

**AMITY**  
**UNIVERSITY**  
DUBAI



# **UNDER GRADUATE**

**CATALOG**

**2025-2026**



# **UNDERGRADUATE CATALOG**

**2025-2026**

## **Governing Board**

### **Dr. Atul Chauhan**

President, Ritnand Balved Education Foundation  
Chairman Amity University Governing Board

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### **Dr. Ajit K Nagpal**

Ex. Principal Advisor on Health Policy & Hospital Affairs, MoH, UAE  
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### **Dr. Vajahat Hussain**

CEO, Amity Education Middle East  
Member Amity University Governing Board

### **Dr. Saif Al Seiri**

President/Vice Chancellor, Amity University Dubai  
(Ex- officio) Member Amity University Governing Board

## UNIVERSITY ADMINISTRATION

<b>Dr Saif Al Seiari</b>	President / Vice Chancellor
<b>Dr Rafid Al Khaddar</b>	Pro Vice Chancellor
<b>Dr Sathish Kannan</b>	Dean, School of Engineering, Architecture and Interior Design
<b>Dr Elie Menassa</b>	Dean, Amity Business School
<b>Dr Rajneesh Mishra</b>	Dean, School of Humanities, Arts and Applied Sciences
<b>Dr Ashok Chopra</b>	Associate Registrar
<b>Mr. Mehrdad Mohasses</b>	Director Centre for Teaching and Learning
<b>Mr. Nadeem Hasan</b>	Director Operations
<b>Mr. Navneet Singh</b>	Director Student Success Center
<b>Dr Sarath Raj</b>	Director Laboratories
<b>Mr. Steven Johnston</b>	Director Sports
<b>Dr Ankita Rajdev</b>	Director of Quality Assurance and Institutional Effectiveness
<b>Dr Dinesh Chand</b>	Head of Examinations
<b>Mr. Joban Pappachan</b>	Head of Finance
<b>Mr. Nithin Thomas</b>	Head of Information Technology
<b>Mr. Gary Smith</b>	Head of Incubation Center

## Document Control

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## Document Revision Summary

Type of change: Review/Revision/Update	Date	Changes & Rational
Revision	25.04.2023	<ol style="list-style-type: none"> <li>1. Demonstrated Alignment of Program Learning Outcomes to QF Emirates for all its programs</li> <li>2. Included statement about Licensure, conforming to the requirements of the MOE</li> <li>3. Cooperative relationships with other educational, cultural or community organizations</li> <li>4. Included Recognition of Nonformal and Informal Prior Learning Policy</li> <li>5. Revised electives selection criteria for engineering programs</li> </ol>
Update	04.05.2023	Engineering Programs Specifications were updated
Update	11.05.2023	Engineering Programs Specifications were modified
Update	17.05.2023	Admission Deadlines & Notification of of students regarding admissions decisions were included
Revision/Update	01.06.2023	<ol style="list-style-type: none"> <li>1. Admission criteria for Engineering and Forensic Programs were revised</li> <li>2. Conditionally admitted students were restricted to taking only general education courses.</li> <li>3. Faculty List was updated</li> <li>4. Students' rights and responsibilities were updated</li> <li>5. Bachelor of Arts in Economics details were revised</li> </ol>
Revision	03.08.2023	Notification of Students Regarding Admissions Decisions was revised
Update	06.09.2023	BHTM Course Descriptions, PLOs, Mapping with NQF, Program Structure, and Delivery Schedule were updated

