
| -              | 3                | 0    | 3    | إدارة الصحف المطبوعة والإلكترونية واقتصادياتها         | Management & Economies of Printed and Electronic Newspapers | PEJ235 | 5 |
| -              | 3                | 0    | 3    | الصحافة الاستقصائية                                    | Investigative Journalism                                    | PEJ336 | 6 |
| -              | 3                | 0    | 3    | الصحافة العربية والدولية                               | Arabic and International Journalism                         | PEJ137 | 7 |
| -              | 3                | 2    | 2    | الرسوم المعلوماتية                                     | Infographics  | GRD375 | 8 |

### سابعاً: تخصص الإذاعة والتلفزيون

أ - متطلبات التخصص الإخبارية (9 مساقات، 27 ساعة معتمدة)

| المتطلب السابق | الساعات المعتمدة |      |      | المساق                        | رقم المساق                      | م      |   |
|----------------|------------------|------|------|-------------------------------|---------------------------------|--------|---|
|                | المجموع          | عملي | نظري |                               |                                 |        |   |
| DER117         | 3                | 4    | 1    | الإنتاج الإذاعي والتلفزيوني 1 | Radio & TV Production 1         | RTV138 | 1 |
| RTV138         | 3                | 4    | 1    | الإنتاج الإذاعي والتلفزيوني 2 | Radio & TV Production 2         | RTV239 | 2 |
| -              | 3                | 2    | 2    | الخبر الإذاعي والتلفزيوني     | Broadcasting News               | RTV240 | 3 |
| -              | 3                | 2    | 2    | التقديم والإلقاء              | Presentation & Delivery         | RTV241 | 4 |
| -              | 3                | 0    | 3    | البرامج والقنوات المتخصصة     | Specialized Programs & Channels | ERV242 | 5 |

|                                       |   |   |   |   |                                  |        |   |
|---------------------------------------|---|---|---|---|----------------------------------|--------|---|
| RTV138                                | 3 | 2 | 2 | البرامج الوثائقية                       | Documentary Programs             | ERV343 | 6 |
| -                                     | 3 | 0 | 3 | الاتجاهات الحديثة في الإذاعة والتلفزيون | New Trends in Radio & TV         | RTV344 | 7 |
| إنجاز 90 س م<br>Pass 90 Cr.<br>Hrs.   | 3 | 6 | 0 | التدريب الميداني في الإذاعة والتلفزيون  | Training in Radio & TV           | RTV445 | 8 |
| إنجاز 105 س م<br>Pass 105 Cr.<br>Hrs. | 3 | 6 | 0 | مشروع التخرج في الإذاعة والتلفزيون      | Graduation Project in Radio & TV | RTV446 | 9 |

ب - متطلبات التخصص الاختيارية (مساقتان، 6 ساعة معتمدة)

| المتطلب السابق | الساعات المعتمدة |      |      | المساق  | رقم المساق                                  | م      |   |
|----------------|------------------|------|------|---|---|--------|---|
|                | المجموع          | عملي | نظري |   |   |        |   |
| -              | 3                | 0    | 3    | النقد الإذاعي والتلفزيوني                                 | Broadcast Criticism                         | RTV147 | 1 |
| -              | 3                | 0    | 3    | الدراما الإذاعية والتلفزيونية                             | Radio & TV Drama                            | RTV448 | 2 |
| -              | 3                | 2    | 2    | الإعلان الإذاعي والتلفزيوني                               | Radio & TV Advertising                      | RTV249 | 3 |
| -              | 3                | 0    | 3    | الصحافة التلفزيونية                                       | TV Journalism                               | RTV350 | 4 |
| -              | 3                | 0    | 3    | تخطيط البرامج والحملات في الإذاعة والتلفزيون              | Programs & Campaigns Planning in Radio & TV | RTV451 | 5 |
| -              | 3                | 0    | 3    | البث الإذاعي والتلفزيوني عبر الإنترنت (باللغة الإنجليزية) | Online Radio & TV Broadcasting (in English) | RTV352 | 6 |
| -              | 3                | 0    | 3    | موضوع خاص في الإذاعة والتلفزيون                           | Special Topic in Radio & TV                 | RTV453 | 7 |
| -              | 3                | 0    | 3    | مهارات الاتصال الفعال                                     | Effective Communication Skills              | RTV254 | 8 |

ثامننا تخصص العلاقات العامة والإعلان

أ - متطلبات التخصص الإجبارية (9 مساقات، 27 ساعة معتمدة)

| المتطلب السابق | الساعات المعتمدة |      |      | المساق | رقم المساق | م |
|----------------|------------------|------|------|--------|------------|---|
|                | المجموع          | عملي | نظري |        |            |   |

|  |   |   |   |  |  |        |   |
|--|---|---|---|--|--|--------|---|
| DER118                                   | 3 | 0 | 3 | إدارة العلاقات العامة والإعلان               | Management of Public Relations and Advertising         | PRA155 | 1 |
| DER118                                   | 3 | 0 | 3 | استراتيجيات الإعلان                          | Advertising Strategies                                 | PRA256 | 2 |
| -  | 3 | 2 | 2 | البروتوكول والإتيكيت                         | Protocol and Etiquette                                 | PRA257 | 3 |
| DER118                                   | 3 | 0 | 3 | الاتصالات التسويقية المتكاملة                | Integrated Marketing Communications                    | PRA258 | 4 |
| -  | 3 | 2 | 2 | الكتابة للعلاقات العامة والإعلان             | Writing for Public Relations & Advertising             | PRA259 | 5 |
| PRA259                                   | 3 | 2 | 2 | إنتاج مواد العلاقات العامة                   | Media Production for Public Relations                  | PRA360 | 6 |
| DER118                                   | 3 | 0 | 3 | تخطيط الحملات الإعلامية والإعلانية           | Communication & Advertising Campaigns                  | PRA361 | 7 |
| إنجاز 90 س<br>م<br>Pass 90 Cr.<br>Hrs.   | 3 | 6 | 0 | التدريب الميداني في العلاقات العامة والإعلان | Training in Public Relations and Advertising           | PRA462 | 8 |
| إنجاز 105 س<br>م<br>Pass 105<br>Cr. Hrs. | 3 | 6 | 0 | مشروع التخرج في العلاقات العامة والإعلان     | Graduation Project in Public Relations and Advertising | PRA463 | 9 |

ب - متطلبات التخصص الاختيارية (مساقل، 6 ساعة معتمدة)

| المتطلب السابق | الساعات المعتمدة |      |      | المساق   | رقم المساق                                  | م      |   |
|----------------|------------------|------|------|--|---|--------|---|
|                | المجموع          | عملي | نظري |  |   |        |   |
| -              | 3                | 0    | 3    | الاتصال المؤسسي  | Organizational Communication                | PRA264 | 1 |
| -              | 3                | 0    | 3    | اتصالات الأزمة   | Crisis Communication                        | PRA265 | 2 |
| -              | 3                | 0    | 3    | العلاقات العامة والإعلان عبر الإنترنت                  | Online Public Relations & Advertising       | PRA366 | 3 |
| -              | 3                | 0    | 3    | العلاقات العامة في المجال التطبيقي (باللغة الإنجليزية) | Applied Public Relations (in English)       | PRA367 | 4 |
| -              | 3                | 0    | 3    | تنظيم الفعاليات والأحداث الخاصة                        | Organizing of Activities and Special Events | PRA268 | 5 |

|   |   |   |   |                                  |                                |        |   |
|---|---|---|---|----------------------------------|--------------------------------|--------|---|
| - | 3 | 2 | 2 | الإعلان الإذاعي والتلفزيوني      | Radio & Television Advertising | RTV249 | 6 |
| - | 3 | 0 | 3 | مهارات الاتصال الفعال            | Effective Communication Skills | RTV254 | 7 |
| - | 3 | 4 | 1 | الجرافيك لوسائل الإعلام المطبوعة | Graphics for Print Media       | GRD272 | 8 |

### تاسعا: تخصص التصميم الجرافيكي

أ - متطلبات التخصص الإلزامية (9 مساقات، 27 ساعة معتمدة)

| المتطلب السابق                        | الساعات المعتمدة |      |      | المساق   | رقم المساق                             | م      |   |
|---------------------------------------|------------------|------|------|--|--|--------|---|
|                                       | المجموع          | عملي | نظري |  |  |        |   |
| DER119                                | 3                | 4    | 1    | مبادئ الرسم                                    | Principles of Drawing                  | GRD169 | 1 |
| DER119                                | 3                | 2    | 2    | نظريات الواقع الافتراضي والتصميم ثلاثي الأبعاد | Virtual Reality Theories and 3D Design | GRD270 | 2 |
| GRD169                                | 3                | 4    | 1    | تصميم العلامة التجارية والشعار                 | Brand and Logo Design                  | GRD271 | 3 |
| GRD271                                | 3                | 4    | 1    | الجرافيك لوسائل الإعلام المطبوعة               | Print Media Design                     | GRD272 | 4 |
| DER119                                | 3                | 4    | 1    | تصميم الوسائط التفاعلية                        | Interactive Multimedia Design          | GRD273 | 5 |
| GRD273                                | 3                | 2    | 2    | المواقع الاجتماعية والتطبيقات الذكية           | Social Websites and Smart Applications | GRD374 | 6 |
| GRD169                                | 3                | 2    | 2    | الرسوم المعلوماتية                             | Infographics                           | GRD375 | 7 |
| إنجاز 90 س م<br>Pass 90 Cr.<br>Hrs.   | 3                | 6    | 0    | التدريب الميداني في التصميم الجرافيكي          | Training in Graphic Design             | GRD476 | 8 |
| إنجاز 105 س م<br>Pass 105 Cr.<br>Hrs. | 3                | 6    | 0    | مشروع التخرج في التصميم الجرافيكي              | Graduation Project in Graphic Design   | GRD477 | 9 |

ب - متطلبات التخصص الاختيارية (مساقان، 6 ساعة معتمدة)

| المتطلب السابق | الساعات المعتمدة |      |      | المساق                      | رقم المساق                      | م      |   |
|----------------|------------------|------|------|-----------------------------|---------------------------------|--------|---|
|                | المجموع          | عملي | نظري |                             |                                 |        |   |
| -              | 3                | 4    | 1    | الرسوم المتحركة             | Animation                       | GRD378 | 1 |
| -              | 3                | 2    | 2    | موضوع خاص في تصميم الجرافيك | Special Topic in Graphic Design | GRD479 | 2 |

|   |   |   |   |                                   |                                     |        |   |
|---|---|---|---|-----------------------------------|-------------------------------------|--------|---|
| - | 3 | 2 | 2 | نظرية اللون وتطبيقاتها            | Colour Theory and Applications      | GRD180 | 3 |
| - | 3 | 2 | 2 | التصميم والتغليف                  | Design & Packaging                  | GRD481 | 4 |
| - | 3 | 2 | 2 | تقنيات وخامات (باللغة الإنجليزية) | Techniques & Materials (in English) | GRD482 | 5 |
| - | 3 | 2 | 2 | التصميم الجرافيكي للكتابات        | Typography                          | GRD283 | 6 |
| - | 3 | 4 | 1 | الجرافيك لوسائل الإعلام المرئية   | Visual Media Design                 | GRD384 | 7 |
| - | 3 | 2 | 2 | الإخراج الصحفي (2)                | Journalistic Layout and Design (2)  | PEJ231 | 8 |

### توصيفات المساقات المساندة

| مبادئ علم الاقتصاد     |      |      | اسم المساق     |
|------------------------|------|------|----------------|
| DES101                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 0    | 3    |                |
| لا يوجد                |      |      | المتطلب السابق |
| متطلب مساند            |      |      | نوع المساق     |

يتناول هذا المساق علم الاقتصاد، مفهومه، وأهميته، والمشكلة الاقتصادية، وأهداف المجتمع الاقتصادية، والنظرية الاقتصادية في المجتمع الرأسمالي والمجتمع الاشتراكي والمجتمع الإسلامي، كما يتناول النظام السعري والمرونة، والمنفعة وسلوك المستهلك، والدخل القومي والدخل الوطني، وعرض ثم دراسة طرق قياس الناتج المحلي ومشاكل الناتج المحلي الإجمالي، وبيان العلاقة بين الدخل والإنفاق، وأهم الأسس التي تقوم عليها السياسة المالية والنقدية، والعرض والطلب وقياس الناتج الكلي والدخل القومي وقياس النمو والإنتاجية، وتحليل لسياسات النقود وسعر الفائدة والإنتاج، والأسس التي يقوم عليها الاقتصاد الإسلامي.

| الوسائط المتعددة       |      |      | اسم المساق     |
|------------------------|------|------|----------------|
| DES102                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 2    | 2    |                |
| لا يوجد                |      |      | المتطلب السابق |
| متطلب مساند            |      |      | نوع المساق     |

يتناول هذا المساق الوسائط المتعددة بعناصرها ووظائفها، باعتبارها فئة من نظم الاتصالات المتفاعلة التي يمكن إنتاجها وتقديمها بواسطة الكمبيوتر، حيث تستخدم لتخزين ونقل واسترجاع المعلومات الموجودة في إطار شبكة من اللغة المكتوبة، والمسموعة، والرسومات الخطية، والصور الثابتة والفيديو أو الصور المتحركة، كذلك يتطرق المساق إلى مبادئ تصميم وإنتاج الوسائط المتعددة، من خلال التطبيق العملي باستخدام برمجيات إنتاج الوسائط المتعددة.

| Course Title           | Study Skills in English |           |  |
|------------------------|-------------------------|-----------|--|
| Course Number          | DES103                  |           |  |
| Number of Credit Hours | Theory                  | Practical |  |
|                        | 3                       | 0         |  |
| Pre-Requisite          | None                    |           |  |
| Course Type            | Supporting required     |           |  |

This course provides information, techniques, strategies and skills helpful in becoming more efficient. It covers the skills which relate directly to the needs of most university students such as self management, time management, improving reading and writing skills, note taking, research skills, and e-learning.

| مجتمع الإمارات حديثا   |      |      | اسم المساق     |
|------------------------|------|------|----------------|
| DES204                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
|                        | 3    | 0    |                |
| لا يوجد                |      |      | المتطلب السابق |
| متطلب مساند            |      |      | نوع المساق     |

يتناول هذا المساق نشأة مجتمع الإمارات وتكوينه الاجتماعي وسماته ومقوماته من خلال دراسة طبيعة التنظيمات الاجتماعية السائدة (الأسرة والتعليم والصحة والاقتصاد)، بالإضافة إلى دراسة ملامح التنمية البشرية والتغير الاجتماعي والمشكلات الاجتماعية وعلاقتها بقضايا العولمة وانتشار استخدام التطبيقات التقنية الحديثة.

| التصوير الرقمي         |      |      | اسم المساق     |
|------------------------|------|------|----------------|
| DES205                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
|                        | 3    | 2    |                |
| لا يوجد                |      |      | المتطلب السابق |
| متطلب مساند            |      |      | نوع المساق     |

يتناول هذا المساق تعريف الطلبة بمكونات وأنواع الكاميرات الرقمية، وطرق التصوير باستخدام الكاميرات الرقمية، وعناصر ومكونات الصورة الرقمية وطرق معالجتها وصيغها وطرق حفظها ونقلها وتحويلها، وكيفية تحرير الصورة الرقمية وطباعتها ونصفها وحفظها واستخدامها في أعمال مختلفة.

| Course Title           | Communication Skills in English |           |  |
|------------------------|---------------------------------|-----------|--|
| Course Number          | DES206                          |           |  |
| Number of Credit Hours | Theory                          | Practical |  |
|                        | 3                               | 0         |  |

|               |                     |
|---------------|---------------------|
| Pre-Requisite | N/A                 |
| Course Type   | Supporting required |

The course aims to provide students with the language skills and knowledge required to communicate effectively in English in various speech events. As oral language is the basis for communication, instruction will be focused more on listening and speaking to equip learners with the necessary tools to express their thoughts, ideas, feelings and being able to respond to others. To foster their abilities, students will also be exposed to the grammatical and structural aspects of English including writing and vocabulary building.

| مجتمع المعلومات        |      |      | اسم المساق     |
|------------------------|------|------|----------------|
| DES207                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 0    | 3    |                |
| لا يوجد                |      |      | المتطلب السابق |
| متطلب مساند            |      |      | نوع المساق     |

يتناول هذا المساق الثورة المعرفية والمعلوماتية التي يعيشها العالم في كل المجالات، كما يستعرض خصائص المجتمع المعلوماتي، مقارنة إياها بما عرفته المجتمعات الأخرى. كما يبحث أيضا في التأثيرات، والآفاق المستقبلية للمجتمع العربي في ظل الثورة المعلوماتية وخارطة السوق المعلوماتية العالمية.

| الأدب العربي الحديث والمعاصر |      |      | اسم المساق     |
|------------------------------|------|------|----------------|
| DES308                       |      |      | رقم المساق     |
| مجموع الساعات المعتمدة       | عملي | نظري | عدد الساعات    |
| 3                            | 0    | 3    |                |
| لا يوجد                      |      |      | المتطلب السابق |
| متطلب مساند                  |      |      | نوع المساق     |

يتناول المساق عوامل ازدهار الأدب في العصر الحديث والمعاصر؛ من امتزاج الثقافات وانتشار الطباعة والترجمة، وكذلك الاطلاع على: أهم المذاهب الأدبية والفنية، ووجوه الإبداع فيها، وأبرز أعلامها في مجال الشعر، ثم الانتقال بعد ذلك إلى دراسة النثر، ممثلاً في: القصة، والمسرحية... وغيرها.

| تصميم مواقع شبكة الإنترنت |      |      | اسم المساق     |
|---------------------------|------|------|----------------|
| DES309                    |      |      | رقم المساق     |
| مجموع الساعات المعتمدة    | عملي | نظري | عدد الساعات    |
| 3                         | 2    | 2    |                |
| لا يوجد                   |      |      | المتطلب السابق |
| متطلب مساند               |      |      | نوع المساق     |



يتناول هذا المساق مفاهيم ومبادئ تصميم مواقع الإنترنت حيث يتناول عناصر تصميم المواقع على شبكة الإنترنت، وقواعد إنشائها وتصميمها، ويركز على التخطيط لبناء الموقع الإعلامي، وتوظيف الوسائط المتعددة في إنتاج وعرض المضامين الإعلامية. ويتم التطبيق العملي باستخدام مستحدثات برمجيات تصميم مواقع الإنترنت.

| حقوق الإنسان في العصر الحديث |      |      | اسم المساق     |
|------------------------------|------|------|----------------|
| DES310                       |      |      | رقم المساق     |
| مجموع الساعات المعتمدة       | عملي | نظري | عدد الساعات    |
| 3                            | 0    | 3    |                |
| لا يوجد                      |      |      | المتطلب السابق |
| متطلب مساند                  |      |      | نوع المساق     |

يشمل هذا المساق التعريف بالحق وأقسامه، حقوق الإنسان، موقعها بين الحقوق الأخرى، مراحل تطورها ووسائل حمايتها في المواثيق الدولية مع إشارة إلى هذه الحقوق في دستور دولة الإمارات العربية المتحدة.

| الرأي العام            |      |      | اسم المساق     |
|------------------------|------|------|----------------|
| DES311                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 0    | 3    |                |
| لا يوجد                |      |      | المتطلب السابق |
| متطلب مساند            |      |      | نوع المساق     |

يتناول المساق تعريف الرأي العام ومراحل نشأته وتطوره كمل يتطرق إلى دراسة تكوينه ومقوماته وتقسيماته وأنواعه، فضلاً عن خصائصه ووظائفه ويتناول بالدراسة والتحليل دور القوى الاجتماعية والسياسية في تشكيل الرأي العام، ثم المجالات التي تستخدم فيها بحوث الرأي العام وعلاقة الرأي العام بالدعاية كما يتناول المساق الإعلام الجديد وعلاقته بالرأي العام.

| المنظمات الإقليمية والدولية |      |      | اسم المساق     |
|-----------------------------|------|------|----------------|
| DES312                      |      |      | رقم المساق     |
| مجموع الساعات المعتمدة      | عملي | نظري | عدد الساعات    |
| 3                           | 0    | 3    |                |
| لا يوجد                     |      |      | المتطلب السابق |
| متطلب مساند                 |      |      | نوع المساق     |

يتناول المساق نشأة المنظمات الإقليمية والدولية في سياق التطور التاريخي للعلاقات الدولية، أنواعها وسماتها القانونية. إلقاء الضوء على أهم المنظمات الإقليمية والدولية والكيانات الرئيسية التابعة لها ودورها في خدمة محيطها، بالإضافة إلى استعراض المنظمات الإقليمية البارزة.

| التفكير الناقد والابتكاري |      |      | اسم المساق     |
|---------------------------|------|------|----------------|
| DES413                    |      |      | رقم المساق     |
| مجموع الساعات المعتمدة    | عملي | نظري | عدد الساعات    |
| 3                         | 0    | 3    |                |
| لا يوجد                   |      |      | المتطلب السابق |
| متطلب مساند               |      |      | نوع المساق     |

يتناول هذا المساق التفكير الناقد والابتكاري من خلال بناء وتطوير مهارات وعمليات التفكير الناقد والابتكاري كما يدور حول تعزيز قدرات الطلبة في تقييم مواطن القوة والضعف في الجدل والنقاش بشكل موضوعي والنقد البناء وحل المشكلات والاستنتاج المنطقي والتصنيف الفكري وكل ما يتعلق بإشكاليات الحياة العملية المختلفة وكيفية التغلب عليها، كذلك الاستخدام الأمثل للتحليل الناقد لما يدور حولنا من أحداث ومواقف، وأيضا تنمية قدرة الفرد على الإنتاج من خلال ابتكاره لأفكار جديدة.

| مناهج وطرق البحث       |      |      | اسم المساق     |
|------------------------|------|------|----------------|
| DES414                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 0    | 3    |                |
| لا يوجد                |      |      | المتطلب السابق |
| متطلب مساند            |      |      | نوع المساق     |

يتناول هذا المساق إجراءات وخطوات البحث العلمي، ومناهج البحث العلمي المستخدمة في مجال الإعلام. كما يقدم عرضا مفصلا عن أساليب البحث العلمي المستخدمة في مجال الإعلام، مثل أسلوب المسح الإعلامي. ويتناول أساليب التحليل الكيفي والكمي وأدوات البحث الكمية والكيفية. (أداة الاستبيان، الملاحظة البحثية، المقابلة، تحليل المضمون، جماعات النقاش البؤرية). أنواع العينات الاحتمالية وغير الاحتمالية ومواصفاتها وإجراءات اختيارها، وعيوبها، وكيفية تجنبها. ويطبق الطالب ذلك كله من خلال الجانب العملي للمساق بإجراء بحث علمي في أحد المجالات الإعلامية.

| علم النفس الاجتماعي    |      |      | اسم المساق     |
|------------------------|------|------|----------------|
| DES415                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 0    | 3    |                |
| لا يوجد                |      |      | المتطلب السابق |
| متطلب مساند            |      |      | نوع المساق     |

يتناول هذا المساق التعريف بعلم النفس الاجتماعي، تطوره التاريخي ومجالاته والعلوم المتصلة به، ومناهجه، كما يتناول القيم والاتجاهات والدوافع والقيادة والتنشئة الاجتماعية والتطبيع الاجتماعي، والسلوك الاجتماعي للجماعات، والظواهر الاجتماعية والعوامل الدينامية في عملية التوافق والإحباط والتعصب والعنف والعدوان والامتثال والطاعة والانحراف والصراع، إضافة إلى الأسس النفسية للمشكلات الأسرية والشبابية وآثارها، والأمراض الاجتماعية، وتأثيرات وسائل الإعلام على الفرد والجماعة والمجتمع، والدعاية والحرب النفسية.

## توصيفات مساقات القسم

| مدخل إلى الصحافة المطبوعة والإلكترونية |      |      | اسم المساق     |
|--|------|------|----------------|
| DER116                                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة                 | عملي | نظري | عدد الساعات    |
| 3                                      | 0    | 3    |                |
| لا يوجد                                |      |      | المتطلب السابق |
| متطلب قسم                              |      |      | نوع المساق     |

يتناول هذا المساق دراسة نشأة وتطور الصحافة المطبوعة والإلكترونية، مع التركيز على الدور الذي تقوم به الصحافة في المجتمع. والوظائف المختلفة التي تمارسها وأهمية هذه الوظائف وتأثيرها في تنمية المجتمع. كما يتناول المساق تطور الصحافة المطبوعة والإلكترونية، وتأثير تطور تكنولوجيا الاتصال والمعلومات في مستقبل الصحافة.

| مدخل إلى الإذاعة والتلفزيون |      |      | اسم المساق     |
|-----------------------------|------|------|----------------|
| DER117                      |      |      | رقم المساق     |
| مجموع الساعات المعتمدة      | عملي | نظري | عدد الساعات    |
| 3                           | 0    | 3    |                |
| لا يوجد                     |      |      | المتطلب السابق |
| متطلب قسم                   |      |      | نوع المساق     |

يتناول هذا المساق نشأة وتطور الإعلام الإذاعي والتلفزيوني، وخصائص كل وسيلة منهما، وكذلك البث الفضائي عبر الأقمار الاصطناعية، والراديو والتلفزيون والإنترنت، ووظيفة الإعلام الإذاعي والتلفزيوني في المجتمع، وأنواع الأنظمة الإذاعية وتأثير اختلاف السيطرة والتمويل على المضمون الإذاعي والتلفزيوني.

| مدخل إلى العلاقات العامة والإعلان |      |      | اسم المساق     |
|-----------------------------------|------|------|----------------|
| DER118                            |      |      | رقم المساق     |
| مجموع الساعات المعتمدة            | عملي | نظري | عدد الساعات    |
| 3                                 | 0    | 3    |                |
| لا يوجد                           |      |      | المتطلب السابق |
| متطلب قسم                         |      |      | نوع المساق     |

يتناول هذا المساق التعريف بالعلاقات العامة من حيث مفهومها وتاريخها ووظائفها ووسائل عملها، إلى جانب جماهير العلاقات العامة، وأنشطتها في مختلف المجالات، ودورها ووسائلها في تطوير المؤسسات. وكذلك مفهوم الإعلان وأنواعه وأهدافه ووظائفه ووسائله المختلفة، مراحل تأثير الإعلان على سلوك المستهلك، والأوتار الإقناعية في الرسالة الإعلانية.

| مدخل إلى التصميم الجرافيكي |      |      | اسم المساق     |
|----------------------------|------|------|----------------|
| DER119                     |      |      | رقم المساق     |
| مجموع الساعات المعتمدة     | عملي | نظري | عدد الساعات    |
| 3                          | 4    | 1    |                |
| لا يوجد                    |      |      | المتطلب السابق |
| متطلب قسم                  |      |      | نوع المساق     |

يتناول هذا المساق عرض المبادئ والمفاهيم الأساسية المتعلقة بالتصميم الجرافيكي، وعملية التصميم وعناصرها، تطبيقات تصميم الجرافيك في وسائل الإعلام المطبوعة والتلفزيونية وأهمية الثقافة المرئية والتفاعلية. وكيفية توظيفها كوسائل اتصال مرئية مثل الألوان والتصميم الجرافيكي والتصوير والوسائط المتعددة والإنترنت والرسوم المتحركة والكرتون والرسوم المعلوماتية وغيرها... وكذا برمجيات التصميم الرقمي.

| نظريات الاتصال         |      |      | اسم المساق     |
|------------------------|------|------|----------------|
| DER420                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 0    | 3    |                |
| لا يوجد                |      |      | المتطلب السابق |
| متطلب قسم              |      |      | نوع المساق     |

يتناول المساق النظريات والمداخل النظرية التي تفسر الظواهر الإعلامية المختلفة. ويعرض المساق كل نظرية أو مدخل نظري بالتعريف بخلفيته المعرفية، والسياق الاجتماعي والثقافي والمعرفي الذي أنتجه. كما يتناول المساق كيفية تطوير نموذج نظري يفسر الظواهر الإعلامية الحديثة التي أوجدها الإعلام الإلكتروني. يتعرض المساق للنظريات والمداخل النظرية الرئيسية في علم الاتصال والإعلام مثل: نظريات التأثير، نظرية وضع الأجندة، ونظريات بناء الواقع الاجتماعي وإدراكه، والمداخل النفسية والاجتماعية المختلفة المفسرة للاتصال مثل مدخل الاستخدامات والإشباع.

| أخلاقيات الإعلام وتشريعاته |      |      | اسم المساق     |
|----------------------------|------|------|----------------|
| DER321                     |      |      | رقم المساق     |
| مجموع الساعات المعتمدة     | عملي | نظري | عدد الساعات    |
| 3                          | 0    | 3    |                |
| لا يوجد                    |      |      | المتطلب السابق |
| متطلب قسم                  |      |      | نوع المساق     |

يتناول هذا المساق مفهوم حرية الرأي والتعبير ومظاهره، المسؤولية الاجتماعية وموائيق ممارسة العمل الإعلامي، الأخلاقيات والتشريعات الإعلامية التي تحكم ممارسة مهنة الإعلام. علاوة على إلقاء الضوء على أهم القوانين والتشريعات الإعلامية في دولة الإمارات العربية المتحدة.

## توصيفات مساقات تخصص الصحافة المطبوعة والإلكترونية

| الكتابة الصحفية (1)    |      |      | اسم المساق     |
|------------------------|------|------|----------------|
| PEJ122                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 2    | 2    |                |
| DER116                 |      |      | المتطلب السابق |
| متطلب تخصص إجباري      |      |      | نوع المساق     |

يتناول المساق فنون الكتابة الصحفية الخبرية ومواد الرأي. يتناول المساق القيم الخبرية، والفرق بين الخبر والرأي. حيث يتعرف الطالب على الخبر الصحفي، والتقرير الخبري، والقصة الخبرية، ويتعرف أيضًا على قواعد تغطية المؤتمرات الصحفية، وكتابة البيان الصحفي. يشرح المساق الفرق بين الفنون الصحفية الخبرية، وقواعد كتابة كل منها. كما يتناول القيم الخبرية المختلفة، ومصادر المعلومات، ويعرف بوكالات الأنباء المحلية والعربية والدولية، وقواعد واعتبارات التعامل مع أخبار وكالات الأنباء.

| الكتابة الصحفية (2):   |      |      | اسم المساق     |
|------------------------|------|------|----------------|
| PEJ223                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 2    | 2    |                |
| PEJ122                 |      |      | المتطلب السابق |
| متطلب تخصص إجباري      |      |      | نوع المساق     |

يتناول المساق أنواع متقدمة من الكتابة الصحفية، حيث يتناول الفنون الصحفية المختلفة التفسيرية والاستقصائية، ومواد الرأي. فيتعلم الطالب قواعد وأسس إجراء التحقيق الصحفي، وإجراء الحوارات والمقابلات الصحفية، ومواد الرأي بما يشتمل على الأنواع المختلفة من المقالات والأعمدة الصحفية، وكذلك كتابة التعليق على الصور وشرحها، كما يتعرف على أشكال الكتابة الوظيفية كفن الكاريكاتور ودوره وأهميته.

| التصوير الصحفي         |      |      | اسم المساق     |
|------------------------|------|------|----------------|
| PEJ224                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 4    | 1    |                |
| لا يوجد                |      |      | المتطلب السابق |
| متطلب تخصص إجباري      |      |      | نوع المساق     |

يتناول هذا المساق تعريف الطلبة بأسس التصوير الصحفي، مع التركيز على إنتاج مشروعات وتطبيقات صحفية مصورة، والتعرف على كيفية التعامل مع الموضوعات المهنية ذات الصلة باستخدام عناصر الصورة في التصوير الصحفي، والتأكيد على استيعاب الطالب لمفاهيم وأساليب وطرق التصوير الصحفي وزيادة قدرة الطالب على التحكم في أدواته الفنية والتقنية، بالإضافة إلى بحث ومناقشة الاتجاهات الحديثة في بحوث الصورة الصحفية.

| الترجمة الصحفية |  |  | اسم المساق |
|-----------------|--|--|------------|
| PEJ225          |  |  | رقم المساق |

|                |                   |      |                        |
|----------------|-------------------|------|------------------------|
| عدد الساعات    | نظري              | عملي | مجموع الساعات المعتمدة |
|                | 3                 | 0    | 3                      |
| المتطلب السابق | لا يوجد           |      |                        |
| نوع المساق     | متطلب تخصص إجباري |      |                        |

يتناول المساق قواعد وأساليب الترجمة الصحفية الاحترافية، للنصوص الصحفية المختلفة الإخبارية وغيرها. يتناول المساق الأساليب الفنية المستخدمة في الترجمة، والاختصارات الدولية المعتمدة والمتعارف عليها.

|                |                                     |      |                        |
|----------------|-------------------------------------|------|------------------------|
| اسم المساق     | (الإخراج الصحفي 1) (الأسس والمبادئ) |      |                        |
| رقم المساق     | PEJ226                              |      |                        |
| عدد الساعات    | نظري                                | عملي | مجموع الساعات المعتمدة |
|                | 1                                   | 4    | 3                      |
| المتطلب السابق | PEJ122                              |      |                        |
| نوع المساق     | متطلب تخصص إجباري                   |      |                        |

يتناول هذا المساق تعريف الإخراج الصحفي ووظائفه، والمفاهيم والأسس التي يقوم عليها الإخراج الصحفي، مع التركيز على العناصر التيبوغرافية والجغرافية الثابتة والمتغيرة التي تستخدمها المدارس الفنية المختلفة لإخراج الجرائد والمجلات، وأثر التقدم التقني على الإخراج والطباعة في الصحافة المعاصرة، ومكونات التصميم الأساسي في المطبوعات الصحفية. ومبادئ استخدام برمجيات النشر الصحفي المختلفة.

|                |                   |      |                        |
|----------------|-------------------|------|------------------------|
| اسم المساق     | صحافة الإنترنت    |      |                        |
| رقم المساق     | PEJ327            |      |                        |
| عدد الساعات    | نظري              | عملي | مجموع الساعات المعتمدة |
|                | 1                 | 4    | 3                      |
| المتطلب السابق | لا يوجد           |      |                        |
| نوع المساق     | متطلب تخصص إجباري |      |                        |

يتناول هذا المساق صحافة الإنترنت من حيث النشأة، والتطور، والخصائص، وأسس تصميم المواقع الصحفية، وخصائص وقواعد التحرير الصحفي لصحافة الإنترنت. والاتجاهات الحديثة في التحرير الصحفي الإلكتروني. كما يستعرض نماذج من صحافة الإنترنت العربية والأجنبية بأنواعها وأشكالها المختلفة.

|                |                   |      |                        |
|----------------|-------------------|------|------------------------|
| اسم المساق     | الصحافة المتخصصة  |      |                        |
| رقم المساق     | PEJ328            |      |                        |
| عدد الساعات    | نظري              | عملي | مجموع الساعات المعتمدة |
|                | 3                 | 0    | 3                      |
| المتطلب السابق | PEJ122            |      |                        |
| نوع المساق     | إجباري تخصص متطلب |      |                        |

يتناول هذا المساق نشأة وتطور الصحافة المتخصصة. ومجالات الصحافة المتخصصة وأهم ما يميزها بما يشمل خصائصها ووظائفها وأهميتها في المجتمع. كما يتناول أشكال الصحافة المتخصصة، وعدد من مجالات الصحافة المتخصصة مثل: الصحافة الفنية، والصحافة العلمية، والصحافة الاقتصادية. حيث يتعرض المساق بالتفصيل لقواعد الممارسة الصحفية في هذه المجالات التخصصية.

| التدريب الميداني في الصحافة المطبوعة والإلكترونية |      |      | اسم المساق     |
|---|------|------|----------------|
| PEJ429  |      |      | رقم المساق     |
| مجموع الساعات المعتمدة                            | عملي | نظري | عدد الساعات    |
| 3   | 6    | 0    |                |
| إنجاز 90 ساعة معتمدة                              |      |      | المتطلب السابق |
| متطلب تخصص إجباري                                 |      |      | نوع المساق     |

يتناول هذا المساق التدريب الميداني للطالب في إحدى المؤسسات الصحفية بغرض التطبيق العملي للأساليب والمعارف العلمية التي اكتسبها أثناء فترة دراسته بالجامعة.

| مشروع التخرج في الصحافة المطبوعة والإلكترونية |      |      | اسم المساق     |
|---|------|------|----------------|
| PEJ430  |      |      | رقم المساق     |
| مجموع الساعات المعتمدة                        | عملي | نظري | عدد الساعات    |
| 3   | 6    | 0    |                |
| إنجاز 105 ساعة معتمدة                         |      |      | المتطلب السابق |
| متطلب تخصص إجباري                             |      |      | نوع المساق     |

يهدف المساق الى الكشف عن المعارف والمهارات التي اكتسبها الطالب في المساقات المختلفة وقدرته على تطبيقها وممارستها من خلال إنتاج مواد صحفية مطبوعة وإلكترونية.

| الإخراج الصحفي 2 (الجريدة والمجلة ) |      |      | اسم المساق     |
|-------------------------------------|------|------|----------------|
| PEJ231                              |      |      | رقم المساق     |
| مجموع الساعات المعتمدة              | عملي | نظري | عدد الساعات    |
| 3                                   | 4    | 1    |                |
|                                     |      |      | المتطلب السابق |
| متطلب تخصص اختياري                  |      |      | نوع المساق     |

يتناول هذا المساق مفاهيم ومبادئ التصميم وإخراج الصحف (جرائد ومجلات) مع التركيز على العناصر التيبوغرافية والجرافيكية، والمدارس الفنية المختلفة لإخراج الصحف باستخدام برمجيات النشر الصحفي.

| Course Title           | Media Internet Uses |           |  |
|------------------------|---------------------|-----------|--|
| Course Number          | PEJ132              |           |  |
| Number of Credit Hours | Theory              | Practical |  |
|                        | 3                   | 0         |  |

|               |          |
|---------------|----------|
| Pre-Requisite | None     |
| Course Type   | Elective |

This course deals with the definition and origins of the Internet and its various applications such as the Web, and the development stages of the first generation through the second and up to the third generation. It also covers various media internet and networks uses and various social media applications, ranging from the stages of collecting, evaluating, and processing information up to the final stage of electronic publishing and the various factors, potentials and skills associated with these uses.

| النقد الأدبي والفني    |      |      | اسم المساق     |
|------------------------|------|------|----------------|
| PEJ233                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 0    | 3    |                |
| لا يوجد                |      |      | المتطلب السابق |
| متطلب تخصص اختياري     |      |      | نوع المساق     |

يتناول المساق مفهوم النقد في الإعلام مع التركيز على نقد الأعمال الفنية والأدبية. يتناول المساق قواعد وأسس التفكير التحليلي الناقد، ويركز على فنون وضوابط الكتابة الصحفية النقدية للمجالات الفنية والفكرية المختلفة، وأخلاقيات النقد الإعلامي.

| Course name                | Media Websites Design      |           |                    |
|----------------------------|----------------------------|-----------|--------------------|
| Course number              | PEJ334                     |           |                    |
| The number of credit hours | Theory                     | Practical | Credit Hours Total |
|                            | 1                          | 4         | 3                  |
| Prerequisite               | N/A                        |           |                    |
| Type of course             | Major optional requirement |           |                    |

This course covers the concepts and principles of media websites design where it covers the elements of the websites designs on the Internet, and the rules of its creation and design. It focuses on planning for building a media website and employing multimedia in the production and displaying of media content. The practical application is conducted by using the web design softwares like Adobe Dreamweaver

| إدارة الصحف المطبوعة والإلكترونية واقتصادياتها |      |      | اسم المساق     |
|--|------|------|----------------|
| PEJ235   |      |      | رقم المساق     |
| مجموع الساعات المعتمدة                         | عملي | نظري | عدد الساعات    |
| 3  | 0    | 3    |                |
| لا يوجد  |      |      | المتطلب السابق |
| متطلب تخصص اختياري                             |      |      | نوع المساق     |



يتناول المساق مفهوم الإدارة ونظرياتها، وأنواعها، وأششطتها وأساليب تنظيمها , وأثرها في متابعة تنفيذ برامج المؤسسات وتحقيق أهدافها، وخصوصية الإدارة الإعلامية في توجيه سياسة المؤسسات الإعلامية والمالية , وتقويم الإنتاج الإعلامي، وتطوير المؤسسات الإعلامية وربطها بالمجتمع، وذلك بالتركيز على نماذج المؤسسات الصحفية. كما يتناول موارد الصحيفة ومصروفاتها والإدارة العلمية الناجحة للمطابع والتوزيع والإعلان ومراكز المعلومات، وأثر التطور التقني في صناعة الصحافة على إدارة المؤسسات الصحفية مع عرض نماذج وتطبيقات لإدارة المؤسسات الصحفية الإماراتية والعربية.

| الصحافة الاستقصائية    |      |      | اسم المساق     |
|------------------------|------|------|----------------|
| PEJ336                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
|                        | 3    | 0    |                |
| لا يوجد                |      |      | المتطلب السابق |
| اختياري تخصص متطلب     |      |      | نوع المساق     |

يتناول المساق مفهوم الصحافة الاستقصائية وأهميتها، والأدوات والأساليب التي يستخدمها الصحفي لتطوير التحقيق الصحفي الاستقصائي، ومصادر المعلومات المختلفة التي يحتاج إليها، والقواعد التي يلتزم بها في الوصول للمعلومات، وفي التعامل مع المصادر الإعلامية المطلوبة لاستجلاء الحقيقة.

| الصحافة العربية والدولية |      |      | اسم المساق     |
|--------------------------|------|------|----------------|
| PEJ137                   |      |      | رقم المساق     |
| مجموع الساعات المعتمدة   | عملي | نظري | عدد الساعات    |
|                          | 3    | 0    |                |
| لا يوجد                  |      |      | المتطلب السابق |
| متطلب تخصص إجباري        |      |      | نوع المساق     |

يتناول نشأة الاعلام العربي وتطوره، والتعريف بالصحافة العربية والدولية، ويستعرض عددا من القضايا المتعلقة بها، والمشكلات الثقافية والقانونية والاجتماعية المرتبطة بالاعلام الدولي عامة، وقضايا الاعلام العربي المشترك. كما يستعرض النظام الاعلامي العالمي وتدفق الإعلام بين الدول المتقدمة والدول النامية فضلا عن دراسة أنماط الاتصال الدولي وتأثيرات العولمة في المجال الإعلامي.