Annual Review	23-10-2023	<ol style="list-style-type: none"> <li>1. University Administration section was updated</li> <li>2. Amity University Dubai Proposed Academic Calendar 2023-24 is updated</li> <li>3. Updated the Contractual Agreements Section</li> <li>4. Sports and Recreational Facilities section is updated.</li> <li>5. Admissions Deadlines for Undergraduate Students are updated</li> <li>6. Recognition of Non-formal and Informal Prior Learning Policy was updated</li> <li>7. Program Completion Requirements is updated</li> <li>8. Financial section is updated</li> <li>9. General Guidelines for Award of Grades section updated.</li> <li>10. Academic Probation, Academic Break , Re-Registration, Disciplinary Control of Students In Relation To University Examinations, Acts of Unfair Means are updated as per the policy</li> <li>11. Academic Appeal Procedure section updated as per the policy.</li> <li>12. Attendance Policy is updated as per the updated attendance policy</li> <li>13. Academic Advising is updated as per the updated academic advising policy</li> <li>14. Academic Integrity section is updated as per the applicable policies.</li> <li>15. Updated HAAS and EAID programs</li> <li>16. Faculty list is updated.</li> <li>17. Course descriptions of HAAS and EAID is updated.</li> </ol>
Revision	25.06.2024	<ol style="list-style-type: none"> <li>1. Academic calendar for AY 24-23 added</li> <li>2. Contractual/Cooperative relationships</li> </ol>
Addition	25.06.2024	<ol style="list-style-type: none"> <li>1. FTE: Student Ratio</li> <li>2. Student satisfaction rate</li> </ol>
Incorporation of Audit Comments	18.11.2024	<ol style="list-style-type: none"> <li>1. Details of PVC added</li> <li>2. Details of Dean of HAAS updated</li> <li>3. List of Newly joined faculty updated</li> </ol>
Update	23.12.2024	<ol style="list-style-type: none"> <li>1. Organizational Chart updated</li> <li>2. Designations updated in accordance with updated Organizational Chart (version 3)</li> </ol>

Annual Review	04.09.2025	<ol style="list-style-type: none"> <li>1. Changed About Amity University section with updated information</li> <li>2. Updated Academic Calendar to AY2025-26</li> <li>3. Updated Mission statement as per the new Strategic Plan</li> <li>4. Changed the LMS from Amitrax to Amizone+</li> <li>5. Updated the Admission criteria</li> <li>6. Updated the Bank Details in Payment Methods</li> <li>7. Updated the Scholarship as per the new approved scholarship for AY 2025-26</li> <li>8. Added Rechecking/Re-Evaluation of Answer Books/Project Reports and Examination Results</li> <li>9. Added Official Transcripts to Students</li> <li>10. Updated Examination appeals process</li> <li>11. Updated the Procedures addressing student absenteeism during assessments in Student attendance policy</li> <li>12. Updated the FTE Ratio as per the factbook</li> <li>13. Updated the Student Satisfaction Rate</li> <li>14. Updated Students Responsibilities</li> <li>15. Updated BHMT program</li> <li>16. Updated Course Description with BHTM Major Core and Elective courses</li> </ol>
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**1. AMITY UNIVERSITY DUBAI ACADEMIC CALENDAR – AY 25-26**

<b>FALL 2025 SEMESTER</b>		
<b>08 – 14 September</b>	Monday – Sunday	Registration & Academic Advising Week; Orientation and School Induction Program
<b>15 September</b>	Monday	Commencement of Classes
<b>29 September</b>	Monday	Add and Drop Period Ends
<b>03 – 09 November</b>	Monday – Sunday	Mid-term exam week
<b>01 – 03 December</b>	Monday – Wednesday	UAE National Day Holiday
<b>04 December</b>	Thursday	Registration opens for Spring Semester 2026 begins
<b>08 Dec 25 – 04 January 26</b>	Monday – Sunday	Winter break (4 weeks)
<b>09 January</b>	Friday	Last day for withdrawal from classes
<b>25 January</b>	Sunday	Last day of classes
<b>26 January – 01 Feb</b>	Monday – Sunday	Reading Period/Lab Exams
<b>02 – 08 February</b>	Monday – Sunday	End-term Exam Week
<b>08 February</b>	Sunday	End of Fall Semester

<b>SPRING 2026 SEMESTER</b>		
<b>09 – 15 February</b>	Monday – Sunday	Orientation/Registration/Academic Advising week
<b>16 February</b>	Monday	Ramadan to begin*
<b>16 February</b>	Monday	Commencement of Classes
<b>02 March</b>	Monday	Add and Drop Period Ends
<b>18– 22 March</b>	Wednesday – Sunday	Eid Al Fitr Holidays*
<b>16 – 29 March</b>	Monday – Sunday	Spring Break (2 weeks)
<b>20 – 26 April</b>	Monday – Sunday	Mid-term exam week
<b>27 April</b>	Monday	Registration opens for Summer & Fall 2026 Semester begins
<b>26 May</b>	Tuesday	Arafat Day Holiday*
<b>27 – 29 May</b>	Wednesday – Friday	Eid al-Adha Holiday*
<b>29 May</b>	Friday	Last day for withdrawal from classes
<b>14 June</b>	Sunday	Last day of classes
<b>15 – 21 June</b>	Monday - Sunday	Reading Period/Lab Exams
<b>17 June</b>	Wednesday	Islamic New Year Holiday*
<b>22 – 28 June</b>	Monday - Sunday	End-term Exams
<b>28 June</b>	Sunday	End of Spring Semester & Beginning of Summer Break

<b>SUMMER 2026 SEMESTER</b>		
<b>29 June – 05 July</b>	Monday – Sunday	Registration & Academic Advising Week
<b>06 July</b>	Monday	Commencement of classes
<b>20 July</b>	Monday	Add and Drop Period Ends
<b>31 July</b>	Friday	Last day for withdrawal from classes
<b>16 August</b>	Sunday	Last day of classes
<b>17 – 18 August</b>	Monday - Tuesday	Reading Period/Lab Exams
<b>19 – 23 August</b>	Wednesday - Sunday	End- term Exams
<b>23 August</b>	Sunday	End of Summer Semester

\* Islamic holidays are determined after sighting the moon and actual dates may not coincide with the dates in this calendar.

**Note:** The approved calendar will be followed if there are no unforeseen circumstances that require a review or change.

## 2. ABOUT AMITY UNIVERSITY DUBAI



Established in 2011, Amity University Dubai is a prominent international university within the UAE and a key member of the globally recognized Amity Education Group. With campuses in Dubai, London, New York, San Francisco, Singapore, Uzbekistan, Kenya, and multiple locations across India, Amity Education Group has a rich heritage spanning over 30 years, educating more than 200,000 students, supported by 6,000 dedicated faculty members and a growing alumni network exceeding 85,000 worldwide.

Amity University Dubai is licensed by the UAE Ministry of Education's Ministry of Higher Education and Scientific Research (MoHESR) and the Knowledge and Human Development Authority (KHDA). Its degree programs are accredited by the MoHESR's Commission for Academic Accreditation (CAA) and internationally recognized through accreditations by the Western Association of Schools and Colleges (WASC) and the UK's Quality Assurance Agency (QAA).

The University offers over 25 diverse academic programs, ranging from bachelor's to master's degrees across disciplines such as Business, Engineering, Computer Science, Biotechnology, Animation, Fashion Design, Hotel Management & Tourism, Forensic Science, Psychology, Architecture, Interior Design, Media, and Law. These programs carry formal recognition from leading professional bodies including CIPD, ACCA, CPA, AHRI, CIM, CIMA, CIPS, EFQM, and ACS.

Amity University Dubai boasts highly qualified faculty renowned for academic excellence and strong industry connections, fostering an environment that bridges theory and practice. Its alumni have distinguished themselves globally across major multinational organizations including SAP, Canon, KPMG, DHL, Hilton, Siemens, Pfizer, RAKBANK, Sharaf DG, Sony, DAMAC, 3M, Apparel Group, and Aster.

The Dubai campus spans over 700,000 square feet, featuring world-class facilities and cutting-edge laboratories for specialized fields such as Aerospace, Civil, Electrical and Mechanical Engineering, Forensics, Biotechnology, Psychology, Media, Design, and Hospitality. These facilities support hands-on learning through real-life simulations and experiential education. The campus also offers extensive sports amenities, including a 400m running track, indoor swimming pool, basketball and tennis courts, and cricket nets.





Currently, Amity University Dubai serves a vibrant community of more than 2,500 students representing over 70 nationalities, contributing to a rich multicultural campus experience.