## توصيفات مساقات تخصص الإذاعة والتلفزيون

| الإنتاج الإذاعي والتلفزيوني 1 |      |      | اسم المساق     |
|-------------------------------|------|------|----------------|
| RTV138                        |      |      | رقم المساق     |
| مجموع الساعات المعتمدة        | عملي | نظري | عدد الساعات    |
|                               | 3    | 4    |                |
| DER117                        |      |      | المتطلب السابق |
| متطلب تخصص إجباري             |      |      | نوع المساق     |

يتناول هذا المساق مفهوم الإنتاج الإذاعي والتلفزيوني، والأسس الفنية التي تقوم عليها عملية إنتاج البرامج الإذاعية والتلفزيونية، مثل تكوين الأستوديو الإذاعي والتلفزيوني، وطرق تشكيل الصوت الإذاعي والمؤثرات الصوتية، ومتعلقات التصوير والإضاءة التلفزيونية

والمؤثرات المرئية، وارتباطها بالأساليب الفنية لعملية المونتاج الإذاعي والتلفزيوني، والجوانب المعاصرة في إنتاج برامج الإذاعة والتلفزيون، كما يتناول المساق في جوانبه العملية تدريب الطلبة على تعلم مهارات الإخراج الإذاعي والتلفزيوني وبناء الرؤية الفنية.

| الإنتاج الإذاعي والتلفزيوني 2 |      |      | اسم المساق     |
|-------------------------------|------|------|----------------|
| RTV239                        |      |      | رقم المساق     |
| مجموع الساعات المعتمدة        | عملي | نظري | عدد الساعات    |
| 3                             | 4    | 1    |                |
| RTV138                        |      |      | المتطلب السابق |
| متطلب تخصص إجباري             |      |      | نوع المساق     |

يتناول هذا المساق مكونات وعناصر إنتاج برامج الإذاعة والتلفزيون، من الفكرة البرمجية الإذاعية والتلفزيونية، كتابة النص البرمجي الإذاعي والتلفزيوني، القوالب البرمجية الإذاعية والتلفزيونية، أنواع البرامج الإذاعية والتلفزيونية، مثل البرامج المباشرة، البرامج الحوارية، برامج المنوعات، خطوات إعداد وإنتاج البرامج الإذاعية، كما يتناول المساق في جوانبه العملية تدريب الطلبة كيفية عمل برامج إذاعية وتلفزيونية.

| الخبر الإذاعي والتلفزيوني |      |      | اسم المساق     |
|---------------------------|------|------|----------------|
| RTV240                    |      |      | رقم المساق     |
| مجموع الساعات المعتمدة    | عملي | نظري | عدد الساعات    |
| 3                         | 2    | 2    |                |
| لا يوجد                   |      |      | المتطلب السابق |
| متطلب تخصص إجباري         |      |      | نوع المساق     |

يتناول المساق التعريف بالخبر الإذاعي والتلفزيوني، مفهومه وخصائصه، وأنواعه ومصادره والعوامل المؤثرة على انتقائه، وكيفية كتابة الأخبار الإذاعية والتلفزيونية وإعداد النشرة الإخبارية وتقييمها. بالإضافة إلى خصائص الكتابة الإخبارية للإذاعة والتلفزيون كما يتناول المساق في جوانبه العملية التطبيقات المتعلقة بكتابة الأخبار الإذاعية والتلفزيونية.

| التقديم والإلقاء       |      |      | اسم المساق     |
|------------------------|------|------|----------------|
| RTV241                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 2    | 2    |                |
| لا يوجد                |      |      | المتطلب السابق |
| متطلب تخصص إجباري      |      |      | نوع المساق     |

يتناول المساق الإلقاء الإذاعي والتلفزيوني مفهومه ومقوماته وأنواعه، والصفات اللازم توفرها في من يجيد الإلقاء، وتطور علم الإلقاء وخصائص علمية الإلقاء الإذاعي والتلفزيوني، ويدرس المساق طرق الإلقاء مثل التشكيل الصوتي وعلاقته بالمؤثرات الصوتية والتلون والتمثيل والتطويع الصوتي، كما يهتم المساق في دراسته العملية بتدريب الطلبة على الإلقاء الإذاعي والتلفزيوني في مختلف البرامج.

| اسم المساق | البرامج والقنوات المتخصصة |
|------------|---------------------------|
|------------|---------------------------|

|                        |      |      |                |
|------------------------|------|------|----------------|
| ERV242                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 0    | 3    |                |
| لا يوجد                |      |      | المتطلب السابق |
| متطلب تخصص إجباري      |      |      | نوع المساق     |

يتناول هذا المساق مفهوم الإعلام المتخصص ونشأت القنوات والبرامج المتخصصة وأهميتها وأهدافها، كما يتناول المساق مجالات الإعلام المتخصص وأنواع القنوات والبرامج الإذاعية والتلفزيونية المتخصصة مثل القنوات والبرامج البيئية والصحية والسياحية وبرامج الأسرة والطفل وذوي الاحتياجات الخاصة وغيرها، بالإضافة إلى دراسة القنوات والبرامج المتخصصة ودورها في الإعلام الجديد ومستقبل المجتمعات.

|                        |      |      |                |
|------------------------|------|------|----------------|
| البرامج الوثائقية      |      |      | اسم المساق     |
| ERV343                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 2    | 2    |                |
| RTV138                 |      |      | المتطلب السابق |
| متطلب تخصص إجباري      |      |      | نوع المساق     |

يتناول المساق مفهوم البرامج الوثائقية وأنواعها وعناصر تكوينها، والتطور التاريخي للبرامج الوثائقية الإذاعية والتلفزيونية، والاتجاه الواقعي والخيالي في أفكار البرامج الوثائقية، وسيناريويها وطرق إنتاج الأفلام الوثائقية، كما يدرس المساق في جوانبه العملية التطبيقات على كيفية إنتاج بعض النماذج للبرامج الوثائقية الإذاعية والتلفزيونية في مختلف المجالات الاجتماعية والبيئية والعلمية والثقافية وغيرها.

|   |      |      |                |
|---|------|------|----------------|
| الإذاعة والتلفزيون في الحديثة الاتجاهات |      |      | اسم المساق     |
| RTV344                                  |      |      | رقم المساق     |
| مجموع الساعات المعتمدة                  | عملي | نظري | عدد الساعات    |
| 3                                       | 0    | 3    |                |
| لا يوجد                                 |      |      | المتطلب السابق |
| متطلب تخصص إجباري                       |      |      | نوع المساق     |

يتناول هذا المساق التطورات المتتالية والمستجدات الحديثة في مجال العمل الإذاعي والتلفزيوني؛ مفهومها، ومجالاتها، وأدواتها وتقنياتها، ومميزات عصر الاتصال الرقمي، ودور الاتصال الإلكتروني في هذا المجال. ويتناول المساق كل ما هو جديد على مستوى إعداد وإنتاج البرامج الإذاعية والتلفزيونية وكذلك تأثيرات الاتصال الإلكتروني على صناعة الإعلام الإذاعي والتلفزيوني. ويهتم المساق بنظم الاتصال الجديد ووسائله وعلاقتها بالعمل الإذاعي والتلفزيوني.

|  |      |      |             |
|--|------|------|-------------|
| التدريب الميداني في الإذاعة والتلفزيون |      |      | اسم المساق  |
| RTV445                                 |      |      | رقم المساق  |
| مجموع الساعات المعتمدة                 | عملي | نظري | عدد الساعات |
| 3                                      | 6    | 0    |             |

|                |                      |
|----------------|----------------------|
| المتطلب السابق | إنجاز 90 ساعة معتمدة |
| نوع المساق     | متطلب تخصص إجباري    |

يتناول هذا المساق التدريب الميداني للطلبة في إحدى المؤسسات في مجال الإذاعة والتلفزيون بغرض التطبيق العملي للأساليب والمعارف العلمية التي اكتسبوها.

|                |                                    |      |                        |
|----------------|------------------------------------|------|------------------------|
| اسم المساق     | مشروع التخرج في الإذاعة والتلفزيون |      |                        |
| رقم المساق     | RTV446                             |      |                        |
| عدد الساعات    | نظري                               | عملي | مجموع الساعات المعتمدة |
|                | 0                                  | 6    | 3                      |
| المتطلب السابق | إنجاز 105 ساعات معتمدة             |      |                        |
| نوع المساق     | متطلب تخصص إجباري                  |      |                        |

يتناول هذا المساق تطبيق الجوانب المعرفية التي اكتسبها الطلبة في مجال الإذاعة والتلفزيون خلال فترة الدراسة وتوظيف تلك المهارات والقدرات في إنجاز مشروع عملي في التخصص.

|                |                           |      |                        |
|----------------|---------------------------|------|------------------------|
| اسم المساق     | النقد الإذاعي والتلفزيوني |      |                        |
| رقم المساق     | RTV147                    |      |                        |
| عدد الساعات    | نظري                      | عملي | مجموع الساعات المعتمدة |
|                | 3                         | 0    | 3                      |
| المتطلب السابق | لا يوجد                   |      |                        |
| نوع المساق     | متطلب تخصص اختياري        |      |                        |

يتناول المساق مفهوم النقد الإذاعي والتلفزيوني، وأنواع النقد وأهميته وأثره في الممارسة الإعلامية، ونظريات النقد الفني وكيفية الإفادة منها في عملية النقد الإذاعي والتلفزيوني، ثم متطلبات النقد الإذاعي والتلفزيوني وأسس وأدواته ومراحله وصفات الناقد الإعلامي، كما يركز المساق على الجوانب التطبيقية في عملية النقد الإذاعي والتلفزيوني من خلال تدريب الطلبة على نقد وتقييم البرامج الإذاعية والتلفزيونية.

|                |                               |      |                        |
|----------------|-------------------------------|------|------------------------|
| اسم المساق     | الدراما الإذاعية والتلفزيونية |      |                        |
| رقم المساق     | RTV448                        |      |                        |
| عدد الساعات    | نظري                          | عملي | مجموع الساعات المعتمدة |
|                | 3                             | 0    | 3                      |
| المتطلب السابق | لا يوجد                       |      |                        |
| نوع المساق     | متطلب تخصص اختياري            |      |                        |

يتناول هذا المساق مفهوم الدراما الإذاعية والتلفزيونية، ونشأتها، وأشكالها ومضامينها، وعناصر البناء الدرامي، وخواص الحوار ورسم الشخصيات الدرامية، وأنواع البرامج الدرامية وخطوات إعدادها وإنتاجها وخصائص الصوت والصورة في العمل الدرامي الإذاعي والتلفزيوني، كما يدرس المساق في جوانبه العملية تنفيذ مجموعة من الأعمال الدرامية.

| الإعلان الإذاعي والتلفزيوني |      |      | اسم المساق     |
|-----------------------------|------|------|----------------|
| RTV249                      |      |      | رقم المساق     |
| مجموع الساعات المعتمدة      | عملي | نظري | عدد الساعات    |
| 3                           | 2    | 2    |                |
| لا يوجد                     |      |      | المتطلب السابق |
| متطلب تخصص اختياري          |      |      | نوع المساق     |

يتناول هذا المساق مفهوم الإعلان الإذاعي والتلفزيوني من حيث وضع الأفكار الإعلانية وكتابة نصوصها وتطبيقات إنتاج الإعلان الإذاعي والتلفزيوني، كما يتناول علاقة الإعلان بالتحويلات التي أحدثتها التكنولوجيا الذكية من خلال استخدام الوسائط المتعددة في إنتاج الإعلان الإذاعي والتلفزيوني، ويتناول في جوانبه العملية تدريب الطلبة على كيفية إعداد وإنتاج الإعلانات الإذاعية والتلفزيونية.

| الصحافة التلفزيونية    |      |      | اسم المساق     |
|------------------------|------|------|----------------|
| RTV350                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 0    | 3    |                |
| لا يوجد                |      |      | المتطلب السابق |
| متطلب تخصص اختياري     |      |      | نوع المساق     |

يتناول هذا المساق مفهوم الصحافة التلفزيونية، والفرق بينها وبين الصحافة المكتوبة، وأسس وعناصر ومجالات العمل الصحفي في التلفزيون، كما يركز المساق على دراسة مهارات وخصائص الصحفي في القنوات الفضائية، وطبيعة المواد الصحفية التلفزيونية وأنواع برامج الصحافة التلفزيونية كالتقارير الإخبارية والحوارية والاستقصائية، بالإضافة إلى المراسلين الصحفيين في مجال التلفزيون.

| تخطيط البرامج والحملات في الإذاعة والتلفزيون |      |      | اسم المساق     |
|--|------|------|----------------|
| RTV451                                       |      |      | رقم المساق     |
| مجموع الساعات المعتمدة                       | عملي | نظري | عدد الساعات    |
| 3  | 0    | 3    |                |
| لا يوجد                                      |      |      | المتطلب السابق |
| متطلب تخصص اختياري                           |      |      | نوع المساق     |

يتناول هذا المساق مفهوم تخطيط البرامج الإذاعية والتلفزيونية بشكل خاص والتخطيط الإذاعي والتلفزيوني بشكل عام من حيث، مقوماته، وخصائصه، وأنواعه، ومراحله، وواقع التخطيط في المحطات الإذاعية والقنوات الفضائية العربية، بالإضافة إلى تخطيط الحملات البرمجية الإذاعية والتلفزيونية وأسس إعداد وإنتاج المواد والبرامج الإذاعية والتلفزيونية للحملات الإذاعية والتلفزيونية، وأثر الإعلام الجديد على واقع التخطيط للحملات الإذاعية والتلفزيونية.

| Course name         | Online Radio and TV Broadcasting |           |                    |
|---------------------|----------------------------------|-----------|--------------------|
| Course number       | RTV352                           |           |                    |
| The number of hours | Theory                           | Practical | Total credit hours |
|                     | 3                                | 0         | 3                  |
| Prerequisite        | N/A                              |           |                    |
| Type of course      | Major optional requirement       |           |                    |

This course deals with the concept of broadcasting and television over the Internet, in contrast to the traditional broadcasting and television, the evolution of radio and television broadcasting, and the foundations and components of radio and television broadcasting and its frequencies online, the characteristics and requirements of both online radio and online TV, as well as the nature and methods and requirements for preparing and producing programs transmitted online, in addition to that is the relationship between the radio and television broadcasting online and other smart media devices.

| Course name         | Special Topic in Radio and TV |           |                    |
|---------------------|-------------------------------|-----------|--------------------|
| Course number       | RTV453                        |           |                    |
| The number of hours | Theory                        | Practical | Total credit hours |
|                     | 3                             | 0         | 3                  |
| Prerequisite        | N/A                           |           |                    |
| Type of course      | Major optional requirement    |           |                    |

This course deals with the important issues that are addressed in the area of radio and television work, and issues that arise in the field of radio and television. The themes of the course are determined according to the nature of the topics that are taught.

| مهارات الاتصال الفعال  |      |      | اسم المساق     |
|------------------------|------|------|----------------|
| RTV254                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
|                        | 3    | 0    |                |
| لا يوجد                |      |      | المتطلب السابق |
| متطلب تخصص اختياري     |      |      | نوع المساق     |

يتناول المساق مفهوم الاتصال وأنواعه وأشكاله واتجاهاته، مفهوم الاتصال الفعال وسماته وعناصره، مهارات الاتصال الفعال: اللفظي كمهارات الحديث والحوار، الاستماع، الإلقاء، التفاوض واحتواء الاعتراضات، كتابة التقارير. وكذلك مهارات الاتصال غير اللفظي، كما يناقش أنماط الأشخاص المختلفة ومهارات التعامل معهم ومع ذوي الطباع الصعبة.

## توصيفات مساقات تخصص العلاقات العامة والإعلان

| اسم المساق | إدارة العلاقات العامة والإعلان |
|------------|--------------------------------|
|------------|--------------------------------|

|                        |      |      |                |
|------------------------|------|------|----------------|
| PRA155                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 0    | 3    |                |
| DER118                 |      |      | المتطلب السابق |
| متطلب تخصص إجباري      |      |      | نوع المساق     |

يتناول هذا المساق مفهوم وأهمية التنظيم في عمل العلاقات العامة، موقع إدارة العلاقات العامة في الهيكل التنظيمي للمؤسسات والتنظيم الداخلي لها، أساليب تنفيذ أنشطة العلاقات العامة، السمات والمؤهلات الواجب توافرها بالمدرء والعاملين بالعلاقات العامة، أسس ومراحل تخطيط برامج العلاقات العامة. كما يناقش مفهوم وعناصر النشاط الإعلاني والمتغيرات المؤثرة عليه، التنظيم الداخلي لإدارة الإعلان ووظائفها لدى المعلن، أنواع ووظائف الوكالات الإعلانية والتنظيم الإداري لها والقواعد والقوانين التي تحكم عملها.

|                        |      |      |                |
|------------------------|------|------|----------------|
| استراتيجيات الإعلان    |      |      | اسم المساق     |
| PRA256                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 0    | 3    |                |
| DER118                 |      |      | المتطلب السابق |
| متطلب تخصص إجباري      |      |      | نوع المساق     |

يتناول هذا المساق التعريف مفهوم الاستراتيجية الإعلانية وعناصرها ومجالاتها وأهدافها، أنواع الاستراتيجيات الإعلانية والعوامل المؤثرة في تخطيطها ونجاحها، الاستراتيجيات الإعلانية وعلاقتها بدراسة سلوك المستهلك. كما يناقش الاستراتيجيات الإبداعية في الإعلان ودورها في إدارة العلامة التجارية، استراتيجيات الإعلان الدولي وأنواعها وأساليب تخطيطها، وأخيراً مناقشة حالات تطبيقية لبعض الإعلانات وتحليلها.

|                        |      |      |                |
|------------------------|------|------|----------------|
| البروتوكول والإتيكيت   |      |      | اسم المساق     |
| PRA257                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 2    | 2    |                |
| لا يوجد                |      |      | المتطلب السابق |
| متطلب تخصص إجباري      |      |      | نوع المساق     |

يتناول هذا المساق مفهوم البروتوكول والمراسم، مفهوم الهندسة الدبلوماسية، بروتوكول الزيارات والحفلات والولائم الرسمية، قواعد الأسيقية، مراسم المؤتمرات والاجتماعات الدولية، مراسم رفع الأعلام والمراسلات ومنح الأنواط والأوسمة. كما يناقش مفهوم الإتيكيت، إتيكيت التعامل الاجتماعي غير الرسمي (المجاملة - التعارف - المصافحة - الدعوة والزيارة - تقديم الهدايا، الحديث - الملابس) إتيكيت الولائم والحفلات غير الرسمية، إتيكيت الاجتماعات والمقابلات.

| الاتصالات التسويقية المتكاملة |      |      | اسم المساق     |
|-------------------------------|------|------|----------------|
| PRA258                        |      |      | رقم المساق     |
| مجموع الساعات المعتمدة        | عملي | نظري | عدد الساعات    |
| 3                             | 0    | 3    |                |
| DER118                        |      |      | المتطلب السابق |
| متطلب تخصص إجباري             |      |      | نوع المساق     |

يتناول هذا المساق مدخل الاتصالات التسويقية المتكاملة (المفهوم – التعريفات - الملامح والأبعاد- الأهمية – الوظائف – قواعد الاستخدام - المعوقات)، الاتصالات التسويقية ودراسة سلوك المستهلك، استراتيجيات وعناصر الاتصالات التسويقية المختلفة (العلاقات العامة التسويقية والتفاعلية- الرعاية- البيع الشخصي – تنشيط المبيعات- التسويق المباشر – إدارة علاقات العملاء...) ودورها في تحقيق الوظيفة الاتصالية والتسويقية للشركات والمؤسسات.

| الكتابة للعلاقات العامة والإعلان |      |      | اسم المساق     |
|----------------------------------|------|------|----------------|
| PRA259                           |      |      | رقم المساق     |
| مجموع الساعات المعتمدة           | عملي | نظري | عدد الساعات    |
| 3                                | 2    | 2    |                |
| لا يوجد                          |      |      | المتطلب السابق |
| متطلب تخصص إجباري                |      |      | نوع المساق     |

يتناول المساق مفهوم الكتابة للعلاقات العامة وأهميتها، أشكال الكتابة للعلاقات العامة والفرق بينها وبين فنون الكتابة الأخرى، السمات والمهارات اللازمة لكاتب العلاقات العامة وكيفية تنميتها، خصائص الأسلوب الكتابي للعلاقات العامة، قواعد الكتابة المتخصصة للعلاقات العامة في مختلف الوسائل الإعلامية، الكتابة للإعلان: المفهوم – الأهداف – السمات، الوظائف الأساسية للنص الإعلاني، السمات والمهارات اللازمة لكاتب النصوص الإعلانية، قواعد وأساليب كتابة النص الإعلاني في وسائل الإعلام المختلفة.

| إنتاج مواد العلاقات العامة |      |      | اسم المساق     |
|----------------------------|------|------|----------------|
| PRA360                     |      |      | رقم المساق     |
| مجموع الساعات المعتمدة     | عملي | نظري | عدد الساعات    |
| 3                          | 2    | 2    |                |
| PRA259                     |      |      | المتطلب السابق |
| متطلب تخصص إجباري          |      |      | نوع المساق     |

يتناول المساق مختلف جوانب عملية إعداد وإنتاج مواد العلاقات العامة كالكتيبات، النشرات الصحفية، المطويات، الملصقات، إخراج الصور الفوتوغرافية والتعليق عليها، المواد السمعية والبصرية. وكذلك المراحل الفنية والإنتاجية للمواد الإعلامية المختلفة المطبوعة والمسموعة والمرئية، ومدى تأثير التطور التكنولوجي عليها، كما يتناول الجوانب القانونية الواجب مراعاتها عند إنتاج المواد الإعلامية.



| والإعلانية تخطيط الحملات الإعلامية |      |      | اسم المساق     |
|------------------------------------|------|------|----------------|
| PRA361                             |      |      | رقم المساق     |
| مجموع الساعات المعتمدة             | عملي | نظري | عدد الساعات    |
| 3                                  | 0    | 3    |                |
| DER118                             |      |      | المتطلب السابق |
| متطلب تخصص إجباري                  |      |      | نوع المساق     |

يتناول هذا المساق مفهوم وأسس وعناصر ومعايير التخطيط الإعلاني، مفهوم الحملة الإعلامية والإعلانية وأنواعها، عناصر الحملة الإعلامية والإعلانية وسماتها وأسس تخطيطها، مراحل تخطيط الحملة الإعلامية والإعلانية بداية من تحديد موضوع الحملة حتى جدولتها وتنفيذها وتقييمها. بالإضافة لعرض نماذج تطبيقية لبعض الحملات الإعلامية والإعلانية ومناقشتها وتحليلها.

| التدريب الميداني في العلاقات العامة والإعلان |      |      | اسم المساق     |
|--|------|------|----------------|
| PRA462                                       |      |      | رقم المساق     |
| مجموع الساعات المعتمدة                       | عملي | نظري | عدد الساعات    |
| 3  | 6    | 0    |                |
| إنجاز 90 ساعة معتمدة                         |      |      | المتطلب السابق |
| متطلب تخصص إجباري                            |      |      | نوع المساق     |

يتناول هذا المساق التدريب الميداني للطلبة في إحدى المؤسسات في مجال العلاقات العامة والإعلان بغرض التطبيق العملي للأساليب والمعارف العلمية التي اكتسبوها.

| مشروع التخرج في العلاقات العامة والإعلان |      |      | اسم المساق     |
|--|------|------|----------------|
| PRA463                                   |      |      | رقم المساق     |
| مجموع الساعات المعتمدة                   | عملي | نظري | عدد الساعات    |
| 3  | 6    | 0    |                |
| إنجاز 105 ساعات معتمدة                   |      |      | المتطلب السابق |
| متطلب تخصص إجباري                        |      |      | نوع المساق     |

يتناول هذا المساق تطبيق الجوانب المعرفية التي اكتسبها الطلبة في مجال العلاقات العامة والإعلان خلال فترة الدراسة وتوظيف تلك المهارات والقدرات في إنجاز مشروع عملي في التخصص.

| الاتصال المؤسسي        |      |      | اسم المساق     |
|------------------------|------|------|----------------|
| PRA264                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 0    | 3    |                |
| لا يوجد                |      |      | المتطلب السابق |
| متطلب تخصص اختياري     |      |      | نوع المساق     |

يتناول هذا المساق دراسة الاتصال المؤسسي داخل منظمات الأعمال من حيث المفاهيم والعمليات الأساسية والأهداف، تكامل الاتصالات المؤسسية الداخلية والخارجية، الاتصالات المؤسسية الإلكترونية وتطبيقات نظم إدارتها. كما يتناول تأثير اختلافات النظريات والنظم الإدارية على الاتصالات المؤسسية، بالإضافة إلى أنماط القيادات الإدارية والنمط الاتصالي الفعال، وكذلك اتصالات إدارة النزاعات والخلافات المؤسسية وكيفية استخدام استراتيجيات حل النزاعات في المؤسسات المعاصرة.

| الأزمة اتصالات         |      |      | اسم المساق     |
|------------------------|------|------|----------------|
| PRA265                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 0    | 3    |                |
| لا يوجد                |      |      | المتطلب السابق |
| متطلب تخصص اختياري     |      |      | نوع المساق     |

يتناول هذا المساق موضوع اتصالات الأزمة (المفهوم - التعريفات - الفرق بين اتصالات الأزمة وإدارة الأزمة والمفاهيم الأخرى ذات الصلة) الاستراتيجيات الاتصالية للاستجابة أوقات الأزمات - سمات اتصالات الأزمة الفعالة - نظرية اتصالات الأزمة الموقفية - دورة حياة اتصالات الأزمة - فاعلية اتصالات الأزمة في حماية سمعة المنظمات. نماذج تطبيقية لشركات واجهت أزمات متنوعة للتعرف على كيفية استجابتهم لتلك الأزمات وأهم الاستراتيجيات الاتصالية التي تم استخدامها.

| Course name                | Online Public Relations and Advertising |           |                    |
|----------------------------|---|-----------|--------------------|
| Course number              | PRA366                                  |           |                    |
| The number of credit hours | Theory                                  | Practical | Credit Hours Total |
|                            | 3                                       |           | 3                  |
| Prerequisite               | N/A                                     |           |                    |
| Type of course             | Obligatory elective requirement         |           |                    |

This course covers:

Public Relations and Online Advertising (concept - importance - goals - target audiences), and the functions of public relations on the Internet, the advantages offered by the Internet for practitioners of public relations, Internet use in public relations and corporate communications, recent trends in Public Relations research via the Internet, the ethics of the practices of public relations over the Internet. Online advertising (concept - origination - importance - goals - target audiences - Features - negatives), forms of online advertising, advertising message over the Internet, advertising on social networks, discussing and analyzing models of the practices of public relations and online advertising.

| Course name                | Applied Public Relations   |           |                    |
|----------------------------|----------------------------|-----------|--------------------|
| Course number              | PRA367                     |           |                    |
| The number of credit hours | Theory                     | Practical | Credit hours total |
|                            | 3                          | 0         | 3                  |
| Prerequisite               | N/A                        |           |                    |
| Type of course             | Major optional requirement |           |                    |

The course deals with the definition of modern public relations strategies, tools, applications, knowledge of the types and areas of sponsorship and their application in different institutions, how to develop and implement social responsibility programs which aim at consolidating reputation and building mental image for institutions, as well as empirical study cases of sponsorship programs and social responsibility within the government and private institutions.

| تنظيم الفعاليات والأحداث الخاصة |      |      | اسم المساق     |
|---------------------------------|------|------|----------------|
| PRA268                          |      |      | رقم المساق     |
| مجموع الساعات المعتمدة          | عملي | نظري | عدد الساعات    |
|                                 | 3    | 0    |                |
| لا يوجد                         |      |      | المتطلب السابق |
| متطلب تخصص اختياري              |      |      | نوع المساق     |

يتناول هذا المساق تعريف أنشطة وفعاليات العلاقات العامة، تخطيط الأنشطة والفعاليات، أنواع الأنشطة كالمؤتمرات والندوات، الاجتماعات، اللقاءات والأيام المفتوحة، الجولات الميدانية، الأحداث الخاصة، دور هذه الأنشطة في تنمية وتطوير العلاقات مع المجتمع، كيفية تطوير المؤسسات لعلاقاتها مع الإعلاميين ووسائل الإعلام المختلفة لترويج الأنشطة والفعاليات التي تنظمها، وأخيراً نماذج وتطبيقات عملية.

| الإعلان في الإذاعة والتلفزيون |      |      | اسم المساق     |
|-------------------------------|------|------|----------------|
| RTV249                        |      |      | رقم المساق     |
| مجموع الساعات المعتمدة        | عملي | نظري | عدد الساعات    |
|                               | 3    | 2    |                |
| لا يوجد                       |      |      | المتطلب السابق |
| متطلب تخصص اختياري            |      |      | نوع المساق     |

يتناول هذا المساق مفهوم الإعلان الإذاعي والتلفزيوني من حيث وضع الافكار الإعلانية وكتابة نصوصها وتطبيقات إنتاج الإعلان الإذاعي والتلفزيوني، كما يتناول علاقة الإعلان بالتحويلات التي أحدثتها التكنولوجيا الذكية من خلال استخدام الوسائط المتعددة في إنتاج الإعلان الإذاعي والتلفزيوني، ويتناول في جوانبه العملية تدريب الطلبة على كيفية إعداد وإنتاج الإعلانات الإذاعية والتلفزيونية.

| الجغرافيا لوسائل الإعلام المطبوعة |      |      | اسم المساق  |
|-----------------------------------|------|------|-------------|
| GRD272                            |      |      | رقم المساق  |
| مجموع الساعات المعتمدة            | عملي | نظري | عدد الساعات |
|                                   |      |      |             |

|                   |   |   |                |
|-------------------|---|---|----------------|
| 3                 | 4 | 1 |                |
| لا يوجد           |   |   | المتطلب السابق |
| متطلب تخصص إجباري |   |   | نوع المساق     |

يتناول هذا المساق التصميم الجرافيكي لوسائل الإعلام المطبوعة مثل الإعلان مفهومه وأسس تصميمه من حيث البناء، واختيار الرسالة الإعلانية، ووسائل نشر الإعلان. والمواد المستخدمة في تصميم الإعلان، وأسس التخطيط للحملات الإعلانية. وتصميم الشعار والكرت الشخصي وورق المكاتب والأظرف والمطوية وحافظة الأوراق والملصقات وإعلان الإنترنت وإعلان الجريدة.

## توصيفات مساقات تخصص التصميم الجرافيكي

| مبادئ الرسم            |      |      | اسم المساق     |
|------------------------|------|------|----------------|
| GRD169                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 4    | 1    |                |
| DER119                 |      |      | المتطلب السابق |
| متطلب تخصص إجباري      |      |      | نوع المساق     |

يتناول المساق تعريف الحقائق البصرية ودورها في نقل الواقع كما هو، والتأكيد على أهمية ممارسة الرسم كمهارة للمصمم تضيء التطبيقات الرقمية، ودور الرسم في التعبير عن المضمون، مع الإلمام بالقيم والعناصر التصميمية، وعرض شامل لكل التقنيات المستخدمة في فن الرسم.

| نظريات الواقع الافتراضي والتصميم ثلاثي الأبعاد |      |      | اسم المساق  |
|--|------|------|-------------|
| GRD270   |      |      | رقم المساق  |
| مجموع الساعات المعتمدة                         | عملي | نظري | عدد الساعات |
| 3  | 2    | 2    |             |
| DER119   |      |      |             |
| متطلب تخصص إجباري                              |      |      |             |

يتناول هذا المساق المفاهيم الأساسية والنظريات المتخصصة في الواقع الافتراضي والتصور الحقيقي له في الفراغ. حيث يتناول نظرية التصميم ثلاثي الأبعاد والنشاط التصميمي وجوانبه بصفة عامة في ضوء استخدام تقنيات الكمبيوتر وبرامج التصميم والحركة ثلاثية الأبعاد على اختلاف مستوياتها وبناء الأشكال المجسمة ببرامج الكمبيوتر وعلاقات اللون والملمس وغيرها من عوامل التصميم والإخراج المتنوعة.

| تصميم العلامة التجارية والشعار |      |      | اسم المساق  |
|--------------------------------|------|------|-------------|
| GRD271                         |      |      | رقم المساق  |
| مجموع الساعات المعتمدة         | عملي | نظري | عدد الساعات |
| 3                              | 4    | 1    |             |

|                   |                |
|-------------------|----------------|
| GRD169            | المتطلب السابق |
| متطلب تخصص إجباري | نوع المساق     |

يتناول هذا المساق مفاهيم ومبادئ تصميم العلامة التجارية والشعار مع التركيز على العناصر التيبوغرافية والجغرافية، والمدارس الفنية لتصميم الشعار والعلامة التجارية وعلم الدلالات والرموز في عملية الإبداع عبر العصور الزمنية المختلفة وتطورها،

| الجغرافيا لوسائل الإعلام المطبوعة |      |      | اسم المساق     |
|-----------------------------------|------|------|----------------|
| GRD272                            |      |      | رقم المساق     |
| مجموع الساعات المعتمدة            | عملي | نظري | عدد الساعات    |
| 3                                 | 4    | 1    |                |
| GRD271                            |      |      | المتطلب السابق |
| متطلب تخصص إجباري                 |      |      | نوع المساق     |

يتناول هذا المساق التصميم الجغرافي لوسائل الإعلام المطبوعة مثل الإعلان مفهومه وأسس تصميمه من حيث البناء، واختيار الرسالة الإعلانية، ووسائل نشر الإعلان. والمواد المستخدمة في تصميم الإعلان، وأسس التخطيط للحملات الإعلانية. وتصميم الشعار والكرات الشخصي وورق المكاتب والأظرف والمطوية وحافظة الأوراق والملصقات وإعلان الإنترنت وإعلان الجريدة.

| تصميم الوسائط التفاعلية |      |      | اسم المساق     |
|-------------------------|------|------|----------------|
| GRD273                  |      |      | رقم المساق     |
| مجموع الساعات المعتمدة  | عملي | نظري | عدد الساعات    |
| 3                       | 4    | 1    |                |
| DER119                  |      |      | المتطلب السابق |
| متطلب تخصص إجباري       |      |      | نوع المساق     |

يتناول هذا المساق دراسة مفهوم الوسائط المتعددة بصفتها مجموعة من المكونات الهادفة إلى إنتاج مضمون إعلامي تفاعلي ومتكامل حيث يتناول مواضيع التفاعل بين الكمبيوتر والمستخدم، أنماط تفاعل، ومراحل التصميم التفاعلي، كما يتدرب الطالب على استخدام برمجيات التصميم لإنتاج مشروع وسائط متعددة تفاعلي.

| المواقع الاجتماعية والتطبيقات الذكية |      |      | اسم المساق     |
|--------------------------------------|------|------|----------------|
| GRD374                               |      |      | رقم المساق     |
| مجموع الساعات المعتمدة               | عملي | نظري | عدد الساعات    |
| 3                                    | 2    | 2    |                |
| GRD273                               |      |      | المتطلب السابق |
| متطلب تخصص إجباري                    |      |      | نوع المساق     |

يتناول هذا المساق مفاهيم ومبادئ تصميم كل من المواقع الإلكترونية والتطبيقات الذكية المتخصصة في مجال المواقع الاجتماعية، والتي يتم تصميمها وإنشائها على شبكة الإنترنت وعلى الهواتف الذكية النقالة (الموبايل)، ويتم التطبيق العملي باستخدام برامج الكمبيوتر في تصميم وإنشاء المواقع الاجتماعية وتطبيقاتها.

| الرسوم المعلوماتية     |      |      | اسم المساق     |
|------------------------|------|------|----------------|
| GRD375                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 2    | 2    |                |
| GRD169                 |      |      | المتطلب السابق |
| متطلب تخصص إجباري      |      |      | نوع المساق     |

يتناول هذا المساق مفاهيم ومبادئ الرسوم المعلوماتية وطرق تصميمها وإنتاجها، حيث يتناول أنواع الرسومات المعلوماتية واستخداماتها المختلفة، مراحل إنتاجها، التفكير والاتصال البصري، تعريف الرسم والعمل الفني، وطرق التصور البصري وخاصة الرسوم الساخرة، الرسوم التوضيحية، الرسوم البيانية.

| التدريب الميداني في التصميم الجرافيكي |      |      | اسم المساق     |
|---------------------------------------|------|------|----------------|
| GRD476                                |      |      | رقم المساق     |
| مجموع الساعات المعتمدة                | عملي | نظري | عدد الساعات    |
| 3                                     | 6    | 0    |                |
| إنجاز 90 ساعة معتمدة                  |      |      | المتطلب السابق |
| متطلب تخصص إجباري                     |      |      | نوع المساق     |

يتناول هذا المساق التدريب الميداني للطالب في إحدى المؤسسات أو الأقسام المتخصصة في التصميم الجرافيكي بغرض التطبيق العملي للأساليب والمعارف العملية التي اكتسبها خلال دراسته وذلك لتطوير مهاراته المهنية لتأهيله لسوق العمل لاحقاً.

| مشروع التخرج في التصميم الجرافيكي |      |      | اسم المساق     |
|-----------------------------------|------|------|----------------|
| GRD477                            |      |      | رقم المساق     |
| مجموع الساعات المعتمدة            | عملي | نظري | عدد الساعات    |
| 3                                 | 6    | 0    |                |
| إنجاز 105 ساعات معتمدة            |      |      | المتطلب السابق |
| متطلب تخصص إجباري                 |      |      | نوع المساق     |

يتناول هذا المساق تطبيق الجوانب المعرفية التي تمكن الطالب من إنجاز مشروع التخرج في تخصص التصميم الجرافيكي، بحيث يستخدم المهارات التي اكتسبها خلال فترة الدراسة ليقدم مشروعاً تطبيقياً، يعد وينتج مادة مطبوعة ورقمية.

| الرسوم المتحركة        |      |      | اسم المساق     |
|------------------------|------|------|----------------|
| GRD378                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 4    | 1    |                |
| لا يوجد                |      |      | المتطلب السابق |
| متطلب تخصص اختياري     |      |      | نوع المساق     |

تعريف الطلبة بالمبادئ الأساسية للرسوم المتحركة، أدوات اعداد أفلام الرسوم المتحركة، عناصر فن الرسوم المتحركة، خطوات رسم الشخصيات الكرتونية، الهيكل الدرامي لأفلام الرسوم المتحركة، مراحل إنتاج فيلم الرسوم المتحركة، وأسس تحريك الشخصيات الكرتونية. مع التطبيق على برمجيات إنتاج الرسوم المتحركة مثل Adobe Flash أو غيرها من برمجيات.

| Course name         | Special Topic in Graphic Design |           |                    |
|---------------------|---------------------------------|-----------|--------------------|
| Course number       | GRD479                          |           |                    |
| The number of hours | Theory                          | Practical | Total credit hours |
|                     | 2                               | 2         | 2                  |
| Prerequisite        | N/A                             |           |                    |
| Type of course      | Major optional requirement      |           |                    |

- This course covers the latest developments and issues of graphic design in all areas. The selected topics deal with technical and artistic developments and innovations in the world of graphic design. The topics are also chosen from the concerns of the academic and scientific community in the field of graphic design.

| نظرية اللون وتطبيقاتها |      |      | اسم المساق     |
|------------------------|------|------|----------------|
| GRD180                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 2    | 2    |                |
| لا يوجد                |      |      | المتطلب السابق |
| متطلب تخصص اختياري     |      |      | نوع المساق     |

يتناول هذا المساق دراسة المبادئ والمفاهيم الرئيسية للون، ودراسة نظرية اللون بصفتها أحد العناصر الرئيسية لعملية التصميم، وأهمية الثقافة اللونية للمصمم، ودراسة التدريبات العملية لتقنيات اللون وتوظيفها في العمل الفني الجرافيكي، بالاستخدام المباشر للون أو باستخدام برمجيات التصميم .

| التصميم والتغليف       |      |      | اسم المساق     |
|------------------------|------|------|----------------|
| GRD481                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 2    | 2    |                |
| لا يوجد                |      |      | المتطلب السابق |
| متطلب تخصص اختياري     |      |      | نوع المساق     |

يتناول هذا المساق أهمية التغليف ووظيفته ومستويات وأنواع التغليف وطرق التصميم والأفكار المختلفة في تغليف المنتجات وتأثير عناصر مثل اللون، الملمس في الشكل الخارجي وكذلك الخامات المتنوعة المستخدمة لإعداد العبوات والبعد الاقتصادي والتكنولوجي في التغليف.

| Course Title           | Techniques & Materials |           |  |
|------------------------|------------------------|-----------|--|
| Course Number          | GRD482                 |           |  |
| Number of Credit Hours | Theory                 | Practical |  |
|                        | 2                      | 2         |  |
| Pre-Requisite          | None                   |           |  |
| Course Type            | Elective               |           |  |

Techniques and Materials course covers various ways of print media publications: traditional and modern. It also covers raw materials and inks used in printing and in various applications. The course includes a brief study of the designing ways for each of the printed forms. It ends up with training students how to calculate the cost samples of some print media products.

| التصميم الجرافيكي للكتابات "تبيوغرافي" |      |      | اسم المساق     |
|--|------|------|----------------|
| GRD283                                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة                 | عملي | نظري | عدد الساعات    |
| 3                                      | 2    | 2    |                |
| لا يوجد                                |      |      | المتطلب السابق |
| متطلب تخصص اختياري                     |      |      | نوع المساق     |

يتعرف الطالب في هذا المساق إلى تطور الحروف الطباعية وأنواعها وتطبيقاتها المختلفة ومبادئ تصميمها وتقنياتها وأساليب استخداماتها وذلك من خلال المفاهيم النظرية وتطبيقاتها في عدة تمارين.

| الجرافيك لوسائل الإعلام المرئية |      |      | اسم المساق     |
|---------------------------------|------|------|----------------|
| GRD384                          |      |      | رقم المساق     |
| مجموع الساعات المعتمدة          | عملي | نظري | عدد الساعات    |
| 3                               | 4    | 1    |                |
| لا يوجد                         |      |      | المتطلب السابق |
| متطلب تخصص اختياري              |      |      | نوع المساق     |

يتناول هذا المساق مفاهيم ومبادئ التصميم الجرافيكي للأعمال المرئية لهويات القنوات التلفزيونية من حيث الشكل والمضمون وعلاقتها بالرسالة الإعلامية، التي تمكن الطالب من تنمية التفكير البصري وعلاقته بتحليل الصورة وإنتاج تصميمات لوسائل الاعلام المرئية في القنوات التلفزيونية والإنترنت.



| الإخراج الصحفي 2 (الجريدة والمجلة) |      |      | اسم المساق     |
|------------------------------------|------|------|----------------|
| PEJ231                             |      |      | رقم المساق     |
| مجموع الساعات المعتمدة             | عملي | نظري | عدد الساعات    |
| 3                                  | 2    | 2    |                |
| لا يوجد                            |      |      | المتطلب السابق |
| متطلب تخصص اختياري                 |      |      | نوع المساق     |

يتناول هذا المساق مفاهيم ومبادئ تصميم وإخراج المجلات والصحف مع التركيز على العناصر التيبوغرافية والجرافيكية التي تمكن الطالب من الالمام بطرق الإخراج الصحفي، باستخدام برمجيات النشر الصحفي، ودراسة المحددات النفسية والصحفية والفنية لتصميم الصحف والمجلات.