## 2.1 Awards, Accreditations and Recognitions

- Licensed by Ministry Of Education (MOE) – UAE 2022
- Program accredited by UAE Commission for Academic Accreditation (CAA) 2022
- UAE Innovation Award 2021
- Hamdan Innovation Incubator 2021
- Sheikh Khalifa Excellence Award 2020
- The UK Quality Assurance Agency for Higher Education ( QAA) 2019
- Best Campus Middle East Award by Forbes Middle East in 2019
- Capital Finance International (CFI) 2018
- Dubai Quality Appreciation Award (DQAA) 2019
- Dubai Quality Global Award (DQGA) 2019
- Dubai Human Development Appreciation Award (DHDAA) 2019
- First University outside of India to be approved by Bar Council of India
- First University in Dubai to set up NATA test centre
- Best University for Graduate Recruitment in the GCC Award 2018
- DEWA Conservation Award 2018
- Outstanding contribution to Autism Awareness Award 2018
- Solar Decathlon Middle East Award 2017-2018
- Accredited by – UNWTO TedQual, Council of Architecture, India □ 100 Middle East Centric business Case Studies
- Accredited by WSCUC, IACBE , IET.

## 2.2 Institutional and Program Accreditations

	Licensed by Knowledge and Human Development Authority, Government of Dubai since 2011.
	Accredited by Western Association of Schools and Colleges (WASC) in 2016.
	Qualified on all ESG standards by Quality Assurance Agency – IQR in 2018
	Awarded “A” Grade by National Assessment and Accreditation Council (NAAC) India
	Engineering Programs accredited by the Institution of Engineering and Technology (IET).
	Architecture Program is accredited by Council of Architecture, India.

 <b>BAR COUNCIL OF INDIA</b>	Law Programs are accredited by and affiliated to Bar Council of India (BCI).
	Undergraduate and graduate Business Management programs are accredited by IACBE since 2016.
	Dubai SME and Future Foundation Certified Incubation Center.
	UAE Innovation Award 2021

### 2.3 Contractual Agreements/Cooperative Relationships:

1. ACADEMIC PARTNER INSTITUTIONS		
S.No	UNIVERSITY NAME	DETAILS
1	Canadian University Dubai (CUD)	Sharing LRC resources, space, and expertise
2	British Applied College (BACU)	Sharing LRC resources, space, and expertise
3	Institute of Management and Technology (IMT)	Sharing LRC resources, space, and expertise
4	City University College of Ajman (CUCA)	Sharing LRC resources, space, and expertise
5	The British University in Dubai (BUiD)	Sharing LRC resources, space, and expertise
6	American University in Dubai (AUD)	Sharing LRC resources, space, and expertise
7	Ajman University (AU)	Sharing LRC resources, space, and expertise
8	American University in the Emirates (AUE)	Sharing LRC resources, space, and expertise
9	Skyline University College (SUC)	Sharing LRC resources, space, and expertise
10	Thomas Moore University, Belgium	University Level-Exchange of faculty, students, scholars, joint research and joint conference
11	Claflin University	University Level-Exchange of faculty, students, scholars, joint research and joint conference
12	Amity University Tashkent	University Level-Student Exchange, Hosting and delivering education programmes, Collaborative research, organizing symposia, incubation center and other mutual interest. Semester Abroad Programme.

13	The Seneca College of Applied Arts and Technology	University Level-Explore access to international education to student of both univeristes, mutual benefits
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2. CORPORATE PARTNERS		
S.No	UNIVERSITY NAME	DETAILS
1	Al Qalamoon Gardens Designers	Landscaping maintenance
2	Al Yousaf Elevators & Escalators Llc	Elevator and escalator maintenance
3	Brightwell Products	Hygiene service
4	Cleanse Middle East	Façade glass cleaning
5	DulSCO	Waste management services
6	DulSCO	Hazardous waste Removal
7	Emphor LLC	Annual Maintenance for various instruments
8	Elite Express -Aud-Academic Block & Hospitality Lab	Pest control
9	Elite Express -Aud-Hostel Block	Pest control
10	Eurotect Gas Services	Central gas service
11	Fireco Technical Services LLC	Fire alarm, central battery and firefighting system
12	Flora Greenfields	Landscape maintenance
13	LCS AMC -Bright Future Electric LCS maintenance	Lighting control system
14	ODS Global	Building management system
15	United Technology & Trading Co. (swimming pool maintenance)	Swimming pool maintenance
16	Precision Technologies	Access control management
17	Secure Plus	Security services
18	Shield	Water tank cleaning
19	Professional Star Electrical Installation Services LLC	CCU, UPS and generator maintenance
20	Trumax	Cleaning maintenance
21	Fujseng Facilities Management Services	MEP facility management services (electrical & plumbing)
22	Silmen Merac LLC	2 Automatic sliding doors maintenance and service
23	Al Otaiba General Transport	University Level-Extend the transportation services for students across UAE

### 3 AMITY UNIVERSITY'S MISSION, VISION AND CORE Values

#### 3.1. Vision

Amity University Dubai will strive to build a conscious community that will positively impact society and humanity. We will continue to educate, while also creating long-term sustainable solutions that promote innovation, exploration, creativity, tolerance, equality, opportunity and a better future for generations to come.

#### 3.2. Mission

At Amity University Dubai, we are committed to shaping a dynamic and forward-thinking academic ecosystem that drives innovation, fosters sustainability, and fuels economic diversification. Through impactful scientific research, interdisciplinary learning, and strong industry collaboration, we empower students, faculty, and industry partners to co-create knowledge, develop transformative solutions, and contribute meaningfully to society. By championing environmental responsibility, entrepreneurship, social progress, and ethical leadership, we nurture a diverse and inclusive community that advances humanitarian values and serve as a catalyst for national and global progress, reinforcing our reputation as a premier institution driving the nation's knowledge economy and beyond.

### 3.3. Core Values

**Academic Excellence:** University strives for the uncompromising quality and highest standard of excellence in teaching, learning, research and scholarship across various disciplines.

**Integrity & Ethics:** University upholds the highest ethical values, integrity and professionalism and an unwavering commitment to academic freedom, transparency and accountability.

**Diversity & Mutual Respect:** University nurtures an environment of safety, trust & mutual respect and embeds equality & diversity in its Strategy by ensuring that the strategic plans are fair and inclusive.

**Expand horizons of Knowledge:** University is driven by research and innovation and ensures continuous engagement in the scholarly activities in the pursuit of innovation, creativity and excellence.

**Shared Governance:** University encourages shared decision-making through a process that rests upon collaborative consultation, open flow of information, diverse involvement and collective deliberations of all stake holders.

**Social responsibility:** University creates and nurtures an inclusive environment where everyone can develop their full potential and contribute to the interest of society as a whole.

**Environmental responsibility:** University is acutely aware of its environmental responsibilities and embraces principle of sustainable development to ensure that any adverse environmental impact of its activities is minimized.

**Service:** University seeks to serve the diverse, personal and professional development needs of its constituents and encourage habit of engagement, caring, and civic responsibility by emphasizing on a connect between service, excellence, and career growth.