مصفوفة ربط المخرجات التعليمية للبرنامج

بعناصر منظومة المؤهلات في دولة الإمارات العربية المتحدة (QF Emirates)

مصفوفة ربط المخرجات التعليمية للبرنامج  
بعناصر منظومة المؤهلات في دولة الإمارات العربية المتحدة (QF Emirates)

| أوجه<br>الاستقلالية والمسؤولية<br>Autonomy and<br>Responsibility |   |   |   | المهارة<br>Skill |   |   |   | المعرفة<br>Knowledge |   |   |   |   | منظومة المؤهلات<br>QF Emirates |
|--|---|---|---|------------------|---|---|---|----------------------|---|---|---|---|--------------------------------|
| 4  | 3 | 2 | 1 | 4                | 3 | 2 | 1 | 5                    | 4 | 3 | 2 | 1 | المخرجات التعليمية للبرنامج    |
|  |   |   |   |                  |   |   |   |                      |   |   |   | √ | مخرج البرنامج 1                |
|  |   |   |   |                  |   |   |   |                      |   |   | √ |   | مخرج البرنامج 2                |
|  |   |   |   |                  |   |   |   |                      | √ |   |   |   | مخرج البرنامج 3                |
|  |   |   |   |                  |   |   |   | √                    |   |   |   |   | مخرج البرنامج 4                |
|  |   |   |   |                  |   |   | √ |                      |   |   |   |   | مخرج البرنامج 5                |
|  |   |   |   |                  |   | √ |   |                      |   |   |   |   | مخرج البرنامج 6                |
|  |   |   |   |                  | √ |   |   |                      |   |   |   |   | مخرج البرنامج 7                |
|  |   |   | √ |                  |   |   |   |                      |   |   |   |   | مخرج البرنامج 8                |
| √  |   |   |   |                  |   |   |   |                      |   |   |   |   | مخرج البرنامج 9                |
|  |   |   |   |                  |   |   |   |                      |   |   |   |   | مخرج البرنامج 10               |
|  |   |   |   |                  |   |   |   |                      |   |   |   |   | مخرج البرنامج 11               |
|  |   |   |   |                  |   |   |   |                      |   |   |   |   | مخرج البرنامج 12               |
|  |   |   |   |                  |   |   |   |                      |   |   |   |   | مخرج البرنامج 13               |
|  |   |   |   |                  |   |   |   |                      |   |   |   |   | مخرج البرنامج 14               |
|  |   |   |   |                  |   |   |   |                      |   |   |   |   | مخرج البرنامج 15               |



مصفوفة ربط مخرجات المساقات المساندة ومساقات القسم

بالمخرجات التعليمية للبرنامج

مصفوفة ربط مخرجات تخصص الصحافة المطبوعة والإلكترونية

بالمخرجات التعليمية للبرنامج



### مصفوفة ربط مخرجات تخصص الصحافة المطبوعة والإلكترونية بالمخرجات التعليمية للبرنامج

| م  | المخرجات التعليمية للبرنامج<br>مخرجات تخصص<br>الصحافة المطبوعة والإلكترونية | مخرج<br>البرنامج<br>1 | مخرج<br>البرنامج<br>2 | مخرج<br>البرنامج<br>3 | مخرج<br>البرنامج<br>4 | مخرج<br>البرنامج<br>5 | مخرج<br>البرنامج<br>6 | مخرج<br>البرنامج<br>7 | مخرج<br>البرنامج<br>8 | مخرج<br>البرنامج<br>9 | مخرج<br>البرنامج<br>10 |
|----|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|
| 1  | مخرج صحافة 1  |                       | √                     |                       |                       |                       |                       |                       |                       |                       |                        |
| 2  | مخرج صحافة 2  | √                     |                       |                       |                       |                       |                       |                       |                       |                       |                        |
| 3  | مخرج صحافة 3  |                       | √                     |                       |                       |                       |                       |                       |                       |                       |                        |
| 4  | مخرج صحافة 4  |                       | √                     |                       |                       |                       |                       |                       |                       |                       |                        |
| 5  | مخرج صحافة 5  |                       |                       |                       | √                     | √                     | √                     |                       |                       |                       |                        |
| 6  | مخرج صحافة 6  | √                     |                       |                       |                       |                       |                       | √                     |                       |                       |                        |
| 7  | مخرج صحافة 7  |                       |                       |                       | √                     |                       |                       |                       |                       |                       |                        |
| 8  | مخرج صحافة 8  |                       | √                     | √                     |                       |                       |                       |                       |                       |                       |                        |
| 9  | مخرج صحافة 9  |                       |                       |                       | √                     | √                     |                       |                       |                       |                       |                        |
| 10 | مخرج صحافة 10   |                       |                       | √                     |                       | √                     |                       |                       | √                     |                       |                        |
| 11 | مخرج صحافة 11   |                       |                       |                       | √                     |                       |                       |                       |                       |                       |                        |
| 12 | مخرج صحافة 12   |                       |                       |                       |                       |                       |                       |                       | √                     |                       |                        |
| 13 | مخرج صحافة 13   |                       |                       |                       |                       | √                     |                       |                       |                       |                       | √                      |
| 14 | مخرج صحافة 14   |                       |                       |                       |                       |                       |                       |                       |                       |                       | √                      |
| 15 | مخرج صحافة 15   |                       |                       |                       |                       |                       |                       |                       |                       |                       | √                      |

مصفوفة ربط مخرجات تخصص الإذاعة والتلفزيون

بالمخرجات التعليمية للبرنامج



مصفوفة ربط مخرجات تخصص الإذاعة والتلفزيون بالمخرجات التعليمية للبرنامج

| مخرجات البرنامج | مخرج البرنامج 9 | مخرج البرنامج 8 | مخرج البرنامج 7 | مخرج البرنامج 6 | مخرج البرنامج 5 | مخرج البرنامج 4 | مخرج البرنامج 3 | مخرج البرنامج 2 | مخرج البرنامج 1 | المخرجات التعليمية للبرنامج<br>مخرجات تخصص الإذاعة والتلفزيون |    |
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|---|----|
|                 |                 |                 |                 | √               |                 |                 | √               | √               | √               | مخرج إذاعة 1  | 1  |
|                 |                 |                 |                 |                 |                 |                 | √               | √               |                 | مخرج إذاعة 2  | 2  |
|                 |                 | √               |                 |                 |                 |                 | √               | √               |                 | مخرج إذاعة 3  | 3  |
|                 |                 |                 |                 |                 | √               |                 |                 | √               |                 | مخرج إذاعة 4  | 4  |
|                 |                 |                 |                 | √               |                 |                 |                 | √               |                 | مخرج إذاعة 5  | 5  |
| √               |                 |                 |                 |                 |                 |                 | √               |                 |                 | مخرج إذاعة 6  | 6  |
|                 |                 |                 |                 | √               | √               |                 |                 |                 |                 | مخرج إذاعة 7  | 7  |
| √               |                 |                 |                 |                 |                 |                 | √               |                 |                 | مخرج إذاعة 8  | 8  |
|                 |                 |                 |                 |                 |                 |                 |                 |                 | √               | مخرج إذاعة 9  | 9  |
|                 |                 | √               |                 |                 | √               |                 |                 |                 |                 | مخرج إذاعة 10   | 10 |
|                 |                 | √               |                 |                 |                 |                 | √               |                 |                 | مخرج إذاعة 11   | 11 |
|                 |                 | √               |                 |                 | √               |                 |                 |                 |                 | مخرج إذاعة 12   | 12 |
|                 | √               | √               |                 | √               |                 |                 |                 |                 |                 | مخرج إذاعة 13   | 13 |
| √               |                 | √               |                 |                 |                 |                 |                 |                 |                 | مخرج إذاعة 14   | 14 |
|                 |                 |                 |                 | √               |                 | √               |                 |                 |                 | مخرج إذاعة 15   | 15 |



مصفوفة ربط مخرجات تخصص العلاقات العامة والإعلان

بالمخرجات التعليمية للبرنامج



مصفوفة ربط مخرجات تخصص العلاقات العامة والاعلان بالمخرجات التعليمية للبرنامج

| مخرج البرنامج 9 | مخرج البرنامج 8 | مخرج البرنامج 7 | مخرج البرنامج 6 | مخرج البرنامج 5 | مخرج البرنامج 4 | مخرج البرنامج 3 | مخرج البرنامج 2 | مخرج البرنامج 1 | المخرجات التعليمية للبرنامج<br>مخرجات تخصص العلاقات العامة<br>والإعلان |    |
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--|----|
|                 |                 |                 |                 |                 |                 | √               | √               | √               | مخرج علاقات 1  | 1  |
|                 |                 |                 | √               |                 |                 | √               |                 | √               | مخرج علاقات 2  | 2  |
|                 |                 |                 |                 | √               | √               |                 | √               | √               | مخرج علاقات 3  | 3  |
|                 | √               |                 |                 | √               |                 | √               |                 | √               | مخرج علاقات 4  | 4  |
|                 |                 |                 | √               |                 |                 | √               | √               | √               | مخرج علاقات 5  | 5  |
|                 | √               |                 | √               |                 |                 |                 |                 |                 | مخرج علاقات 6  | 6  |
|                 | √               |                 |                 | √               |                 | √               |                 |                 | مخرج علاقات 7  | 7  |
|                 |                 |                 | √               | √               |                 |                 |                 |                 | مخرج علاقات 8  | 8  |
|                 | √               |                 |                 | √               |                 |                 |                 |                 | مخرج علاقات 9  | 9  |
|                 | √               |                 |                 | √               |                 | √               |                 |                 | مخرج علاقات 10   | 10 |
|                 | √               |                 | √               |                 |                 |                 | √               |                 | مخرج علاقات 11   | 11 |
|                 | √               |                 | √               |                 |                 |                 |                 |                 | مخرج علاقات 12   | 12 |
|                 |                 |                 |                 |                 |                 |                 |                 |                 | مخرج علاقات 13   | 13 |
|                 |                 |                 |                 |                 |                 |                 |                 |                 | مخرج علاقات 14   | 14 |
|                 |                 |                 |                 |                 |                 |                 |                 |                 | مخرج علاقات 15   | 15 |

مصفوفة ربط مخرجات تخصص التصميم الجرافيكي

بالمخرجات التعليمية للبرنامج



### مصفوفة ربط مخرجات تخصص التصميم الجرافيكي بالمخرجات التعليمية للبرنامج

| مخرجات التعليم للبرنامج | مخرجات تخصص التصميم الجرافيكي | م  |
|-------------------------|-------------------------------|----|
| مخرج البرنامج 9         | مخرج جرافيك 1                 | 1  |
| مخرج البرنامج 8         | مخرج جرافيك 2                 | 2  |
| مخرج البرنامج 7         | مخرج جرافيك 3                 | 3  |
| مخرج البرنامج 6         | مخرج جرافيك 4                 | 4  |
| مخرج البرنامج 5         | مخرج جرافيك 5                 | 5  |
| مخرج البرنامج 4         | مخرج جرافيك 6                 | 6  |
| مخرج البرنامج 3         | مخرج جرافيك 7                 | 7  |
| مخرج البرنامج 2         | مخرج جرافيك 8                 | 8  |
| مخرج البرنامج 1         | مخرج جرافيك 9                 | 9  |
|                         | مخرج جرافيك 10                | 10 |
|                         | مخرج جرافيك 11                | 11 |
|                         | مخرج جرافيك 12                | 12 |
|                         | مخرج جرافيك 13                | 13 |
|                         | مخرج جرافيك 14                | 14 |
|                         | مخرج جرافيك 15                | 15 |

## College of Humanities and Sciences

### About the College

The College of Humanities and Sciences has been created as part of the recent restructuring process of Ajman University colleges. It is the result of the merger of the College of Education, the Department of Psychology, the Department of Sociology and the General Studies Unit. Conjointly, the entities that make up the new College have graduated more than 14,000 students, contributing to the emergence of a national expertise for the country's economic and social development. The creation of the College corresponds to the imperatives of coherence, structural efficiency and the repair of recurring dysfunctions that could have compromised the future of the University. The College of Humanities and Sciences shall legitimately build on the major achievements of the previous entities of which it is the heir, in particular their central role in entrenching the traditional, cultural and moral values of the nation in a spirit of tolerance and openness to modernity.

The College of Humanities and Sciences offers a high-quality education that is rooted in a humanistic tradition of multidisciplinary learning combining science, technology, languages and liberal arts. As part of a leading university, the college is a national pioneer in enhancing the best practices of higher education and carries out this tradition through its work. The college programs help students gain both high-level education and practical experience for their real world.

### Mission:

Consistent with the Ajman University mission, the College of Humanities and Sciences is established to train responsible and highly qualified graduates to participate in the nation building process, to promote research in relevant fields of specialization, and to provide community service through various activities and specialized consultancies.

### Vision:

To be the AU's most inspiring academic entity with distinctive characteristics in terms of work ethics, quality and impact of education offered.

### Objectives:

1. To enhance the effectiveness and relevance of academic programs to meet international standards while remaining firmly rooted in local cultural tenets and traditional values.
2. To strengthen the focus on hands-on learning approaches in the curricula and equip students with knowledge, skills, and competencies necessary for informed and responsible citizenship.
3. To align programs offering with local and global employment needs and trends.
4. To promote a productive scientific research culture.
5. To increase the reliance on innovative and sustainable best practices in all areas.
6. To increase the diversity of curricular activities and extensive students participation in students' life programs.
7. To create long lasting ties between the College and the Community and provide consultancy to external organizations.

**Departments:** The College of Humanities and Sciences comprises six academic departments:

- Department of Arabic and Islamic Studies
- Department of Education
- Department of Foreign Languages



- Department of Mathematics and Sciences
- Department of Psychology
- Department of Sociology

**Academic Programs:** The College of Humanities and Sciences offers the following academic programs.

- **Graduate Programs:**
  1. MA in Arabic Language and Literature
  2. Professional Diploma in Teaching (Graduate Diploma).
- **Undergraduate Programs:**
  1. BA in Psychology
  2. BA in Sociology and Social Work

## DEPARTMENT of FOREIGN LANGUAGES

### Introduction:

It is a truth universally acknowledged that foreign language learning is an integral part of university education. Universities, therefore, cannot do without foreign language teaching in order to meet the needs of the global job market. Some languages like English and French have become international tools of communication in the world of academia. Accordingly, the AU is no different from other well-established universities to adopt the teaching of foreign languages in all its programs.

The College of Humanities and Sciences has made available an appropriate academic environment with global standards for that purpose. It employs highly qualified university faculty of different nationalities and different language specializations in order to comply with the requirements of each program and to provide the standard needed linguistic knowledge and skills.

The Department of Foreign Languages seeks to establish excellent standards of teaching and assessing student performance in order to come up with competitive graduates with parallel distinctive linguistic skills and knowledge.

After completing their program's degrees, students are expected to write assignments, long essays, reports and projects. They may sit and easily pass written and oral examinations in which timed essays or talks are mostly in a foreign language (usually English) the means of communication. Excellent comprehension levels and basic writing skills are the needed tools that oftentimes students will draw upon.

A major target in foreign language teaching and learning is to ensure that students achieve as high a level of English Language development as possible. Even students who find the language difficult are able to accomplish a good rock-hard grounding in English.

**Mission:** The mission of the Department of Foreign Languages (DFL) is to provide professional services to the programs offered by AU colleges in order to enable learners to communicate efficiently in English and French, through the most appropriate academic environment and highly qualified and devoted staff who help students attain the highest possible level of language proficiency.

**Vision:** The Department of Foreign Languages (DFL) strives to be a contributing provider of academic excellence. It aspires to see employers in the job market uniquely select and recruit AU graduates mainly for their excellent linguistic skills and knowledge.

### Goals and Objectives

- Furnishing excellent English Language instruction that enhances students' proficiency and enable them to attend university courses offered in English.
- Acquainting students with terms, practices and theoretical foundations of the disciplines.
- Evolving students with the reading, analytical, and critical skills of the disciplines.
- Enabling students to communicate correctly and effectively within and about the disciplines.
- Preparing students to sit for international tests of English proficiency such as IELTS or TOEFL and obtain the scores prescribed by Ajman University and the Ministry of Higher Education.
- Improving the English language and study skills of students.
- Enriching Ajman University and the community at large by enhancing cross-cultural communication and interaction.
- Promoting Ajman University's reputation for excellence and foster its image as an international and diverse learning community.

## DEPARTMENT OF MATHEMATICS AND SCIENCES

The Department of Mathematics and Sciences shoulders the responsibility of teaching all courses of Mathematics, Statistics and Applied Sciences at different colleges of the university. In addition, the Department is charge of teaching all courses of Math and Science of the Bachelor of Education in Teacher Training Program in Mathematics and Science. This Program is accredited by the Ministry of Education.

### Department Mission

To achieve excellence in the education and to fulfill the vision of the department, the mission of the department is-

1. To prepare our students for their successful career based on strong moral and ethical foundation.
2. To support students of different programs by making them understand the basic concepts of Mathematics and Science to develop their intellectual perspectives of the world.
3. To create a healthy workplace environment to improve productivity.

### Department Vision

1. To enable students to develop their own abilities, talents and discover their own aptitudes to achieve their full potential.
2. To provide the students with strong foundation through basic courses and enhance their knowledge in areas of technical field, personality development and competitive abilities.

### Objectives

1. Promote research and foster scientific temper.
2. Make science more approachable and practical.
3. Support other scientific outreach programs and different organizations.
4. Develop and redesign curriculum to present science not as isolated entity but as an integral part of engineering, technology and medical disciplines.



## DEPARTMENT OF PSYCHOLOGY

### Introduction

The Department of Psychology is one of the new departments in the College of Humanities and Sciences at Ajman University, which has been prepared according to the terms of the book of standards for the licensing of higher education institutions and the accreditation of academic programs issued by the Commission for Academic Accreditation at the Ministry of Education in the United Arab Emirates in 2011.

The Bachelor of Arts in Psychology program consisted of 126 credit hours, which the student must complete in order to pass the program successfully. The number of courses in the program to be studied is 41 courses, three credit hours each. Six (6) credit hours are designated for practical training. The student must complete all these credit hours in order to pass the program successfully. The courses of the program to be studied (41 courses) are distributed according to the following:

28 compulsory courses equivalent to 87 credit hours.

13 elective courses equivalent to 39 credit hours.

### Program Mission

Qualifying and developing specialized cadres in the field of psychological services, in order to provide them with professional, scientific and research skills in accordance with the requirements of market needs.

### Program Goals

- Providing students with knowledge and theoretical trends in the field of psychology and its applications.
- Training students to apply scientific thinking in the interpretation of various psychological phenomena.
- Training students to provide basic psychological services under supervision.
- Preparing specialists in the field of psychology who are capable of applying ethical standards in their work.
- Providing students with the necessary skills to analyze psychological information and statistical data, as well as the ability to write reports.
- Training students to apply creative and critical thinking, as well as scientific research skills.
- Providing students with the necessary skills to communicate effectively with individuals, groups and different situations.
- Providing students with knowledge and current and historical theoretical trends in psychology and its applications.
- Training students to apply scientific thinking in the interpretation of various psychological phenomena.
- Preparing specialists in the field of psychology who are able to assume social responsibilities in their work.

### Psychology Department Outcomes

In accordance with the Qualifications Framework in the United Arab Emirates (QFEmirates), after completing this program.

### In the Knowledge's field:

The graduating student should be capable of:

- (O1) Illustrating the various concepts and principles in the field of psychology and related fields.
- (O2) Linking the information gained in interpreting psychological and behavioral phenomena.
- (O3) Identifying different thinking elements and strategies.
- (O4) Distinguishing between cases of disorder and various disease conditions.
- (O5) Explaining the various theories in the field of psychology and related fields.

**In the field of Skills:**

The graduating student should be capable of:

- (O6) Employing analytical and practical skills in the preparation and design of psychological tests and intervention programs.
- (O7) Applying various tests and psychological programs in the fields of measurement, guidance and treatment.
- (O8) Using theoretical and practical knowledge in understanding, analyzing, diagnosing and treating some psychological problems in both the normal and the troubled individuals.

**In the field of Efficiencies:**

The graduating student should be capable of:

**Independence and Responsibility:**

- (O 9) Applying ethical and professional standards and controls in the field of work.
- (O10) Defining the legal aspects that are consistent with the principles of human rights in psychology.

**B. Role in context:**

- (O11) Using information gained in addressing certain situations and problems of life.
- (O12) Performing a project or research, using statistical tests, methods and research writing skills.

**Self-development:**

- (O13) Creating different measuring tools and intervention programs that are appropriate to the different situations faced in professional work.
- (O 14) Explaining the problems of the cases he is studying and the disruptions encountered.
- (O15) Carrying the responsibility for working in social, educational and therapeutic institutions.

**Career Opportunities of Psychology Program Graduates**

Program graduates have a great opportunity to work in many mental health and psychological counseling institutions. Examples of graduates' fields of work include, but not limited to, the followings:

1. Counseling and Psychotherapy Centers.
2. Community service and rehabilitation centers.
3. Psychological Research Centers.
4. Family care and empowerment associations.

5. Centers for the care and rehabilitation of individuals with special needs.
6. Educational institutions: kindergartens, schools and universities.
7. Public and private establishments providing therapeutic and counseling services.
8. Associations, care homes and shelters for the elderly and orphans.
9. Correctional institutions such as prisons and the houses of juveniles.
10. Public relations in institutions and companies.

## برنامج علم النفس

### أولاً: أهمية البرنامج :

يعتبر علم النفس من أهم المجالات الإنسانية والعلمية المرتبطة بشكل وثيق بالحياة والمجتمع. ويعد من التخصصات الأكثر الحاحاً وطلباً في العصر الراهن، لما يعانيه الأفراد في المجتمع من مشكلات واضطرابات نتيجة الطفرة الهائلة في التقدم العلمي والمعرفي، وتطور وسائل التواصل الاجتماعي التي كان لها أثراً كبيراً على التواصل الإنساني المباشر. فالمشتغلون في مجال علم النفس يمكنهم أن يساهموا مساهمة فعالة في فهم وتحليل المشكلات والاضطرابات النفسية فهما علمياً لا وتقديم الحلول المناسبة لها.

ومن ثم، فإن وجود هذا البرنامج يُعد ضرورة كبيرة كاستجابة للاحتياجات المجتمعية، والمساهمة في عملية التنمية المستدامة، والعمل على خلق المواطن الذي يتمتع بالقدرة والكفاءة النفسية من خلال دعمه بمهارات متنوعة تلك التي تسهم بشكل كبير على تطوير أدائه واكتسابه القدرة على التعامل مع المشكلات النفسية والمجتمعة بشكل إيجابي لا يؤثر على دوره الاجتماعي، فضلاً عن أن برنامج علم النفس له دوراً أساسياً في العناية بحاجات المجتمع الثقافية التي تشكل أحد المجالات التعليمية والبحثية للبرنامج، بما يؤدي إلى إبراز التراث والثقافة والهوية الإماراتية الأصيلة.

### ثانياً: رسالة البرنامج:

تأهيل وتطوير الكوادر المتخصصة في مجال الخدمات النفسية والعمل على إكسابهم المهارات المهنية والعلمية والبحثية بما يتوافق مع متطلبات ميادين سوق العمل.

### ثالثاً: أهداف البرنامج:

1. تزويد المتعلمين بالمعرفة والاتجاهات النظرية في مجال علم النفس وتطبيقاته.
2. تدريب الطلبة على تطبيق التفكير العلمي في تفسير الظواهر النفسية المختلفة.
3. تدريب الطلبة لتقديم الخدمات النفسية الأساسية تحت الإشراف.
4. إعداد المختصين في مجال علم النفس القادرين على تطبيق المعايير الأخلاقية والمسؤوليات الاجتماعية في عملهم.
5. تزويد الطلبة بالمهارات اللازمة لتحليل المعلومات النفسية والبيانات الإحصائية بكفاءة والقدرة على كتابة التقارير.
6. تدريب الطلبة على تطبيق التفكير الإبداعي والنقدي، وكذلك مهارات البحث العلمي.
7. تزويد الطلبة بالمهارات اللازمة للتواصل الفعال مع الأفراد والمجموعات والحالات المختلفة.
8. تزويد المتعلمين بالمعرفة والاتجاهات النظرية الحالية والتاريخية في مجال علم النفس وتطبيقاته.
9. تدريب الطلبة على تطبيق التفكير العلمي في تفسير الظواهر النفسية المختلفة.
10. تدريب الطلبة لتقديم الخدمات النفسية الأساسية تحت الإشراف.
11. إعداد المختصين في مجال علم النفس القادرين على تحمل المسؤوليات الاجتماعية في عملهم.
12. تزويد الطلبة بالمهارات اللازمة لتحليل المعلومات النفسية والبيانات الإحصائية بكفاءة.
13. تدريب الطلبة على تطبيق التفكير الإبداعي والنقدي، وكذلك مهارات البحث العلمي.
14. تزويد الطلبة بالمهارات اللازمة للتواصل الفعال مع الأفراد والمجموعات والحالات المختلفة.

رابعاً: مخرجات برنامج علم النفس وفقاً لإطار المؤهلات في دولة الإمارات العربية المتحدة  
(Emirates QF)

بعد استكمال هذا البرنامج يكون الطالب الخريج قادراً على أن:

#### المعرفة:

- (1م) يوضح المفاهيم والمبادئ المختلفة في مجال علم النفس والمجالات ذات الصلة.
- (2م) يربط بين المعلومات التي اكتسبها عند تفسيره للظواهر النفسية والسلوكية.
- (3م) يحدد عناصر واستراتيجيات التفكير المختلفة.
- (4م) يميز بين حالات الاضطراب والحالات المرضية المختلفة
- (5م) يشرح النظريات المختلفة في مجال علم النفس والمجالات ذات الصلة

#### المهارة:

- (6م) يوظف المهارات التحليلية والعملية في إعداد وتصميم الاختبارات النفسية وبرامج التدخل الإرشادي والعلاجي.
- (7م) يطبق الاختبارات والبرامج النفسية المختلفة في مجالات القياس والإرشاد والعلاج.
- (8م) يستخدم المعرفة النظرية والعملية في فهم وتحليل وتشخيص وعلاج بعض المشكلات النفسية لدى كل من الأسوياء والمضطربين.

#### أوجه الكفاءة:

##### أ- الاستقلالية والمسؤولية:

- (9م) يطبق المعايير والضوابط الأخلاقية والمهنية في مجال العمل.
- (10م) يحدد الجوانب القانونية التي تتفق ومبادئ حقوق الإنسان في مجال علم النفس

##### ب- الدور في السياق:

- (11م) يستخدم المعلومات المكتسبة في معالجة بعض المواقف والمشكلات الحياتية.
- (12م) ينجز مشروعاً أو بحثاً، مستخدماً الاختبارات والأساليب الإحصائية ومهارات كتابة البحوث

##### ج- التطور الذاتي:

- (13م) يبتكر أدوات قياس وبرامج تدخل مختلفة تتناسب مع المواقف المختلفة التي يواجهها في عمله المهني
- (14م) يفسر مشكلات الحالات التي يدرسها ومآل الاضطراب لديها.
- (15م) يتحمل مسؤولية العمل في المؤسسات الاجتماعية والإرشادية والعلاجية

### خامساً: شروط القبول

أن يكون الطالب حاصلًا على شهادة الثانوية العامة من دولة الإمارات العربية المتحدة (قسم علمي أو أدبي) أو ما يعادلها بمعدل لا يقل عن 60% في السنة الأولى من القبول تزيد إلى 65% للدفعات التالية وفي حالة زيادة أعداد الطلبة المتقدمين سيتم التفضيل بينهم بناء على نسبة النجاح في الثانوية العامة.

### سادساً: متطلبات التخرج

يشترط للحصول على درجة البكالوريوس في تخصص علم النفس أن يحصل الطالب على الحد الأدنى التراكمي 2 أي بمعدل 60% ، وان يكون الحد الأدنى لمدة الدراسة ثلاثة سنوات ونصف السنة ، والحد الأعلى ثمانية سنوات ، كما عليه ان يجتاز (126) ساعة معتمدة منهم التدريب (6 ساعات) موزعة كالتالي :

### المساقات العلمية لطلبة برنامج علم النفس:

| نوع المساق                   | عدد المساقات | عدد الساعات المعتمدة |
|------------------------------|--------------|----------------------|
| مساقات الجامعة الإلبارية     | 5            | 15                   |
| مساقات الجامعة الاختيارية    | 3            | 9                    |
| متطلبات الجامعة الحرة        | 2            | 6                    |
| متطلبات القسم الإلبارية      | 23           | 72                   |
| متطلبات علم القسم الاختيارية | 8            | 24                   |
| المجموع                      | 41           | 126                  |

### سابعاً: الخطة الدراسية لتخصص علم النفس

#### أولاً: متطلبات الجامعة

#### 1-متطلبات الجامعة الإلبارية (5 مساقات، 15 ساعة معتمدة)

| المساق                        | رقم المساق                     | م |
|-------------------------------|--------------------------------|---|
| التوجيه                       | Orientation                    | 1 |
| الثقافة الإسلامية             | Islamic culture                | 2 |
| مهارات الاتصال باللغة العربية | Communication Skills in Arabic | 3 |
| الإحصاء                       | Statistics                     | 4 |
| تطبيقات في الحاسوب            | IT fundamental                 | 5 |
| الابتكار وريادة الاعمال       | Innovation & Entrepreneurship  | 6 |

#### 2- متطلبات الجامعة الاختيارية (3 مساقات، 9 ساعة معتمدة)

| المساق          | رقم المساق                 | م      |
|-----------------|----------------------------|--------|
| مفاهيم اقتصادية | Economic Concepts          | ECO211 |
| مجتمع الإمارات  | Emirates Society           | EMS111 |
| نظم المعلومات   | Library Information System | INF113 |

|        |                                   |                                   |
|--------|-----------------------------------|-----------------------------------|
| SOC112 | Communication Between cultures    | التواصل بين الثقافات              |
| ARB113 | The Art of Written Expression     | فن التعبير والكتابة               |
| ART111 | Introduction to Art               | مقدمة في الفن                     |
| ART112 | Introduction to Aesthetics        | مدخل الى علم الجمال               |
| ENG113 | Academic writing                  | الكتابة الاكاديمية (لغة انجليزية) |
| FRE211 | French language                   | اللغة الفرنسية                    |
| ISL211 | Introduction to Hadeeth and sunna | مدخل الى الحديث والسنة            |
| LAW111 | Legal culture                     | ثقافة قانونية                     |
| AID111 | First Aid                         | الإسعافات الأولية                 |
| AST211 | Astronomy (Arabic)                | علوم الفلك                        |
| BIO111 | General Biology                   | الاحياء العامة                    |
| CHM111 | General Chemistry                 | الكيمياء العامة                   |
| ENV111 | Environmental science             | علوم البيئة                       |
| INF212 | Information System(Arabic)        | نظم المعلومات (عربي)              |
| ISH111 | History of science in Islam       | تاريخ العلوم عند المسلمين         |
| NUT111 | Fundamental of human Nutrition    | أساسيات التغذية البشرية           |
| PHY111 | Physics                           | فيزياء                            |
| PIO211 | Scientific pioneering             | الريادة العلمية                   |

مجموعة العلوم الطبيعية، العلوم التطبيقية، الرياضيات أو تكنولوجيا المعلومات

### 3- متطلبات حرة (مساقين، 6 ساعات معتمدة)

يختار الطالب مساقين من الجامعة أو الكلية في غير تخصصه

| المساق      |            | رقم المساق | م |
|-------------|------------|------------|---|
| Course name | اسم المساق |            |   |
|             |            |            | 1 |
|             |            |            | 2 |

## ثانياً : متطلبات قسم علم النفس

### 1- المتطلبات الإجبارية

إنهاء (72) ساعة معتمدة إجبارية بمعدل (24) مساقاً تخصصياً وهي كما يلي :

متطلبات القسم الإجبارية 8 مساقات ،24 ساعة معتمدة)

| المتطلب السابق             | الساعات المعتمدة |      |      | المساق                                 |                                  | رقم المساق | م  |
|----------------------------|------------------|------|------|--|----------------------------------|------------|----|
|                            | المجموع          | عملي | نظري | Course name                            | اسم المساق                       |            |    |
|                            | 3                | 0    | 3    | Introduction to Psychology             | مدخل الى علم النفس               | Psy101     | 1  |
|                            | 3                | 0    | 3    | Dev. Psych.: Childhood and Adolescence | علم نفس النمو: الطفولة والمراهقة | Psy102     | 2  |
| Psy101                     | 3                | 0    | 3    | Social Psychology                      | علم النفس الاجتماعي              | Psy103     | 3  |
| Psy101                     | 3                | 0    | 3    | Psychological Statistics (1)           | الإحصاء في البحوث النفسية (1)    | Psy104     | 4  |
|                            | 3                | 0    | 3    | Communication Skills in English        | مهارات الاتصال باللغة الإنجليزية | Psy105     | 5  |
| Psy101                     | 3                | 0    | 3    | Psychology of Personality              | علم نفس الشخصية                  | Psy206     | 6  |
| Psy101                     | 3                | 0    | 3    | Physiological Psychology               | علم النفس الفسيولوجي             | Psy207     | 7  |
| Psy101                     | 3                | 0    | 3    | Psychology of Learning                 | علم نفس التعلم                   | Psy208     | 8  |
| Psy101<br>Psy104           | 3                | 0    | 3    | Psychometrics                          | القياس النفسي                    | Psy209     | 9  |
| Psy101                     | 3                | 0    | 3    | Abnormal Psychology                    | علم النفس المرضي                 | Psy310     | 10 |
| Psy101<br>Psy104           | 3                | 0    | 3    | Psychological Tests & Measures         | الاختبارات والمقاييس النفسية     | Psy311     | 11 |
| Psy101                     | 3                | 0    | 3    | Industrial & Organizational Psychology | علم النفس الصناعي التنظيمي       | Psy312     | 12 |
| Psy101                     | 3                | 0    | 3    | Educational Psychology                 | علم النفس التربوي                | Psy313     | 13 |
|                            | 3                | 0    | 3    | Experiential Psychology                | علم النفس التجريبي               | Psy314     | 14 |
| Psy101<br>Psy104<br>Psy209 | 3                | 0    | 3    | Research Methods in Psychology         | مناهج البحث في علم النفس         | Psy315     | 15 |
| Psy101                     | 3                | 0    | 3    | Cognitive Psychology                   | علم النفس المعرفي                | Psy316     | 16 |
| Psy101                     | 3                | 0    | 3    | Family Psychology                      | علم نفس الأسرة                   | Psy317     | 17 |
| Psy101                     | 3                | 0    | 3    | Guidance & Counseling Psychology       | التوجيه والإرشاد النفسي          | psy418     | 18 |
| Psy101                     | 3                | 0    | 3    | Thinking Skills                        | مهارات التفكير                   | psy419     | 19 |
| Psy101                     | 3                | 0    | 3    | Clinical Psychology                    | علم النفس الإكلينيكي             | psy420     | 20 |



|                           |   |   |   |                    |               |        |    |
|---------------------------|---|---|---|--------------------|---------------|--------|----|
| Psy101                    | 3 | 0 | 3 | Psychotherapy      | العلاج النفسي | Psy421 | 21 |
| بعد انجاز 99 ساعة معتمدة  | 3 | 0 | 6 | Practicum          | تدريب ميداني  | Psy422 | 22 |
| بعد انجاز 105 ساعة معتمدة | 3 | 6 | 3 | Graduation Project | مشروع التخرج  | Psy423 | 23 |

## 2- متطلبات القسم الاختيارية

إنهاء (24) ساعة معتمدة اختيارية على أن يختار الطالب (4) مساقات من كل مجموعة من المجموعتين وهي كما يلي :

### متطلبات القسم الاختيارية (8 مساقات 24 ساعة معتمدة)

| الساعات المعتمدة |      |      | المساق                                   |   | رقم المساق | م  |
|------------------|------|------|--|---|------------|----|
| المجموع          | عملي | نظري | Course name                              | اسم المساق                                  |            |    |
| 3                | 0    | 3    | Learning Difficulties                    | صعوبات التعلم                               | Psy124     | 1  |
| 3                | 0    | 3    | Psychology of Talent & Excellence        | سيكولوجية الموهبة والتفوق                   | Psy125     | 2  |
| 3                | 0    | 3    | Computer in Psych. Research              | استخدام الحاسوب في البحوث النفسية           | Psy126     | 3  |
| 3                | 0    | 3    | Environmental Psychology                 | علم النفس البيئي                            | Psy127     | 4  |
| 3                | 0    | 3    | Political Psychology                     | علم النفس السياسي                           | Psy128     | 5  |
| 3                | 0    | 3    | Family's Law in UAE                      | قانون الأسرة لدولة الإمارات العربية المتحدة | Psy129     | 6  |
| 3                | 0    | 3    | Psychology of Special Needs              | علم نفس ذوي الاحتياجات الخاصة               | Psy130     | 7  |
| 3                | 0    | 3    | Neurological Psychology                  | علم النفس العصبي                            | Psy131     | 8  |
| 3                | 0    | 3    | Psychology of Addiction                  | علم نفس الإدمان                             | Psy132     | 9  |
| 3                | 0    | 3    | Health Psychology                        | علم النفس الصحي                             | Psy133     | 10 |
| 3                | 0    | 3    | Behavior Modification                    | تعديل السلوك                                | Psy134     | 11 |
| 3                | 0    | 3    | Positive Psychology                      | علم النفس الإيجابي                          | Psy135     | 12 |
| 3                | 0    | 3    | Criminal Psychology                      | علم النفس الجنائي                           | Psy136     | 13 |
| 3                | 0    | 3    | Psychology & Counseling of Aging         | علم نفس المسنين وإرشادهم                    | Psy137     | 14 |
| 3                | 0    | 3    | Differential Psychology                  | علم نفس الفروق الفردية                      | Psy138     | 15 |
| 3                | 0    | 3    | Psychological Texts in English           | نصوص نفسية باللغة الإنجليزية                | Psy139     | 16 |
| 3                | 0    | 3    | Statistics in Psychological Research (2) | الإحصاء في البحوث النفسية (2)               | Psy240     | 17 |
| 3                | 0    | 3    | Special Topics in Psychology             | موضوعات خاصة في علم النفس                   | Psy141     | 18 |

## الخطة الاسترشادية لبرنامج بكالوريوس الآداب في علم النفس

### السنة الأولى: الفصل الدراسي الأول

| م | اسم المساق                       | النوع         | رقم المساق | عدد الساعات | المتطلب السابق |
|---|----------------------------------|---------------|------------|-------------|----------------|
| 1 | التوجيه والإرشاد                 | إجباري جامعة  |            | 0           |                |
| 2 | إجباري جامعة (1)                 | إجباري جامعة  |            | 3           |                |
| 3 | إجباري جامعة (2)                 | إجباري جامعة  |            | 3           |                |
| 4 | مدخل إلى علم النفس               | إجباري قسم    | Psy101     | 3           |                |
| 5 | علم نفس النمو: الطفولة والمراهقة | إجباري قسم    | Psy102     | 3           |                |
| 6 | متطلب جامعة اختياري (1)          | اختياري جامعة |            | 3           |                |

### السنة الأولى: الفصل الدراسي الثاني

| م | اسم المساق                       | النوع         | رقم المساق | عدد الساعات | المتطلب السابق     |
|---|----------------------------------|---------------|------------|-------------|--------------------|
| 1 | إجباري جامعة (3)                 | إجباري جامعة  |            | 3           |                    |
| 2 | علم النفس الاجتماعي              | إجباري قسم    | Psy103     | 3           | مدخل إلى علم النفس |
| 3 | الإحصاء في البحوث النفسية (1)    | إجباري قسم    | Psy104     | 3           | مدخل إلى علم النفس |
| 4 | مهارات الاتصال باللغة الإنجليزية | إجباري قسم    | Psy105     | 3           |                    |
| 5 | اختياري جامعة (2)                | اختياري جامعة |            | 3           |                    |

### السنة الثانية: الفصل الدراسي الأول

| م | اسم المساق             | النوع         | رقم المساق | عدد الساعات | المتطلب السابق     |
|---|------------------------|---------------|------------|-------------|--------------------|
| 1 | متطلب إجباري جامعة (4) | إجباري جامعة  |            | 3           |                    |
| 2 | علم نفس الشخصية        | إجباري قسم    | Psy206     | 3           | مدخل إلى علم النفس |
| 3 | اختياري جامعة (3)      | اختياري جامعة |            | 3           |                    |
| 4 | علم النفس الفسيولوجي   | إجباري قسم    | Psy207     | 3           | مدخل إلى علم النفس |
| 5 | علم نفس التعلم         | إجباري قسم    | Psy208     | 3           | مدخل إلى علم النفس |

### السنة الثانية: الفصل الثاني

| م | اسم المساق       | النوع        | رقم المساق | عدد الساعات | المتطلب السابق                                      |
|---|------------------|--------------|------------|-------------|---|
| 1 | إجباري جامعة (5) | إجباري جامعة |            | 3           |   |
| 2 | اختياري تخصص (1) | اختياري قسم  |            | 3           | مدخل إلى علم النفس                                  |
| 3 | اختياري تخصص (2) | اختياري قسم  |            | 3           | مدخل إلى علم النفس                                  |
| 4 | القياس النفسي    | إجباري قسم   | Psy209     | 3           | مدخل إلى علم النفس<br>الإحصاء في البحوث النفسية (1) |

|   |                  |             |   |                    |
|---|------------------|-------------|---|--------------------|
| 5 | مساق حر (1)      | اختياري حر  | 3 |                    |
| 6 | اختياري تخصص (3) | اختياري قسم |   | مدخل إلى علم النفس |

السنة الثالثة: الفصل الأول

| م | اسم المساق                   | النوع      | رقم المساق | عدد الساعات | المتطلب السابق                                      |
|---|------------------------------|------------|------------|-------------|---|
| 1 | علم النفس المرضي             | إجباري قسم | Psy310     | 3           | مدخل إلى علم النفس                                  |
| 2 | الاختبارات والمقاييس النفسية | إجباري قسم | Psy311     | 3           | مدخل إلى علم النفس<br>الإحصاء في البحوث النفسية (1) |
| 3 | علم النفس الصناعي والتنظيمي  | إجباري قسم | Psy312     | 3           | مدخل إلى علم النفس                                  |
| 4 | علم النفس التربوي            | إجباري قسم | Psy313     | 3           | مدخل إلى علم النفس                                  |
| 5 | علم النفس التجريبي           | إجباري قسم | Psy314     | 3           | مدخل إلى علم النفس                                  |

السنة الثالثة: الفصل الثاني

| م | اسم المساق               | النوع       | رقم المساق | عدد الساعات | المتطلب السابق  |
|---|--------------------------|-------------|------------|-------------|---|
| 1 | اختياري قسم (4)          | اختياري قسم |            | 3           | مدخل إلى علم النفس  |
| 2 | مناهج البحث في علم النفس | إجباري قسم  | Psy315     | 3           | مدخل إلى علم النفس الإحصاء في البحوث النفسية (1)<br>القياس النفسي |
| 3 | مساق حر (2)              | اختياري حر  |            | 3           |   |
| 4 | علم النفس المعرفي        | إجباري قسم  | Psy316     | 3           | مدخل إلى علم النفس  |
| 5 | علم نفس الأسري           | إجباري قسم  | Psy317     | 3           | مدخل إلى علم النفس  |
| 6 | اختياري تخصص (5)         | اختياري قسم |            | 3           | مدخل إلى علم النفس  |

السنة الرابعة: الفصل الأول

| م | اسم المساق              | النوع       | رقم المساق | عدد الساعات | المتطلب السابق     |
|---|-------------------------|-------------|------------|-------------|--------------------|
| 1 | التوجيه والإرشاد النفسي | إجباري قسم  | Psy418     | 3           | مدخل إلى علم النفس |
| 2 | مهارات التفكير          | إجباري قسم  | Psy419     | 3           | مدخل إلى علم النفس |
| 3 | اختياري تخصص (6)        | اختياري قسم |            | 3           | مدخل إلى علم النفس |
| 4 | اختياري تخصص (7)        | اختياري قسم |            | 3           | مدخل إلى علم النفس |
| 5 | علم النفس الإكلينيكي    | إجباري قسم  | Psy420     | 3           | مدخل إلى علم النفس |
| 6 | اختياري تخصص (8)        |             |            |             | مدخل إلى علم النفس |

السنة الرابعة: الفصل الثاني

| م | اسم المساق | النوع | رقم المساق | عدد الساعات | المتطلب السابق |
|---|------------|-------|------------|-------------|----------------|
|---|------------|-------|------------|-------------|----------------|

|   |                  |            |        |   |                           |
|---|------------------|------------|--------|---|---------------------------|
| 1 | العلاج النفسي    | إجباري قسم | Psy421 | 3 | مدخل إلى علم النفس        |
| 2 | التدريب الميداني | إجباري قسم | Psy422 | 6 | بعد إنجاز 99 ساعة معتمدة  |
| 3 | مشروع التخرج     | إجباري قسم | Psy423 | 3 | بعد إنجاز 105 ساعة معتمدة |

### مصفوفة ربط المخرجات التعليمية للبرنامج

#### مع عناصر منظومة المؤهلات في دولة الإمارات العربية المتحدة (QF Emirates)

| أوجه الكفاءة<br>Competency        |   |                                    |   |   | المهارة<br>Knowledge                                |   |   | المعرفة<br>Knowledge |   |   |           |   | منظومة المؤهلات<br>QF Emirates |   |   |                                |  |
|-----------------------------------|---|------------------------------------|---|---|---|---|---|----------------------|---|---|-----------|---|--------------------------------|---|---|--------------------------------|--|
| التطور الذاتي<br>Self-Development |   | الاور في السياق<br>Role in Context |   |   | الاستقلالية والمسئولية<br>Autonomy & Responsibility |   |   | Skills               |   |   | Knowledge |   |                                |   |   |                                |  |
| 2                                 | 1 | 3                                  | 2 | 1 | 2   | 1 | 3 | 2                    | 1 | 5 | 4         | 3 | 2                              | 1 |   |                                |  |
|                                   |   |                                    |   |   |   |   |   |                      |   |   |           |   |                                |   |   | المخرجات التعليمية<br>للبرنامج |  |
|                                   |   |                                    |   |   |   |   |   |                      |   |   |           |   |                                |   | √ | مخرج البرنامج 1                |  |
|                                   |   |                                    |   |   |   |   |   |                      |   |   |           |   |                                |   | √ | مخرج البرنامج 2                |  |
|                                   |   |                                    |   |   |   |   |   |                      |   |   |           |   |                                |   | √ | مخرج البرنامج 3                |  |
|                                   |   |                                    |   |   |   |   |   |                      |   |   |           |   |                                |   | √ | مخرج البرنامج 4                |  |
|                                   |   |                                    |   |   |   |   |   |                      |   |   |           |   |                                |   | √ | مخرج البرنامج 5                |  |
|                                   |   |                                    |   |   |   |   |   |                      |   |   |           |   |                                |   | √ | مخرج البرنامج 6                |  |
|                                   |   |                                    |   |   |   |   |   |                      |   |   |           |   |                                |   | √ | مخرج البرنامج 7                |  |
|                                   |   |                                    |   |   |   |   |   |                      |   |   |           |   |                                |   | √ | مخرج البرنامج 8                |  |
|                                   |   |                                    |   |   |   |   |   |                      |   |   |           |   |                                |   | √ | مخرج البرنامج 9                |  |
|                                   |   |                                    |   |   |   |   |   |                      |   |   |           |   |                                |   | √ | مخرج البرنامج 10               |  |
|                                   |   |                                    |   |   |   |   |   |                      |   |   |           |   |                                |   | √ | مخرج البرنامج 11               |  |
|                                   |   |                                    |   |   |   |   |   |                      |   |   |           |   |                                |   | √ | مخرج البرنامج 12               |  |
|                                   |   |                                    |   |   |   |   |   |                      |   |   |           |   |                                |   | √ | مخرج البرنامج 13               |  |
|                                   |   |                                    |   |   |   |   |   |                      |   |   |           |   |                                |   | √ | مخرج البرنامج 14               |  |
|                                   |   |                                    |   |   |   |   |   |                      |   |   |           |   |                                |   | √ | مخرج البرنامج 15               |  |