## 4. AMITY UNIVERSITY INSTITUTIONAL GOALS

**Goal 1:** Ensuring Excellence in Education and Empowering Students with Skills Needed In Industry

**Goal 2:** Enhancing Cutting Edge Research, Innovation and Creativity of High Impact

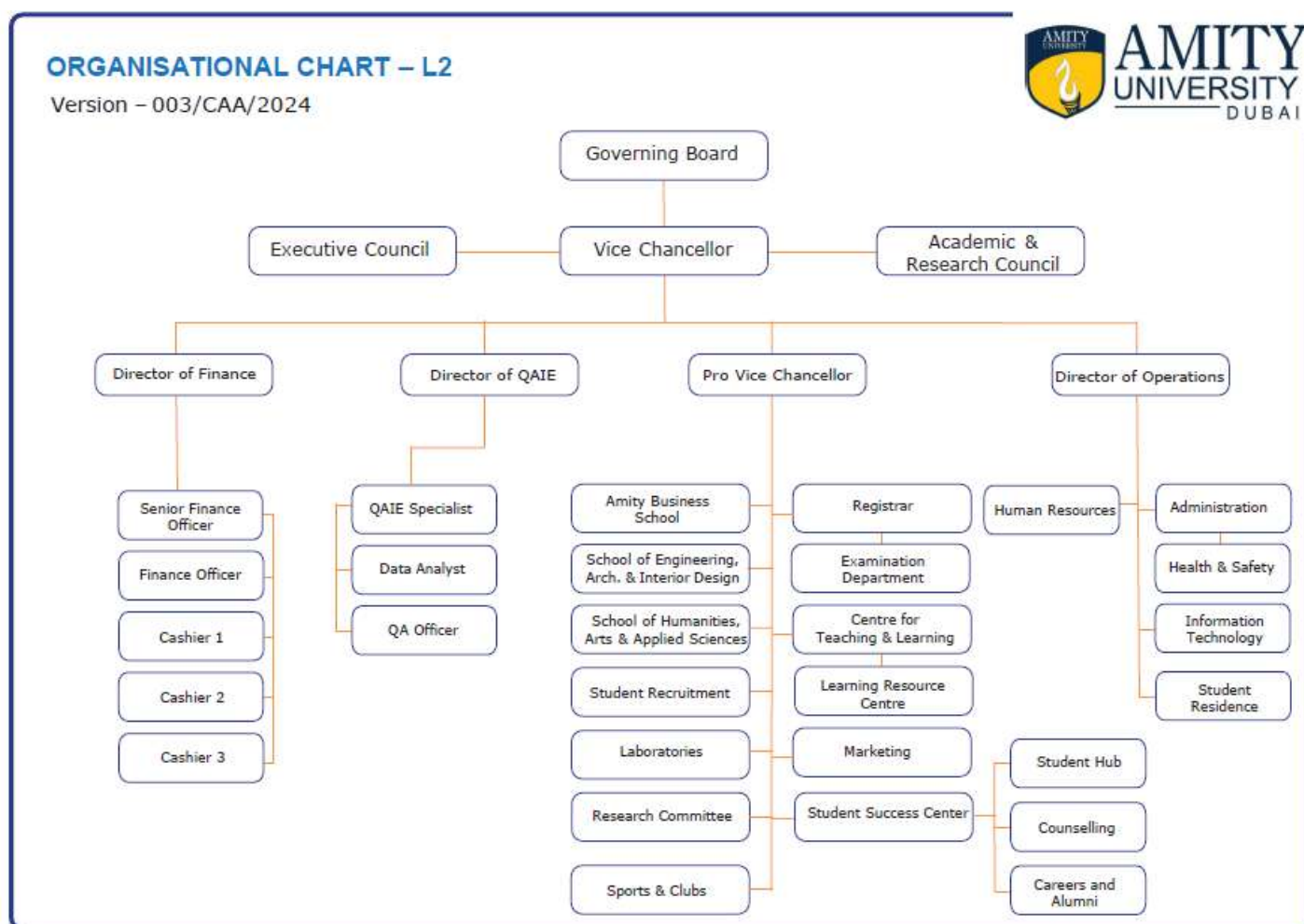
**Goal 3:** Creating Professionals with a Global Perspective with Enhanced Employability and an Entrepreneurial Zeal

**Goal 4:** Enhancing Engagement with Industry, Alumni and Society

**Goal 5:** Committing to All Aspects of Social, Economic and Environmental Sustainability

**Goal 6:** Enhancing Ecosystem That Promotes Student and Staff Development Including Physical and Emotional Health and Well-Being

## 5. AMITY UNIVERSITY DUBAI ORGANIZATION CHART



## 6. AMITY UNIVERSITY DUBAI CAMPUS SERVICES

Amity University Dubai, started in 2011, is located in Dubai International Academic City (DIAC), and offers a truly global educational experience with qualified international faculty, and students from over fifty different nationalities. The university has modern state-of-art laboratories, facilities, and classrooms.