### مصفوفة ربط مخرجات مساقات القسم الاجبارية بالمخرجات التعليمية للبرنامج

| م | المساق             | مخرج البرنامج 1 | مخرج البرنامج 2 | مخرج البرنامج 3 | مخرج البرنامج 4 | مخرج البرنامج 5 | مخرج البرنامج 6 | مخرج البرنامج 7 | مخرج البرنامج 8 | مخرج البرنامج 9 | مخرج البرنامج 10 | مخرج البرنامج 11 | مخرج البرنامج 12 | مخرج البرنامج 13 | مخرج البرنامج 14 | مخرج البرنامج 15 |
|---|--------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|------------------|------------------|------------------|
| 1 | مدخل إلى علم النفس | √               |                 |                 |                 |                 |                 |                 |                 |                 |                  |                  |                  |                  |                  |                  |

|   |   |  |   |   |  |  |   |   |   |   |   |   |   |   |                                   |    |
|---|---|--|---|---|--|--|---|---|---|---|---|---|---|---|-----------------------------------|----|
|   |   |  |   | √ |  |  |   |   |   | √ |   |   |   | √ | مدخل إلى علم الاجتماع             | 2  |
|   |   |  |   | √ |  |  | √ |   |   | √ |   |   |   | √ | علم النفس الاجتماعي               | 3  |
| √ |   |  |   | √ |  |  | √ |   |   |   |   | √ | √ |   | علم نفس النمو (الطفولة والمراهقة) | 4  |
|   |   |  |   |   |  |  |   |   |   | √ |   |   | √ | √ | مهارات الاتصال باللغة الإنجليزية  | 5  |
|   |   |  | √ | √ |  |  |   | √ | √ |   |   |   |   |   | الإحصاء في البحوث النفسية (1)     | 6  |
|   | √ |  |   | √ |  |  |   |   |   | √ |   |   | √ |   | علم النفس الفسيولوجي              | 7  |
|   |   |  | √ | √ |  |  |   |   |   | √ |   | √ | √ |   | علم نفس التعلم                    | 8  |
|   |   |  | √ |   |  |  |   | √ | √ |   |   |   |   |   | الإحصاء في البحوث النفسية (2)     | 9  |
|   |   |  |   | √ |  |  |   |   |   | √ | √ |   |   | √ | علم نفس الشخصية                   | 10 |
|   |   |  |   |   |  |  |   |   |   | √ |   |   |   | √ | نصوص نفسية باللغة الإنجليزية      | 11 |
|   |   |  | √ | √ |  |  | √ |   | √ | √ |   |   |   |   | مناهج البحث في علم النفس          | 12 |
|   |   |  | √ | √ |  |  |   | √ | √ |   |   |   |   |   | القياس النفسي                     | 13 |
|   |   |  |   | √ |  |  |   |   |   | √ |   | √ | √ |   | علم النفس التربوي                 | 14 |
|   |   |  |   | √ |  |  |   |   |   | √ |   | √ | √ | √ | تيارات علم النفس                  | 15 |
| √ | √ |  |   |   |  |  | √ | √ | √ |   | √ |   |   |   | علم النفس المرضي                  | 16 |



|   |   |   |   |  |   |   |   |   |   |   |   |  |   |   |                                    |    |
|---|---|---|---|--|---|---|---|---|---|---|---|--|---|---|------------------------------------|----|
|   |   |   | √ |  |   | √ |   | √ | √ |   |   |  |   |   | الاختبارات<br>والمقاييس<br>النفسية | 17 |
|   |   |   |   |  |   |   |   |   |   | √ |   |  | √ | √ | تاريخ علم<br>النفس                 | 18 |
|   | √ |   |   |  |   |   | √ |   |   |   | √ |  | √ |   | التوجيه<br>والإرشاد<br>النفسي      | 19 |
| √ | √ | √ |   |  |   | √ | √ | √ | √ |   | √ |  |   |   | علم النفس<br>الإكلينيكي            | 20 |
| √ | √ | √ |   |  |   | √ |   | √ | √ |   | √ |  |   |   | العلاج<br>النفسي                   | 21 |
| √ | √ | √ |   |  | √ | √ | √ | √ | √ |   | √ |  |   |   | تدريب<br>ميداني                    | 22 |
|   |   | √ | √ |  |   |   |   | √ | √ | √ |   |  |   |   | مشروع<br>التخرج                    | 23 |

مصنوفة ربط مخرجات مساقات القسم بالمخرجات التعليمية للبرنامج

| م  | المساق                            | مخرج البرنامج 1 | مخرج البرنامج 2 | مخرج البرنامج 3 | مخرج البرنامج 4 | مخرج البرنامج 5 | مخرج البرنامج 6 | مخرج البرنامج 7 | مخرج البرنامج 8 | مخرج البرنامج 9 | مخرج البرنامج 10 | مخرج البرنامج 11 | مخرج البرنامج 12 | مخرج البرنامج 13 | مخرج البرنامج 14 | مخرج البرنامج 15 |
|----|-----------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|------------------|------------------|------------------|
| 1  | علم النفس المعرفي                 | √               |                 | √               |                 | √               |                 |                 | √               |                 |                  |                  |                  |                  | √                |                  |
| 2  | صعوبات التعلم                     | √               | √               |                 | √               |                 |                 | √               |                 |                 |                  | √                |                  |                  |                  |                  |
| 3  | الموهبة والتفوق                   |                 |                 |                 |                 | √               | √               |                 |                 | √               |                  |                  |                  | √                |                  |                  |
| 4  | مهارات التفكير                    |                 |                 |                 | √               | √               |                 |                 |                 |                 |                  | √                |                  |                  |                  |                  |
| 5  | استخدام الحاسوب في البحوث النفسية |                 |                 |                 |                 |                 | √               |                 |                 |                 | √                |                  | √                |                  |                  |                  |
| 6  | علم النفس الصناعي                 | √               |                 |                 |                 |                 |                 |                 |                 |                 |                  |                  |                  |                  |                  | √                |
| 7  | علم النفس البيئي                  |                 |                 |                 |                 |                 | √               |                 |                 |                 |                  | √                | √                |                  |                  |                  |
| 8  | علم النفس السياسي                 |                 |                 |                 |                 |                 |                 | √               |                 |                 |                  |                  |                  |                  | √                |                  |
| 9  | قانون الأسرة لدولة الإمارات       | √               | √               |                 |                 |                 |                 |                 |                 | √               |                  |                  |                  |                  |                  |                  |
| 10 | علم النفس المرأة                  |                 |                 |                 |                 |                 | √               | √               |                 |                 |                  |                  |                  |                  |                  | √                |
| 11 | علم الأنتروبولوجيا                |                 |                 |                 |                 |                 |                 |                 | √               |                 |                  |                  |                  |                  |                  | √                |
| 12 | علم نفس ذوي الإعاقة p             | √               |                 |                 |                 |                 |                 |                 |                 |                 |                  | √                | √                |                  |                  |                  |
| 13 | علم النفس العصبي                  |                 |                 |                 |                 |                 |                 | √               | √               | √               | √                |                  |                  |                  |                  | √                |
| 14 | الصحة النفسية                     |                 | √               |                 |                 |                 |                 |                 | √               |                 |                  |                  |                  |                  |                  | √                |
| 15 | علم نفس الإدمان                   | √               |                 |                 |                 |                 |                 |                 |                 | √               |                  |                  |                  | √                |                  |                  |
| 16 | علم النفس الصحي                   | √               |                 |                 |                 |                 |                 |                 |                 |                 |                  |                  | √                |                  |                  | √                |



|   |   |   |  |  |   |   |   |   |   |   |  |   |   |   |                        |    |
|---|---|---|--|--|---|---|---|---|---|---|--|---|---|---|------------------------|----|
| √ | √ | √ |  |  |   |   | √ | √ | √ |   |  |   |   | √ | تعديل السلوك           | 17 |
| √ |   |   |  |  |   | √ |   |   |   | √ |  |   |   | √ | علم النفس الإيجابي     | 18 |
|   |   |   |  |  | √ | √ |   |   | √ |   |  |   | √ |   | علم النفس الجنائي      | 19 |
|   |   |   |  |  | √ |   | √ |   |   | √ |  |   |   | √ | علم النفس الأسري       | 20 |
| √ |   |   |  |  | √ | √ | √ |   |   | √ |  |   |   | √ | علم نفس المسنين        | 21 |
|   | √ |   |  |  |   |   | √ |   | √ |   |  | √ |   | √ | علم نفس الفروق الفردية | 22 |



## توصيف مختصر للمساقات

## مدخل إلى علم النفس

| مدخل إلى علم النفس     |      |      | اسم المساق     |
|------------------------|------|------|----------------|
| Psy101                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 0    | 3    |                |
| لا يوجد                |      |      | المتطلب السابق |
| متطلب قسم إجباري       |      |      | نوع المساق     |

## توصيف مختصر للمساق:

يتناول هذا المساق توضيح مفهوم علم النفس كعلم والتعرف على مجالاته المختلفة، كما يتناول المساق المبادئ والقوانين التي تحكم الظواهر السلوكية المختلفة، ويعرض المساق لمناهج البحث الأساسية المستخدمة في علم النفس. ثم يوضح العلاقة بين علم النفس والعلوم الأخرى. كما يتناول المساق فكرة عامة عن بعض نظريات علم النفس المفسرة للسلوك الإنساني، فضلاً عن بعض المفاهيم المهمة في علم النفس مثل السلوك الإنساني، والدوافع والانفعالات، والاحساس والإدراك، والذاكرة والذكاء والاضطراب النفسي، كما يتضمن المساق مجموعة من النماذج التطبيقية لتفسير السلوك الإنساني في ضوء هذه المفاهيم .

## علم نفس النمو : الطفولة والمراهقة

| " علم نفس النمو : الطفولة والمراهقة " |      |      | اسم المساق     |
|---------------------------------------|------|------|----------------|
| Psy102                                |      |      | رقم المساق     |
| مجموع الساعات المعتمدة                | عملي | نظري | عدد الساعات    |
| 3                                     | 0    | 3    |                |
|                                       |      |      | المتطلب السابق |
| متطلب قسم إجباري                      |      |      | نوع المساق     |

## توصيف مختصر للمساق:

يتناول المساق مفهوم النمو وأهميته وأهدافه وأهم قوانينه ومبادئ النمو والنظريات المفسرة له ودلالاتها. كما يقدم إطلالة على مناهج البحث فيه. إضافة لذلك، يتناول المساق مظاهر وخصائص النمو المختلفة (الجسمي والفسولوجي والعقلي والانفعالي والحركي واللغوي والاجتماعي والديني) في المراحل العمرية المختلفة من الطفولة إلى المراهقة. كما يناقش المساق بعض المشكلات السلوكية المصاحبة للتغيرات التي تطرأ على مظاهر النمو لدى الفرد في كافة المراحل العمرية وكيفية التعامل معها .

## علم النفس الاجتماعي

| علم النفس الاجتماعي    |      |      | اسم المساق  |
|------------------------|------|------|-------------|
| Psy103                 |      |      | رقم المساق  |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات |
| 3                      | 0    | 3    |             |

|                |                           |
|----------------|---------------------------|
| المتطلب السابق | مدخل إلى علم النفس psy101 |
| نوع المساق     | إجباري                    |

#### توصيف مختصر للمساق:

يتناول المساق علاقة علم الاجتماع بعلم النفس، كما يوضح تاريخ نشأة وتطور علم النفس الاجتماعي. ويعرض المساق لمناهج البحث المستخدمة في هذا المجال، كما يوضح العلاقة بينه وبين العلوم الأخرى. ويعرض المساق لمجموعة متنوعة من مواضيع علم النفس الاجتماعي، مثل: العدوان، سلوك المعاضدة الاجتماعية، التنشئة الاجتماعية، الاتجاهات وكيفية تغييرها إضافة إلى عرض مفهوم القيادة من المنظور النفسي، كما يتضمن المساق مجموعة من الأنشطة التطبيقية العملية لتفسير السلوكيات المختلفة ضمن إطار المفاهيم والنظريات التي تضمنها المساق

#### الإحصاء في البحوث النفسية (أ)

| اسم المساق     | الإحصاء في البحوث النفسية (1) |         |
|----------------|-------------------------------|---------|
| رقم المساق     | Psy104                        |         |
| عدد الساعات    | نظري: 2                       | عملي: 2 |
| نوع المساق     | متطلب قسم إجباري              |         |
| المتطلب السابق | المدخل إلى علم النفس psy101   |         |
|                | مجموع الساعات المعتمدة: 3     |         |

#### توصيف مختصر للمساق:

يهدف هذا المساق إلى تعريف الطلبة بمبادئ الإحصاء الوصفي التي تساعد الطالب في تفسير الظاهرة المدروسة في علم النفس. ويتم فيه تناول موضوعات عرض البيانات وتوزيعها ومقاييس النزعة المركزية، مقاييس التشتت، والتوزيع الاعتمادي والاحتمالات والارتباط والانحدار واختبار الفرضيات ومعرفة المتغيرات. وأخيراً، يهدف المساق إلى تدريب الطلبة على استخدام برامج الحاسوب في الإحصاء مثل SPSS كجزء أساسي للإلمام بالمفاهيم والأساليب الإحصائية التي يضمها المساق وبما يخدم تحليل البيانات الناتجة عن تطبيق الاختبارات النفسية المختلفة.

#### Communication Skills in English Language

| Course Title           | Communication Skills in English Language |           |  |
|------------------------|--|-----------|--|
| Course Number          | Psy105                                   |           |  |
| Number of Credit Hours | Theory                                   | Practical |  |
|                        | 3  | 0         |  |
| Pre-Requisite          | None                                     |           |  |
| Course Type            | Compulsory<br>Level: 3 Semester: 1       |           |  |

#### Course Description

The course aims to provide students with the language skills and knowledge required to communicate effectively in English in various speech events. As oral language is the basis for communication, instruction will be focused more on listening and speaking to equip learners with the necessary tools to express their thoughts, ideas, and feelings and be able to respond to others. To foster their abilities, students will also be exposed to the grammatical and structural aspects of English including reading, writing and vocabulary building.

علم نفس الشخصية

| علم نفس الشخصية           |      |      | اسم المساق     |
|---------------------------|------|------|----------------|
| Psy206                    |      |      | رقم المساق     |
| مجموع الساعات المعتمدة    | عملي | نظري | عدد الساعات    |
| 3                         | 0    | 3    |                |
| مدخل إلى علم النفس psy101 |      |      | المتطلب السابق |
| متطلب قسم إجباري          |      |      | نوع المساق     |

توصيف مختصر للمساق:

يتناول هذا المساق مفاهيم أساسية في نظريات الشخصية منها مكونات الشخصية وكيفية التعرف على أنماط الشخصية وكيف يمكن أن تقاس، وما هي العوامل المؤثرة فيها. كما يتناول استعراض لتعاريف الشخصية، مكونات الشخصية، آليات عمل الشخصية، إضافة إلى عرض بعض نظريات الشخصية المهمة وكيفية الاستفادة منها في تفسير السلوكيات المختلفة للأفراد ضمن إطار نمط الشخصية الخاص بهم كما يوضح المساق الشخصية في اتزانها واختلالها. فضلاً عن عرض لبعض الميكانيزمات الدفاعية والانحرافات الشخصية.

علم النفس الفسيولوجي

| علم النفس الفسيولوجي        |         |         | اسم المساق      |
|-----------------------------|---------|---------|-----------------|
| Psy207                      |         |         | رقم المساق      |
| مجموع الساعات المعتمدة: 3   | عملي: 0 | نظري: 3 | عدد الساعات     |
| متطلب قسم إجباري            |         |         | نوع المساق      |
| المدخل إلى علم النفس psy101 |         |         | المتطلب السابق  |
|                             |         |         | موعد طرح المساق |

توصيف مختصر للمساق:

يتناول المساق وظائف أجهزة الجسم المختلفة وعلاقتها بالسلوك وهي الجهاز العصبي بشقيه المركزي والذاتي. ويتناول الغدد الصماء ودور كل منها في الحالة الانفعالية والنفسية للكائن الحي (الإنسان)، ويقدم شرحاً وافياً لأجهزة الجسم الحسية وهي الإبصار، السمع، والحاسة الجلدية العامة، الذوق، الشم. كما يتناول فسيولوجية التعلم والنوم والذاكرة وفسيولوجية بعض الاضطرابات النفسية، كما يتيح المساق الفرصة للطلاب القيام بعمل زيارات ميدانية عملية .

علم نفس التعلم

| علم نفس التعلم            |      |      | اسم المساق     |
|---------------------------|------|------|----------------|
| Psy208                    |      |      | رقم المساق     |
| مجموع الساعات المعتمدة    | عملي | نظري | عدد الساعات    |
| 3                         | 2    | 2    |                |
| مدخل إلى علم النفس psy101 |      |      | المتطلب السابق |
| متطلب قسم إجباري          |      |      | نوع المساق     |

### توصيف مختصر للمساق:

يتناول المساق علاقة علم النفس بالتربية ومفهوم علم نفس التعلم وأهدافه وأهميته. كما يتناول المساق شرح مفهوم عملية التعلم وخصائصه وشروط حدوثه. ويتضمن المساق جانبين للتعلم النظري والعملي حيث يقدم المساق مجموعة من التطبيقات العملية حول مفهوم التعلم وأثر النضج والممارسة في عملية التعلم وكيفية انتقال أثر التعلم والتدريب، كما يقدم المساق بعض النماذج التطبيقية للتعلم السلوكي. كذلك إجراء بعض التجارب على عملية التعلم في مختبر علم النفس.

### القياس النفسي

| القياس النفسي                                     |      |      | اسم المساق     |
|---|------|------|----------------|
| Psy209  |      |      | رقم المساق     |
| مجموع الساعات المعتمدة                            | عملي | نظري | عدد الساعات    |
| 3   | 0    | 3    |                |
| مدخل إلى علم النفس، الإحصاء في البحوث النفسية (1) |      |      | المتطلب السابق |
| متطلب قسم إجباري                                  |      |      | نوع المساق     |

### توصيف مختصر للمساق:

يتناول المساق عرض لمفاهيم القياس ومسلمات القياس ومستوياته. كما يتناول المساق إلى تحليل وبناء أدوات، ويتم في هذا الإطار معايير الاختبارات النفسية وأهمها الثبات والصدق وإعداد المعايير للاختبار، إضافة إلى كيفية تفسير الدرجة. يعرض المساق بعد ذلك لأتمثلة من الاختبارات والمقاييس النفسية سواء في قياس الذكاء أو القدرات العقلية من جهة أو استخبارات الشخصية من جهة أخرى. وفي النهاية، يتم تدريب الطلبة على تطوير نموذج لاختبار نفسي بتطبيق ما درسوه.

### علم النفس المرضي

| علم النفس المرضي          |      |      | اسم المساق     |
|---------------------------|------|------|----------------|
| Psy310                    |      |      | رقم المساق     |
| مجموع الساعات المعتمدة    | عملي | نظري | عدد الساعات    |
| 3                         | 0    | 3    |                |
| مدخل إلى علم النفس psy101 |      |      | المتطلب السابق |
| متطلب قسم إجباري          |      |      | نوع المساق     |

### توصيف مختصر للمساق:

يتناول هذا المساق تعريف الطالب بفئات الانحراف والاضطرابات العصبية الذهانية. كما يتناول التصنيف العالمي الاخير للاضطرابات العصبية، ويعرض لكيفية تشخيص الأعراض. كما يعرض المساق لمجموعة من الأمراض النفسية العصبية والذهانية، من حيث الأسباب والأعراض لكل مرض وكيفية التعامل معه.

### الاختبارات والمقاييس النفسية

| الاختبارات والمقاييس النفسية |      |      | اسم المساق  |
|------------------------------|------|------|-------------|
| Psy311                       |      |      | رقم المساق  |
| مجموع الساعات المعتمدة       | عملي | نظري | عدد الساعات |
| 3                            | 6    | 0    |             |

|                |  |
|----------------|--|
| المتطلب السابق | مدخل إلى علم النفس ، الإحصاء في البحوث النفسية (1) |
| نوع المساق     | متطلب إجباري قسم                                   |

#### توصيف مختصر للمساق:

يتعرف الطالب في هذا المساق على الاختبارات النفسية والعقلية، كما يوضح للطالب كيفية تطبيق بعض الاختبارات الشخصية والاختبارات العقلية، واختبارات الميول المهنية. كذلك يتناول المساق شرح النظريات المتعلقة وتحديد الدلالات الاكلينيكية للاختبار. ويعرض المساق لأهم الاختبارات المطبقة في الميدان العملي، وطرق وأساليب جمع المعلومات المتنوعة للوصول إلى النتائج الصحيحة. إضافة لذلك، يعرض المساق للتطبيقات المتعلقة بكل اختبار، ويتيح الفرصة للطلبة للتدريب عليها.

#### علم النفس الصناعي والتنظيمي

| اسم المساق     | علم النفس الصناعي والتنظيمي |         |                           |
|----------------|-----------------------------|---------|---------------------------|
| رقم المساق     | Psy312                      |         |                           |
| عدد الساعات    | نظري: 3                     | عملي: 0 | مجموع الساعات المعتمدة: 3 |
| المتطلب السابق | مدخل إلى علم النفس psy101   |         |                           |
| نوع المساق     | متطلب قسم اختياري           |         |                           |

#### توصيف مختصر للمساق:

يستهدف المساق تعريف الطالب بعلم النفس الصناعي والتنظيمي كما يستهدف توضيح التوجيه المهني، وخاصة في المدرسة. ويتناول المساق مجال علم النفس التنظيمي من خلال طرح قضايا من قبيل الرضا المهني والأنماط الإدارية والتنظيمية وقياس الروح المعنوية والبيروقراطية. ويتضمن المساق قضايا التوافق المهني مثل: إدارة الصراع، دافعية العمل، سوء التوافق المهني، علم نفس العامل المتغيب. كما يتيح المساق الفرصة لمناقشة بعض قضايا الأمن الصناعي والتنظيمي مثل القابلية للحوادث، حوادث المرور واستهداف الحوادث في المجال الصناعي واستعراض نماذج وحالات من الواقع وكيفية التعامل معها

#### علم النفس التربوي

| اسم المساق     | علم النفس التربوي         |      |                        |
|----------------|---------------------------|------|------------------------|
| رقم المساق     | Psy313                    |      |                        |
| عدد الساعات    | نظري                      | عملي | مجموع الساعات المعتمدة |
|                | 3                         | 0    | 3                      |
| المتطلب السابق | مدخل إلى علم النفس psy101 |      |                        |
| نوع المساق     | متطلب قسم إجباري          |      |                        |

#### توصيف مختصر للمساق:

يتناول المساق علاقة علم النفس بالتربية ومفهوم علم النفس التربوي وأهدافه وأهميته بالنسبة للعاملين في الحقل التربوي. كما يتناول المساق شرح مفهوم عملية التعلم وخصائصه وشروط حدوثه، إضافة إلى تقديم بعض النظريات ذات وجهات النظر المختلفة (السلوكية والمعرفية) التي تفسر عملية التعلم وكيفية الاستفادة منها في عملية التدريس. ومن هذه النظريات: نظرية معالجة المعلومات التي تشرح مفهوم الذاكرة بأنواعها الثلاثة (الحسية، قصيرة المدى، طويلة المدى) والعمليات المرتبطة بها مثل الانتباه والإدراك وتطبيقاتها التربوية في عملية التدريس. فضلا عن تقديم موضوعات أخرى مهمة في مجال علم النفس مثل الدافعية وعلاقتها بعملية التدريس، وكيفية الاستفادة منها في تحفيز الطلبة على عملية التعلم

كما يعرض المساق للذكاء والنظريات المفسرة له، علاوة على مفهوم التفكير بأنواعه المختلفة (الناقد والابتكاري وحل المشكلات) وكيفية تنميته في مجال التدريس.

#### 14- علم النفس التجريبي

| علم النفس التجريبي                     |         |         | اسم المساق     |
|--|---------|---------|----------------|
| Psy314                                 |         |         | رقم المساق     |
| مجموع الساعات المعتمدة: 3              | عملي: 0 | نظري: 3 | عدد الساعات    |
| متطلب قسم إجباري                       |         |         | نوع المساق     |
| المدخل إلى علم النفس ، وعلم نفس التعلم |         |         | المتطلب السابق |

#### توصيف مختصر للمساق:

يتناول هذا المساق أساليب التجريب النفسي مع عرض لمحة تاريخية عن أسهامات الرواد الأوائل لعلم النفس التجريبي، إضافة إلى التعريف بأهمية المنهج التجريبي والعناصر الأساسية للتجربة النفسية، مع التأكيد على التصميمات التجريبية المختلفة، وضبط المتغيرات وقياسها، الخطأ التجريبي،

كما يؤكد على التدريب المخبري والميداني واستخدام الأجهزة المتعارف عليها في مختبرات علم النفس ، من خلال التمارين و التدريب على تجارب الإبصار، والسمع، والتناسق الحركي، والتعلم، والذاكرة، وزمن الرجوع، انتقال أثر التدريب، وغيرها. علاوة على على استخدام البرامج الحاسوبية في تصميم التجارب النفسية وكتابة تقارير العلمية

#### مناهج البحث في علم النفس

| مناهج البحث في علم النفس   |         |         | اسم المساق     |
|--|---------|---------|----------------|
| Psy315   |         |         | رقم المساق     |
| مجموع الساعات المعتمدة: 3  | عملي: 0 | نظري: 3 | عدد الساعات    |
| متطلب قسم إجباري   |         |         | نوع المساق     |
| المدخل إلى علم النفس ، والإحصاء في البحوث النفسية (1) /القياس النفسي |         |         | المتطلب السابق |

#### توصيف مختصر للمساق:

يتناول أهداف البحث العلمي في علم النفس ومناهج البحث فيه. ويعالج المساق في هذا الإطار المنهج الوصفي والمنهج الارتباطي والمنهج التجريبي والمنهج شبه التجريبي. كما يتناول خطوات البحث العلمي في علم النفس، والأدوات المستخدمة، وكتابة التقرير العلمي. يقدم الطالب تقريراً بحثياً يطبق فيه ما درسه في مناهج البحث والقياس النفسي مع توضيحه للأساليب الإحصائية المناسبة لمعالجة البيانات وفقاً للمنهج المستخدم

#### علم النفس المعرفي :

| علم النفس المعرفي         |         |         | اسم المساق     |
|---------------------------|---------|---------|----------------|
| Psy316                    |         |         | رقم المساق     |
| مجموع الساعات المعتمدة: 3 | عملي: 0 | نظري: 3 | عدد الساعات    |
| متطلب قسم اختياري         |         |         | نوع المساق     |
| مدخل إلى علم النفس psy101 |         |         | المتطلب السابق |

**توصيف مختصر للمساق:**

يقدم المساق فكرة عامة عن علم النفس المعرفي ك مجال حديث في علم النفس حيث يتناول المساق مقدمة حول علم النفس المعرفي ثم شرح آلية عمل الدماغ والعمليات المرتبطة به مثل عمليات الانتباه والإدراك وكذلك الذاكرة، وشرح نموذج تجهيز المعلومات ( تشفير – تخزين – استرجاع) وأساليب تحسين الذاكرة. كما يعرض المساق اللغة ومشكلاتها فضلاً عن أن المساق يعرض طرق حل المشكلات ومفهوم الإبداع ومفهوم الذكاء الاصطناعي كذلك يتناول المساق مفهوم التفكير وأنواعه ومفهوم العمليات ما وراء المعرفية ، علاوة على أن المساق يتيح الفرصة لمجموعة من التطبيقات المعرفية في الحياة اليومية

**علم نفس الاسرة**

| علم نفس الأسرة            |         |         | اسم المساق     |
|---------------------------|---------|---------|----------------|
| Psy317                    |         |         | رقم المساق     |
| مجموع الساعات المعتمدة: 3 | عملي: 0 | نظري: 3 | عدد الساعات    |
| مدخل إلى علم النفس psy101 |         |         | المتطلب السابق |
| متطلب اختياري             |         |         | نوع المساق     |

**توصيف مختصر للمساق:**

يتناول المساق أهمية الأسرة ومقوماتها وأساليب الاتصال السائدة فيها، ودور الأسرة في تنشئة الطفل وتكوين شخصيته. كما يتناول الصحة النفسية للأسرة، وتزويد الوالدين بالمعلومات والمعارف عن أساليب تنشئة الأبناء وآثار كل أسلوب إيجاباً كان أو ضاراً؛ مما يؤدي إما إلى التوافق والصحة النفسية أو سوء التوافق والاضطرابات النفسية. كذلك يزود المساق بالمعلومات والإرشادات الخاصة بالرعاية الأسرية للأبناء بما يوفر لهم صحة نفسية سليمة أو ما يسمى بالتربية النفسية. كما يتيح المساق الفرصة للطلاب للقيام بمجموعة من الزيارات الميدانية .

**التوجيه والإرشاد النفسي**

| التوجيه والإرشاد النفسي   |      |      | اسم المساق     |
|---------------------------|------|------|----------------|
| Psy418                    |      |      | رقم المساق     |
| مجموع الساعات المعتمدة    | عملي | نظري | عدد الساعات    |
| 3                         | 0    | 3    |                |
| مدخل إلى علم النفس psy101 |      |      | المتطلب السابق |
| متطلب إجباري قسم          |      |      | نوع المساق     |

**توصيف مختصر للمساق:**

يتناول هذا المساق توضيح الفرق بين عمليتي التوجيه والإرشاد، كما يوضح تاريخ نشأة تطور الإرشاد النفسي، إضافة إلى شرح أهداف الإرشاد وأهم المبادئ التي يقوم عليها، علاوة على تحديد وشرح أهم مهارات العمل الإرشادي، كما يتناول المساق أهم النظريات التي تستخدم في الإرشاد، وطرق وأساليب جمع المعلومات المتنوعة وكيفية عمل دراسة الحالة، إضافة إلى شرح كيفية إدارة الجلسات الإرشادية، كذلك يوضح مجموعة من الأساليب العلاجية المتنوعة كما يتيح المساق الفرصة للطلبة للتدريب على كيفية عمل دراسة الحالة ووضع الخطط والبرامج العلاجية المناسبة

**مهارات التفكير :**

| مهارات التفكير            |      |      | اسم المساق  |
|---------------------------|------|------|-------------|
| Psy419                    |      |      | رقم المساق  |
| مجموع الساعات المعتمدة: 3 | عملي | نظري | عدد الساعات |

|                           |   |   |                |
|---------------------------|---|---|----------------|
| 3                         | 0 | 3 |                |
| مدخل إلى علم النفس psy101 |   |   | المتطلب السابق |
| متطلب اختياري             |   |   | نوع المساق     |

#### توصيف مختصر للمساق:

يتناول المساق مفهوم التفكير وخصائصه وأهميته، ثم الاتجاهات النظرية المختلفة التي تناولت تعليم التفكير، علاوة على ذلك يعرض المساق لأنواع التفكير المختلفة الإبداعي والناقد والتفكير عالي الرتبة والتفكير ما وراء المعرفي، فضلا عن العديد من المهارات والأنشطة التطبيقية لإتاحة الفرصة لممارسة هذه الأنواع من التفكير.

#### علم النفس الاكلينيكي

| علم النفس الاكلينيكي      |      |      | اسم المساق     |
|---------------------------|------|------|----------------|
| Psy420                    |      |      | رقم المساق     |
| مجموع الساعات المعتمدة    | عملي | نظري | عدد الساعات    |
| 3                         | 0    | 3    |                |
| مدخل إلى علم النفس psy101 |      |      | المتطلب السابق |
| متطلب قسم إجباري          |      |      | نوع المساق     |

#### توصيف مختصر للمساق:

يتناول هذا المساق تعريف الطالب بعلم النفس الإكلينيكي، كما يتناول أسسه ومبادئه بصفه عامه ومبادئ وأدوات التشخيص الإكلينيكي، كذلك يعرض المساق كيفية استخدام المواد العلمية في التشخيص، كما يتناول المساق أيضا عرض مجموعة من الأمراض النفسية وكيفية التعامل معها، كما يتيح المساق للطالب الفرصة لتشخيص مجموعة من الاضطرابات النفسية ووضع خطط علاجية مناسبة .

#### العلاج النفسي

| العلاج النفسي             |         |         | اسم المساق     |
|---------------------------|---------|---------|----------------|
| Psy421                    |         |         | رقم المساق     |
| مجموع الساعات المعتمدة: 3 | عملي: 0 | نظري: 3 | عدد الساعات    |
| متطلب قسم إجباري          |         |         | نوع المساق     |
| مدخل إلى علم النفس psy101 |         |         | المتطلب السابق |

#### توصيف مختصر للمساق:

يتناول هذا المقرر المفاهيم ذات الصلة بالعلاج النفسي، وأسباب الاضطرابات النفسية وأعراضها كما يوضحها مساق علم النفس العيادي. ويغطي المساق موضوعات تشمل: نظريات العلاج، وعلم النفس العيادي، كما يتيح المساق المجال للتطبيق العملي من خلال مجموعة من الزيارات الميدانية لضمان تقديم تقنيات استشارة فعالة في مواقف متنوعة. ويركز المقرر على تنمية ممارسات فعالة في التدخل والعلاج في مواقف متنوعة لمتلقي خدمة متنوعين.

#### التدريب الميداني

| التدريب الميداني          |          |         | اسم المساق  |
|---------------------------|----------|---------|-------------|
| Psy422                    |          |         | رقم المساق  |
| مجموع الساعات المعتمدة: 6 | عملي: 12 | نظري: 0 | عدد الساعات |



|                |   |
|----------------|---|
| نوع المساق     | متطلب قسم إجباري  |
| المتطلب السابق | مدخل إلى علم النفس، علم النفس الاكلينيكي، العلاج النفسي، الاختبارات والمقاييس النفسية<br>إنجاز 99 ساعة معتمدة |

#### توصيف مختصر للمساق:

يستهدف هذا المساق إتاحة الفرصة للطالب أن يطبق كل ما درسه من معارف ومهارات وخبرات تتعلق بتخصصه في الميدان، حتى يكون مؤهلاً للعمل الفعلي بعد التخرج. وفي هذا الإطار، يقوم الطالب باختبار حالة يقوم بدراستها. وتتنوع هذه الحالات من طالب في مدرسة لديه مشكلة سلوكية أو دراسية، إلى الحالات التي تعاني من اضطرابات نفسية وعقلية في المراكز الصحية مروراً بدور المسنين أو المعاقين أو الموهوبين.. الخ. يقوم الطالب بإجراء المقابلات وتطبيق الأدوات على الحالة بمتابعة المرشد الأكاديمي، ثم يقدم في نهاية المطاف تقريراً تفصيلياً عما قام به. ويتضمن هذا التقرير المعلومات الأساسية عن الحالة وكيف ظهرت المشكلة أو الظاهرة (في حالة الموهبة)، وكيف تطورت، وصولاً إلى وضعها الراهن والمآل في المستقبل.

#### مشروع التخرج

| اسم المساق     | مشروع التخرج                              |
|----------------|---|
| رقم المساق     | Psy423                                    |
| عدد الساعات    | نظري: 1 عملي: 4 مجموع الساعات المعتمدة: 3 |
| نوع المساق     | متطلب قسم إجباري                          |
| المتطلب السابق | إنجاز 105 ساعة معتمدة                     |

#### توصيف مختصر للمساق:

يستهدف هذا المساق تدريب الطالب على كيفية إجراء البحوث في مجال علم النفس. وفي هذا الإطار يتم مساعدة الطالب على اختيار موضوع بحثي، ثم إرشاده إلى المراجع والمصادر التي يمكن أن تساعد في بلورة مشكلة البحث ووضع فرضياته. إضافة لذلك، متابعة الطالب وهو يختار أدوات البحث أو تطويرها، وتوجيهه في كيفية معالجة البيانات التي حصل عليها من عملية تطبيق الأدوات. كما يتم إرشاد الطالب عن كيفية كتابة التقرير البحثي. وفي الختام، يتم تقييم عمل الطالب.

### توصيفات مساقات القسم الاختيارية

#### صعوبات التعلم :

| اسم المساق     | صعوبات التعلم                             |
|----------------|---|
| رقم المساق     | Psy124                                    |
| عدد الساعات    | نظري: 3 عملي: 0 مجموع الساعات المعتمدة: 3 |
| المتطلب السابق | مدخل إلى علم النفس psy101                 |
| نوع المساق     | متطلب قسم اختياري                         |

#### توصيف مختصر للمساق:

يتناول المساق مفهوم صعوبات التعلم، ويوضح تاريخ نشأة وتطور مجال صعوبات التعلم، كذلك يعرض التصنيفات المختلفة لصعوبات التعلم الأكاديمية والنمائية مع توضيح الفرق بينهما، كما يقدم المساق مجموعة من الخصائص يمكن من خلالها الكشف عن ذوي صعوبات التعلم. فضلاً عن تقديم آليات الكشف المبكر عن صعوبات التعلم، كما يوفر المساق الفرصة للطالب للتدريب على كيفية استخدام الأساليب والأدوات التشخيصية فضلاً عن كيفية وضع وتصميم الخطط العلاجية،

## سيكولوجية الموهبة والتفوق

| اسم المساق     |         |         | سيكولوجية الموهبة والتفوق |
|----------------|---------|---------|---------------------------|
| رقم المساق     |         |         | Psy125                    |
| عدد الساعات    | نظري: 3 | عملي: 0 | مجموع الساعات المعتمدة: 3 |
| المتطلب السابق |         |         | مدخل إلى علم النفس psy101 |
| نوع المساق     |         |         | متطلب قسم اختياري         |

### توصيف مختصر للمساق:

يعرض المساق لنبذة تاريخية عن رعاية الموهوبين والمتفوقين، خاصة في العصر الحديث. كما يستعرض المساق للتعريفات والنماذج والنظريات في مجال الموهبة والتفوق، وي طرح في هذا الإطار نموذجاً خاصاً عن الأداء الإنساني الفائق. كذلك يتناول المساق سمات الموهوبين والمتفوقين وأساليب الكشف عنهم وقياسها، ويعرض أيضاً لاحتياجاتهم ومشكلاتهم وكيفية تصميم برامج إثرائية. وأخيراً يتناول المساق كيفية توجيه وإرشاد هذه الفئة الواعدة من أبناء الأمة نفسياً وتعليمياً.

## استخدام الحاسوب في البحوث النفسية

| اسم المساق     |         |         | استخدام الحاسوب في البحوث النفسية                  |
|----------------|---------|---------|--|
| رقم المساق     |         |         | Psy126   |
| عدد الساعات    | نظري: 2 | عملي: 2 | مجموع الساعات المعتمدة: 3                          |
| المتطلب السابق |         |         | لا يوجد  |
| نوع المساق     |         |         | مدخل إلى علم النفس ، الإحصاء في البحوث النفسية (1) |

### توصيف مختصر للمساق:

يهدف هذا المساق إلى اكساب الطالب الخبرة والمهارة والمعرفة العملية في استخدام الحاسوب وتطبيقاته (معالجة النصوص والجداول الإلكترونية والعروض التوضيحية والشبكات وقواعد البيانات والنشر الإلكتروني) في إعداد البحوث النفسية وما تتطلب من خطوات ومراحل: البحث عن الدراسات السابقة، جمع البيانات، تحليل البيانات، ومرحلة عرض النتائج. استخدام الإنترنت وتوظيفها في البحوث النفسية. مع تطبيق لحساب الاختبارات الإحصائية المتقدمة لتحليل البيانات في مجال البحوث النفسية، كل ذلك في سياق استخدام مجموعة متنوعة من تطبيقات وحزم برمجيات الحاسوب، مع التركيز على حزمة البرامج الإحصائية للعلوم الاجتماعية SPSS.

## علم النفس البيئي

| اسم المساق     |         |         | علم النفس البيئي          |
|----------------|---------|---------|---------------------------|
| رقم المساق     |         |         | Psy127                    |
| عدد الساعات    | نظري: 3 | عملي: 0 | مجموع الساعات المعتمدة: 3 |
| المتطلب السابق |         |         | لا يوجد                   |
| نوع المساق     |         |         | مدخل إلى علم النفس psy101 |

### توصيف مختصر للمساق:

يستهدف هذا المساق عرض المفاهيم الأساسية لعلم النفس البيئي، إضافة تناول المواضيع الأساسية لهذا المجال. ومحور هذا الفرع من فروع علم النفس هو العلاقات المختلفة بين البيئة الفيزيقية وسلوك الإنسان. ويستند في هذا الصدد على مسلمة تفيد بأن البيئة الفيزيقية سواء كانت طبيعية أو مشيدة تشكل سلوك الإنسان على نحو عميق. وفهم عملية التشكيل هذه أمر هام لأنه يساعدنا على فهم أسباب سلوك الإنسان، كما تساعدنا على أن نظور بفعالية البيئة التي يتفاعل معها الإنسان.

## علم النفس السياسي

| علم النفس السياسي         |         |         | اسم المساق     |
|---------------------------|---------|---------|----------------|
| Psy128                    |         |         | رقم المساق     |
| مجموع الساعات المعتمدة: 3 | عملي: 0 | نظري: 3 | عدد الساعات    |
| مدخل إلى علم النفس psy101 |         |         | المتطلب السابق |
| متطلب قسم اختياري         |         |         | نوع المساق     |

## توصيف مختصر للمساق:

يقدم هذا المساق تعريفاً بعلم النفس السياسي باعتباره نقطة التقاء بين علم النفس وعلم السياسة، ويتناول مواضيع لعل من أهمها: علم نفس السلطة، علم نفس الجماهير، علم نفس المعارضة، علم نفس التطرف، علم نفس العنف، علم نفس الحوار، كما يتيح المساق الفرصة لعرض ومناقشة نماذج تطبيقية لتفسير سلوكيات العنف والتطرف واثراً على المجتمع ووضع مقترحات للتعامل معها.

## قانون الأسرة لدولة الإمارات العربية المتحدة

| قانون الأسرة لدولة الإمارات العربية المتحدة |         |         | اسم المساق     |
|---|---------|---------|----------------|
| Psy129                                      |         |         | رقم المساق     |
| مجموع الساعات المعتمدة: 3                   | عملي: 0 | نظري: 3 | عدد الساعات    |
| متطلب قسم اختياري                           |         |         | نوع المساق     |
| مدخل إلى علم النفس psy101                   |         |         | المتطلب السابق |

## توصيف مختصر للمساق:

يتناول المساق أهم الأبواب الخاصة بالأحوال الشخصية، ودراساتها دراسة مقارنة مستوفية لأهم آراء العلماء وأدلتهم فيما ذهبوا إليه وصحوه. من تلك الأبواب: الزواج وأحكامه، حقوق الزوجين، النكاح وأحكامه كالطلاق والخلع والعدة، أحكام الرضاة والنسب والتبني والحضانة، أحكام التفريق للضرر وللعيب ولغيبوبة الزوج، أحكام الخلع والظهار والإيلاء واللعان، أحكام العدة... وما إلى ذلك من الأحكام الشرعية التي تخص الأسرة، كما يتيح المساق الفرصة لعمل بعض الزيارات الميدانية تتيح التعرف على بعض نماذج ومشكلات من الحياة العامة

## علم نفس ذوي الاحتياجات الخاصة

| علم نفس ذوي الاحتياجات الخاصة |      |      | اسم المساق     |
|-------------------------------|------|------|----------------|
| Psy130                        |      |      | رقم المساق     |
| مجموع الساعات المعتمدة        | عملي | نظري | عدد الساعات    |
| 3                             | 0    | 3    |                |
| متطلب قسم اختياري             |      |      | نوع المساق     |
| مدخل إلى علم النفس psy101     |      |      | المتطلب السابق |

## توصيف مختصر للمساق:

يتناول هذا المساق تعريف الطالب بمجالات الإعاقة العقلية وخاصة من حيث التعريفات الطبية والنفسية والاجتماعية للإعاقة العقلية، كما يتناول مدى انتشار الإعاقة وأسبابها وطرق قياسها وتشخيصها، كما يعرض الخصائص الشخصية والأكاديمية والاجتماعية للمعوقين عقلياً وجسدياً، كما يتناول المساق أيضاً برامج ومناهج المعوقين عقلياً وجسدياً وطرق تنظيمها والقضايا والمشكلات المرتبطة بظاهرة الإعاقة، وكيفية التعامل معها.

## علم النفس العصبي

| علم النفس العصبي          |         |         | اسم المساق     |
|---------------------------|---------|---------|----------------|
| Psy131                    |         |         | رقم المساق     |
| مجموع الساعات المعتمدة: 3 | عملي: 0 | نظري: 3 | عدد الساعات    |
| مدخل إلى علم النفس psy101 |         |         | المتطلب السابق |
| متطلب قسم اختياري         |         |         | نوع المساق     |

### توصيف مختصر للمساق:

يتناول هذا المساق العلاقة بين وظائف الدماغ والسلوك الإنساني في مختلف حالاته سواء في السواء أو المرض. ويحاول المساق إلقاء الضوء على الأسس العصبية للسلوك في مجالات مثل: اللغة والذاكرة والوظائف الانفعالية والتفكير.. الخ. كما يقدم المساق لأسس التقييم النيوروسيكولوجي، إضافة إلى الأطر النظرية التي تفسر الوظائف النفسية المختلفة. كما يتيح المساق الفرصة لعمل تطبيقات التقييم النيوروسيكولوجي على مستوى الوظائف المخية لمناطق الدماغ المختلفة وعلى مستوى الحالات الإكلينيكية بشكل عام.

## علم نفس الإدمان

| علم نفس الإدمان           |         |         | اسم المساق     |
|---------------------------|---------|---------|----------------|
| Psy132                    |         |         | رقم المساق     |
| مجموع الساعات المعتمدة: 3 | عملي: 0 | نظري: 3 | عدد الساعات    |
| مدخل الى علم النفس        |         |         | المتطلب السابق |
| متطلب قسم اختياري         |         |         | نوع المساق     |

### توصيف مختصر للمساق:

يقدم هذا المساق إطلالة على مشكلة المخدرات من الأوجه الاجتماعية والنفسية والصحية. فبعد تحديد المفاهيم ذات الصلة بالموضوع، يقدم عرضاً لتاريخ المواد النفسية. ويناقش أسباب التعاطي والإدمان، البيولوجية منها والنفسية. ويعرض المساق للتأثيرات المتفاوتة لمواد التعاطي وما يترتب عليها من اضطرابات نفسية واجتماعية. كما يتيح المساق الفرصة لبعض الزيارات الميدانية لبعض المؤسسات لرعاية وعلاج المدمنين بالدولة والتعرف على كيفية التعامل وعلاج مثل هذه المشكلات التي لها تداعيات خطيرة على الأفراد وعلى المجتمع.

## علم النفس الصحي

| علم النفس الصحي           |         |         | اسم المساق     |
|---------------------------|---------|---------|----------------|
| Psy133                    |         |         | رقم المساق     |
| مجموع الساعات المعتمدة: 3 | عملي: 0 | نظري: 3 | عدد الساعات    |
| مدخل إلى علم النفس psy101 |         |         | المتطلب السابق |
| متطلب قسم اختياري         |         |         | نوع المساق     |

### توصيف مختصر للمساق:

يتناول هذا المقرر مجالاً حديثاً نسبياً في علم النفس ويتصل أساساً بالعلاقة المتبادلة بين الصحة والجانب النفسي. وفي هذا الإطار يحاول الإجابة عن تساؤلات مثل: هل هناك أنماط معينة من الشخصية أكثر ميلاً للإصابة بأمراض عضوية كضغط الدم أو السكري، ما العوامل النفسية والاجتماعية التي تجعل بعض الناس يتصرفون بطرق غير صحية ويتم ذلك من خلال زيارات ميدانية للمستشفيات والوحدات العلاجية وتطبيق مقاييس الشخصية وحساب معاملات الارتباط بنتائجها والسجلات المرضية، ما الذي يساعد الناس على التكيف مع المرض وخاصة المزمن، هل تؤثر طريقة تفاعل الطبيب مع المريض في تسهيل أو إعاقة الشفاء؟.

## تعديل السلوك

| تعديل السلوك              |         |         | اسم المساق     |
|---------------------------|---------|---------|----------------|
| Psy134                    |         |         | رقم المساق     |
| مجموع الساعات المعتمدة: 3 | عملي: 0 | نظري: 3 | عدد الساعات    |
| مدخل إلى علم النفس psy101 |         |         | المتطلب السابق |
| متطلب قسم اختياري         |         |         | نوع المساق     |

## توصيف مختصر للمساق:

يتناول المساق إحدى الاستراتيجيات الأساسية في مجال العلاج النفسي، القائمة على تصور المدرسة السلوكية وهو "تعديل السلوك". فيبدأ بتعريف تعديل السلوك وأسس وأهدافه، ثم الخطوات العامة في تعديل السلوك. كما يعرض مجموعة من التصاميم كخطط علاجية لتعديل السلوك مثل تعديل السلوك باستخدام التعزيز، أو باستخدام نموذج بناء السلوك، كذلك تعديل السلوك من خلال استخدام العقاب، كما يتيح المساق الفرصة للطلاب لعمل بعض الزيارات الميدانية وعمل دراسة حالات من الواقع وتصميم خطة علاجية لتخفيض السلوك الخاطئ وتُختتم هذه الباقية من التصاميم العلاجية التي تستهدف تعديل السلوك بتقديم نموذج باندورا في تعديل السلوك الإنساني وهو "العلاج بالتعلم الاجتماعي".

## علم النفس الإيجابي

| علم النفس الإيجابي        |         |         | اسم المساق     |
|---------------------------|---------|---------|----------------|
| Psy135                    |         |         | رقم المساق     |
| مجموع الساعات المعتمدة: 3 | عملي: 0 | نظري: 3 | عدد الساعات    |
| مدخل إلى علم النفس psy101 |         |         | المتطلب السابق |
| متطلب قسم اختياري         |         |         | نوع المساق     |

## توصيف مختصر للمساق:

يهدف هذا المساق إلى تقديم خلاصة ما حققه علماء النفس في مجال جديد نسبياً وواعد وهو علم النفس الإيجابي، الذي يركز على نقاط القوة لدى البشر بعد أن كان تركيز علماء النفس منصب في الأساس على نقاط الضعف الإنساني. ومن هذا المنطلق يعالج المساق مواضيع السعادة وجودة الحياة والتفاؤل وكيفية اكتسابه. كما يتناول الانفعالات الإيجابية وحُسن الحال well-being. ويتطرق المساق إلى الجانب التطبيقي في علم النفس الإيجابي، مثل كيفية تعلم التفاؤل وعلاج حُسن الحال well-being therapy. أخيراً، يتطرق المساق إلى علاقة الثقافة بعلم النفس وانعكاس ذلك إيجاباً على الفرد وخاصة الشباب.

## علم النفس الجنائي

| علم النفس الجنائي         |      |      | اسم المساق     |
|---------------------------|------|------|----------------|
| Psy136                    |      |      | رقم المساق     |
| مجموع الساعات المعتمدة    | عملي | نظري | عدد الساعات    |
| 3                         | 0    | 3    |                |
| متطلب اختياري             |      |      | نوع المساق     |
| مدخل إلى علم النفس psy101 |      |      | المتطلب السابق |

## توصيف مختصر للمساق:

يتناول هذا المساق علاقة علم النفس بعلم الجريمة، وكذلك دراسة الأطر النظرية والأسس التطبيقية للنظريات النفسية المعاصرة التي تهتم بتفسير دوافع السلوك الإجرامي والتي تتضمن (الاتجاه النفسي-الحيوي، الاتجاه السلوكي المعرفي، الاجتماعي)، كما يتناول متغيرات

الشخصية وعلاقتها بالسلوك الاجرامي. علاوة على تقديم بعض أساليب تشخيص السلوك الاجرامي وطرق قياسه، كما يتضمن المساق تقديم بعض استراتيجيات وأساليب الوقاية من السلوك الاجرامي بوجه عام (لدى الأحداث والراشدين)، كما يتيح المساق للطالب القيام ببعض الزيارات الميدانية والتعرف على بعض المشكلات السلوكية المنحرفة في المجتمع

### علم نفس المسنين وارشادهم :

| علم نفس المسنين وارشادهم  |         |         | اسم المساق     |
|---|---------|---------|----------------|
| Psy137  |         |         | رقم المساق     |
| مجموع الساعات المعتمدة: 3   | عملي: 0 | نظري: 3 | عدد الساعات    |
| مدخل إلى علم النفس psy101<br>علم نفس النمو : الطفولة والمراهقة psy102 |         |         | المتطلب السابق |
| متطلب قسم اختياري   |         |         | نوع المساق     |

#### توصيف مختصر للمساق:

يتناول هذا المساق مرحلة المسنين والشيخوخة، فيبدأ بتعريف هذه الفئة وأسباب الاهتمام بها، ومفهوم كبار السن في الثقافات المختلفة، والأساس الفلسفي لدراسة المسنين. ويتطرق إلى معاملة الإسلام لهذه المرحلة العمرية، والنظريات المختلفة التي تعرضت لمرحلة المسنين ومشكلاتهم. كما يعرض المساق لمظاهر الاضطراب لدى المسنين، واتجاه الناس نحوهم، ومفهوم الذات لديهم. كما يستعرض المساق بعض الاضطرابات النفسية التي يعانون منها وطرق الوقاية من خلال عرض لمجموعة من البرامج الإرشادية التي تساعد المسن على التكيف مع تلك المرحلة العمرية و التي تتسم بالتدهور في جميع الوظائف النمائية و الفسيولوجية و التي تنعكس سلبيا على الناحية النفسية للمسن ، كما تظهر بعض التغيرات المعرفية لدى المسن مثل الأصابة بالزهايم .

كما يركز المساق على تصميم برامج إرشادية للمسن تساعد على التكيف مع تلك المرحلة و تمكنه من الوصول إلى الصحة النفسية المنشودة. وكذلك تصميم برامج إرشادية للمتعاملين مع حتى يتجاوز المسن أزمه التقدم بالعمر.

### علم نفس الفروق الفردية

| علم نفس الفروق الفردية    |      |      | اسم المساق     |
|---------------------------|------|------|----------------|
| Psy138                    |      |      | رقم المساق     |
| مجموع الساعات المعتمدة    | عملي | نظري | عدد الساعات    |
| 3                         | 0    | 3    |                |
| مدخل إلى علم النفس psy101 |      |      | المتطلب السابق |
| متطلب اختياري             |      |      | نوع المساق     |

#### توصيف مختصر للمساق:

يتناول هذا المساق توضيح الفروق الفردية وكيفية قياسها ، كما يوضح تطور البحث في الفروق الفردية ، لماذا تدرس الفروق الفردية ، تعريف الفروق الفردية إضافة إلى العوامل المؤثرة في مدى الفروق الفردية ، إضافة إلى شرح نظريات التنظيم العقلي المعرفي، وشرح وتحديد أهم الفروق الفردية في التنظيم العقلي ( اختبارات الذكاء، قياسه ، القدرات الخاصة ، التحصيل الدراسي ) ، كما يتناول المساق أهم الفروق الفردية في الشخصية وقياسها " مقابلات ، وملاحظات " ، وطرق وأساليب جمع المعلومات المتنوعة وكيفية توزيع التلاميذ في الفصول ، إضافة إلى شرح التطبيقات التربوية للفروق الفردية، كما يتيح المساق للطالب القيام ببعض الزيارات الميدانية وتطبيق بعض الاختبارات

### English Texts in psychology

Course Name

English Texts in Psychology

|               |                                   |              |                         |
|---------------|-----------------------------------|--------------|-------------------------|
| Course Number | Psy139                            |              |                         |
| Hours         | Theory 3Hours                     | Practical: 0 | Total of Credit Hours:3 |
| Course Type   | Compulsory Department Requirement |              |                         |
| Prerequisite  | psy101                            |              |                         |

**Course Outline:**

This course introduces students to the meanings of English psychological terms and the corresponding meanings in Arabic. This course also enables students to read a full text in English about certain psychological topics with a clear and accurate pronunciation. It also teaches students to use each psychological term in a useful and meaningful sentences. Finally, it enables students to participate in a group to present any selected topic in English and explain it in the classroom

**الإحصاء في البحوث النفسية (2)**

| الإحصاء في البحوث النفسية (2)                       |         |         | اسم المساق     |
|---|---------|---------|----------------|
| Psy240  |         |         | رقم المساق     |
| مجموع الساعات المعتمدة: 3                           | عملي: 2 | نظري: 2 | عدد الساعات    |
| متطلب قسم إجباري                                    |         |         | نوع المساق     |
| المدخل إلى علم النفس والإحصاء في البحوث النفسية (1) |         |         | المتطلب السابق |

**توصيف مختصر للمساق:**

يتم استكمال ما تم البدء فيه في مساق "الإحصاء في البحوث النفسية (1)"، فيدرس الطالب الأساليب الإحصائية المستخدمة في تحليل البيانات النفسية، وتشمل: اختبار مربع كاي ومعاملات ارتباط الفئات المنفصلة (فاي ومعامل التوافق) وتحليل التباين البسيط (لمتغير واحد) وبعض الطرق الإحصائية اللامعلمية (اللابارمترية)، ودلالة النتائج المستخلصة من الأساليب الإحصائية المختلفة. مع العلم أنه يتم تدريب الطلبة على استخدام برامج الحاسوب في التحليل الإحصائي كجزء أساسي من آلية استيعاب الطلبة للمفاهيم والأساليب الإحصائية المتضمنة في هذا المساق.

**موضوعات خاصة في علم النفس**

| موضوعات خاصة في علم النفس                |         |         | اسم المساق     |
|--|---------|---------|----------------|
| Psy141                                   |         |         | رقم المساق     |
| مجموع الساعات المعتمدة: 3                | عملي: 0 | نظري: 3 | عدد الساعات    |
| مدخل إلى علم النفس وأنجاز 90 ساعة معتمدة |         |         | المتطلب السابق |
|  |         |         | نوع المساق     |

**توصيف مختصر للمساق:**

يهدف المساق إلى دراسة أهم القضايا النفسية المثارة على الساحة حين طرح المساق. ليتم تناولها ومناقشتها وتحليلها وتحديد الدوافع التي أدت لظهورها واقتراح الحلول لها واختبارها وكتابة تقرير عنها. ويمكن أن تكون من ضمن الموضوعات المثارة منها:

- قضية العدوان والسلوك المضاد للمجتمع ويتناول دراسة طبيعة المتغيرات النفسية والاجتماعية التي تؤدي إلى السلوك العدواني عند الفرد والمظاهر الناتجة عنه من سلوك مضاد للمجتمع. من خلال تناول مفهوم العدوان- مظهره وأنماطه وأسبابه، النظريات التي تفسره، وأساليب ضبط السلوك، مع عرض برامج تعديل السلوك للأفراد والجماعات للحد من هذا السلوك وكتابة تقرير علمي حول هذه القضية.



- قضية ضبط سلوك المستهلك وتتناول النظريات النفسية والبحوث التي تناولت سلوك المستهلك وقياس وتحليل دوافعه واتجاهاته تجاه عملية الشراء، كما تتناول مراحل عملية اتخاذ قرار الشراء وعلاقتها بشخصية المستهلك. كما يستعرض أثر الإعلانات في تشكيل وتغيير سلوك واتجاهات المستهلك. وتأهل الطالب لتصميم برامج توعية وتعديل سلوك المستهلك و تدريبية على اتخاذ قرارات الشراء بطريقة سليمة. كما يقدم الطالب تقرير علمي عن هذه القضية.



## DEPARTMENT OF SOCIOLOGY

### Introduction

The science of Sociology and Social Service is the most important knowledge field relating to human life and its activities. That is because understanding and solving phenomena and problems arising from human gatherings and social institutions form the essence of this science. People involved in social research and social service can effectively participate in understanding the social problems scientifically and find solutions for them.

then the introduction of this program is necessary to meet the actual needs of the country development, the job market demands, society needs, and keeping in touch with different social sectors. That is in order to show a keen interest in the Emirates society's genuine values, keep its heritage alive in the present, study its important problems and suggest scientific solutions for them. The role of the program does not only focus on the problems related the job market needs but also it has a basic role in meeting the cultural needs of society. The latter are considered the program's educational and research fields in order to give prominence to the Emirati genuine identity and heritage

### Mission

The sociology and social work program has been designed to be taught in Arabic language in order to provide students with the required skills to solve problems effectively in different social and organizational environments, to come up with competent specialists with genuine knowledge, and to integrate the theoretical and intellectual frameworks with the society goals and aspirations.

### Objectives:

- 1 -Defining the theoretical foundations of sociology and social work in order to be able to understand the fundamentals and principles of this science as well as its methods.
- 2 - Identifying models of sociology, social work areas and the role of the researcher and social worker in those areas and the nature of work.
- 3 - Preparing and qualifying leaders in social work to work in various social institutions, social welfare and work in the field of designing and implementing the policies of social welfare and social research.
- 4 - Training students to diagnose and solve social problems through critical thinking.
- 5 - Developing the spirit of scientific research and proficiency in writing research papers in the field of sociology and social service in which the methodology of scientific research is clear.

### Program Outcomes:

#### (A) Knowledge and understanding

- 1 - Knowing the different circumstances that contributed to the emergence of sociology and social work
- 2 - Understanding the branches and fields of sociology and social work
- 3- Understanding the interactive relationship between social and behavioral sciences, and between sociology and social work
- 4 - Understanding the theoretical and methodological foundations of sociology and social work.

### **(B) Thinking skills**

1. Analyzing patterns of human behavior and their interaction with the social environment
- 2- Analyzing social problems and phenomena and proposing solutions.
3. Being able to design and implement policies of social welfare and social research.
- 4 – Being ability to think critically and creatively in providing solutions appropriate to the problems

### **(C) Professional and applied skills:**

1. Designing and planning of the treatment of individual problems
- 2 - Interacting with team work
3. Conducting field research
4. Using databases
- 5- Being able to write scientific research and research papers in the field of sociology and social work

### **(D) General and changeable skills**

- 1- Being able to work in various social institutions and social welfare
- 2- Possessing the skill in communication and persuasion
- 3- Building a skill in forming social relations with others
- 4- Possessing a skill in measurement and experimentation
- 5- Applying modern techniques in the practice of social work
- 6 - Managing the administrative skills related to time management, meeting management and management of government and private institutions.

### **Admission Requirements:**

The student must have a high school diploma from the UAE (scientific or literary) or an equivalent of at least 60% in the first year of admission, and goes up to 65% for the following batches. In case the number of applicants is high, the applicants with higher aggregate will be chosen.

### **Graduation Requirements:**

To obtain a bachelor's degree in the specialization of sociology and social work, the student's GPA should not be less than 2, i.e. 60%. The minimum duration of the study is three and a half years, the maximum duration is eight years, and they should pass 126 credit hours, inclusive of 6 hours field training.

### **Employment Opportunities:**

- Ministries
- Community Police
- Ministry of Social Affairs
- Care Centers for the Disabled
- Mother and Child Centers
- All schools of the Ministry of Education
- Community Development Authority
- Juvenile Care Centers
- Punitive and Correctional Institutions
- Centers of Social Welfare
- Nursing Homes

## برنامج علم الاجتماع والخدمة الاجتماعية 2019

### الرؤية:

نحو مزيد من التميز في التدريس والبحث العلمي وخدمة المجتمع بما ينسجم مع معايير الاعتماد الوطني والدولي.

### الرسالة:

إعداد خريجين في تخصص علم الاجتماع الخدمة الاجتماعية مزودين بالخبرات العلمية والمعرفية والمهارات المطلوبة في حل المشكلات الاجتماعية وتطويع البحث العلمي لخدمة المجتمع.

### الأهداف :

- 1- التعريف بالأسس النظرية لعلم الاجتماع والخدمة الاجتماعية بهدف التمكن من معرفة مقومات ومبادئ هذا العلم وطرقه.
- 2- التعرف على نماذج من مجالات علم الاجتماع والخدمة الاجتماعية ودور الباحث والأخصائي الاجتماعي في تلك المجالات وطبيعة العمل بها .
- 3- إعداد وتأهيل قيادات في العمل الاجتماعي للعمل في مختلف المؤسسات الاجتماعية والرعاية الاجتماعية والعمل في مجال تصميم وتنفيذ سياسات الرعاية الاجتماعية والبحث الاجتماعي
- 4- تدريب الطلبة على تشخيص وحل المشكلات الاجتماعية من خلال التفكير الناقد.
- 5- تنمية روح البحث العلمي وإجادة كتابة الأوراق البحثية في مجال الاجتماع والخدمة الاجتماعية تتضح فيها منهجية البحث العلمي.

### مخرجات البرنامج :

#### المعرفة:

- مخرج البرنامج 1: يميز بين فروع ومجالات علم الاجتماع والخدمة الاجتماعية.
- مخرج البرنامج 2: يفسر العلاقة التفاعلية بين العلوم الاجتماعية والسلوكية وعلم الاجتماع والخدمة الاجتماعية.
- مخرج البرنامج 3: يُعدد الأسس النظرية والمنهجية لعلم الاجتماع والخدمة الاجتماعية.

#### المهارة:

- مخرج البرنامج 4: يُحلل ويفسر الظواهر الاجتماعية ويقترح حلولاً خاصة بها.
- مخرج البرنامج 5: يُصمم وينفذ سياسات الرعاية الاجتماعية.
- مخرج البرنامج 6: يُستخدم التفكير النقدي والابداعي في طرح حلول للمشكلات

#### أوجه الكفاءة:

#### ➤ الاستقلالية والمسئولية:

- مخرج البرنامج 7: يستخدم العمل الفرقي في أداء العمل الاجتماعي.
- مخرج البرنامج 8: يُعد ويصمم البحوث الاجتماعية والميدانية.
- مخرج البرنامج 9: يتحمل مسئولية العمل والقيادة في المؤسسات الاجتماعية.

➤ الدور في السياق:

مخرج البرنامج 10 : يساهم في علاج المشكلات الاجتماعية.

مخرج البرنامج 11 : يُطبق النقد الذاتي في عمل الباحث الاجتماعي والأخصائي الاجتماعي.

➤ التطور الذاتي:

مخرج البرنامج 12 : يُطبق الأخلاقيات المهنية. في مجالي علم الاجتماع والخدمة الاجتماعية.

### متطلبات التخرج

يشترط للحصول على درجة البكالوريوس في تخصص الاجتماع والخدمة الاجتماعية ان يحصل الطالب على الحد الأدنى التراكمي 2 أي بمعدل 60% ، وان يكون الحد الأدنى لمدة الدراسة ثلاثة سنوات ونصف السنة ، والحد الأعلى ثمانية سنوات ، كما عليه ان يجتاز (126) ساعة معتمدة تتضمن 6 ساعات تدريب ميداني موزعة كالتالي :

**أولاً: متطلبات الجامعة الإلزامية (5 مساقات، 15 ساعة معتمدة)**

| م | رقم المساق | المساق                         | المساق                        |
|---|------------|--------------------------------|-------------------------------|
| 1 | ISL112     | Islamic culture                | الثقافة الإسلامية             |
| 2 | ARP112     | Communication Skills in Arabic | مهارات الاتصال باللغة العربية |
| 3 | STA111     | Statistics                     | الإحصاء                       |
| 4 | COM111     | Computer Applications          | تطبيقات في الحاسوب            |
| 5 | INN311     | Innovation & Entrepreneurship  | الابتكار وريادة الأعمال       |

**ثانياً: متطلبات الجامعة الاختيارية (3 مساقات، 9 ساعة معتمدة)**

يجب على الطالب أن يختار مساقاً واحداً من كل مجموعة من المجموعات المذكورة أدناه

مجموعة العلوم الإنسانية و الأدبية

| م | رقم المساق | المساق                           | المساق                |
|---|------------|----------------------------------|-----------------------|
| 1 | ARP113     | The Art of Written Expression    | فن التعبير والكتابة   |
| 2 | ARS211     | Principles of Architecture & Art | مبادئ العمارة والفن   |
| 3 | DES211     | Principles of Interior Design    | مبادئ التصميم الداخلي |
| 4 | ETH111     | Principles of Ethics             | المبادئ الأخلاقية     |
| 5 | ART112     | Introduction to Aesthetics       | مدخل الى علم الجمال   |
| 6 | ART111     | Introduction to Art              | مدخل الى الفن         |
| 7 | FRE211     | French                           | اللغة الفرنسية        |

مجموعة العلوم الطبيعية، العلوم التطبيقية، الرياضيات وتكنولوجيا المعلومات

| م  | رقم المساق | المساق                               | المساق                    |
|----|------------|--------------------------------------|---------------------------|
| 1  | ISH111     | History of Science in Islam          | تأريخ العلوم عند المسلمين |
| 2  | ENV111     | Environmental Science                | علوم بيئية                |
| 3  | BIO211     | Scientific Pioneering                | الريادة العلمية           |
| 4  | EDT211     | Educational Technology               | تكنولوجيا التعليم         |
| 5  | BIO111     | General Biology                      | الأحياء العامة            |
| 6  | ORH211     | Oral Health                          | صحة الفم                  |
| 7  | CHM111     | General Chemistry                    | الكيمياء العامة           |
| 8  | NUT111     | Fundamentals of Human Nutrition      | أساسيات التغذية البشرية   |
| 9  | AID111     | First Aid                            | الإسعافات الأولية         |
| 10 | RES211     | Research Methodology                 | مناهج البحث               |
| 11 | GIS211     | Applications of Remote sensing & GIS | تطبيق الاستشعار عن بعد    |
| 12 | LAW111     | Legal Culture                        | الثقافة القانونية         |
| 13 | ENG112     | Technical Writing                    | الكتابة التقنية           |
| 14 | MTH111     | Principles of mathematics            | مبادئ الرياضيات           |
| 15 | INT211     | Internet Concepts                    | مفاهيم الانترنت           |
| 16 | INF212     | Introduction to Information System   | مدخل إلى نظام المعلومات   |
| 17 | PHY111     | Physics                              | الفيزياء                  |

مجموعة العلوم الاجتماعية والسلوكية

| م | رقم المساق | المساق                                  | المساق                         |
|---|------------|---|--------------------------------|
| 1 | PSY111     | General Psychology                      | علم النفس العام                |
| 2 | ECO211     | Economic Concepts                       | مفاهيم اقتصادية                |
| 3 | SOC111     | Introduction to communication Sociology | مدخل إلى علم الاتصال الاجتماعي |
| 4 | ENT211     | Entrepreneurship Development            | تطوير طاقات الشباب             |
| 5 | INF111     | Information Literacy                    | المعرفة المعلوماتية            |

متطلبات قسم الاجتماع الإجبارية (24 مساق، 72 ساعة معتمدة)

| م | رقم المساق | المساق | الساعات المعتمدة |      |         | المتطلب السابق |
|---|------------|--------|------------------|------|---------|----------------|
|   |            |        | نظري             | عملي | المجموع |                |



|    |        |  |   |   |   |   |                                    |
|----|--------|--|---|---|---|---|------------------------------------|
| 1  | SSW151 | Introduction to Sociology                  | مدخل إلى علم الاجتماع                                     | 3 | 0 | 3 | -                                  |
| 2  | SSW152 | Introduction to Social Work                | مدخل إلى الخدمة الاجتماعية                                | 3 | 0 | 3 | -                                  |
| 3  | SSW153 | Anthropology                               | علم الإنسان   | 3 | 0 | 3 |                                    |
| 4  | SSW154 | Modern Emirati Society                     | مجتمع الإمارات المعاصر                                    | 3 | 0 | 3 |                                    |
| 5  | SSW155 | History of Social Thinking                 | تاريخ الفكر الاجتماعي                                     | 3 | 0 | 3 |                                    |
| 6  | SSW156 | Social Statistics                          | الإحصاء الاجتماعي   | 2 | 2 | 3 |                                    |
| 7  | SSW257 | Social Theories                            | نظريات اجتماعية   | 3 | 0 | 3 | SSW155                             |
| 8  | SSW258 | Areas of Social Work                       | مجالات الخدمة الاجتماعية                                  | 3 | 0 | 3 |                                    |
| 9  | SSW259 | Social Psychology                          | علم النفس الاجتماعي                                       | 3 | 0 | 3 |                                    |
| 10 | SSW260 | Approach to Individual Service             | طريقة خدمة الفرد  | 3 | 0 | 3 | SSW152                             |
| 11 | SSW261 | Social and Cultural Change                 | التغير الاجتماعي والثقافي                                 | 3 | 0 | 3 | SSW151                             |
| 12 | SSW262 | Approach to Community Service              | طريقة خدمة الجماعة  | 3 | 0 | 3 | SSW152                             |
| 13 | SSW363 | Approach to Community Organization         | طريقة تنظيم المجتمع                                       | 3 | 0 | 3 | SSW152                             |
| 14 | SSW364 | Social Problems                            | مشكلات اجتماعية   | 3 | 0 | 3 |                                    |
| 15 | SSW365 | Communication Skills in English Language   | مهارات الاتصال باللغة الإنجليزية                          | 3 | 0 | 3 |                                    |
| 16 | SSW366 | Family and Social Counseling               | الإرشاد الأسري والاجتماعي                                 | 3 | 0 | 3 |                                    |
| 17 | SSW367 | Training in Social institutions1           | التدريب العملي في المؤسسات 1                              | 0 | 3 | 3 | الانتهاء من السنة الدراسية الثانية |
| 18 | SSW368 | English Texts in Sociology and Social Work | نصوص في علم الاجتماع والخدمة الاجتماعية باللغة الإنجليزية | 3 | 0 | 3 | SSW365                             |
| 19 | SSW469 | Methods and Social Research Design         | طرق وتصميم البحث الاجتماعي                                | 2 | 2 | 3 | SSW156                             |
| 20 | SSW470 | Sociology of Demography                    | علم اجتماع السكان   | 3 | 0 | 3 |                                    |
| 21 | SSW471 | Sociology of Media                         | علم الاجتماع الإعلامي                                     | 3 | 0 | 3 |                                    |

|    |        |                                   |                                       |   |   |   |                                    |
|----|--------|-----------------------------------|---------------------------------------|---|---|---|------------------------------------|
| 22 | SSW472 | Social Planning                   | التخطيط الاجتماعي                     | 3 | 0 | 3 |                                    |
| 23 | SSW473 | Training in Social institutions 2 | التدريب العملي في المؤسسات الاجتماعية | 0 | 3 | 3 | الانتهاء من السنة الدراسية الثالثة |
| 24 | SSW474 | Graduation Project                | مشروع التخرج                          | 3 | 0 | 3 | SSW469                             |

متطلبات مجموعة علم الاجتماع الاختيارية (4 مساقات 12 ساعة معتمدة)

| م  | رقم المساق | المساق                         | الساعات المعتمدة            |      |         |   |
|----|------------|--------------------------------|-----------------------------|------|---------|---|
|    |            |                                | نظري                        | عملي | المجموع |   |
| 1  | SSW175     | Sociology of the Family        | علم الاجتماع العائلي        | 3    | 0       | 3 |
| 2  | SSW176     | Sociology of Organization      | علم اجتماع التنظيم          | 3    | 0       | 3 |
| 3  | SSW177     | Urban and Rural Sociology      | علم الاجتماع الحضري والريفي | 3    | 0       | 3 |
| 4  | SSW178     | Sociology of Development       | علم اجتماع التنمية          | 3    | 0       | 3 |
| 5  | SSW179     | Sociology of Education         | علم الاجتماع التربوي        | 3    | 0       | 3 |
| 6  | SSW180     | Sociology of Crisis Management | علم اجتماع إدارة الأزمات    | 3    | 0       | 3 |
| 7  | SSW181     | Applied Sociology              | علم الاجتماع التطبيقي       | 3    | 0       | 3 |
| 8  | SSW182     | Sociology of Women             | علم اجتماع المرأة           | 3    | 0       | 3 |
| 9  | SSW183     | Contemporary Social Issues     | قضايا اجتماعية معاصرة       | 3    | 0       | 3 |
| 10 | SSW184     | Criminal Sociology             | علم الاجتماع الجنائي        | 3    | 0       | 3 |
| 11 | SSW185     | Special Topic in Sociology     | موضوع خاص في علم الاجتماع   | 3    | 0       | 3 |

متطلبات مجموعة الخدمة الاجتماعية الاختيارية (4 مساقات 12 ساعة معتمدة)

| م | رقم المساق | المساق                              | الساعات المعتمدة                    |      |         |   |
|---|------------|-------------------------------------|-------------------------------------|------|---------|---|
|   |            |                                     | نظري                                | عملي | المجموع |   |
| 1 | SSW186     | Social Work in the Area of Youth    | الخدمة الاجتماعية في مجال الشباب    | 3    | 0       | 3 |
| 2 | SSW187     | Social Work and the Local Community | الخدمة الاجتماعية والمجتمع المحلي   | 3    | 0       | 3 |
| 3 | SSW188     | Welfare for the Special Needs       | رعاية ذوي الاحتياجات الخاصة         | 3    | 0       | 3 |
| 4 | SSW189     | Social Service and Juvenile Welfare | الخدمة الاجتماعية ورعاية الأحداث    | 3    | 0       | 3 |
| 5 | SSW190     | Social Legislation                  | التشريعات الاجتماعية                | 3    | 0       | 3 |
| 6 | SSW191     | Social Work and Social Defense      | الخدمة الاجتماعية والدفاع الاجتماعي | 3    | 0       | 3 |

|    |        |                                 |                                   |   |   |   |
|----|--------|---------------------------------|-----------------------------------|---|---|---|
| 7  | SSW192 | Social Work in the Medical Area | الخدمة الاجتماعية في المجال الطبي | 3 | 0 | 3 |
| 8  | SSW193 | Family and Childhood            | الأسرة والطفولة                   | 3 | 0 | 3 |
| 9  | SSW194 | Welfare of the Elderly          | رعاية المسنين                     | 3 | 0 | 3 |
| 10 | SSW195 | School Social Work              | الخدمة الاجتماعية المدرسية        | 3 | 0 | 3 |
| 11 | SSW196 | Special Topic in Social Work    | موضوع خاص في الخدمة الاجتماعية    | 3 | 0 | 3 |

### الخطة الإسترشادية لبرنامج بكالوريوس الآداب في الاجتماع والخدمة الاجتماعية

| المتطلب السابق             | أرقام المساقات  | المساقات الدّراسيّة  | الفصل الدراسي | السنة الدّراسيّة |
|----------------------------|---|--|---------------|------------------|
|                            | SSW151<br>SSW152<br>SSW153<br>-----<br>-----          | 1. مدخل إلى علم الاجتماع<br>2. مدخل إلى الخدمة الاجتماعية<br>3. علم الإنسان<br>4. اختياري مجموعة علم الاجتماع<br>5. إجباري جامعة   | الأول         | الأولى           |
|                            | SSW154<br>SSW155<br>SSW156<br>-----<br>-----          | 1. مجتمع الإمارات المعاصر<br>2. تاريخ الفكر الاجتماعي<br>3. الإحصاء الاجتماعي<br>4. اختياري مجموعة الخدمة الاجتماعية<br>5. إجباري جامعة                                  | الثاني        |                  |
| SSW155                     | SSW257<br>SSW258<br>SSW259<br>-----<br>-----          | 1. نظريات اجتماعية<br>2. مجالات الخدمة الاجتماعية<br>3. علم النفس الاجتماعي<br>4. اختياري مجموعة علم الاجتماع<br>5. إجباري جامعة   | الأول         | الثانية          |
| SSW151<br>SSW152<br>SSW152 | SSW211<br>SSW312<br>SSW313<br>-----<br>-----<br>----- | 1. التغير الاجتماعي والثقافي<br>2. طريقة خدمة الفرد<br>3. طريقة خدمة الجماعة<br>4. اختياري مجموعة علم الاجتماع<br>5. اختياري مجموعة الخدمة الاجتماعية<br>6. إجباري جامعة | الثاني        |                  |
| SSW152                     | -----<br>SSW314<br>SSW315<br>SSW316<br>-----          | 1. مساق حر متطلب جامعة<br>2. طريقة تنظيم المجتمع<br>3. مشكلات اجتماعية<br>4. مهارات الاتصال باللغة الإنجليزية<br>5. إجباري جامعة   | الأول         | الثالثة          |



|   |  |   |               |                |
|---|--|---|---------------|----------------|
| <p>الانتهاه من السنة<br/>الدراسية الثانية</p> <p>SWW365</p> | <p>-----<br/>SSW366<br/>SSW367<br/><br/>SSW368<br/>-----<br/>-----</p> | <p>1. مساق حر متطلب جامعة<br/>2. الإرشاد الأسرى والاجتماعي<br/>3. التدريب العملي في المؤسسات<br/>الاجتماعية 1<br/>4. نصوص في علم الاجتماع والخدمة<br/>الاجتماعية باللغة الإنجليزية<br/>5. اختياري مجموعة الخدمة الاجتماعية<br/>6. اختياري جامعة</p> | <p>الثاني</p> |                |
| <p>SSW156</p>   | <p>SSW469<br/>SSW470<br/>SSW471<br/>-----<br/>-----<br/>-----</p>      | <p>1. طرق وتصميم البحث الاجتماعي<br/>2. علم اجتماع السكان<br/>3. علم الاجتماع الإعلامي<br/>4. اختياري علم الاجتماع<br/>5. اختياري الخدمة الاجتماعية<br/>6. اختياري جامعة</p>  | <p>الأول</p>  |                |
| <p>الانتهاه من السنة<br/>الدراسية الثالثة</p>               | <p>SSW472<br/><br/>SSW473<br/>SSW474<br/>-----</p>                     | <p>1. التخطيط الاجتماعي<br/>2. التدريب العملي في المؤسسات<br/>الاجتماعية 2<br/>3. مشروع التخرج<br/>4. اختياري جامعة</p>   | <p>الثاني</p> | <p>الرابعة</p> |

## مصفوفة ربط مخرجات مساقات القسم بالمخرجات التعليمية للبرنامج

| م  | المخرجات التعليمية للبرنامج                               | مساقات القسم الإلزامية | مخرج البرنامج 1 | مخرج البرنامج 2 | مخرج البرنامج 3 | مخرج البرنامج 4 | مخرج البرنامج 5 | مخرج البرنامج 6 | مخرج البرنامج 7 | مخرج البرنامج 8 | مخرج البرنامج 9 | مخرج البرنامج 10 | مخرج البرنامج 11 | مخرج البرنامج 12 |
|----|---|------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|
| 1  | مدخل إلى علم الاجتماع                                     |                        | √               |                 |                 | √               |                 | √               |                 |                 |                 |                  |                  |                  |
| 2  | مدخل إلى الخدمة الاجتماعية                                |                        | √               |                 | √               |                 | √               |                 |                 |                 | √               |                  |                  |                  |
| 3  | علم الإنسان   |                        | √               |                 | √               |                 |                 |                 |                 |                 |                 |                  |                  |                  |
| 4  | مجتمع الإمارات المعاصر                                    |                        |                 |                 | √               |                 | √               |                 |                 |                 | √               | √                |                  |                  |
| 5  | تاريخ الفكر الاجتماعي                                     |                        | √               |                 | √               |                 |                 | √               |                 |                 |                 |                  |                  |                  |
| 6  | الإحصاء الاجتماعي   |                        |                 |                 | √               |                 | √               |                 | √               | √               |                 |                  | √                |                  |
| 7  | نظريات اجتماعية   |                        | √               | √               | √               |                 |                 | √               |                 |                 |                 |                  |                  |                  |
| 8  | مجالات الخدمة الاجتماعية                                  |                        | √               |                 |                 | √               |                 |                 |                 | √               | √               |                  |                  |                  |
| 9  | علم النفس الاجتماعي                                       |                        |                 | √               | √               | √               |                 |                 |                 |                 |                 |                  | √                |                  |
| 10 | التغير الاجتماعي والثقافي                                 |                        | √               |                 | √               |                 |                 |                 |                 |                 | √               |                  |                  |                  |
| 11 | طريقة خدمة الفرد  |                        |                 |                 | √               | √               | √               |                 |                 |                 |                 |                  | √                |                  |
| 12 | طريقة خدمة الجماعة  |                        |                 |                 | √               | √               |                 |                 |                 |                 |                 |                  | √                | √                |
| 13 | طريقة تنظيم المجتمع                                       |                        |                 |                 | √               |                 |                 |                 |                 |                 | √               |                  | √                | √                |
| 14 | مشكلات اجتماعية   |                        |                 |                 | √               | √               |                 |                 |                 |                 |                 | √                |                  |                  |
| 15 | مهارات الاتصال باللغة الإنجليزية                          |                        |                 |                 | √               | √               |                 |                 |                 |                 |                 |                  | √                | √                |
| 16 | الإرشاد الأسري والاجتماعي                                 |                        |                 |                 | √               |                 |                 |                 |                 |                 |                 |                  | √                | √                |
| 17 | التدريب العملي في المؤسسات الاجتماعية 1                   |                        |                 |                 | √               |                 |                 |                 |                 |                 |                 |                  | √                | √                |
| 18 | نصوص في علم الاجتماع والخدمة الاجتماعية باللغة الإنجليزية |                        |                 |                 | √               | √               | √               |                 |                 |                 |                 |                  | √                |                  |
| 19 | طرق وتصميم البحث الاجتماعي                                |                        |                 |                 | √               |                 |                 |                 |                 |                 |                 |                  | √                | √                |
| 20 | علم اجتماع السكان   |                        |                 |                 | √               |                 |                 |                 |                 |                 |                 |                  | √                | √                |

|   |   |   |   |   |   |   |   |   |   |  |   |   |    |
|---|---|---|---|---|---|---|---|---|---|--|---|---|----|
|   |   |   |   |   |   |   | √ | √ | √ |  | √ | التخطيط الاجتماعي                             | 21 |
|   |   | √ |   |   |   | √ |   | √ |   |  | √ | علم الاجتماع الإعلامي                         | 22 |
| √ | √ | √ | √ |   | √ | √ |   |   |   |  |   | التدريب العملي في<br>المؤسسات الاجتماعية<br>2 | 23 |
| √ | √ | √ |   | √ |   | √ | √ | √ | √ |  | √ | مشروع التخرج                                  | 24 |

مصفوفة ربط مخرجات مساقات مجموعة علم الاجتماع الاختيارية بالمخرجات التعليمية للبرنامج

| مخرج البرنامج 12 | مخرج البرنامج 11 | مخرج البرنامج 10 | مخرج البرنامج 9 | مخرج البرنامج 8 | مخرج البرنامج 7 | مخرج البرنامج 6 | مخرج البرنامج 5 | مخرج البرنامج 4 | مخرج البرنامج 3 | مخرج البرنامج 2 | مخرج البرنامج 1 | المخرجات التعليمية<br>للبرنامج | م  |
|------------------|------------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--------------------------------|----|
|                  |                  | √                |                 |                 |                 | √               |                 | √               | √               |                 |                 | علم الاجتماع العائلي           | 1  |
|                  |                  |                  |                 |                 |                 |                 |                 | √               | √               | √               | √               | علم اجتماع التنظيم             | 2  |
|                  |                  | √                |                 | √               |                 |                 |                 | √               | √               |                 | √               | علم الاجتماع الحضري<br>والريفي | 3  |
|                  |                  |                  | √               |                 |                 | √               | √               |                 |                 |                 | √               | علم اجتماع التنمية             | 4  |
|                  |                  |                  | √               |                 |                 | √               |                 | √               |                 | √               | √               | علم الاجتماع التربوي           | 5  |
| √                |                  |                  | √               | √               | √               | √               |                 |                 |                 |                 | √               | علم الاجتماع وإدارة<br>الأزمات | 6  |
|                  |                  | √                |                 | √               |                 | √               | √               | √               | √               |                 |                 | علم الاجتماع التطبيقي          | 7  |
|                  |                  | √                |                 |                 |                 | √               |                 | √               |                 |                 | √               | علم اجتماع المرأة              | 8  |
| √                |                  | √                |                 | √               |                 | √               | √               | √               |                 |                 |                 | قضايا اجتماعية معاصرة          | 9  |
|                  |                  | √                |                 |                 |                 | √               |                 | √               |                 | √               | √               | علم الاجتماع الجنائي           | 10 |
| √                | √                | √                |                 | √               |                 | √               | √               | √               | √               | √               | √               | موضوع خاص في علم<br>الاجتماع   | 11 |

مصفوفة ربط مخرجات مساقات مجموعة الخدمة الاجتماعية الاختيارية بالمخرجات التعليمية للبرنامج

| م  | المخرجات التعليمية للبرنامج         | مساقات مجموعة الخدمة الاجتماعية الاختيارية | مخرج البرنامج 1 | مخرج البرنامج 2 | مخرج البرنامج 3 | مخرج البرنامج 4 | مخرج البرنامج 5 | مخرج البرنامج 6 | مخرج البرنامج 7 | مخرج البرنامج 8 | مخرج البرنامج 9 | مخرج البرنامج 10 | مخرج البرنامج 11 | مخرج البرنامج 12 |
|----|-------------------------------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|
| 1  | الخدمة الاجتماعية في مجال الشباب    |  | √               |                 |                 | √               |                 |                 | √               |                 |                 |                  |                  | √                |
| 2  | الخدمة الاجتماعية والمجتمع المحلي   |  |                 |                 |                 |                 |                 | √               |                 |                 |                 |                  | √                | √                |
| 3  | رعاية ذوي الاحتياجات الخاصة         |  | √               |                 | √               |                 |                 |                 |                 |                 |                 | √                |                  |                  |
| 4  | الخدمة الاجتماعية ورعاية الأحداث    |  | √               |                 |                 | √               | √               |                 | √               |                 | √               |                  |                  | √                |
| 5  | التشريعات الاجتماعية                |  | √               |                 | √               |                 |                 |                 |                 |                 |                 | √                |                  |                  |
| 6  | الخدمة الاجتماعية والدفاع الاجتماعي |  |                 |                 |                 |                 |                 | √               |                 |                 |                 | √                |                  | √                |
| 7  | الخدمة الاجتماعية في المجال الطبي   |  | √               |                 |                 | √               |                 |                 |                 |                 |                 |                  |                  | √                |
| 8  | الأسرة والطفولة                     |  | √               |                 |                 | √               |                 |                 |                 |                 | √               | √                |                  |                  |
| 9  | رعاية المسنين                       |  | √               |                 |                 |                 | √               |                 |                 |                 |                 | √                |                  | √                |
| 10 | الخدمة الاجتماعية المدرسية          |  | √               |                 |                 |                 |                 | √               |                 |                 |                 |                  | √                | √                |
| 11 | موضوع خاص في الخدمة الاجتماعية      |  | √               | √               | √               | √               | √               | √               |                 | √               |                 |                  | √                | √                |

توصيفات مساقات القسم الإجبارية

مدخل إلى علم الاجتماع

|                |                         |      |                        |
|----------------|-------------------------|------|------------------------|
| رقم المساق     | SSW151                  |      |                        |
| عدد الساعات    | نظري                    | عملي | مجموع الساعات المعتمدة |
|                | 3                       | 0    | 3                      |
| المتطلب السابق | لا يوجد                 |      |                        |
| نوع المساق     | متطلب قسم إجباري        |      |                        |
| مستوي المساق   | مستوي أول/فصل دراسي أول |      |                        |

يتناول المساق نشأة علم الاجتماع وتطوره والتعريف بعلم الاجتماع وميادينه والرواد الأوائل المؤسسين لعلم الاجتماع مثل ابن خلدون، أوجست كونت، دوركايم، كارل ماركس، ماكس فيبر. وموضوعات العلاقة بين علم الاجتماع والعلوم الأخرى وأيضاً يتناول المساق العمليات الاجتماعية الحادثة نتاج العلاقات الاجتماعية كالتعاون والصراع والتكامل والتنافس والتوافق أيضاً يسعى المساق نحو توضيح الاتجاهات النظرية والمنهجية الكلاسيكية في علم الاجتماع، كما يشرح المساق موضوعات الطبقة الاجتماعية والتدرج الاجتماعي والحراك الاجتماعي، كما يهتم المساق بتناول النظم الاجتماعية المكونة للبناء الاجتماعي كالنظم القرابية والاقتصادية والسياسية والدينية.