### 6.1. Library/Learning Resource Center (LRC):

The Learning Resource Centre extends over two floors. All these sections are open to the entire university community. Amity LRC houses print and non-print materials (e-resources). LRC provides four areas for faculty and students for working on assignments, discussions, and research. The Centre maintains a ratio of 1:10 seats to users of the lrc. The Centre has different reading facilities. It has three study zones, Quiet and Collaborative study zones located on the first floor, and a silent study zone located at the second floor to help users focus on study material and research in individual cubicles. Photocopying and printing facilities are available inside the Learning Resource Center (LRC) to all users. The center is completely linked with high-speed Wi-Fi Internet facility and

intra-university network. Users may use their laptop, smart phones, and other electronic devices for accessing titles of print books, e-books, databases, journals, manuscripts, electronic thesis and dissertations, and audio-visual materials and services provided by LRC. At present, our LRC has a total of 8 iMac stations and 2 print/scan/photocopy machines inside the Collaborative section, that can be used for various IT and reprography services.

## 6.2. Laboratory:

Amity University Dubai has 27 laboratories and workshops, including specialized labs resourced appropriately for the range of programs on offer.

The details on the laboratories and workshops are as given:

S.No.	NAME OF LABORATORY/STUDIO	LOCATION
<b>GROUND FLOOR</b>		
1	Construction Lab	G02
2	Workshop	G03
3	Aerospace Lab	G05
<b>FIRST FLOOR</b>		
4	Computer Lab	105
5	Computer Lab	107
<b>SECOND FLOOR</b>		
6	Computer Lab	204
7	Psychology Lab	203
8	Electronics Lab	207
9	Electrical Lab	208
10	Physics Lab	205
11	Fashion Design Studio	209
12	Fashion Deisgn Studio	211
<b>THIRD FLOOR</b>		
13	Media Studio	314
14	Design Workshop	309
15	Design Studio	308
16	Design Studio	310
17	Design Studio	311
18	Design Studio	312
19	Design Studio	313
20	Animation Lab	306
21	Biotechnology Lab	307
22	Chemistry Lab	304
23	Forensic Lab	302
24	Hospitality Lab	331
25	Crime Scene Investigation Lab	305
26	Computer Lab	327
27	Moot Court	324

## 6.3. Student Residence:

Amity student residence offers housing to its students within its sprawling campus in Dubai. This contemporary and well-equipped facility intent on offering excellent safety and security for its residents, is well connected to

various parts of Dubai through public transportation and has well equipped rooms to provide utmost comfort for its residents.

#### 6.4. Sports and Recreational Facilities

Amity University Dubai believes in overall intellectual, physical and social development of the students. The University besides focusing on developing knowledge, skills and competencies, puts focus on physical and competitive development by providing best facilities for both indoor and outdoor sports and recreation.

S.No.	NAME OF THE SPORTS AND RECREATIONAL FACILITY	No. OF FACILITY
1	Complete 400-meter synthetic track and field facility.	1
2	Full-sized, Astro pitch for multiple sports including football and Cricket.	1
3	2G Flexi Pitch for pupose of uaing astro sports field as cricket pitch.	1
4	Outdoor Basketball Court (Synthetic)	1
5	Tennis Courts (Synthetic)	1
6	3.5m x 20m Cricket Net (Cemented)	2
7	Padel-Tennis Court (Synthetic)	1
8	25m, 5-Lane, Temperature controlled Semi-Indoor Swimming Pool	1
9	Human Bubble Balls for Human Bubble Football	14
10	Multipurpose Sports Hall	1
11	Indoor Basketball Court	1
12	Indoor Badminton Courts	4
13	Indoor Volleyball Court	1
14	Indoor Dodgeball Court	1
15	Indoor Throwball Court	1
16	Table Tennis Tables	4
17	Aerobics/Yoga/Fitness/Dance Studio with Full length Mirrors	1
18	Fitness Gym with multiple Life-Fitness machines for aerobic and strength training.	1

#### 6.5. Amizone+ Learning Management System

Amizone+ is an exclusive LMS solution that has been developed to cater to the education requirements of Amity students and faculty.

All the CLOs, PLOs, and the contents of the allocated course will be uploaded on Amizone+ directly.

Please refer to the URL below for Amizone+ login page.