مجالات الخدمة الاجتماعية

|                |                              |      |                        |
|----------------|------------------------------|------|------------------------|
| رقم المساق     | SSW152                       |      |                        |
| عدد الساعات    | نظري                         | عملي | مجموع الساعات المعتمدة |
|                | 3                            | 0    | 3                      |
| المتطلب السابق | لا يوجد                      |      |                        |
| نوع المساق     | متطلب قسم إجباري             |      |                        |
| مستوي المساق   | المستوي الثاني/فصل دراسي اول |      |                        |

يتناول المساق مقدمة عن مهنة الخدمة الاجتماعية والخدمة الاجتماعية في مجال الشباب والخدمة الاجتماعية في مجال رعاية الأحداث والخدمة الاجتماعية في مجال رعاية الطفولة، والخدمة الاجتماعية في مجال رعاية المسنين، والخدمة الاجتماعية في مجال الإدمان والخدمة الاجتماعية في مجال رعاية ذوي الاحتياجات الخاصة، والمنظمات الاجتماعية ودورها في الرعاية الاجتماعية في المجالات المختلفة إدارة المؤسسات الاجتماعية والخدمة الاجتماعية وقضايا المجتمع المعاصر

علم الإنسان

|                   |                           |      |                        |
|-------------------|---------------------------|------|------------------------|
| رقم المساق        | SSW153                    |      |                        |
| عدد الساعات       | نظري                      | عملي | مجموع الساعات المعتمدة |
|                   | 3                         | 0    | 3                      |
| المتطلبات السابقة | لا يوجد                   |      |                        |
| مستوي المساق      | المستوي الأول/الفصل الأول |      |                        |

يتضمن هذا المساق تعريفاً بخصائص علم الإنسان (الأنثروبولوجيا) وأهدافه، وتطوره التاريخي، ومنح الطلبة فرصه للتعرف على مفاهيم هذا العلم الواسع وذلك بالتركيز على مفاهيم الثقافة والمجتمع في سياق حياة الفرد من حيث هو شخص وعضو بأسرة وجماعة ومجتمع محلي يتوسط مجتمعاً أكبر يعيش ضمن عالم مترابط ومتغير، بالإضافة إلى ذلك يشمل المساق تدريباً أولياً على أدوات البحث الأنثروبولوجية لمساعدة الطلبة في إجراء بحث قصير يعتمد على جمع المعلومات بطرق الملاحظة والمشاركة

### مجتمع الإمارات المعاصر

|                |                  |      |         |
|----------------|------------------|------|---------|
| رقم المساق     | SSW154           |      |         |
| عدد الساعات    | نظري             | عملي | المجموع |
|                | 3                | 0    | 3       |
| المتطلب السابق | لا يوجد          |      |         |
| نوع المساق     | متطلب قسم إجباري |      |         |

يتناول المساق نشأة مجتمع الإمارات المعاصر وتكوينه الاجتماعي، وسماته ومقوماته. ودراسة طبيعة التنظيمات الاجتماعية السائدة (الأسرة، والتغير الذي أصابها، كما يتناول المساق دراسة مساهمة المرأة في التنمية الاجتماعية والاقتصادية بالدولة، والبعد الاجتماعي للجرائم وانماطها في مجتمع الإمارات، وأيضاً يتناول المساق التطور الصناعي والخدي وتأثيره في البنية الاجتماعية بدولة الإمارات، وخصائص المدينة الإماراتية، والرؤية المستقبلية لمجتمع الإمارات.

### تاريخ الفكر الاجتماعي

|                |                  |      |         |
|----------------|------------------|------|---------|
| رقم المساق     | SSW155           |      |         |
| عدد الساعات    | نظري             | عملي | المجموع |
|                | 3                | 0    | 3       |
| المتطلب السابق | لا يوجد          |      |         |
| نوع المساق     | متطلب قسم إجباري |      |         |

يتناول المساق نشأة بدايات الفكر الاجتماعي في العصور البدائية القديمة ثم تبلور هذا الفكر في الحضارات القديمة المصرية والأغريقية والصينية والهندية. كما يتناول المساق الفكر الاجتماعي في العصور الوسطى المسيحية في أوروبا والفكر الاجتماعي عند المسلمين. ويشرح المساق الفكر الاجتماعي في عصر النهضة وعصر التنوير في أوروبا، وأيضاً يناقش المساق فكرة العقد الاجتماعي عند هوبز ولوك وروسو. ويتناول المساق بالشرح تأثير الثورة الصناعية على تطور الفكر الاجتماعي والإنساني.

### الإحصاء الاجتماعي

|                |                                      |      |                        |
|----------------|--------------------------------------|------|------------------------|
| رقم المساق     | SSW156                               |      |                        |
| عدد الساعات    | نظري                                 | عملي | مجموع الساعات المعتمدة |
|                | 2                                    | 2    | 3                      |
| المتطلب السابق | لا يوجد                              |      |                        |
| نوع المساق     | متطلب قسم إجباري                     |      |                        |
| مستوى المساق   | المستوي الأول / الفصل الدراسي الثاني |      |                        |

يتناول هذا المساق مفهوم علم الإحصاء الاجتماعي، ووظائفه الوصفية والاستدلالية، ومفهوم القياس في العلوم الاجتماعية، وأنواع الصفات في البيانات الإحصائية (الصفات الثابتة، والصفات المتغيرة، وأنواع المقاييس في العلوم الاجتماعية، كما يتناول أساليب جمع البيانات، كما يتناول أنواع العينات الاحتمالية وغير الاحتمالية، كما يتناول المساق بعض التدريبات على عمل الجداول والتوزيعات التكرارية، والرسوم البيانية، ويتناول التعريف والتدريب على حساب مقاييس النزعة المركزية، ومقاييس التشتت، وكذلك كيفية حساب إحصائية مربع كاي واهم استخداماتها، وكيفية حساب معاملات الارتباط الإحصائية، إضافة إلى ذلك هنالك جانب تطبيقي للمساق بتدريب الطلاب معملياً على استخدام برامج التحليل الإحصائي SPSS أو NIVIVO

نظريات اجتماعية

|                        |      |      |                |
|------------------------|------|------|----------------|
| SSW257                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 0    | 3    |                |
| SSW155                 |      |      | المتطلب السابق |
| متطلب قسم إجباري       |      |      | نوع المساق     |

يتناول المساق التعريف بالنظرية في علم الاجتماع ومعنى النظرية ووظائفها وأنماطها الأساسية، كما يتناول الأسس التي تقيم من خلالها النظرية الاجتماعية. وأيضاً يتناول المساق الاتجاهات التقليدية في النظرية الاجتماعية، كما يتناول الاتجاهات الحديثة في النظرية الاجتماعية، والاتجاهات النقدية الحديثة في علم الاجتماع.

مجالات الخدمة الاجتماعية

|                              |      |      |                |
|------------------------------|------|------|----------------|
| SSW258                       |      |      | رقم المساق     |
| مجموع الساعات المعتمدة       | عملي | نظري | عدد الساعات    |
| 3                            | 0    | 3    |                |
| لا يوجد                      |      |      | المتطلب السابق |
| متطلب قسم إجباري             |      |      | نوع المساق     |
| المستوي الثاني/فصل دراسي اول |      |      | مستوي المساق   |

يتناول المساق مقدمة عن مهنة الخدمة الاجتماعية والخدمة الاجتماعية في مجال الشباب والخدمة الاجتماعية في مجال رعاية الأحداث والخدمة الاجتماعية في مجال رعاية الطفولة، والخدمة الاجتماعية في مجال رعاية المسنين، والخدمة الاجتماعية في مجال الإدمان والخدمة الاجتماعية في مجال رعاية ذوي الاحتياجات الخاصة، والمنظمات الاجتماعية ودورها في الرعاية الاجتماعية في المجالات المختلفة إدارة المؤسسات الاجتماعية والخدمة الاجتماعية وقضايا المجتمع المعاصر

علم النفس الاجتماعي

|                        |      |      |                |
|------------------------|------|------|----------------|
| SSW259                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 0    | 3    |                |
| لا يوجد                |      |      | المتطلب السابق |
| متطلب قسم إجباري       |      |      | نوع المساق     |

يتناول المساق علاقة علم الاجتماع بعلم النفس، كما يوضح تاريخ نشأة وتطور علم النفس الاجتماعي كذلك يوضح أهداف ومناهج البحث المستخدمة ومدى الحاجة لدراستهما، كما يتناول المساق توضيح العلاقة بين علم النفس الاجتماعي والعلوم الأخرى. بالإضافة إلى ذلك يشرح مفهوم الجماعة والتنشئة الاجتماعية والدوافع النفسية والاجتماعية، فضلاً عن العوامل الاجتماعية التي تؤثر في تشكيل الشخصية الاجتماعية والدوافع السلوكية الإنسانية وتكوين الاتجاهات وتغييرها وما يرتبط بذلك من أنماط سلوكية.

### طريقة خدمة الفرد

|                        |      |      |                |
|------------------------|------|------|----------------|
| SSW260                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 0    | 3    |                |
| SSW152                 |      |      | المتطلب السابق |
| متطلب قسم إجباري       |      |      | نوع المساق     |

يتناول هذا المساق التعريف بمفهوم خدمة الفرد وخصائصها والعناصر المكونة لها والعلاقات المهنية المتعلقة بها. كما يحتوي على موضوعات تشرح عمليات خدمة الفرد والطريقة التي تتم بها، وكيفية إجراء المقابلة والتسجيل في خدمة الفرد. مع إعطاء نماذج تطبيقية في خدمة الفرد.

### التغير الاجتماعي والثقافي

|                        |      |      |                |
|------------------------|------|------|----------------|
| SSW261                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 0    | 3    |                |
| SSW151                 |      |      | المتطلب السابق |
| متطلب قسم إجباري       |      |      | نوع المساق     |

يتناول هذا المساق المفاهيم الأساسية للتغير الاجتماعي وتطورها والعلاقة بين التغير الاجتماعي والثقافي والبواعث الاجتماعية والاقتصادية والثقافية للتغير الاجتماعي. كما يحلل نظريات التغير الاجتماعي والظروف الموضوعية لقضايا التحديث وإشكالات الثقافة في بلدان العالم الثالث.

### طريقة خدمة الجماعة

|                        |      |      |                |
|------------------------|------|------|----------------|
| SSW262                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 0    | 3    |                |
| SSW152                 |      |      | المتطلب السابق |
| متطلب قسم إجباري       |      |      | نوع المساق     |

. يتناول هذا المساق التعريف بالجماعة وطريقة خدمتها ونظرة تاريخية لتطور العمل مع الجماعات وصعوبات ومشكلات ذلك العمل. كما أنه يتناول النظريات العلمية لطريقة خدمة الجماعة وعمليات التقويم ووضع البرنامج للتدخل المهني بهدف تطوير دور الخدمة التي تقدم للجماعة داخل المجتمع. مع إعطاء نماذج تطبيقية في خدمة الجماعة

### طريقة تنظيم المجتمع

|                        |      |      |             |
|------------------------|------|------|-------------|
| SSW363                 |      |      | رقم المساق  |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات |
| 3                      | 0    | 3    |             |



|                  |                |
|------------------|----------------|
| SSW152           | المتطلب السابق |
| متطلب قسم إجباري | نوع المساق     |

. يتناول هذا المساق طريقة تنظيم المجتمع من حيث المفهوم، والنشأة التاريخية، والفلسفة التي تستند إليها، وأهدافها، ومبادئها الأساسية، والأدوات والوسائل المستخدمة فيها، وعلاقتها بغيرها من طرق الخدمة الاجتماعية الأخرى، ويتناول المجتمع المحلي كوحدة عمل لطريقة تنظيم المجتمع، والتعرف على أجهزة ممارسة طريقة تنظيم المجتمع فيه. كما يتعرض للتدخل المهني في إطار تنظيم المجتمع من حيث المعارف المتصلة بالتدخل المهني وتشمل (الأهداف، والاستراتيجيات، وأدوار المنظم الاجتماعي)، والنظريات الملائمة للتدخل المهني في إطار العمل مع منظمات المجتمع المحلي. ويتناول كذلك نماذج مختلفة لممارسة طريقة تنظيم المجتمع مع التركيز على تنمية المجتمع المحلي، وكذلك التعرض لنماذج من المشكلات المجتمعية ودور طريقة تنظيم المجتمع في التعرف عليها، كما يتناول عمليتي القيادة والتطوع في طريقة تنظيم المجتمع.

### مشكلات اجتماعية

|                        |                |
|------------------------|----------------|
| SSW364                 | رقم المساق     |
| مجموع الساعات المعتمدة | نظري           |
| 3                      | عملي           |
| 0                      | 3              |
| لا يوجد                | عدد الساعات    |
| متطلب قسم إجباري       | المتطلب السابق |
|                        | نوع المساق     |

. يتناول المساق تعريف المشكلة الاجتماعية ومراحل تطورها وتصنيفها وخصائصها، كما يتناول دور علم الاجتماع والخدمة الاجتماعية في دراسة المشكلات الاجتماعية، والمداخل النظرية لدراسة المشكلة الاجتماعية. وأيضاً يتناول المساق طرق ودراسة المشكلات الاجتماعية وأيضاً يسعى المساق نحو تدريب الطالب على نماذج تطبيقية من المشكلات الاجتماعية في الواقع الاجتماعي

### Communication Skills in English Language

|                        |                                    |           |  |
|------------------------|------------------------------------|-----------|--|
| Course Number          | SSW365                             |           |  |
| Number of Credit Hours | Theory                             | Practical |  |
|                        | 3                                  | 0         |  |
| Pre-Requisite          | None                               |           |  |
| Course Type            | Compulsory<br>Level: 3 Semester: 1 |           |  |

The course aims to provide students with the language skills and knowledge required to communicate effectively in English in various speech events. As oral language is the basis for communication, instruction will be focused more on listening and speaking to equip learners with the necessary tools to express their thoughts, ideas, and feelings and be able to respond to others. To foster their abilities, students will also be exposed to the grammatical and structural aspects of English including reading, writing and vocabulary building.

### الإرشاد الأسري والاجتماعي

|                        |             |
|------------------------|-------------|
| SSW366                 | رقم المساق  |
| مجموع الساعات المعتمدة | نظري        |
|                        | عملي        |
|                        | عدد الساعات |

|                              |   |   |                |
|------------------------------|---|---|----------------|
| 3                            | 0 | 3 |                |
| لا يوجد                      |   |   | المتطلب السابق |
| متطلب قسم إجباري             |   |   | نوع المساق     |
| المستوي الثالث/ الفصل الثاني |   |   | مستوي المساق   |

يتناول هذا المساق توضيح الفرق بين عمليتي التوجيه والإرشاد، كما يوضح تاريخ نشأة وتطور الإرشاد النفسي والأسري، إضافة إلى شرح أهداف الإرشاد الأسري وأهم المبادئ التي يقوم عليها، علاوة على تحديد وشرح أهم مهارات العمل الإرشادي، كما يتناول المساق أهم النظريات التي تستخدم في الإرشاد الأسري، وطرق وأساليب جمع المعلومات المتنوعة وكيفية عمل دراسة الحالة، إضافة إلى شرح كيفية إدارة الجلسات الإرشادية، كذلك يوضح مجموعة من الأساليب العلاجية المتنوعة، ويتيح الفرصة للطلبة للتدريب عليها، كما يتضمن المساق طرق الإرشاد والتعامل مع ذوي الاحتياجات الخاصة.

### التدريب العملي في المؤسسات الاجتماعية 1

|                                    |      |      |                |
|------------------------------------|------|------|----------------|
| SSW367                             |      |      | رقم المساق     |
| مجموع الساعات المعتمدة             | عملي | نظري | عدد الساعات    |
| 3                                  | 3    | 0    |                |
| الانتهاء من السنة الدراسية الثانية |      |      | المتطلب السابق |
| متطلب قسم إجباري                   |      |      | نوع المساق     |
| مستوي ثالث / فصل ثاني              |      |      | مستوي المساق   |

يربط القسم بالمجتمع من خلال تنظيم زيارات ميدانية متتالية للطلاب الى المؤسسات الاجتماعية الأسرية والعقابية والتعليمية والصحية العاملة في الدولة تمهيدا للتدريب فيها لاحقا ، وذلك لتطبيق أسس ومبادئ واساليب الممارسة المهنية للخدمة الاجتماعية ، تحت إشراف مدرس المساق والاختصاصي الاجتماعي بالمؤسسة.

### English Texts in Sociology and Social Work

|                        |                                       |           |  |
|------------------------|---------------------------------------|-----------|--|
| Course Number          | SSW368                                |           |  |
| Number of Credit Hours | Theory                                | Practical |  |
|                        | 3                                     | 0         |  |
| Pre-Requisite          | SSW365                                |           |  |
| Course Type            | Compulsory<br>Level: 3<br>Semester: 2 |           |  |

English Texts in Sociology and Social Work is a course designed to familiarize students with the language of sociology and social work. The course helps students understand and use terminology of sociology and social work. It covers various topics such as social change, demography, social problems and social work etc. This course also helps students develop communication and language skills. The course encourages students to translate short texts from English into Arabic.

طرق وتصميم البحث الاجتماعي

|                  |      |      |                |
|------------------|------|------|----------------|
| SSW469           |      |      | رقم المساق     |
| المجموع          | عملي | نظري | عدد الساعات    |
| 3                | 2    | 2    |                |
| SSW156           |      |      | المتطلب السابق |
| متطلب قسم إجباري |      |      | نوع المساق     |

يتناول المساق مفهوم البحث العلمي والبحث الاجتماعي، وأيضاً كيفية اختيار مشكلة البحث العلمي وصياغتها، كما يتناول صياغة وتصميم الفرض العلمي، العينات وطريقة اختيارها وتصميمها، ويتناول المساق أيضاً مناهج البحث الاجتماعي وتصميمها وتصميم طرق أدوات جمع البيانات، كما يتناول المساق خطوات إعداد مقترح البحث العلمي وتفسير وتحليل البيانات وكتابة تقرير البحث.

علم اجتماع السكان

|                  |      |      |                |
|------------------|------|------|----------------|
| SSW470           |      |      | رقم المساق     |
| المجموع          | عملي | نظري | عدد الساعات    |
| 3                | 0    | 3    |                |
| لا يوجد          |      |      | المتطلب السابق |
| متطلب قسم إجباري |      |      | نوع المساق     |

يتناول المساق التعريف بمدخل دراسة السكان وتطور منهجه وتنوع الرؤى فيه. كما يتطرق الى دراسة وقياس الحراك السكاني بالتركيز على الخصوبة والوفيات، ثم مفهوم الهرم السكاني والتركيب السكاني ومضامينه والتحليل السوسولوجي له. كما يناقش السياسة السكانية وأثرها الاقتصادي والاجتماعي وقضايا الهجرة الداخلية والخارجية. ويتعرض بالتحليل إلى نظريات السكان الكلاسيكية والحديثة. ثم يقدم رؤية عن أثر السكان على التنمية في دولة الامارات العربية المتحدة.

علم الاجتماع الإعلامي

|                        |      |      |                |
|------------------------|------|------|----------------|
| SSW471                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 0    | 3    |                |
| لا يوجد                |      |      | المتطلب السابق |
| متطلب مساند، ...       |      |      | نوع المساق     |

. يتناول هذا المساق معطيات الحياة الإعلامية في المجتمعات المعاصرة وأهميتها، ملقياً الضوء على العلاقة البيئية الوثيقة ما بين الظاهرة الإعلامية والاجتماعية، ومبيناً المدى الذي صبغ فيه التطور التكنولوجي لوسائل الاتصال في المجتمع المعاصر بصبغته. ويعرض المساق نشأة علم الاجتماع الإعلامي كفرع من علم الاجتماع وي طرح مفاهيمه الأساسية، كما يناقش الاتجاهات النظرية الرئيسية التي تناولت الإعلام في سياقها الاجتماعي بدءاً من البنائية الوظيفية ونظريات الصراع والتفاعل الرمزي وصولاً إلى الرؤى الاجتماعية المتعلقة بالعلومة ومجتمع المعرفة والشبكات الاجتماعية.

التخطيط الاجتماعي

|        |  |  |            |
|--------|--|--|------------|
| Ssw472 |  |  | رقم المساق |
|--------|--|--|------------|

|  |                  |      |                        |
|--|------------------|------|------------------------|
| عدد الساعات  | نظري             | عملي | مجموع الساعات المعتمدة |
|  | 3                | 0    | 3                      |
| المتطلب السابق   | لا يوجد          |      |                        |
| نوع المساق   | متطلب مساند، ... |      |                        |
| يتناول هذا المساق مناقشة وتحليل مفهوم التخطيط الاجتماعي والمبادئ الأساسية والأهداف التي يحققها. وهو يركز على تطور مفهوم التخطيط ومراحله المختلفة وأنواعه ومستوياته وأولوياته. ومن ناحية أخرى يشرح تنفيذ الخطة الاجتماعية والمشاكل التي تصاحب هذا التنفيذ وإمكانية التقليل منها أو تجاوزها بما يعرف بالتخطيط الاستراتيجي. كما يناقش المساق قضية التخطيط والتنمية وبعض نماذجها في العالم العربي. |                  |      |                        |

### التدريب العملي في المؤسسات 2

|                |                                    |      |                        |
|----------------|------------------------------------|------|------------------------|
| رقم المساق     | SSW473                             |      |                        |
| عدد الساعات    | نظري                               | عملي | مجموع الساعات المعتمدة |
|                | 0                                  | 3    | 3                      |
| المتطلب السابق | الانتهاء من السنة الدراسية الثالثة |      |                        |
| نوع المساق     | متطلب قسم إجباري                   |      |                        |

يتناول هذا المساق التدريب الميداني للطلبة في إحدى المؤسسات في مجال علم الاجتماع والخدمة الاجتماعية بغرض التطبيق العملي للأساليب والمعارف العلمية التي تم اكتسابها، يجب على الطالب أن يمضي 80 ساعة تدريب ميداني على الأقل عن طريق الانتظام في المؤسسات الاجتماعية ومجالات الخدمة الاجتماعية في الدولة، ويتم التدريب الميداني على دراسة المشاكل الفردية من خلال عمليات الدراسة والتشخيص والعلاج ومحاولة إيجاد حلول لها وتطبيق مبادئ طرق الخدمة الاجتماعية، وذلك تحت إشراف كل من المشرف الأكاديمي بالقسم والأخصائي الاجتماعي بالمؤسسة، يتم تقويم الطالب من قبل لجنة ثلاثية على أساس مدى استيعابه للتدريب وقدرته على حل المشكلات وعلى كافة التقارير الدقيقة،

### مشروع التخرج في الاجتماع والخدمة الاجتماعية

|                |                              |      |                        |
|----------------|------------------------------|------|------------------------|
| رقم المساق     | SSW474                       |      |                        |
| عدد الساعات    | نظري                         | عملي | مجموع الساعات المعتمدة |
|                | 0                            | 6    | 3                      |
| المتطلب السابق | SSW469                       |      |                        |
| نوع المساق     | متطلب تخصص إجباري            |      |                        |
| مستوي المساق   | المستوي الرابع/ الفصل الثاني |      |                        |

يتناول هذا المساق تطبيق الجوانب المعرفية التي اكتسبها الطلبة في مجال الاجتماع والخدمة الاجتماعية التي تمكن الطالب من إنجاز مشروع التخرج في علم الاجتماع او الخدمة الاجتماعية، بحيث يستخدم فيه معارفه النظرية ومهاراته العملية ليقدم مشروعاً تطبيقياً من اختياره. كما يحاول تطبيق طرق ومناهج البحث الاجتماعي واساليب التحليل الكمي للبيانات الكمية باستخدام برنامج الحزمة الإحصائية للعلوم الاجتماعية SPSS. أو برنامج NVivo

توصيفات مساقات مجموعة علم الاجتماع الاختيارية

علم الاجتماع العائلي

|                        |      |      |                |
|------------------------|------|------|----------------|
| SSW175                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 0    | 3    |                |
| لا يوجد                |      |      | المتطلب السابق |
| متطلب قسم اختياري      |      |      | نوع المساق     |

يتناول المساق موضوعات وأهداف ومجالات علم الاجتماع العائلي، كما يتناول الأسرة وأنماطها، والزواج والعلاقات القرابية، إضافة إلى ذلك يتناول المساق المداخل النظرية لدراسة الأسرة والعولمة وتأثيراتها على السرة المعاصرة والمشكلات الأسرية، وإيضاً يتناول المساق نظام العائلة في مجتمع الخليج والأسرة في المجتمع الإماراتي.

علم اجتماع التنظيم

|                        |      |      |                |
|------------------------|------|------|----------------|
| SSW176                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 0    | 3    |                |
| لا يوجد                |      |      | المتطلب السابق |
| متطلب قسم اختياري      |      |      | نوع المساق     |

يتناول هذا المساق التعريف بمفهوم التنظيم الاجتماعي، ونشأة علم اجتماع التنظيم وأنواعه ومجالاته، كما يتناول المساق ودراسة الاتجاهات الكلاسيكية والحديثة في دراسة التنظيم الاجتماعي، وإيضاً يتناول المساق دراسة الظواهر والعمليات الاجتماعية داخل التنظيم كالسلوك والاتصال التنظيمي وعلاقات القوة. كما يدرس المساق بعض نماذج واقعية للتنظيمات الاجتماعية بدولة الامارات العربية المتحدة.

علم الاجتماع الحضري والريفي

|                        |      |      |                |
|------------------------|------|------|----------------|
| SSW177                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 0    | 3    |                |
| لا يوجد                |      |      | المتطلب السابق |
| متطلب قسم اختياري      |      |      | نوع المساق     |
|                        |      |      | مستوى المساق   |

يحاول هذا المساق إعطاء فكرة عامة عن علم الاجتماع بصفة عامة، وعلم الاجتماع الحضري والريفي بصفة خاصة من حيث ظروف النشأة والتطور. كما يحاول تسليط الضوء على ظاهرة التحضر والفروق الريفية الحضرية والاتجاه والمنهج في علم الاجتماع الحضري وعلم الاجتماع الريفي، المدنية كظاهرة حضرية ومقاييس التميز بين الحضر والريف في المجتمعات الخليجية والعربية.

علم اجتماع التنمية

|        |  |  |            |
|--------|--|--|------------|
| SSW178 |  |  | رقم المساق |
|--------|--|--|------------|

|                |                   |      |                        |
|----------------|-------------------|------|------------------------|
| عدد الساعات    | نظري              | عملي | مجموع الساعات المعتمدة |
|                | 3                 | 0    | 3                      |
| المتطلب السابق | لا يوجد           |      |                        |
| نوع المساق     | متطلب قسم اختياري |      |                        |
| مستوى المساق   |                   |      |                        |

يتناول هذا المساق مفاهيم التنمية الاجتماعية، ومبادئها ومقوماتها، وأهم مجالاتها، كما يتناول التنمية الاجتماعية في الفكر السوسيولوجي، والتوجه الأيديولوجي في علم اجتماع التنمية، والتنمية الاجتماعية وعلاقتها بالتنمية الاقتصادية، والنمو الاقتصادي، والتخطيط الاجتماعي والتنمية والتحديث، واستراتيجيات العمل الإنمائي وتكتيكاته ونماذجه، وكذا نماذج من الدراسات والبحوث الإمبريقية والاتجاهات التطبيقية في مجال التنمية الاجتماعي.

### علم الاجتماع التربوي

|                |                   |      |                        |
|----------------|-------------------|------|------------------------|
| رقم المساق     | SSW179            |      |                        |
| عدد الساعات    | نظري              | عملي | مجموع الساعات المعتمدة |
|                | 3                 | 0    | 3                      |
| المتطلب السابق | لا يوجد           |      |                        |
| نوع المساق     | متطلب قسم اختياري |      |                        |
| الفصل الدراسي  |                   |      |                        |

يتناول المساق التعريف بعلم الاجتماع التربوي ونشأته وتطوره مع التركيز على النظم التعليمية بهدف توجيهها نحو الغايات العلمية والتطبيقية وتحقيق أهداف المجتمع ومطالبه، وأيضاً يتناول العلاقة بين علم الاجتماع والتربية، من حيث دور الأسرة، والمؤسسات الاجتماعية المختلفة في التنشئة الاجتماعية، وغرس القيم والمفاهيم الاجتماعية عن طريق العملية التربوية. ويتناول المساق الارتباط بين التربية والمجتمع فيما يتعلق بتشكيل الثقافة التربوية للأفراد والجماعات. كما يدرس المساق كيفية تأثير النظم التربوية المختلفة على النظام الاجتماعي، أو بمعنى آخر دراسة النظام التربوي والتعليمي من منظور اجتماعي.

### علم الاجتماع وإدارة الأزمات

|                |                   |      |                        |
|----------------|-------------------|------|------------------------|
| رقم المساق     | SSW180            |      |                        |
| عدد الساعات    | نظري              | عملي | مجموع الساعات المعتمدة |
|                | 3                 | 0    | 3                      |
| المتطلب السابق | لا يوجد           |      |                        |
| نوع المساق     | متطلب قسم إختياري |      |                        |

يتناول المساق ماهية الأزمة والمفاهيم المرتبطة بها، كما يوضح الأزمات من حيث أنواعها وأسبابها وأليات التعامل معها، إضافة إلى التعرف على طبيعة العلاقة بين الأزمة والمجتمع، مع تحديد مفهوم إدارة الأزمات، والأبعاد الاجتماعية والثقافية لإدارتها، ومن ثم العلاقة بين علم الاجتماع وعلم إدارة الأزمات، واستعراض عدد من النماذج الدولية في إدارة الأزمات، مع تحديد المؤسسات المجتمعية القائمة على تنمية وعي المواطنين إزاء الأزمات ومواجهتها، والصعوبات التي تحول دون الوعي الاجتماعي الثقافي بالأزمات وإدارتها.

## علم الاجتماع التطبيقي

|                        |            |                |
|------------------------|------------|----------------|
| SSW181                 | رقم المساق |                |
| مجموع الساعات المعتمدة | نظري       | عملي           |
| 3                      | 0          | 3              |
| لا يوجد                |            | المتطلب السابق |
| متطلب قسم اختياري      |            | نوع المساق     |

يتناول المساق التعريف بعلم الاجتماع التطبيقي ومجالاته، وفهم القوى والبناء الاجتماعي الذي يشكل المجتمع مع التدريب العملي في طرق البحث والإحصاءات، وبحوث التقييم وتوظيف النظريات السوسولوجية لدراسة القضايا والمشكلات الاجتماعية المعاصرة، ويتناول المساق أيضاً نماذج من البحوث التطبيقية في علم الاجتماع، حتى تكون لدارسي علم الاجتماع المهارات المهنية التطبيقية تمكنهم من الالتحاق بسوق العمل.

## علم اجتماع المرأة

|                        |            |                |
|------------------------|------------|----------------|
| SSW182                 | رقم المساق |                |
| مجموع الساعات المعتمدة | نظري       | عملي           |
| 3                      | 0          | 3              |
| لا يوجد                |            | المتطلب السابق |
| متطلب قسم اختياري      |            | نوع المساق     |

يتناول هذا المساق الإسهامات المعرفية والنظرية لعلم الاجتماع في مجال دراسات المرأة. ويتناول أيضاً نشأة هذا الفرع من فروع علم الاجتماع ومفاهيمه. بالإضافة لأمثلة من الدراسات الاجتماعية (و الأنثروبولوجية) حول المرأة والأمومة والأسرة، والأدوار الاجتماعية للمرأة والعمل في الحياة العامة، و يطرح موضوع المرأة في الإعلام وموضوع المرأة في العولمة وما بعد الحداثة. ويرتكز المساق في العديد من موضوعاته على أمثلة من الدراسات حول المرأة في الإمارات، كما يهتم المساق بإجراء المقارنات لوضع المرأة في مختلف المجتمعات.

## قضايا اجتماعية معاصرة

|                        |            |                |
|------------------------|------------|----------------|
| SSW183                 | رقم المساق |                |
| مجموع الساعات المعتمدة | نظري       | عملي           |
| 3                      | 0          | 3              |
| لا يوجد                |            | المتطلب السابق |
| متطلب قسم اختياري      |            | نوع المساق     |

يتناول المساق الظواهر الاجتماعية الجديدة في المجتمع العربي والعالمي وعلاقة هذه الظواهر بالعولمة، وتحديداً العولمة الاجتماعية، كما يتناول الاتجاهات الحديثة في التنمية الاجتماعية والتحديث، ومستقبل المجتمع المدني في الوطن العربي، وبروز النظام الاجتماعي الجديد، والقضايا المتعلقة باللجوء والهجرة الخارجية والهجرة الداخلية، وقضايا الإعلام والمجتمع في المجتمع المعاصر، كما يتناول المساق القضايا المرتبطة بالضبط الاجتماعي في المجتمعات الحديثة.

### علم الاجتماع الجنائي

|                        |      |      |                |
|------------------------|------|------|----------------|
| SSW184                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 0    | 3    |                |
| لا يوجد                |      |      | المتطلب السابق |
| متطلب قسم اختياري      |      |      | نوع المساق     |

يتناول هذا المساق التعريف بعلم الاجتماع الجنائي ونشأته وتطوره ومفاهيمه وعلاقته بالعلوم الأخرى. كما يناقش النظريات المفسرة للجريمة والسلوك الإجرامي ويلقي الضوء على علاقة الجريمة بالمجتمع. ويتناول الجرائم المستحدثة كجرائم الإنترنت وجرائم الإرهاب. كما يحلل إحصائيات الجريمة في العالم العربي.

### موضوع خاص في علم الاجتماع

|                        |      |      |                |
|------------------------|------|------|----------------|
| SSW185                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 0    | 3    |                |
| لا يوجد                |      |      | المتطلب السابق |
| متطلب تخصص اختياري     |      |      | نوع المساق     |

يتناول هذا المساق القضايا الهامة والمستحدثة في مجال علم الاجتماع، ويتم تحديد المحاور الدراسية في المساق بحسب طبيعة الموضوعات التي يتم اقتراحها من مدرس المساق والطلاب .



توصيفات مساقات مجموعة الخدمة الاجتماعية الاختيارية

| الخدمة الاجتماعية في مجال رعاية الشباب |      |      |                |
|--|------|------|----------------|
| SSW186                                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة                 | عملي | نظري | عدد الساعات    |
| 3                                      | 0    | 3    |                |
| لا يوجد                                |      |      | المتطلب السابق |
| متطلب قسم اختياري                      |      |      | نوع المساق     |

يتناول المساق مقدمة عن مهنة الخدمة الاجتماعية في مجال الشباب ومفهوم رعاية الشباب وخصائص رعاية الشباب وأهمية رعاية الشباب وأهداف رعاية الشباب ومبادئ رعاية الشباب والمنطلقات النظرية في مجال رعاية الشباب، والأدوار المهنية للخدمة الاجتماعية في مجال رعاية الشباب والمهارات المهنية في مجال رعاية الشباب، والعمليات المهنية في مجال رعاية الشباب واحتياجات ومشكلات الشباب.

| الخدمة الاجتماعية والمجتمع المحلي |      |      |                |
|-----------------------------------|------|------|----------------|
| SSW187                            |      |      | رقم المساق     |
| مجموع الساعات المعتمدة            | عملي | نظري | عدد الساعات    |
| 3                                 | 0    | 3    |                |
| لا يوجد                           |      |      | المتطلب السابق |
| متطلب قسم اختياري                 |      |      | نوع المساق     |

يتناول المساق مفهوم الخدمة الاجتماعية وتعريف المجتمع والمجتمع المحلي، كما يتناول المنظمات الاجتماعية ودورها في تنمية المجتمع المحلي وذلك بالتركيز على المنظمات الأهلية. ويتناول المساق طريقة تنظيم المجتمع ودورها في تنمية المجتمعات المحلية، والقيادة ودورها وأهميتها في تنمية المجتمع المحلي. وأيضاً يتناول المساق التجارب الميدانية لتنمية المجتمع المحلي باستخدام المداخل المهنية في الخدمة الاجتماعية.

| رعاية ذوي الاحتياجات الخاصة |      |      |                |
|-----------------------------|------|------|----------------|
| SSW188                      |      |      | رقم المساق     |
| مجموع الساعات المعتمدة      | عملي | نظري | عدد الساعات    |
| 3                           | 0    | 3    |                |
| لا يوجد                     |      |      | المتطلب السابق |
| متطلب قسم اختياري           |      |      | نوع المساق     |

يتناول المساق مفهوم ذوي الاحتياجات الخاصة بشقيه السلبي والايجابي والرعاية التي تقدم إليهم وتطورها عبر العصور. كما يناقش أنواع الإعاقة وفئات المعاقين، أسباب الإعاقة وأوجه علاجها واستيعابها اجتماعياً. كما يتناول المبادئ العامة والوسائل العملية لتأهيل ورعاية المعاق متعرضاً للأسس النظرية في ممارسة الخدمة الاجتماعية للمعاقين والمشكلات الاجتماعية والاقتصادية والتشريعية التي تواجه المعاقين. إضافة إلى إبراز تجربة رعاية المعاقين في دولة الامارات العربية المتحدة

### الخدمة الاجتماعية ورعاية الأحداث

|                        |      |      |                |
|------------------------|------|------|----------------|
| SSW189                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 0    | 3    |                |
| لا يوجد                |      |      | المتطلب السابق |
| متطلب قسم اختياري      |      |      | نوع المساق     |

يتناول المساق مفهوم الحدث وانحراف الأحداث من وجهة نظر علماء الاجتماع، ومعرفة السلوك الاجتماعي السوي والمنحرف، ومعرفة المدارس الاجتماعية التي تفسر السلوك الإنحرافي كالمدرسة العضوية والنفسية والاقتصادية والاجتماعية والجغرافية. دراسة العوامل الاجتماعية التي تؤثر في إنحراف الأحداث وتصنيف أنواع الأحداث. دور الرعاية الاجتماعية في رعاية الأحداث ودور الاخصائي الاجتماعي الوقائي والعلاجي في المؤسسات الاجتماعية من خلال المداخل العلمية المعاصرة لممارسة الخدمة الاجتماعية. دراسة انحراف الأحداث ووسائل رعايتهم مع التطبيق على المجتمع في دولة الامارات المتحدة.

### التشريعات الاجتماعية

|                        |      |      |                |
|------------------------|------|------|----------------|
| SSW190                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 0    | 3    |                |
| لا يوجد                |      |      | المتطلب السابق |
| متطلب اختياري          |      |      | نوع المساق     |

يتناول المساق مفهوم القانون وهدفه العام وضرورته للمجتمع ثم يتناول تطور التشريعات الاجتماعية وأهدافها ووسائل تحقيقها واللوائح والنظم والشرائع الدينية، وكيفية تطويرها للمجتمعات عبر الحقب المختلفة ودورها في المجتمع المعاصر. كما يتناول المساق العلاقة بين التشريعات الاجتماعية والخدمة الاجتماعية، وينظر في الأسس الثقافية والاجتماعية والدينية التي تعتمد عليها التشريعات الاجتماعية. كما يشرح نماذج من التشريعات الاجتماعية في عدة مجالات وكيف أنها تسهم في توفير الرعاية والحماية الاجتماعية. كما يتناول تشريعات وقوانين الرعاية الاجتماعية في دولة الامارات العربية المتحدة.

### الخدمة الاجتماعية والدفاع الاجتماعي

|                        |      |      |                |
|------------------------|------|------|----------------|
| SSW191                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 0    | 3    |                |
| لا يوجد                |      |      | المتطلب السابق |
| متطلب قسم إجباري       |      |      | نوع المساق     |

يركز هذا المساق على إدراك الطلبة لمفهوم الدفاع الاجتماعي وشموله من خلال مجالاته المختلفة، وفلسفته والأسس التي يستند إليها، والدور المهني للخدمة الاجتماعية وارتباط الدفاع الاجتماعي ومجالاته المتنوعة كالأحداث ورعاية المسجونين وأسرههم بإشباع الحاجات ومواجهة المشكلات الاجتماعية المرتبطة بها، وأساليب تدعيم فعالية هذا المجال.

الخدمة الاجتماعية في المجال الطبي

|                        |      |      |                |
|------------------------|------|------|----------------|
| SSW192                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 0    | 3    |                |
| لا يوجد                |      |      | المتطلب السابق |
| متطلب قسم اختياري      |      |      | نوع المساق     |

يتناول المساق مفهوم الخدمة الاجتماعية الطبية، أهداف الخدمة الاجتماعية الطبية وأهمية الخدمة الاجتماعية الطبية، وفلسفة الخدمة الاجتماعية الطبية الممارسة المهنية للأخصائي الاجتماعي في المجال الطبي، والأدوار الوظيفية للخدمة الاجتماعية في المجال الطبي والأثار النفسية والاجتماعية للمرضى والخدمة الاجتماعية الطبية وعلاقتها بالمؤسسات الأخرى.

الأسرة والطفولة

|                        |      |      |                |
|------------------------|------|------|----------------|
| SSW193                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 0    | 3    |                |
| لا يوجد                |      |      | المتطلب السابق |
| متطلب قسم اختياري      |      |      | نوع المساق     |

تناول المساق المبادئ العلمية لرعاية الأطفال من الولادة وحتى سن الخامسة والتعريف بمرحلة الطفولة وماهيتها وأهم خصائصها الاجتماعية والنفسية والتنشئة الاجتماعية وأثرها في تكوين وتدعيم شخصية الطفل . والاحتياجات الخاصة بمرحلة الطفولة وأسباب مشكلات الطفولة، وتصنيف المشكلات، وأهمية إشباع الحاجات الخاصة بالطفل وأسس الممارسة المهنية للأخصائي الاجتماعي مع الطفولة، وتتضمن جوانب الحماية والعلاج والتنمية، كما يتناول جهود المجتمع الاماراتي لحماية الطفل، من خلال التعرف على نماذج من مؤسسات رعاية الطفولة في المجتمع الاماراتي.

رعاية المسنين

|                        |      |      |                |
|------------------------|------|------|----------------|
| SSW194                 |      |      | رقم المساق     |
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 0    | 3    |                |
| لا يوجد                |      |      | المتطلب السابق |
| متطلب قسم اختياري      |      |      | نوع المساق     |

يتناول المساق تعريف وخصائص المسنين، ومرحلة الشيخوخة والمشكلات الاجتماعية التي يتعرض لها المسن وكيفية مواجهتها، والتعرف على العوامل والأسباب الاجتماعية والاقتصادية والبيئية المؤثرة في مشكلات المسن، إضافة إلي تناول النظريات الاجتماعية والنفسية التي تفسر المشكلات والقضايا المتعلقة بالمسنين، كما يتناول أهداف الرعاية الاجتماعية للمسن ودور الأخصائي الاجتماعي في تطبيق مبادئ الرعاية الاجتماعية، وأهدافها نحو المسنين، ومعرفة القوانين والمواثيق الدولية الداعمة لحقوق المسن مع توضيح دور دولة الإمارات في رعاية المسنين والتعرف على نماذج دولية مختلفة في رعاية المسنين .

### الخدمة الاجتماعية المدرسية

| SSW195                 |      |      | رقم المساق     |
|------------------------|------|------|----------------|
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 0    | 3    |                |
| لا يوجد                |      |      | المتطلب السابق |
| متطلب اختياري          |      |      | نوع المساق     |

يتناول هذا المساق أحد مجالات الخدمة الاجتماعية وهي الخدمة الاجتماعية المدرسية التي تطبق في المدارس، يغطي المساق أهمية ونشأة وتطور وتعريف واهداف الخدمة الاجتماعية المدرسية، مع إلقاء الضوء على المبادئ العلمية للمدرسة الحديثة وفلسفتها وأهدافها وخصائصها. ويتناول المساق أيضاً مستويات الارشاد في الخدمة الاجتماعية والبرامج الوقائية في المجال المدرسي، والتعرف على احتياجات ومشكلات الطلاب. وعمليات وطرق التدخل المهني للخدمة الاجتماعية في المجال المدرسي (فردى، جماعى، تنظيم مجتمع). بالإضافة إلى المعوقات التي تواجه ممارسة الخدمة الاجتماعية في المؤسسات التعليمية.

### موضوع خاص الخدمة الاجتماعية

| SSW196                 |      |      | رقم المساق     |
|------------------------|------|------|----------------|
| مجموع الساعات المعتمدة | عملي | نظري | عدد الساعات    |
| 3                      | 0    | 3    |                |
| لا يوجد                |      |      | المتطلب السابق |
| متطلب تخصص اختياري     |      |      | نوع المساق     |

يتناول هذا المساق القضايا المهمة والمستحدثة في مجال الخدمة الاجتماعية ، ويتم تحديد المحاور في المساق بحسب طبيعة الموضوعات التي يتم تناولها.

## General Education Program

The General Education Program (GEP) at Ajman University is a vital component of tertiary education associated with a range of University requirements intended to lay the ground for students' future progress and development, academically as well as professionally.

The main purpose of the GEP is to enable all students to attain the fundamental broad base of knowledge, skills and competences that all university-educated adults must have no matter what their area of specialization is.

In addition, the GEP seeks to develop students' specific competences pertinent to enjoying autonomy and responsibility for their learning, interaction with others, pursuing self-development and deploying what they have acquired in real life situations.

Required and elective general education courses are designed to establish strong intellectual foundation for all specializations, regardless of the degree and number of credits required. These courses are added on top of the mandatory major courses with the intent to broaden knowledge beyond what is required in the student's specialization.

GEP courses develop skill acquisition in oral and written communication, information technology, innovation, quantitative analysis, critical thinking as well as certain aspects in the humanities, arts, and natural sciences. Their selection is based on originality, modernity, relevance and coherence.

On successful completion of the general education program, the student will be able to:

### Knowledge

- Understand key concepts and issues in languages, religion, history, society, environmental issues, and natural resources.
- Demonstrate knowledge of basic principles in statistics, information technology, critical thinking and innovation, together with their applications.

### Skill

- Communicate effectively orally and in writing and deploy a range of presentation techniques.
- Select and deploy a range of relevant information search/retrieval techniques, and appropriate tools.

### Competence

- Interpret and present quantitative data effectively.
- Demonstrate the ability to comprehend multiple perspectives and formulate effective actions.
- Take responsibility for his own future learning needs.

## Offered General Education Courses

In line with CAA standards 2011, every AU student is required to complete a general education program by completing one or more university-level courses in each of the following areas:

- I. English, Arabic or other languages
- II. Humanities or arts
- III. Natural sciences
- IV. Information technology or mathematics
- V. Social or behavioral sciences
- VI. Islamic studies, history, or culture
- VII. Statistics courses

In addition, the Ministry has recently introduced a new compulsory course on “Innovation and Entrepreneurship”.

AU GEP consists of 30 credit hours among which 15 credits are compulsory to all students and 15 credit hours of university electives to be chosen from a large number of courses covering the different areas of general education.

### List of compulsory courses (15 credit hours)

| Area                                  | Course Name                                 | Course code               |
|---------------------------------------|---|---------------------------|
| English, Arabic or other languages    | Communication Skills in Arabic (3 credits)  | ARB 111, ARB 112, ARB 114 |
| Information technology or Mathematics | IT Fundamentals (3 credits)                 | COM 111                   |
| Islamic studies, History, or Culture  | Islamic Culture (3 credits)                 | ISL 112, ISL 114          |
| Other Compulsory courses              | Statistics (3 credits)                      | STA 111, STA 112          |
|                                       | Innovation and Entrepreneurship (3 credits) | INN 311                   |

### List of elective courses (15 credit hours)

| Area                          | Course Name  | Course code |
|-------------------------------|--|-------------|
| <i>The humanities or arts</i> | <b>One course (3 credits) from the following list:</b> |             |
|                               | Introduction to Hadeeth and Sunna                      | ISL 211     |
|                               | Technical Writing (English)                            | ENG 112     |
|                               | Introduction to Digital Photography                    | ART 211     |
|                               | French Language  | FRE 211     |
|                               | Principles of Architecture and Art                     | ARC 211     |

|  |   |         |
|--|---|---------|
|  | Principles of Interior design   | DES 211 |
|  | Introduction to Art   | ART 111 |
|  | The Art of Written Expression (Arabic)  | ARB 113 |
|  | The Art of Public Speaking (English)  | ENG 211 |
|  | Islamic Civilization  | ISH 211 |
|  | Legal Culture   | LAW 111 |
| <i>The natural sciences</i>              | <b>One course (3 credits) from the following list:</b>  |         |
|  | General Physics   | PHY 111 |
|  | Astronomy   | AST 211 |
|  | General Chemistry   | CHM 111 |
|  | General Biology   | BIO 111 |
| <i>The social or behavioral sciences</i> | <b>One course (3 credits) from the following list:</b>  |         |
|  | General Psychology  | PSY 111 |
|  | Economic Concepts   | ECO 211 |
|  | Entrepreneurship development  | ENT 211 |
|  | Emirates Society  | EMS 111 |
|  | English Communication Skills  | ENG 111 |
|  | Introduction to Communication Sociology   | SOC 111 |
|  | Information Society   | INF 211 |
|  | Media Culture   | INF 112 |
|  | Communication Between Cultures  | SOC 112 |
|  | Library Information System  | INF 113 |
|  | Family System   | SOC 113 |
| <i>Optional courses</i>                  | <b>Two courses (6 credits) from an approved list of College designated general education courses.</b> |         |

### Laboratories:

The GEP overseas six laboratories, as follows:

1. English Language laboratories (two labs; male and female)
2. Statistics laboratories (two labs; male and female)
3. Computer Application laboratories (two labs; male and female)

Recently, the capacities of the four Statistics and Computer Application labs, in order to accommodate a total of 30 students at once. This expansion comes after a high demand on those labs and to facilitate students' registration.

### E-Learning:

The faculty of the GEP are also using the E-Learning system and MOODLE to enhance the learning process by giving students the opportunity, of accessing the teaching materials off campus via Internet.

### Intensive English Program:

The Intensive English Program (IEP) has two strands: TOEFL and IELTS. The student is free to choose either. Each of which has two levels: Advanced and Intermediate.

Students whose score is between 480 and 499 on TOEFL or Band 4.5 on IELTS are eligible to register in the Advanced Level. Students whose score is between 450 and 479 on TOEFL, or Band 4 on IELTS are eligible to register in the Intermediate Level. The table below summarizes this information.

| Level              | TOEFL       |                | IELTS    |
|--------------------|-------------|----------------|----------|
|                    | Paper-Based | Internet-Based |          |
| Advanced (AD)      | 480-499     | 54-60          | Band 4.5 |
| Intermediate (INT) | 450-479     | 45-53          | Band 4   |

The student who starts in the Intermediate Level can register in the Advanced Level when he gets the required score as shown in the table

### IEP Organizations

| Level        | Organization   | Other Courses   |
|--------------|--|---|
| Advanced     | Contact teaching hours: 6 + 3 for Independent Learning in the English Lab. | Up to 3 additional courses from the General Education Program |
| Intermediate | Contact teaching hours: 12 + 3 Independent learning in the English Lab     | 2 additional courses from the General Education Program       |

### IEP Structure

The Advanced Level Program is a program that consists of 9 contact hours per week during 15 weeks. It is suitable to students whose English Proficiency is close to the minimum required level to be admitted in a Program taught in English. It covers the following components:

#### 1. Listening

The central object of the listening components is to enhance and develop student competence to enable him/her to understand the English language in both academic and social settings. At the beginning of the listening component, emphasis is given to skills such as understanding conversation, identifying main and detailed ideas, and interacting with other students and lecturers in social settings. Later, more emphasis will be placed on comprehending conversations and talks, taking lecture notes and being aware of the structure of a lecture.

#### 2. Speaking



The objective of the speaking component is to enable students to communicate in English appropriately, fluently and successfully in both academic and social settings where they are required to ask and answer questions, agree and disagree, express their opinions clearly with supporting evidence, give presentations and take part in short debates and discussions.

### 3. Reading

The main objective of the reading component is to enable students to become good readers, by developing in them reading skills such as text comprehension, appropriate speed, reading with a purpose, skimming, scanning, etc. In order to achieve these aims, students will be exposed to a diverse range of text forms and genres.

### 4. Writing

Since writing is viewed as a process, it is imperative that students acquire and develop the different steps of the writing process: generating ideas; organizing ideas; editing; revising, etc. Emphasis is also given to grammatical accuracy, lexical appropriateness, fluency and coherence.

### 5. Vocabulary

Rather than being developed in isolation, vocabulary is integrated into all skills. The main aim of the vocabulary component is to expand and enrich the student vocabulary repertoire and enable them to acquire academic vocabulary pertinent to their university studies.

### 6. Grammar

Like vocabulary, grammar is not developed in isolation, and is also integrated into the four skills of listening, speaking, reading and writing. The ultimate aim of this component is to enable students to acquire both the rules of usage (accuracy) and at the same time to acquire the rules of use (appropriateness) in both spoken and written discourse.

### 7. Test-taking strategies

In addition to the components listed above, test-taking strategies are an essential element and are incorporated into the program.

#### Courses of the TOEFL Programs:

| Course Code | Seq. | Course Name                             | Weekly Hours |
|-------------|------|---|--------------|
| TOE 111     | 2    | TOEFL AD/ Grammar & Test Practice       | 3            |
| TOE 112     | 2    | TOEFL AD/ Independent Learning          | 3            |
| TOE 113     | 2    | TOEFL AD/ Listening, Speaking & Reading | 3            |
| TOE 114     | 2    | TOEFL INT/ Grammar                      | 3            |
| TOE 115     | 2    | TOEFL INT/ Independent Learning         | 3            |
| TOE 116     | 2    | TOEFL INT/ Listening & Speaking         | 3            |
| TOE 117     | 2    | TOEFL INT/ Reading                      | 3            |



|         |   |                                      |   |
|---------|---|--------------------------------------|---|
| TOE 118 | 2 | TOEFL INT/ Vocabulary/ Test Practice | 3 |
|---------|---|--------------------------------------|---|

**Courses of the IELTS programs:**

| Course  | SEQ. | Course Name                     | Weekly Hours |
|---------|------|---------------------------------|--------------|
| TEL 111 | 3    | IELTS AD/ Independent Learning  | 3            |
| TEL 112 | 3    | IELTS AD/ Listening & Speaking  | 3            |
| TEL 113 | 3    | IELTS AD/ Reading & Writing     | 3            |
| TEL 114 | 3    | IELTS INT/ Independent Learning | 3            |
| TEL 115 | 3    | IELTS INT/ Listening            | 3            |
| TEL 116 | 3    | IELTS INT/ Speaking             | 3            |
| TEL 117 | 3    | IELTS INT/ Reading              | 3            |
| TEL 118 | 3    | IELTS INT/ Writing              | 3            |

Students exit the IEP successfully if they achieve one of the following:

| TOEFL       |                |                | IELTS |
|-------------|----------------|----------------|-------|
| Paper-Based | Computer-Based | Internet-Based | Band  |
| 500         | 173            | 61             | 5     |

### Course Descriptions

**TOEFL INTERMEDIATE/ADVANCE (16 Hours)**

The course gives students intensive practice in language skills: listening, reading and writing. It also focuses on vocabulary and grammar together with test-taking strategies in order to develop proficiency in the English language and perform efficiently in the TOEFL exam. Learning takes place in a user-friendly and anxiety-free environment.

**IELTS INTERMEDIATE/ADVANCE (24 Hours)**

IELTS requires proficiency in the four language skills: listening, speaking, reading and writing. Students are exposed to intensive practice so as to develop their communicative competence. They learn in a user-friendly and anxiety-free environment, making use of the different resources such as the English lab.

**I. Compulsory Courses:**

**Islamic Culture (Non-Arabs): ISL 112 (3 Cr. Hrs.)**

This course aims to develop the student's understanding of the Islamic Culture and Thought. It familiarizes students with the Islamic vocabulary, concepts and values as well with a clear and detailed background on the religion of Islam. This course discusses the concept of culture, introduction to Islam, Islamic faith and beliefs, sources of legislation and characteristics of Islam, and also deals with some contemporary topics such as: the concept of human rights in Islam, woman status, globalization and environment.

**Islamic Culture: ISL 114 (3 Cr. Hrs.)**

This course aims at providing students with knowledge about culture, Islamic faith and beliefs, sources of legislation and characteristics of Islam. It will also deal with some contemporary issues from an Islamic perspective such as human rights, women status, globalization and environment.

**Communication Skills in Arabic Language: ARB 112 (3 Cr. Hrs.)**

The course discusses fundamentals of communication in Arabic with regard to its significance, components and goals. The course aims at developing the skills of listening; speaking, reading and writing which students need for their professional and social life. Throughout the course, participants discuss and analyze a variety of literary and scientific texts.

**Communication Skills in Arabic Language (Non-Arabs): ARB 112 (3 Cr. Hrs.)**

This course aims at providing non-Arab students with Communication Skills in the Arabic language. It focuses on the following skills: reading, writing, speaking and listening. It also aims at encouraging students to communicate in Arabic in their environment, university and society.

**Communication Skills in Arabic Language- E: ARB 114 (3 Cr. Hrs.)**

This course aims at providing students with communication skills in the Arabic language, such as: listening, reading, writing, and speaking. These skills are taught and achieved through the use of selected texts from traditional poetry, modern poetry and prose. There is also an emphasis on students' academic and cultural surroundings in which they live and interact with.

**Statistics (Science): STA 112 (3 Cr. Hrs.)**

This course aims at acquainting students in sciences subjects with the basic statistical methods and concepts. The course deals with data organization and calculation of descriptive measures. It also covers probability concepts and probability rules. This course includes discrete and continuous probability distributions where the emphasis is on the binomial, the Poisson and the normal distribution. This course introduces students to inferential statistics: it includes confidence intervals and hypothesis testing of a population parameters. The last part of this course includes simple linear regression analysis its application.

**Statistics (Arts): STA 111 (3 Cr. Hrs.)**

This course is designed for students who need to gain skills in basic statistics knowledge. It covers the essential statistical topics that Arts students expected to know. The first part of the course deals with basic statistical terminology, data organization and calculation of descriptive measures. The second part covers the basic concepts of probability and some important probability rules. The third part covers the discrete and continuous probability distributions, where the emphasis is on the binomial and the normal distribution. The fourth part covers the relationship between groups of data (bivariate correlation and regression and its applications to the time series forecasting.

This course is offered both in Arabic and English, according to language of studying for Arts majors.

**Environmental Sciences: ENV 111 (3 Cr. Hrs.)**

This course is designed for students who need to gain knowledge in environmental sciences in general. Special emphasis is given to water and energy resources because of their importance in the Arab region and the world. The course includes three basic modules: environment, water and energy. The environment module covers the population dynamics, natural resources, pollution, remote sensing and GIS applications, protection and managing of the environment and sustainable development. The water

module discusses the hydrologic cycle, basics of hydrogeology and water quality and water-related problems in the Gulf region. The third module covers the conventional and non-conventional energy resources and reasons of its depletion, methods of production, using, managing, and sustaining it on the long run.

This course is offered both in Arabic and English, according to language of studying for each major.

#### **IT Fundamentals: COM 111 (3 Cr. Hrs.)**

With the explosion of computer technology, knowledge of computing applications as tools for all disciplines has become a necessary asset. This course is an introduction to the most common software applications and includes hands-on use of microcomputers and some of the major commercial software. These software packages include typical feature such as word processing, spreadsheets, presentations, and other features found in current software packages. On course completion, students will exhibit proficiency with software applications and demonstrate knowledge of computer concepts and components.

This course is offered both in Arabic and English, according to language of studying for each major.

#### **Innovation and Entrepreneurship: INN 311 (3 Cr. Hrs.)**

This course is developed for the UAE based on decades of practices and experiences of teaching innovation and entrepreneurship at Stanford University that has fueled innovation and high growth in Silicon Valley. The goal of the course is to equip the next generation of leaders in the UAE with an innovative and entrepreneurial mindset and its related core skills.

This course is offered both in Arabic and English, according to language of studying for each major.

### **II. Elective Courses:**

#### **Legal Culture: LAW 111 (3 Cr. Hrs)**

The course addresses itself to general legal concepts at a macro level of generality such as the rule of practice and its characteristics, sources of obligation with reference to the rules of malpractices. It also deals with: the trader, commercial business and documents; labor law, rights and duties of workers, termination of contracts and penal law illustrated by common crimes such as robbery, fraud etc. In addition, matters related to administrative decisions are covered such as the employee rights and duties, the marriage contract and the wife's rights and duties.

#### **French Language: FRE 211 (3 Cr. Hrs)**

This is a an introductory course designed to enable students with no previous experience in French to express simple idea, to respond to simple information orally and in writing and to interact satisfactorily in a limited number of everyday situations and social encounters. The French language is introduced through communicative activities intended to develop oral communication skills and listening comprehension skills. Emphasis is placed on learning basic grammar and vocabulary necessary for successful communication while laying a foundation for further study.

#### **Introduction to Art: ART 111 (3 Cr. Hrs)**

This Course provides an exploration of various art mediums and techniques and an understanding of the art elements and principles. A vocabulary of art will be introduced to the students in order to analyze artworks individually or in-group. This art course helps students with creative thinking skills, expressive abilities, and visual problem solving methods. Students will be aware of the art history & cultural context and interdisciplinary connections between art and other fields.

**Critical Thinking: THI 211 (3 Cr. Hrs.)**

The Critical and creative Thinking course is an important course for all professionals in order to succeed in real life situations. Critical creative Thinking is the process by which we develop and support our beliefs, and evaluate the strengths of arguments made by others. This is an introductory course, which covers the basic principles and concepts of creative and critical thinking, designed to enhance the student's ability to evaluate various forms of reasoning as found in everyday life situations as well as in all academic disciplines. The course will deal with how to critically conduct inquiry about various contemporary issues. The course will focus on topics such as inductive and deductive reasoning, the nature and function of definitions, types of fallacies, the use and misuse of statistics, and the basics of logic. In addition to the skills and techniques of creative thinking.

**General Psychology: PSY 111 (3 Cr. Hrs)**

The General Psychology Course provides students with basic concepts, methods, techniques and theories of Psychology as applied to the field and practice of several academic specialties, e.g. Dentistry, Business Administration, Foreign languages, Media & Communication, Engineering, and other majors. The course also introduces areas of Psychology dealing with biology, learning, motivation, human development, personality, psychological illnesses, and other topics.

**Fundamentals of Human Nutrition: NUT 111 (3 Cr. Hrs.)**

This course discusses the fundamental principles of human nutrition and their application to food selection. Emphasis is placed upon the Essential Nutrients and their vital importance as well as the recommended dietary allowances and other dietary guidelines, which promote health maintenance and disease prevention. Moreover, answers to the questions of "What is Nutrition, why is it important for our life and how easily to adjust the life style based on what is learned" will be highlighted. It is an integrated method to deliver accurate nutritional sciences and information in an easy- to- understand, entertaining and enjoyable format. Moreover, the information is personalized in a way which is easy to be applied to the individual life style.

**First Aid: AID 111 (3 Cr. Hrs.)**

This course aims to provide fundamentals of first aid science based on updated and scientifically proven resources. It starts by introducing students to First Aid concepts, and enables them to understand a universal approach towards a systematic management of emergency events, while covering selected medical and trauma emergencies. This course installs the understanding on how emergencies occur, and paves the way to understand the rationale behind injury prevention. The emphasis on injury prevention is evident through each chapter, where each unit will be concluded with injury prevention steps to the most common hazards leading to each emergency.

**Research Methodology: RES 111 (3 Cr. Hrs.)**

This course introduces students to a number of research methods useful for academic and professional investigations. Students would examine and acquire the main components of research framework i.e., problem definition, research design, data collection, ethical issues in research, report writing and presentation.

**Astronomy: AST 111 (3 Cr. Hrs)**

The course includes clarifying significance of astronomy, which aims at understanding mysteries of the universe. The course starts with historical context of astronomy and continues to explore later developments. The course includes the determination of coordinates of the astronomical Planetarium, and identifying the asteroids astrocytes; try to direct the ocean understand (the ground) and beyond

(the Solar System and others), and the study of the moon and its relationship to the land and how calendars calculate and determine the phenomena related to his movement (tides, eclipses and eclipses, etc.). As well as the course involves realizing how to determine prayer timings and geographical trends in the nature and astronomical devices, which are used for such purposes, and also includes a study of the life of giant stars, nebulae, black holes and white dwarfs.

#### **Emirates Society: EMS 111 (3 Cr. Hrs)**

In this course, students are provided with the basic knowledge related to the nature of the UAE Society before and after the discovery of oil, and their effect on the political, geographical, cultural, social and educational aspects.

#### **English Communication Skill: ENG 111 (3 Cr. Hrs)**

The course aims to empower and develop students' skills and communicative competence in order for them to communicate successfully, appropriately and effectively in their academic life personal relationship and their social interaction which will directly impact on their dealings in their future workplace. It is an elective course tailored in a way to provide maximum student interaction and participation so as to facilitate and ensure the acquisition English communication skills and competencies. Also, reference will be done through drawing parallels between British culture and, other cultures, since culture plays an important role in human communication.

#### **Economic Concepts: ECO 211 (3 Cr. Hrs)**

This course is an integrated introduction to the analysis of individual firms and markets, as well as aggregate economic variables. These include inflation, unemployment and economic growth, with a focus on the state's role in attempts to regulate the economy. Thus, efforts will be focused on learning how societies use scarce resources to produce and distribute commodities among its various people.

#### **The Art of Public Speaking (English): ENG 211 (3 Cr. Hrs.)**

Through history, people have used public speaking as an important channel of communication. During modern times, many people around the world have spread their ideas and influence through the art of public speaking.

University education provides an excellent platform for students to develop the art of verbal communication. They do not only need this in their academic life, but also in their social life and future career. Therefore, students should develop the skills of effective communication in order to carry out different functions such as being able to prepare and organize ideas, inform, persuade and speak effectively on various occasions. The delivery must reflect the speaker's confidence, relaxation, fluency, appropriacy and clarity.

#### **Islamic Civilization: ISH 211 (3 Cr. Hrs.)**

Like other great civilizations, Islamic Civilization has great impact on humanity. Therefore, the course designed carefully for students to acquire its basic concepts. Then, the course highlights the spiritual, roles, physical, and cultural bases. Moreover, the course sheds lights on its important achievements in the various fields such as medicines, arts, literature, etc. Finally, the Islamic Civilization course concludes with how civilization contribute to enrich each other.

#### **Entrepreneurship Development: ENT 112 (3 Cr. Hrs)**

Based on the economic and social dimensions, the entrepreneurship development concept has become an imminent part of life. This course aims to highlight the economics of entrepreneurship, its role in venture creation and facilitation of capital resource. The course also aims at describing the

management strategies for starting up businesses which necessarily includes the business plan. The course focuses on all the basic tenets of entrepreneurship development.

**The Miraculousness of the Holy Koran & Sunna: ISL113 (3 Cr. Hrs.)**

The course deals with the concepts of the Miraculousness of the Holy Kuran; its types and necessity; and the principles pertinent to it with special emphasis on its scientific dimension. It also covers the miraculousness in the Sunah to illustrate aspects of miraculousness based also on principles agreed upon by Muslim scholars.

**Information Literacy: INF 111 (3 Cr. Hrs.)**

This course will introduce students to the organization, retrieval and evaluation of electronic and print information. Students will be provided with an overview of college library systems, networked information systems, traditional scholarly resources, evolving delivery systems, and the concepts underlying the research process. Students will gain an understanding of the importance of the Internet as a research tool and the changing nature of information resources. Students will utilize electronic databases, the World Wide Web, and print resources. Students will be able to apply principles learned in this course to research assigned in other courses. Students will practice thinking critically when formulating research queries and evaluating information resources.

**Technical Writing: ENG 112 (3 Cr. Hrs.)**

This course is intended to develop Students' proficiency and communicative competence in technical/professional writing and oral presentation skills. Also, the course is practically oriented in order to apply what students have acquired rather than focus on theory, which may rapidly fade away without application. It is worth pointing out that the various activities and interactions are designed in a way to be major-specific so that students perceive the relevance of what they have acquired. Hence, both their intrinsic and extrinsic motivation is enhanced

**Introduction to Digital Photography: ART 211 (3 Cr. Hrs.)**

This course covers basic concepts and practice of digital photography, including understanding and use of the camera, lenses, and other basic photographic equipment. The course will address aesthetic principles as they relate to composition, space, exposure, light and color.

**The Principles of Architecture and Art: ARC 211 (3 Cr. Hrs)**

The course introduces the student to the world of architecture and art through a series of lectures which highlight this subject by exploring visual presentations, videos, and slideshows. In addition, the course gives the student the chance to practice what he has visualized by creating drawings, pictures, and other media outcomes as required.

**Principles of Interior Design: DES 211 (3 Cr. Hrs)**

The aim of this course is to introduce students to elements and principles of interior design and expose them to contemporary designs. Students will be able to understand the principles of interior design and appreciate its impact on their surroundings.

**Introduction to Aesthetics: ART 112 (3 Cr. Hrs)**

The aim of the course is to allow students to research and study the philosophy of aesthetics, discussing the problem of aesthetics concerns, the theory of beauty and the theory of arts. This course will enable students to develop knowledge for human life and culture, which would help them to utilize these aspects of aesthetics value in their professional practices and communication behavior.



### **Modern Technology and Society: SOC 211 (3 Cr. Hrs)**

The course starts with defining key terms such as: science, engineering and technology then it deals with the history of technological developments that changed society, philosophical theories of interaction, ethical and legal issues pertinent to the use of modern technology and entrepreneurship in modern technology.

In addition, the course describes the roles modern technology play in shaping the lifestyle of individuals and society, and tin politics, the economy and health. Other issues such as: the impact of modern technology on the environment, how individuals interact with technology and immerging and future technology with its possible effects are also discussed.

### **Internet Concepts: INT 211 (3 Cr. Hrs)**

This course is designed as an introduction to the Internet and World Wide Web. It starts by introducing the history of the Internet and includes the use of Internet applications and the basics of web page and web site production, and continues with matters such as Internet security, cookies, viruses, etc.

### **The Art of Written Expression: ARB 113 (3 Cr. Hrs)**

The course analyzes writing practices within and across disciplines, recognizing the role writing plays in consolidating knowledge in a retrievable form which is easily accessible within each academic specialization. This course highlights the processes, practices and application of written expression in various academic fields. Students have the opportunity to develop a critical understanding of important discourses within their particular area of study.

### **Introduction to Information Systems: INF 212 (3 Cr. Hrs)**

The purpose of this course is to introduce the topic of information systems (IS) and how organizations use it to support a variety of tasks ranging from basic, day-to-day, activities to creating competitive edge in the market place. It will focus on topics such as business process reengineering, collaborative computing, electronic commerce, the impacts of IS upon organizations and society, ethical use of information systems, types of information systems, and how to analyze and design information systems.

### **History of science in Islam: ISH 111 (3 Cr. Hrs)**

The course consists of four units. In the first unit, we elaborate on introductory aspects related to history of science in general and the science in the context of Islamic Culture in particular. This unit includes: nature of human knowledge, the term science and scientific method, significance of the recent concern of studying history of science, scientific achievements of ancient nations and the cultural context of the scientific accomplishments of the intellectuals of the Islamic Culture. The second unit is devoted to the achievements of the scientists of this culture in medical sciences and prominent figures in these fields. In the third unit, we concentrate on the field of natural sciences, mathematics and prominent figures in these fields in the context of the Islamic Culture. Last, we discuss, in the fourth unit, agricultural endeavors in the Islamic culture in addition to the impact of this culture on the scientific progress in Europe.

### **Scientific Pioneering: PIO 211 (3 Cr. Hrs)**

The course consists of four distinct units. The first unit deals with human knowledge, introduction to epistemology, science and the scientific method and the nature of scientific explanation of observed phenomena. In the second unit, we study the societal influence on science, first by illustrating the theoretical basis of this influence, then by illustrating this influence via real societal examples extracted



from ancient and recent history. The third unit is devoted to studying the salient features of modern science and technology, including particularly: science and natural resources and intellectual property and patents. In the last unit we discuss the scientific impact on human behavior and thought.

**Principles of Mathematics: MTH 111 (3 Cr. Hrs)**

This course deals with algebraic equations of degree 1 and 2, the elementary ideas of plane geometry; Cartesian coordinates system, equations of line, circles, linear inequalities and systems of inequalities are introduced. Also, basic notions of real functions such as limits, continuity, and differentiability are studied along with simple applications. In addition, basic knowledge about matrices and their algebra is provided.

**General Physics: PHY 111 (3 Cr. Hrs)**

This course is designed for students who need to gain knowledge about the applications of physics in everyday life. It also focuses on how to use logic and similarities to make difficult problems even simpler before we use mathematics. The course includes a statement of physical rules that govern the means of modern technology (television, radio, microwaves, mobile phones, computers, GPS). It also shows how to get electricity and how to use it, heat physics, food, motion, etc.

**General Biology: BIO 111 (3 Cr. Hrs)**

This course provides students with general knowledge in biology. The students are provided with a basic knowledge of chemistry of living materials, the cell structure, types and functions. The students are also provided with good knowledge concerning cell division, general embryology and genetics. A basic knowledge about the morphological features of the tissues and recognize their roles in forming organs and organisms integrates the above information. The students are also provided with brief knowledge concerning human health and common diseases.

**General Chemistry: CHM 111 (3 Cr. Hrs)**

The course aims to provide students with the basic knowledge of chemical principles needed for the daily life. It deals with the development of life on Earth from its origins (Chemistry of life, Cells) and the characteristics of living things.

**Remote Sensing and GIS Applications: GIS 211 (3 Cr. Hrs.)**

This course introduces students to the basic elements of spatial sciences, including Global Positioning System (GPS), Remote Sensing (RS) and Geographic Information System (GIS). Students are taught how to locate themselves and determine their direction with a GPS. Students will study data collection, acquisition and processing in a much wider way than the visible spectrum, including IR, UV and microwave zone of the electromagnetic spectrum in the RS. Finally, students will learn how to capture, store, retrieve, display and interpret data through GIS; identify the art of image interpretation and enhancement.

**Communication Between Cultures: SOC 112 (3 Cr. Hrs.)**

This course helps students develop practical skills for improving their communication with other cultures. The course teaches students the different levels of communication such as verbal and non-verbal communication and how to use them effectively in their daily life. The course enables the students to communicate successfully with people from different cultures.

**Academic and Technological Ethics: ETH 111 (3 Cr. Hrs.)**

The course is concerned about ethical issues related to the misuse of scientific and technological advances, miscommunication of scientific research results, the ethical aspects related to the actual practice of scientists in their scientific endeavors and the lack of ethics in all facets of academic character at all levels of educational standing. The course starts with clarifying the relevance of discussing ethical issues in the present age. Then it discusses examples of misbehavior by students and instructors in educational institutes at all levels, further we discuss examples of the random growth of modern technology without paying attention to ethical standards and finally we shed some light on the miscommunication and fraud in research results among scientists. Stress is made on case studies related to aspects mentioned above.

**Oral Health: ORH 211 (3 Cr. Hrs)**

This course defines the responsibilities of the individual within community dental health education with emphasis on the etiology of dental disease, methods for prevention, and principles of nutrition in relation to oral health and preventive dentistry.

**Educational Technology: EDT 211 (3 Cr. Hrs)**

This course aims to help the students to refine, redefine, and reshape their perspectives and views of technology as they relate to their future career, society, teaching, learning, and training. It is designed to increase their basic awareness of technology concepts and to develop their skills in designing, training modules, using instructional and training system models, and the use of technology in professional development.

**Introduction to Communication Sociology: SOC 111 (3 Cr. Hrs)**

This course focuses on the inevitable social role of communication in society. The course clarifies some of the effects, functions and dysfunctions of mass communication in society. The course concentrates on the role of communication in different social fields and analyzes its role in public service sectors and non-governmental organizations (NGOs).

The course is also intended to make students aware of sensitive topics to avoid using words that might offend or upset people.

**Information Society: INF 211 (3 Cr. Hrs)**

The course focuses on the information revolution in all fields around the world. It concentrates on the characteristics of the information society, its consequences, challenges and future implications on Arab society under the information revolution and the international information market map.

**Media Culture: INF 112 (3 Cr. Hrs)**

This course aims to enable students to acquire the competencies of using the mass media in a smart way. This can be realized by introducing the students to the mass media available in contemporary societies, the criteria and ethics of information industry and the different influences of information on the society namely the social; cognitive, affective and behavioral influences.

## 28 Glossary of Terms

The terms defined below are mostly based on the definitions given in CAA's *Standards 2019*. Other terms have been added for the sake of completeness.

### **University.**

A large, diverse institution of higher education and research that offers both undergraduate and graduate degrees. Universities are typically composed of a number of colleges or schools devoted to the study of closely related disciplines or a single discipline, such as the College of Engineering or the School of Public Health.

### **Undergraduate.**

A student enrolled on a bachelor's degree or taking undergraduate courses.

### **Baccalaureate or Bachelor's degree.**

In the UAE, a Bachelor's degree normally requires at least four but no more than five years of full-time study, with a minimum of 120 semester credits (or equivalent). The maximum number of hours may vary, but many Bachelor's degrees in professional fields, such as engineering or dentistry, require five years of study and at least 150 semester credits (or equivalent).

### **Postgraduate Diploma.**

A Postgraduate Diploma typically includes one year of full-time study, or at least 24 semester credits (or equivalent) of course work beyond the Bachelor's degree.

### **Master's degree.**

A Master's degree typically requires at least one year of full-time study, or a minimum of 30 semester credits of course work (or equivalent) beyond the Bachelor's degree. The minimum credits are not inclusive of any non-credit bridge courses which may be required. A Master's degree often, though not always, requires a substantial research paper, a thesis, or a project.

### **Doctorate.**

A Doctorate degree typically requires at least three years of full-time study, with at least 54 semester credits (or equivalent) beyond the Master's level. There are several recognized distinctions among those degrees which are generally labeled "doctorate." The biggest distinction is between those doctorates which are "earned" and those which are "honorary." Other distinctions are discipline specific and are usually conveyed through the name of the degree.

- a) **Academic doctorate.** In the UAE, an academic doctorate requires one or more years of coursework beyond the Master's degree, as well as academic research. Doctorates are nearly always awarded in recognition of academic research that is of a publishable standard (even if not actually published) and that represents some original contribution to human knowledge. The research is usually assessed by submission and defense of a doctoral thesis or dissertation. The usual degree title is the PhD (Doctor of Philosophy).
- b) **Professional doctorate.** A professional doctorate requires a minimum of one year of coursework beyond the Master's degree and independent research. The emphasis of the degree is on research skills and advanced professional knowledge in an applied field of specialization. Examples include the Doctor of Education (EdD), Doctor of Psychology (PsyD), and Doctor of Business Administration (DBA).



### **Major.**

The *major* is the field of study in which a student specializes at the baccalaureate level. The term is not typically used in qualifications below the baccalaureate and is only occasionally used in graduate programs. The major usually requires that a student complete a minimum of 30 semester credits (or equivalent) that are specified for the major and distinctive to that subject area. To earn a double major, a student must meet the subject-area requirements of each of the two majors. Typically a student receiving a degree with a major will be issued a degree certificate that includes the name of the major: for instance, Bachelor of Arts in History or Bachelor of Science in Biology.

### **Minor.**

A minor is a separate field of study outside the major or concentration in which a student has a secondary area of specialization, requiring less course work than the major. Minors usually require that students earn 12-18 semester credits in subject area courses

### **Concentration.**

A concentration is best thought of as a grouping of courses which represent a subspecialization taken within the major field of study. For example, a student majoring in 129 biology might have a concentration in genetics, or a student in electrical engineering may have a concentration in telecommunications or instrumentation and control. A concentration may be specified on the student's academic record (transcript) but not on the degree certificate. The CAA requires a concentration to include at least 15 credits of study, or equivalent, in the specialized field in order to be recognized by the MoE. In graduate programs this must include the thesis and at least 9 credits of other courses.

### **Course or Module.**

A *course* consists of a number of instructional activities over a prescribed period of time. It deals with a single subject and is commonly described by title, number, credits, and expected learning outcomes in the institution's *Catalog*. A *module* sometimes refers to a sub-division within a course covering a topic or part of a topic. In the British system, the term *module* is synonymous with *course*.

### **Program.**

The set of courses and other formally established learning experiences which together lead to a qualification (see Curriculum, above). Program may also refer to a specific aspect of the curriculum, such as the General Education program or a study abroad program.

### **Curriculum.**

The term refers both to the range of courses offered by an institution, and to a set of related courses constituting an area of specialization, such as the computer science curriculum or the civil engineering curriculum.

### **Course Syllabus.**

A description of course goals, course learning outcomes, contents, assessment instruments and grading criteria, week-by-week study plan, examination dates, etc. that is provided to the students at the beginning of their classes.

### **Credit and the Credit System.**

The academic credit provides a basis to measure the amount of engaged learning time expected of a typical student. A credit, or credit hour, is a unit of measurement defining the student's overall effort towards attaining a qualification.

In the US system, which is adopted by most UAE institutions, 1 semester credit equals approximately 1 hour of time in class per week over a semester of 15 weeks or longer. (See “Semester” below). It is assumed that a student spends two hours outside of class in independent learning or specific course assignments for every hour in class. This implies that one academic credit equates to a 45-hour commitment to learning over a semester. For laboratory or studio-based courses, the allocation of credit differs; 1 semester credit normally is given for two hours of laboratory or studio time per week over a 15-week semester.

**Semester and Term.**

A *semester* is a period of time, typically a minimum of 15 weeks, during which an institution offers courses. Some courses may be offered in a time-shortened period, often called a term, such as a summer term or January term, which nonetheless offers class contact time and out-of-class assignments equivalent to a semester course. Some institutions use a calendar that divides the academic year into quarters (10-week instructional periods) rather than semesters.

**Academic Calendar.**

It represents important semester-specific dates and deadlines for students, academic and administrative departments, and instructors.

**Academic Year.**

The period of instruction composed of the fall, spring, and summer semesters. The academic year begins at the start of the fall semester and ends after the last day of the summer semester.

**Add/Drop Period.**

Days set aside by the University for Students to change their study schedule by adding or dropping courses in a specific semester.

**Academic Advisor.**

A faculty member who advises students on their study plan and course selection, monitors their academic progress, assists in their career planning, and guides in other academic and non-academic matters.

**Conditional Admission.**

Conditional admission of a student to a college or university is dependent upon the individual successfully completing coursework, or meeting other specified criteria, in order to progress into the full set of courses within the academic program.

**Learning Outcomes.**

In the context of QFEmirates, this refers to knowledge, skills, and aspects of competence that a learner is expected to know and be able to do at each level of a qualification (see <https://www.nqa.gov.ae/en>).

**Credit Transfer.**

A system whereby successfully completed units of study contributing towards a degree or diploma can be transferred from one program to another.

**Prerequisite.**

A course or courses that serve as foundations for continued (advanced) courses. A student must successfully pass a prerequisite course before taking a course for which it is a prerequisite.

**Electives.**

Courses which are not compulsory for students. Electives may be free—selected by the student from any course offerings, or restricted—chosen from a pre-determined list of options.

**Remedial Courses or Programs.**

Such courses or programs prepare a student for enrolling in a regular program, and aid the student in rectifying an area or areas of deficiency. Remedial courses are non-credit courses and do not count toward the requirements of an academic qualification.

**Bridge Program.**

A program intended to “bridge the gap” between a student's prior work and the background required for the program he/she is entering. Typically, such a program would be needed, for instance, by students entering graduate business education where the student’s undergraduate major was in an area other than business, or graduate engineering programs where the student’s major was in a different engineering specialty. The courses in a bridge program typically do not carry degree credit. Institutions may choose to require enrolment in bridge programs as a condition of admission. The term “bridge program” is also used in nursing to refer to a Bachelor's degree “top-up” program whose entry level is a Diploma in Nursing.

**General Education.**

General education is that aspect of an undergraduate curriculum intended to provide students with critical thinking skills; a broad understanding of the approaches to knowledge such as the humanities, the arts, the social sciences or the sciences; a common core of understanding among students (such as in Islamic studies or other cultural studies); and a level of skill appropriate to higher education in mathematics, information literacy, the application of technology and communications (oral and written).

**Independent Study.**

A course in which a student is individually supervised by a faculty member, which enables a student to undertake a learning opportunity which is otherwise unavailable. Independent study courses must have an appropriate learning plan (typically a syllabus), learning outcomes, end of term evaluations and appropriate assessment. The SPA limit the amount of such credit that can be applied to an undergraduate qualification.

**Internship.**

The term applies to an experience in which a student has a program-related assignment involving attachment to a recognized business, agency or organization. The internship must be appropriate to the major or program of study of the student. The term “practicum” is usually synonymous with internship.

## 29 Faculty Members

The following pages list the full-time AU faculty members with their terminal degrees, the conferring institution, the AU College and Department they are members of. This information is also available at <https://www.aiman.ac.ae/en/chs/faculty-members>.

| S.No. | Name                          | College   | Department                                      | Qualification   | Conferring Institution                |
|-------|-------------------------------|---|---|---|---------------------------------------|
| 1.    | Mahmoud Abou Naaj             | College of Engineering and Information Technology | Department of Information Technology            | Doctor of Philosophy  | The University of Leeds               |
| 2.    | Raghad Adib Hashim            | College of Dentistry                              | Growth & Development                            | Doctor of Philosophy  | University of Otago                   |
| 3.    | Mazan Ahmed Jaradat           | College of Humanities and Sciences                | Department of Arabic and Islamic Studies        | Ph.D. in Arabic Language and Literature, Linguistics Studies      | Ain Shams University                  |
| 4.    | Said Lezzar                   | College of Engineering and Information Technology | Department of Information Technology            | Master of Science in Computer Science                             | American University                   |
| 5.    | Mirna Ahmed Nachouki          | College of Engineering and Information Technology | Department of Information Technology            | Ph.D. in Computer Science   | Université Paul Sabatier Toulouse III |
| 6.    | Riyadh Abdul kadir Mehdi      | College of Engineering and Information Technology | Department of Information Technology            | Doctor of philosophy  | University of Liverpool               |
| 7.    | Abdul Raouf Abdulla Bin Talab | College of Humanities and Sciences                | Department of Foreign Language                  | Master of Arts in Teaching English to Speakers of other Languages | University of Edinburgh               |
| 8.    | Hanaa M. Mansour              | College of Humanities and Sciences                | Department of Foreign Language                  | Masters of Arts in Applied Linguistics                            | University of Wales                   |
| 9.    | Nedal M. I. Odeh              | College of Engineering and Information Technology | Electrical Engineering and Computer Engineering | B.Sc. In Electrical Engineering                                   | Ajman University                      |
| 10.   | Ahmed Imran                   | College of Engineering and Information Technology | Biomedical Engineering                          | Doctor of philosophy  | University of Oxford                  |
| 11.   | Mohd Nador Mohd Khalel        | College of Engineering and Information Technology | Biomedical Engineering                          | Doctor of philosophy  | University of Dublin                  |

| S.No. | Name                              | College   | Department                                      | Qualification   | Conferring Institution                        |
|-------|-----------------------------------|---|---|---|---|
| 12.   | Ayman El Sayed A. Tawfik          | College of Engineering and Information Technology | Electrical Engineering and Computer Engineering | Doctor of philosophy in Electrical and Computer Engineering | University of Victoria                        |
| 13.   | Wael Mohammad Tawfiq Hamdan       | College of Architecture, Art and Design           | Department of Interior Design                   | Master in Architecture History                              | University of Jordan                          |
| 14.   | Samir Issa Bloukh                 | College of Pharmacy and Health Sciences           | Unit of Clinical Sciences                       | Doctor of Philosophy  | The Victoria University of Manchester         |
| 15.   | Al Moutassem Billah Mahmoud Khair | College of Dentistry                              | Unit of Basic Medical Sciences                  | Ph.D. in Biology  | Russian Academy of Sciences                   |
| 16.   | Salem Hassan Abu Fanas            | College of Dentistry                              | Unit of Surgical Sciences                       | Doctor of Philosophy in Periodontology and microbiology     | University of Manchester                      |
| 17.   | Vijay Bhavrao Desai               | College of Dentistry                              | Unit of Surgical Sciences                       | Fellowship(Periodontics)                                    | Royal Australasian College of Dental Surgeons |
| 18.   | Abubaker Elmahdi Mohamed          | College of Dentistry                              | Unit of Surgical Sciences                       | Master of Medical Science in Oral Medicine                  | The Queen's University of Belfast             |
| 19.   | Bassim M. Saleh                   | College of Architecture, Art and Design           | Growth & Development                            | Doctor of Philosophy  | University of Strathclyde, Glasgow            |
| 20.   | Mahmoud Ibrahim Y. Ikhras         | College of Humanities and Sciences                | Unit of Surgical Sciences                       | Masters in Mathematics                                      | Sam Houston State University                  |
| 21.   | Atef F. I. Abdelkader             | College of Humanities and Sciences                | Restorative Dentistry                           | Doctor of Philosophy  | The Queen's University of Belfast             |
| 22.   | Khalid Ali S. Ammar               | College of Engineering and Information Technology | Unit of Surgical Sciences                       | Ph.D. in Electrical and Computer Engineering                | Université de Sherbrooke                      |
| 23.   | Mohammed Fareed Sherzad           | College of Architecture, Art and Design           | Restorative Dentistry                           | Doctor of Philosophy  | Oxford Brookes University                     |
| 24.   | Afraa Salah Hussain               | College of Dentistry                              | Growth & Development                            | Master in Pedodontics Dentistry                             | University of Baghdad                         |



| S.No. | Name                    | College   | Department                                      | Qualification   | Conferring Institution                              |
|-------|-------------------------|---|---|---|---|
| 25.   | Nadia Ouakli            | College of Humanities and Sciences                | Department of Mathematics and Sciences          | Master in Mathematics, Probability Statistics         | University Pierre & Marie Curie                     |
| 26.   | Cheikh Ould Hamoud      | College of Humanities and Sciences                | Department of Mathematics and Sciences          | Ph.D. of Sciences in Mathematics                      | Mohammed V University at Agdal                      |
| 27.   | Sam Thomas Kuriadom     | College of Dentistry                              | Unit of Surgical Sciences                       | Fellowship in Dental Surgery                          | Royal College of Physicians and Surgeons of Glasgow |
| 28.   | Muzahim Bani Al Zubaidi | College of Humanities and Sciences                | Restorative Dentistry                           | Doctor of Philosophy in Mathematical Science          | Hungarian Committee of Scientific Qualifications    |
| 29.   | Farah Hamad Farah Ahmed | College of Pharmacy and Health Sciences           | Unit of Pharmaceutical Sciences                 | Doctor of Philosophy                                  | The University of Nottingham                        |
| 30.   | Samir B. S. Hadid       | College of Humanities and Sciences                | Department of Mathematics and Sciences          | Doctor of Philosophy                                  | University of London                                |
| 31.   | Nihal Abdalla Ibrahim   | College of Pharmacy and Health Sciences           | Unit of Clinical Sciences                       | Doctor Degree in Basic Medical Sciences in Physiology | Alexandria University                               |
| 32.   | Mustahsan Mir           | College of Engineering and Information Technology | Electrical Engineering and Computer Engineering | Doctor of Philosophy in Electrical Engineering        | The University of Michigan                          |
| 33.   | Fahar G. M. Hayati      | College of Engineering and Information Technology | Electrical Engineering and Computer Engineering | Ph.D. in Electrical Engineering                       | University of Edinburgh                             |
| 34.   | Dunia Al Hadi           | College of Dentistry                              | Restorative Dentistry                           | Masters of Dental Science                             | The University of Leeds                             |
| 35.   | Riadh H. T. Al Dabbagh  | College of Humanities and Sciences                | Department of Mathematics and Sciences          | Doctor of Philosophy                                  | University of London                                |
| 36.   | Hosam Ali Ali Slama     | College of Mass Communication                     | Department of Mass Communication                | Ph.D. Of Arts in Mass Communication                   | Zagazig University                                  |
| 37.   | AbdulKareem Yaseen      | College of Humanities and Sciences                | Department of Mathematics and Sciences          | Doctor of Philosophy                                  | University of Wales                                 |

| S.No. | Name                            | College   | Department                             | Qualification   | Conferring Institution                     |
|-------|---------------------------------|---|--|---|--|
| 38.   | Abboodi Jawad Hasan             | College of Humanities and Sciences                | Department of Foreign Language         | Doctor of philosophy  | The University of Salford                  |
| 39.   | Mohammad Shihadeh A. Arar       | College of Architecture, Art and Design           | Department of Architecture             | Doctor of Philosophy in Urban and Environmental Studies             | Rensselaer Polytechnic Institute           |
| 40.   | Kanhira Kadavath Mujeeb Rahman  | College of Engineering and Information Technology | Biomedical Engineering                 | Master of Technology  | Visvesvaraya Technological University      |
| 41.   | Gamal El Sayed Ali El Samanoudy | College of Architecture, Art and Design           | Department of Interior Design          | Doctor of Philosophy in fine Arts, Décor, Architecture Interieure   | Helwan University                          |
| 42.   | Nida H. M. Ali                  | College of Humanities and Sciences                | Department of Foreign Language         | Master of Arts in Applied Linguistics                               | University of Wales                        |
| 43.   | Jihad A. A. Awad                | College of Architecture, Art and Design           | Department of Architecture             | Doktor - Ingenieur  | The University of Stuttgart                |
| 44.   | Sahar F. Makky                  | College of Architecture, Art and Design           | Department of Architecture             | Master of Science in Architecture Engineering                       | Sudan University of Science and Technology |
| 45.   | Naglaa Sami Abdel Aziz Mahmoud  | College of Architecture, Art and Design           | Department of Interior Design          | Philosophy of Doctorate in Fine Art, Décor, Architecture Interieure | Helwan University                          |
| 46.   | Bouزيد Boudiaf                  | College of Architecture, Art and Design           | Department of Architecture             | Doctor of Philosophy  | University of Wolverhampton                |
| 47.   | Belal M. J. Ibrahim             | College of Humanities and Sciences                | Department of Foreign Language         | Doctor of Philosophy in Arts  | University of Rajasthan                    |
| 48.   | Muna Mahmoud Yousef Salameh     | College of Architecture, Art and Design           | Department of Architecture             | Master in Urban and Regional Planning                               | Al-Najah National University               |
| 49.   | Abed M. Atia Elkaseh            | College of Dentistry                              | Unit of Surgical Sciences              | Fellowship Maxillofacial Surgery                                    | University of Vienna                       |
| 50.   | Kubais S. Abdulfattah Fahady    | College of Humanities and Sciences                | Department of Mathematics and Sciences | Doctor of philosophy  | The University of Hull                     |

| S.No. | Name                              | College   | Department                                      | Qualification                                  | Conferring Institution  |
|-------|-----------------------------------|---|---|--|---|
| 51.   | Hasan Abdel Rahim A. Zidan        | College of Engineering and Information Technology | Electrical Engineering and Computer Engineering | Doctor of philosophy in Electrical Engineering | Kyushu Institute of Technology (Kyutech)                                      |
| 52.   | Mohamed Abdulaziz Mohamed Elsayed | College of Dentistry                              | Restorative Dentistry                           | Ph.D. in Conservative Dentistry                | Johannes Gutenberg University of Mainz (Johannes Gutenberg-Universität Mainz) |
| 53.   | Abdul Haq Abdul Majeed Suliman    | College of Dentistry                              | Restorative Dentistry                           | Doctor of Philosophy                           | The University of Iowa  |
| 54.   | Nageeb Abdul Galil Mohamed Hassan | College of Pharmacy and Health Sciences           | Unit of Clinical Sciences                       | Doctor of Philosophy                           | University of Manchester  |
| 55.   | Ahmed Yaghoub Ahmed Bezeid        | College of Humanities and Sciences                | Department of Arabic and Islamic Studies        | Master in Islamic Studies                      | Dar El-Hadith El-Hassania Institute for Higher Islamic Studies                |
| 56.   | Musab Hamed Saeed                 | College of Dentistry                              | Restorative Dentistry                           | Doctor of Philosophy in Conservative Dentistry | University of Baghdad   |
| 57.   | Maher Abdelfattah Al shayeb       | College of Dentistry                              | Unit of Surgical Sciences                       | Fellowship in Oral Implantologists             | The International Congress of Oral Implantologists                            |
| 58.   | Abdul Rahman M. Saleh             | College of Dentistry                              | Restorative Dentistry                           | Doctor of Philosophy in Conservative Dentistry | University of Baghdad   |
| 59.   | Hussein A. A. Elmasmari           | College of Dentistry                              | Restorative Dentistry                           | Fellow in Oral Implantologists                 | The International Congress of Oral Implantologists                            |
| 60.   | Sahar Najeeb Sulaiman Kharrufa    | College of Architecture, Art and Design           | Department of Architecture                      | Doctor of Philosophy                           | The University of Bath  |

| S.No. | Name                              | College   | Department                                      | Qualification                                       | Conferring Institution                |
|-------|-----------------------------------|---|---|---|---------------------------------------|
| 61.   | Rabah Saoud                       | College of Architecture, Art and Design           | Department of Architecture                      | Doctor of Philosophy                                | The University of Manchester          |
| 62.   | Khamis Younis Gaballah            | College of Dentistry                              | Unit of Surgical Sciences                       | Doctor of Philosophy                                | University of London (King's College) |
| 63.   | Rima M. Shishakly                 | College of Business Administration                | Management                                      | Doctor of Philosophy                                | The University of Manchester          |
| 64.   | Riad Saleh Abdelhafez Abou Elatta | College of Law                                    | Public Law                                      | Ph.D. in Law  | Tanta University                      |
| 65.   | Magdy Hassan Khalil Hassan        | College of Law                                    | Private Law                                     | Ph.D. in Law  | Ain Shams University                  |
| 66.   | Zulfiqar Ali Memon                | College of Engineering and Information Technology | Electrical Engineering and Computer Engineering | Doctor of Philosophy                                | Brunel University                     |
| 67.   | Layth Abdul Razak M. Al Jumaili   | College of Humanities and Sciences                | Department of Mathematics and Sciences          | Masters of Science                                  | Mississippi State University          |
| 68.   | Mustafa H. Kadhem                 | College of Mass Communication                     | Department of Mass Communication                | Doctor of Philosophy of Arts in Mass Communication  | University of Baghdad                 |
| 69.   | Mohammed Naim Chaker              | College of Business Administration                | Finance   | Doctor of Philosophy in Economics                   | University of Colorado                |
| 70.   | Moayad Jamal Saeed Al Shahwan     | College of Pharmacy and Health Sciences           | Unit of Clinical Sciences                       | Doctor of Philosophy in Biochemistry                | Aligarh Muslim University             |
| 71.   | Raghid Abdul Hamid Fattal         | College of Law                                    | Private Law                                     | Ph.D. in Private Law                                | University of Poitiers                |
| 72.   | Alexander M. J. Luke              | College of Dentistry                              | Unit of Surgical Sciences                       | Doctor of Philosophy in Oral Medicine and Radiology | Annamalai University                  |
| 73.   | Emanuela Corti                    | College of Architecture, Art and Design           | Department of Interior Design                   | Master of Science                                   | Politecnico Di Milano                 |
| 74.   | Ivan Parati                       | College of Architecture, Art and Design           | Department of Interior Design                   | Doctor in Industrial Design                         | Politecnico Di Milano                 |

| S.No. | Name                            | College                            | Department                               | Qualification   | Conferring Institution                      |
|-------|---------------------------------|------------------------------------|--|---|---|
| 75.   | Tarun Walia                     | College of Dentistry               | Growth & Development                     | Fellowship in Pediatric Dentistry                                       | The Royal College of Surgeons of England    |
| 76.   | Tarek Ismail Mohamed Abdellatif | College of Mass Communication      | Department of Mass Communication         | Doctor of Philosophy in Applied Arts and Industrial design              | Helwan University                           |
| 77.   | Aiman Salim Hasan Abu Fanas     | College of Dentistry               | Growth & Development                     | Master of Science in Dental Surgery, Orthodontics                       | Jordan University of Science and Technology |
| 78.   | Nasrelden Ali                   | College of Mass Communication      | Department of Mass Communication         | Doctor of Philosophy in Communication, Public Relation & Advertisement  | Omdurman Islamic University                 |
| 79.   | Muhammad Qutubuddin Siddiqui    | College of Business Administration | Marketing                                | Masters of Business Administration                                      | Central State University                    |
| 80.   | Nidal Mahmoud Al Said           | College of Mass Communication      | Department of Mass Communication         | Ph.D. Electrical & Computer Engineering                                 | National Technical University of Athens     |
| 81.   | Sami Sulieman Hamed Al Qatawneh | College of Humanities and Sciences | Department of Education                  | Doctor of Philosophy in Curricula and Teaching Methods, Arabic Language | Amman Arab University For Graduate Studies  |
| 82.   | Mohd Ariff Bin Kasim            | College of Business Administration | Accounting                               | Doctor of Philosophy of Accountancy                                     | Universiti Teknologi Mara                   |
| 83.   | Samer Husni Abdel Razzaq Zyoud  | College of Humanities and Sciences | Department of Mathematics and Sciences   | Masters in Physics, Laser   | University of Baghdad                       |
| 84.   | Ayaat Ahmed Hussein Fargalla    | College of Humanities and Sciences | Department of Arabic and Islamic Studies | Master in Arabic Language   | University of Sharjah                       |
| 85.   | Siti Rosmaini Binti Mohd Hanafi | College of Business Administration | Accounting                               | Doctor of Philosophy of Accountancy                                     | Universiti Teknologi Mara                   |
| 86.   | Khaled Mostafa Ahmed Mohamed    | College of Mass Communication      | Department of Mass Communication         | Doctor of Philosophy in Fine Art ,Graphic Design                        | Minia University                            |



| S.No. | Name                             | College                            | Department                       | Qualification  | Conferring Institution   |
|-------|----------------------------------|------------------------------------|----------------------------------|--|--|
| 87.   | Saeed Amin Mohamed Nasef         | College of Humanities and Sciences | Department of Sociology          | Ph.D. in Sociology   | Ain Shams University   |
| 88.   | Gulrez Nadeem                    | College of Dentistry               | Unit of Basic Medical Sciences   | Doctor of Medicine in Anatomy  | The Aligarh Muslim University  |
| 89.   | Mohamed Valiullah Abdur Rahman   | College of Law                     | Private Law                      | Doctor of Philosophy in Fundamentals of Religion, Hadith Sciences      | Al-Azhar University  |
| 90.   | Emad Eldin Tag Elsir Fageer Omer | College of Mass Communication      | Department of Mass Communication | Ph.D. in Information (Radio & Television)                              | University of Gezira   |
| 91.   | Amal Mohamed Nabil A. A. Badr    | College of Mass Communication      | Department of Mass Communication | Ph.D. of Arts in Mass Communication                                    | Zagazig University   |
| 92.   | Sheren Ali Mousa Mohammed Nawar  | College of Mass Communication      | Department of Mass Communication | Ph.D. of Arts in Mass Communication, Journalism                        | Helwan University  |
| 93.   | Maha Abdelmegid Salah A. Attia   | College of Mass Communication      | Department of Mass Communication | Ph.D. in Mass Communication, Journalism                                | Cairo University   |
| 94.   | Ebrahim Rashed Ali Rashed        | College of Mass Communication      | Department of Mass Communication | Doctor of Philosophy   | University of Wales  |
| 95.   | Mohammad Kashif Shafiq Khot      | College of Dentistry               | Unit of Restorative Dentistry    | Masters of Science in Healthcare Management                            | National University of Ireland/ Royal College of Surgeons in Ireland |
| 96.   | Ahmad M. H. Fadli                | College of Law                     | Unit of Surgical Sc.             | Doctor of Philosophy in Private Law                                    | University of Al Mousel  |
| 97.   | Rasha Mohamed A. Abdel Rahman    | College of Humanities and Sciences | Department of Psychology         | Doctor of Philosophy in Educational Psychology                         | Ain Shams University   |
| 98.   | Ebtasam Mohamed Fathy A. Khalil  | College of Dentistry               | Unit of Surgical Sc.             | Doctor of Philosophy in Dentistry Basic Science (Oral Biology Science) | Alexandria University  |

| S.No. | Name  | College  | Department   | Qualification                               | Conferring Institution                            |
|-------|---|--|--|---|---|
| 99.   | Nasr<br>Abouelfetouch<br>Farid Hassan       | College of Law   | Private Law  | Doctor of<br>Philosophy in<br>Law           | Mansoura<br>University                            |
| 100.  | Sahar Zuhair<br>Ahmad Zahran                | College of<br>Humanities and<br>Sciences                   | Department of<br>Sociology                               | Master in<br>Sociology                      | The<br>University of<br>Jordan                    |
| 101.  | Safa Mahmoud<br>Osman<br>Mohamed<br>Darwish | College of Mass<br>Communication                           | Department of<br>Mass<br>Communication                   | Ph.D. in<br>Broadcasting                    | Cairo<br>University                               |
| 102.  | Ghassan<br>Mohamed<br>Alchikh               | College of<br>Humanities and<br>Sciences                   | Department of<br>Arabic and<br>Islamic Studies           | Ph.D. in Islamic<br>Shari'a                 | Damascus<br>University                            |
| 103.  | Afaq Hyder<br>Chohan                        | College of<br>Architecture, Art<br>and Design              | Department of<br>Architecture                            | Doctor of<br>Philosophy,<br>Architecture    | Universiti<br>Kebangsaan<br>Malaysia              |
| 104.  | Muhammad<br>Akmal Chaudary                  | College of<br>Engineering and<br>Information<br>Technology | Electrical<br>Engineering and<br>Computer<br>Engineering | Doctor of<br>Philosophy                     | Cardiff<br>University                             |
| 105.  | Osman Siraj<br>Eldeen F. Ahmed              | College of<br>Humanities and<br>Sciences                   | Department of<br>Sociology                               | Doctor of<br>Philosophy in<br>Sociology     | Al-Neelain<br>University                          |
| 106.  | Emad Saleh A El<br>Subeihi                  | College of Dentistry                                       | Restorative<br>Dentistry                                 | Doctor of<br>Philosophy                     | University of<br>Toronto                          |
| 107.  | Ala'a<br>Mohammad<br>Ibrahim Al Amiry       | College of<br>Pharmacy and<br>Health Sciences              | Unit of Clinical<br>Sciences                             | Master in<br>Emergency<br>Health Services   | University of<br>Maryland,<br>Baltimore<br>County |
| 108.  | Chul oh Chung                               | College of<br>Architecture, Art<br>and Design              | Department of<br>Architecture                            | Ph.D. in Urban<br>Planning &<br>Engineering | Yonsei<br>University<br>(Seoul<br>campus)         |
| 109.  | Nidal Abidal<br>Hamid Hmoud Al<br>Dmour     | College of<br>Engineering and<br>Information<br>Technology | Department of<br>Information<br>Technology               | Doctor of<br>Philosophy                     | University of<br>Wales                            |
| 110.  | Akinola Olatunde<br>Fadahunsi               | College of Business<br>Administration                      | Management   | Doctor of<br>Philosophy                     | The<br>University of<br>Stirling                  |
| 111.  | Enaam<br>Mohammed<br>Youssef                | College of<br>Humanities and<br>Sciences                   | Department of<br>Sociology                               | Ph.D. in<br>Sociology                       | Ain Shams<br>University                           |
| 112.  | Ahmed<br>Abdelhalim<br>Shaker Aly           | College of Law   | Public Law   | Ph.D. in Criminal<br>Law                    | Zagazig<br>University                             |

| S.No. | Name                          | College                                 | Department                             | Qualification   | Conferring Institution  |
|-------|-------------------------------|---|--|---|---|
| 113.  | Taher El Danaf                | College of Architecture, Art and Design | Department of Interior Design          | Master of Science in Sustainable Design of the Built Environment with Distinction | The British University in Dubai                                 |
| 114.  | Sawsan Deeb Mohammad Shanabli | College of Pharmacy and Health Sciences | Unit of Clinical Sciences              | Bachelor of Pharmacy  | Ajman University  |
| 115.  | Sundos Kasem Al Ebrahim       | College of Pharmacy and Health Sciences | Unit of Pharmaceutical Sciences        | Master in Pharmacy  | Ajman University  |
| 116.  | Zeana Ghanim Abdijabar        | College of Law                          | Private Law                            | Doctor of Philosophy in Private Law   | University of Mosul   |
| 117.  | Syed Kuduruthullah            | College of Dentistry                    | Unit of Basic Medical Sciences         | Master of Dental Surgery in Oral and pathology & Microbiology                     | Meenakshi Academy of Higher Education and Research              |
| 118.  | Raghad Nawaf Mourad           | College of Architecture, Art and Design | Department of Architecture             | Master of Science in Architectural Theories and History of Architecture           | Damascus University   |
| 119.  | Simy Mathew                   | College of Dentistry                    | Growth & Development                   | Master of Public Health   | Sree Chitra Tirunal Institute For Medical Sciences & Technology |
| 120.  | Amna Abdulla Hamad Abushahab  | College of Humanities and Sciences      | Department of Sociology                | Doctor of Philosophy in Anthropology  | University of London  |
| 121.  | Jeny Mary George              | College of Dentistry                    | Growth & Development                   | Master of Dental Surgery in Orthodontics  | The Tamil Nadu Dr. M.G.R. Medical University                    |
| 122.  | Zehra Edis                    | College of Pharmacy and Health Sciences | Unit of Pharmaceutical Sciences        | Ph.D. in Inorganic Chemistry  | University of Cologne   |
| 123.  | Ahmed Abdul Sattar Kudayair   | College of Humanities and Sciences      | Department of Mathematics and Sciences | Doctor of Philosophy  | University of Wales   |



| S.No. | Name                                     | College                                 | Department                       | Qualification  | Conferring Institution                     |
|-------|--|---|----------------------------------|--|--|
| 124.  | Ayyam Khalid Abdulkareem                 | College of Dentistry                    | Unit of Restorative Dentistry    | Master in Oral Histology & Biology                               | University of Baghdad                      |
| 125.  | Shaymaa Elsaïd Salim Omar                | College of Mass Communication           | Department of Mass Communication | Ph.D. of Arts in Media & Mass Communication                      | Ain Shams University                       |
| 126.  | Elshaimaa Abdelrazek Ahmed Arafa         | College of Pharmacy and Health Sciences | Unit of Clinical Sciences        | Doctor of Philosophy in Pharmacology and Toxicology              | Cairo University                           |
| 127.  | Nouf Mohammed Abdulla BinAlwan AlNuaimi  | College of Humanities and Sciences      | Department of Foreign Language   | Master of Arts in English/Arabic Translation and Interpreting    | American University of Sharjah             |
| 128.  | Hadil Husameddin Rabah Al Bustami        | College of Architecture, Art and Design | Department of Interior Design    | Master of Science in Sustainable Design of the Built Environment | The British University in Dubai            |
| 129.  | Amaweya Abdulrahman Hasoon Al Sammarraie | College of Dentistry                    | Restorative Dentistry            | Master of Science in Prosthodontic Dentistry                     | University of Baghdad                      |
| 130.  | Shaikha Nahla Ahmed Humaid Alqassimi     | College of Architecture, Art and Design | Department of Architecture       | Doctor of Philosophy in Architectural Engineering                | Cairo University                           |
| 131.  | Mouhammad Bdeiwi Alhussein               | College of Law                          | Public Law                       | Ph.D. in Economics   | Academia De Studii Economice Din Bucuresti |
| 132.  | Asma Salmeen Mohammed Aleryani           | College of Law                          | Private Law                      | Ph.D. of Islamic Shari'a in Jurisprudence                        | Al Wasl University                         |
| 133.  | Ahood A. M. AL Rawashdeh                 | College of Humanities and Sciences      | Department of Foreign Language   | Master of Arts   | University of Central Oklahoma             |
| 134.  | Issameldin Abdalla Farag                 | College of Dentistry                    | Unit of Basic Medical Sciences   | Master in Pediatric  | Zagazig University                         |
| 135.  | Dina Ibrahim Abdel Bary                  | College of Architecture, Art and Design | Department of Interior Design    | Master of Science in Sustainable Design of the Built Environment | The British University in Dubai            |

| S.No. | Name                              | College   | Department                                      | Qualification  | Conferring Institution                   |
|-------|-----------------------------------|---|---|--|--|
| 136.  | Laroussi Chemlali                 | College of Law                                    | Private Law                                     | Ph.D. in Business Law  | University of Paris-Est                  |
| 137.  | Muaed Jamal Al Omar               | College of Pharmacy and Health Sciences           | Unit of Clinical Sciences                       | Doctor of Philosophy   | Universiti Sains Malaysia                |
| 138.  | Kamran Arshad                     | College of Engineering and Information Technology | Electrical Engineering and Computer Engineering | Doctor of Philosophy   | Middlesex University                     |
| 139.  | Maher Assaad                      | College of Engineering and Information Technology | Electrical Engineering and Computer Engineering | Doctor of Philosophy in Electronics and Electrical Engineering | University of Glasgow                    |
| 140.  | Nagwa Babiker Abdalla Yousif      | College of Humanities and Sciences                | Department of Sociology                         | Doctor of Literature in and Philosophy in Development Studies  | University of South Africa               |
| 141.  | Awad Omran Ashekhi                | College of Dentistry                              | Unit of Surgical Sciences                       | Doctor of Philosophy in Oral & Maxillo, Facial Surgery         | The University of Manchester             |
| 142.  | Konstantinos Aidinis              | College of Engineering and Information Technology | Electrical Engineering and Computer Engineering | Doctor of Philosophy   | University of London                     |
| 143.  | Tizreena Binti Mohd Ismail        | College of Humanities and Sciences                | Department of Foreign Language                  | Masters of Arts  | University of Wales / Cardiff University |
| 144.  | Ruba Mohammad Odeh                | College of Dentistry                              | Unit of Growth and Development                  | Doctor of Philosophy   | The University of Adelaide               |
| 145.  | Moawia MOHD A. M. Altabakha       | College of Pharmacy and Health Sciences           | Unit of Pharmaceutical Sciences                 | Doctor of Philosophy   | University of Wales                      |
| 146.  | Asma Rebhi Khaleel Alarab         | College of Humanities and Sciences                | Department of Sociology                         | Doctor of Philosophy in Sociology                              | The University of Jordan                 |
| 147.  | Alaa Zuhir Abduljawad AlRawashdeh | College of Humanities and Sciences                | Department of Sociology                         | Doctor of Philosophy in Sociology                              | The University of Jordan                 |
| 148.  | Sundus Abdulrazzaq Abdulwahhab    | College of Dentistry                              | Unit of Basic Medical Sciences                  | Doctor of Philosophy in Physiology                             | University of London                     |

| S.No. | Name                                 | College   | Department                                      | Qualification                                     | Conferring Institution              |
|-------|--------------------------------------|---|---|---|-------------------------------------|
| 149.  | Elmuez Dawi                          | College of Humanities and Sciences                | Department of Mathematics and Sciences          | Doctor of Philosophy                              | Utrecht University                  |
| 150.  | Rao Naveed Bin Rais                  | College of Engineering and Information Technology | Electrical Engineering and Computer Engineering | Ph.D. in Computer Engineering                     | University of Nice Sophia Antipolis |
| 151.  | Sanah Hasan                          | College of Pharmacy and Health Sciences           | Unit of Clinical Sciences                       | Doctor of Philosophy                              | Monash University                   |
| 152.  | Okba Mahmoud                         | College of Dentistry                              | Unit of Basic Medical Sciences                  | Doctor of Philosophy                              | University of Newcastle Upon Tyne   |
| 153.  | Muhammad Hanif                       | College of Business Administration                | Finance   | Doctor of Philosophy in Finance                   | International Islamic University    |
| 154.  | Hosny Mahmoud Abdeldaym Abdelsamad   | College of Law                                    | Private Law                                     | Doctor of Philosophy in Civil Law                 | Zagazig University                  |
| 155.  | Alya Ali Mouhamed Ali Anter          | College of Mass Communication                     | Department of Mass Communication                | Ph.D. in Mass Communication, Broadcasting         | Cairo University                    |
| 156.  | Sayed Abbas Ahmed Altayeb            | College of Business Administration                | Accounting                                      | Doctor of Philosophy                              | The University of Bath              |
| 157.  | Mohd Elmagzoub Ahmed Babiker Eltahir | College of Humanities and Sciences                | Department of Education                         | Doctor of Philosophy                              | University of Khartoum              |
| 158.  | Alaa Ahmed Hussein Faragalla         | College of Pharmacy and Health Sciences           | Unit of Clinical Sciences                       | Master of Science in Pharmacy (Clinical Pharmacy) | Ajman University                    |
| 159.  | Maha Ezzat Mohammed Aboraya          | College of Humanities and Sciences                | Department of Sociology                         | Doctor of Philosophy in Sociology                 | Tanta University                    |
| 160.  | Maria Jade Catalan Oplencia          | College of Business Administration                | Management                                      | Doctor of Philosophy                              | The University of Liverpool         |
| 161.  | Firas Salim Noori                    | College of Architecture, Art and Design           | Department of Architecture                      | Master of Design Science, Sustainable Design      | The University of Sydney            |
| 162.  | Ibrahim Elsidig Ahmed Ibrahim        | College of Business Administration                | Accounting                                      | Ph.D. in Accounting & Finance                     | University of Khartoum              |

| S.No. | Name                            | College                                 | Department                             | Qualification   | Conferring Institution                                    |
|-------|---------------------------------|---|--|---|---|
| 163.  | Nashwa Shiqwarah                | College of Architecture, Art and Design | Department of Architecture             | Master of Science in Architectural Engineering & Environmental Design | Arab Academy for Science, Technology & Maritime Transport |
| 164.  | Mahmoud Zakria Shafik Altemmamy | College of Architecture, Art and Design | Department of Architecture             | Master of Science in Architectural Engineering                        | Alexandria University                                     |
| 165.  | Akram Ashour Ashames            | College of Pharmacy and Health Sciences | Unit of Pharmaceutical Sciences        | Doctor of Philosophy in Materials Science                             | Colorado School of Mines                                  |
| 166.  | Hanine Antouan Bou Antoun       | College of Humanities and Sciences      | Department of Mathematics and Sciences | Professional Masters in Statistics                                    | The Lebanese University                                   |
| 167.  | Dina Mohamed Kamel Elkhattat    | College of Mass Communication           | Department of Mass Communication       | Ph.D. of Arts in Media & Mass Communication                           | Ain Shams University                                      |
| 168.  | Richie Rashmin Bhandare         | College of Pharmacy and Health Sciences | Unit of Pharmaceutical Sciences        | Doctor of Philosophy in Pharmaceutical Science                        | Temple University   |
| 169.  | Osama Omar Mustafa Abu Salah    | College of Business Administration      | Management                             | Master of Business Administration                                     | Pittsburg State University                                |
| 170.  | Mervat medhat Ali Mohamed       | College of Mass Communication           | Department of Mass Communication       | Ph.D. in Applied Arts in Advertising                                  | Helwan University   |
| 171.  | Yaser Yousef Mohamed Elkareimi  | College of Dentistry                    | Restorative Dentistry                  | Fellowship in Implant Dentistry                                       | Tufts University  |
| 172.  | Khaled Hussein Iqbeil Aljarrah  | College of Humanities and Sciences      | Department of Education                | Master in Methods of Teaching Islamic Education                       | Al-Bayt University  |
| 173.  | Krishna Prasad                  | College of Dentistry                    | Restorative Dentistry                  | M.D.S. - Conservative Dentistry and Endodontics                       | Karnataka State Dental Council                            |
| 174.  | Insaf Chahdoura                 | College of Architecture, Art and Design | Department of Interior Design          | Masters of Aesthetics and Visual Arts Practices                       | Université de Sousse                                      |
| 175.  | Walaa Mohamed Shaaban Elsayed   | College of Humanities and Sciences      | Department of Sociology                | Doctor of Philosophy in Social Service                                | Helwan University   |

| S.No. | Name                                  | College   | Department                                      | Qualification   | Conferring Institution                     |
|-------|---------------------------------------|---|---|---|--|
| 176.  | Fadi Jaber                            | College of Engineering and Information Technology | Biomedical Engineering                          | Doctor of Philosophy  | University of Surrey                       |
| 177.  | Zainelabdin Moubark Mirgani           | College of Medicine                               | College of Medicine                             | Doctor of Philosophy  | Council For National Academic Awards       |
| 178.  | Khaled Hussein Taleb Dalky            | College of Humanities and Sciences                | Department of Arabic and Islamic Studies        | Master of Arts in Arabic Language, Language & Syntax                              | Yarmouk University                         |
| 179.  | Solomon Silas Senok                   | College of Medicine                               | College of Medicine                             | Doctor of Philosophy  | The Chinese University of Hong Kong        |
| 180.  | Najlaa Tawfeeq Nageeb Flayyih Flayyih | College of Law                                    | Private Law                                     | Doctor of Philosophy in Law   | University of Al Mosul                     |
| 181.  | Elfadil Abdalla Mohamed Abdalla       | College of Engineering and Information Technology | Department of Information Technology            | Doctor of Philosophy  | Universiti Teknologi Malaysia              |
| 182.  | Iyad J. S. Abdaljawad                 | College of Architecture, Art and Design           | Department of Architecture                      | Master of Science in Sustainable Design of the Built Environment with Distinction | The British University in Dubai            |
| 183.  | Nesrine Aly Mokhtar Hassan Elsahn     | College of Dentistry                              | Restorative Dentistry                           | Doctor of Philosophy in Dental Science  | Cairo University                           |
| 184.  | Fayiz Maddallah Salman Althunibat     | College of Humanities and Sciences                | Restorative Dentistry                           | Doctor of Philosophy in Arabic Studies  | Mutah University                           |
| 185.  | Khalid Ahmad Mohammad Ghuzlan         | College of Engineering and Information Technology | Department of Civil Engineering                 | Doctor of Philosophy  | University of Illinois at Urbana-Champaign |
| 186.  | Karima Bel Baraka                     | College of Humanities and Sciences                | Department of Foreign Language                  | Masters of Arts   | University of Sorbonne Nouvelle Paris 3    |
| 187.  | Raed Abdallah Abu Zitar               | College of Engineering and Information Technology | Electrical Engineering and Computer Engineering | Doctor of Philosophy  | Wayne State University                     |

| S.No. | Name                                 | College                                 | Department                               | Qualification   | Conferring Institution                     |
|-------|--------------------------------------|---|--|---|--|
| 188.  | Alfreda Stadlin                      | College of Medicine                     | College of Medicine                      | Doctor of Philosophy  | The University of Western Australia        |
| 189.  | Anshuman Sharma                      | College of Business Administration      | Marketing                                | Doctor of Philosophy in Business Administration                       | University of Lucknow                      |
| 190.  | Khaled Mustafa Jasem Mohammed Aljasm | College of Law                          | Public Law                               | Doctor of Philosophy in Public Law and Political Science              | University of Hassan II                    |
| 191.  | Ahmad Mohammad Ali Alzubi            | College of Humanities and Sciences      | Department of Sociology                  | Doctor of Philosophy in Educational Psychology, Teaching and Learning | Amman Arab University For Graduate Studies |
| 192.  | Soumaya Abdellatif EP Slama          | College of Humanities and Sciences      | Department of Sociology                  | Ph.D. in Sociology  | University of Strasbourg                   |
| 193.  | Abdesselam Salmi                     | College of Law                          | Public Law                               | Ph.D. in Public Law   | Universite Aboubaker Belkaid Tlemcen       |
| 194.  | Yousef Abdullatif Alhaj Bakkar       | College of Humanities and Sciences      | Department of Arabic and Islamic Studies | Master of Arts in Islamic Studies                                     | University of Gloucestershire              |
| 195.  | Mohamed Abdullah Jaber               | College of Dentistry                    | Unit of Surgical Sciences                | Doctor of Philosophy  | University of London                       |
| 196.  | Ahmad Al Jaghsi                      | College of Dentistry                    | Restorative Dentistry                    | Ph.D. in Medical Dentistry  | University of Greifswald                   |
| 197.  | Manal Ali Buabeid                    | College of Pharmacy and Health Sciences | Unit of Clinical Sciences                | Doctor of Philosophy  | Auburn University                          |
| 198.  | Sai Hanuman Sagar Boddu              | College of Pharmacy and Health Sciences | Unit of Pharmaceutical Sciences          | Doctor of Philosophy  | University of Missouri-Kansas City         |
| 199.  | Iheanyi Chris Enyinda                | College of Business Administration      | Marketing                                | Doctor of Philosophy in Transportation and Logistics                  | North Dakota State University              |

| S.No. | Name                                    | College   | Department                                      | Qualification  | Conferring Institution                                    |
|-------|---|---|---|--|---|
| 200.  | Abdulaziz Ahmed Alhassan                | College of Law                                    | Public Law                                      | Doctor of Philosophy in Law                            | de l'université Robert Schuman Strasbourg III             |
| 201.  | Dalia Ahmad Muhammad Omar Bedewy        | College of Humanities and Sciences                | Department of Psychology                        | Doctor of Philosophy in Education                      | Tanta University  |
| 202.  | Ammar Rashid                            | College of Engineering and Information Technology | Department of Information Technology            | Doctor of Philosophy                                   | Auckland University of Technology                         |
| 203.  | Usman Khan Durrani                      | College of Engineering and Information Technology | Department of Information Technology            | Doctor of Philosophy                                   | Royal Melbourne Institute of Technology                   |
| 204.  | Amel Beichi                             | College of Humanities and Sciences                | Department of Sociology                         | Doctor of Philosophy                                   | Université Constantine 2 Abdelhamid Mehri                 |
| 205.  | Hassan Sahyoun                          | College of Engineering and Information Technology | Department of Information Technology            | Master of Science                                      | University of Pittsburgh                                  |
| 206.  | Rajesh Mohnot                           | College of Business Administration                | Finance   | Doctor of Philosophy in Business, Finance and Economic | University of JodhpurJai (Narain Vyas University Jodhpur) |
| 207.  | Hamdy Mohamed Abdelhamid Hamed          | College of Engineering and Information Technology | Electrical Engineering and Computer Engineering | Doctor of Philosophy                                   | Universitat Rovira i Virgili                              |
| 208.  | Tamer Mohamed Farahat Hemada Elshandidy | College of Business Administration                | Accounting                                      | Doctor of Philosophy                                   | University of Stirling                                    |
| 209.  | Platon Alexiou                          | College of Architecture, Art and Design           | Department of Architecture                      | Doctor of Philosophy                                   | National and Kapodistrian University of Athens            |
| 210.  | Amine Bahi                              | College of Medicine                               | College of Medicine                             | Doctor of Philosophy in Natural Science                | The University of Fribourg                                |
| 211.  | Kifah Yousef Ali Al Hami                | College of Humanities and Sciences                | Department of Mathematics and Sciences          | Doctor of Philosophy                                   | University of Arkansas                                    |

| S.No. | Name                          | College                                 | Department                               | Qualification  | Conferring Institution                       |
|-------|-------------------------------|---|--|--|--|
| 212.  | Omar Jemni                    | College of Humanities and Sciences      | Department of Arabic and Islamic Studies | Habilitation Degree  | Tunis University                             |
| 213.  | Tareq M N Aljafarawi          | College of Dentistry                    | Restorative Dentistry                    | Master of Science in Restorative Dentistry                     | Ajman University                             |
| 214.  | Adil Osman Ali Ahmed Mageet   | College of Dentistry                    | Growth & Development                     | Doctor of Philosophy   | The University of Edinburgh                  |
| 215.  | Guangming Cao                 | College of Business Administration      | Management                               | Doctor of Philosophy in Systems Thinking and Change Management | University of Bedfordshire                   |
| 216.  | Rawan Mazen Yousef Abukhait   | College of Business Administration      | Management                               | Doctor of Philosophy   | University of Western Sydney                 |
| 217.  | Maher Itani                   | College of Business Administration      | Management                               | Doctor of Philosophy in Transportation and logistic            | North Dakota State University                |
| 218.  | Abdelghani Bara               | College of Humanities and Sciences      | Department of Arabic and Islamic Studies | Doctor of Philosophy in Sciences                               | University Mohamed Lamine Debaghine - Setif2 |
| 219.  | Salah Mohamed Samy Ismail Gad | College of Humanities and Sciences      | Department of Sociology                  | Doctor of Philosophy in Social Service                         | Helwan University                            |
| 220.  | Abd Al Karim Haj Ismail       | College of Humanities and Sciences      | Department of Mathematics and Sciences   | Doctor of Science in Physics                                   | Universiteit Gent (Ghent University)         |
| 221.  | Subish Palaian                | College of Pharmacy and Health Sciences | Unit of Clinical Sciences                | Doctor of Philosophy   | Universiti Sains Malaysia                    |
| 222.  | Ahmed Nadir Mohamed Kheir     | College of Pharmacy and Health Sciences | Unit of Clinical Sciences                | Doctor of Philosophy   | University of Otago                          |
| 223.  | Erum Khan                     | College of Medicine                     | College of Medicine                      | Fellowship   | Royal College of Physicians of Edinburgh     |
| 224.  | Debadatta Panigrahi           | College of Medicine                     | College of Medicine                      | Fellowship   | The Royal College of Pathologists            |



| S.No. | Name                                  | College   | Department                             | Qualification  | Conferring Institution                              |
|-------|---------------------------------------|---|--|--|---|
| 225.  | Gabriel Ernesto Campo Redondo Andrade | College of Medicine                               | College of Medicine                    | Human Sciences Doctorate (PhD)                               | University of Zulia                                 |
| 226.  | Nisha Shanta Kumari                   | College of Medicine                               | College of Medicine                    | Doctor of Medicine (Physiology)                              | University of Kerala                                |
| 227.  | Musaab Sedig Ahmed Omer               | College of Medicine                               | College of Medicine                    | Doctor of Medicine   | University of Tübingen                              |
| 228.  | Pedzisai Mazenganya                   | College of Medicine                               | College of Medicine                    | Doctor of Philosophy   | University of the Witwatersrand, Johannesburg       |
| 229.  | Pierre Mallet                         | College of Law                                    | Private Law                            | Doctor of Philosophy in Private Law                          | Université Grenoble Alpes                           |
| 230.  | Yasser Alhenawi                       | College of Business Administration                | Finance                                | Ph.D. in Corporate Finance, Investments                      | University of New Orleans                           |
| 231.  | Shaher Mohammad Ahmad Momani          | College of Humanities and Sciences                | Department of Mathematics and Sciences | Doctor of Philosophy   | University of Wales                                 |
| 232.  | Ghazi AlNaymat                        | College of Engineering and Information Technology | Department of Information Technology   | Doctor of Philosophy   | The University of Sydney                            |
| 233.  | Hajer Kratou                          | College of Business Administration                | Finance                                | Ph.D. in Economic Science                                    | University Clermont Auvergne/University of Carthage |
| 234.  | Raghavendra Manjunath Shetty          | College of Dentistry                              | Growth & Development                   | Doctor of Philosophy in Endodontics and Preventive Dentistry | NITTE University                                    |
| 235.  | Riad Saraiji                          | College of Architecture, Art and Design           | Department of Architecture             | Doctor of Philosophy in Architectural Engineering            | The Pennsylvania State University/University Park   |
| 236.  | Gyanendra Singh Sisodia               | College of Business Administration                | Management                             | Doctor Degree in Business and Management Studies             | University of Porto                                 |

| S.No. | Name                        | College   | Department                                      | Qualification   | Conferring Institution            |
|-------|-----------------------------|---|---|---|-----------------------------------|
| 237.  | Outi Katariina Juusola      | College of Business Administration                | Marketing                                       | Doctor of Science in Economics and Business Administration                          | University of Jyväskylä           |
| 238.  | Muhammad Adnan Aziz         | College of Business Administration                | Finance   | Doctor of Philosophy  | Loughborough University           |
| 239.  | Irene Pasina                | College of Architecture, Art and Design           | Department of Interior Design                   | Ph.D. in Interior Design  | Politecnico Milano                |
| 240.  | Sudhir Rama Varma           | College of Dentistry                              | Restorative Dentistry                           | Master of Dental Surgery  | Mangalore University              |
| 241.  | Ahmed Bilal Awan            | College of Engineering and Information Technology | Electrical Engineering and Computer Engineering | Ph.D. in Computer Engineering, Automatics, Electronics, Electrotechnics Mathematics | University of Lorraine            |
| 242.  | Muhammad Azhar Saleem       | College of Engineering and Information Technology | Department of Civil Engineering                 | Doctor of Philosophy in Civil Engineering   | Florida International University  |
| 243.  | Mohammed Azmi Al Betar      | College of Engineering and Information Technology | Department of Information Technology            | Doctor of Philosophy  | Universiti Sains Malaysia         |
| 244.  | Atta ur Rehman Khan         | College of Engineering and Information Technology | Department of Information Technology            | Doctor of Philosophy  | University of Malaya              |
| 245.  | Abdallah Adel Damen Alzoubi | College of Medicine                               | College of Medicine                             | Doctor of Philosophy  | The University of South Alabama   |
| 246.  | Ahmad Ahmeda                | College of Medicine                               | College of Medicine                             | Doctor of Philosophy in Medicine  | National University of Ireland    |
| 247.  | Anastasiya Spaska           | College of Medicine                               | College of Medicine                             | Philosophy Doctor in Biological Science   | Ternopil State Medical University |
| 248.  | Yehia Saleh Ahmed Mohamed   | College of Medicine                               | College of Medicine                             | Doctor of Philosophy  | University of Leicester           |

| S.No. | Name                    | College                                 | Department                       | Qualification                          | Conferring Institution      |
|-------|-------------------------|---|----------------------------------|--|-----------------------------|
| 249.  | Ibrahim Ahmed Bani      | College of Medicine                     | College of Medicine              | Doctor of Philosophy                   | Univeristy of Surrey        |
| 250.  | Anas Al-Jadaa           | College of Dentistry                    | Growth & Development             | Doctor of Philosophy                   | Tampere University          |
| 251.  | Kelvin Ian Afrashtehfar | College of Dentistry                    | Growth & Development             | Doctor of Dental Medicine              | University of Bern          |
| 252.  | Sinclair Steele         | College of Medicine                     | College of Medicine              | Doctor of Philosophy                   | University of Oxford        |
| 253.  | Samar Ben Romdhane      | College of Mass Communication           | Department of Mass Communication | Doctor of Philosophy                   | Université Laval            |
| 254.  | Reham Osman             | College of Dentistry                    | Growth & Development             | Doctor of Philosophy                   | University of Otago         |
| 255.  | Apollos Goyol           | College of Business Administration      | Management                       | Doctor of Philosophy                   | Western Michigan University |
| 256.  | Yassin Khaled Al Hariri | College of Pharmacy and Health Sciences | Unit of Clinical Sciences        | Master of Pharmacy (Clinical Pharmacy) | Universiti Sains Malaysia   |