<https://plus.amizone.net/>

## 7. UNDERGRADUATE ADMISSIONS

### 7.1. Admission Criteria for Undergraduate Programs:

#### Admissions Criteria for Business Programs

Entry to Amity Business School Dubai undergraduate programs (Bachelor of Business Administration, Bachelor of Commerce in Accounting, Bachelor of Finance, and Bachelor of Hotel Management and Tourism) requires students to have attained the General Education Secondary School Certificate (G 12) or equivalent. In addition to achieving a minimum high school average of 60%. All applicants must provide evidence of proficiency in English Language as well as in Mathematics as detailed below:

- English Language Proficiency Requirements:

- Students from non-MoE curricula that are taught in English are exempt from providing English Language proficiency evidence.
- Students from non-MoE curricula taught in a language other than English must demonstrate proficiency through international standardized tests (IELTS 5 and above or its established equivalent).
- Students from the MoE Curriculum must prove their proficiency through High School English grades, which should not be less than 80%.
- Evidence of Mathematics proficiency in the form of:
  - ‘EmSAT Achieve’ minimum score of 600 in Mathematics, or
  - Grade 12 subject score in Mathematics that is equivalent to 60% and attained at a school system with centralized examination structure such as – but not limited to – the British system, the International Baccalaureate system, or the Emirati school system, or
  - A score of 60% on Mathematics on placement tests conducted by Amity University Dubai and approved by the UAE MoHESR, or
  - Equivalent scores on other internationally recognized tests that are approved by the UAE MoHESR.

Conditional admission can be allowed for not achieving the Mathematics proficiency scores. Along these lines, students shall register for the University’s non-transferrable remedial Mathematics course.

Conditionally accepted applicants are permitted to take a maximum of 12 credits (including remedial) combining General Education courses as well as introductory courses which do not require Mathematics as pre-requisites.

Conditional admission can be allowed for not achieving the English proficiency scores for students from both non-MoE curricula taught in any other language other than English as well as those from MoE curricula. The following requirements are to be adhered to:

- Non-MoE curricula taught in any other language other than English:
  - Students securing an IELTS score between 4.0 and 4.9 or its established equivalent are permitted to register for the non-credit bearing English remedial course along with two General Education courses. These students ought to secure a minimum CGPA of 2.0 on a 4.0 scale in semester 1; failure to which shall lead to probation.
  - Students securing an IELTS score between 3.0 and 3.9 or its established equivalent are permitted to register for the non-credit bearing Intensive English course along with one General Education course. These students ought to secure a minimum CGPA of 2.0 on a 4.0 scale in semester 1; failure to which shall lead to probation.
  - Students securing an IELTS score less than 3.0 or its established equivalent are permitted to register for the non-credit bearing Intensive English course only.
- MoE Curricula:
  - Students with high school English score ranging from 70% to 79% are permitted to register for 12 credits of courses which shall encompass credit bearing courses and remedial courses. The student ought to secure a CGPA of 2.0 on a scale of 4.0 in semester 1; failure to which shall lead to probation.
  - Students with high school English score ranging from 60% to 69% are permitted to register for the non-credit bearing English remedial course along with two General Education courses. These admitted students ought to secure a minimum CGPA of 2.0 on a 4.0 scale in semester 1; failure to which shall lead to probation.
  - Students with high school English score less than 60% are permitted to register for the non-credit bearing Intensive English course along with General Education Arabic course.

Moreover, applicants whose minimum high school average is less than 60% may be given conditional admission, restricting their course registration to a maximum of 12 credits for the first semester, encompassing only credit bearing

courses with no inclusion of remedial courses. These students ought to secure a minimum CGPA of 2.0 on a 4.0 scale by the end of semester 1, failure to which shall result in probation.

### **Admission Criteria for Engineering, Architecture and Interior Design Programs:**

Entry to School of Engineering Architecture Interior Design undergraduate programs requires students to have attained the General Education Secondary School Certificate (G 12) or equivalent. The following criteria must be met for entry into the programs: BS in Aerospace Engineering, BS in Civil Engineering, BS in Electrical Engineering, BS in Mechanical Engineering, BS in Computer Science, BS in Information Technology, BS in Biotechnology, Bachelor of Architecture, and Bachelor of Interior Design.

#### **English Language Requirements:**

- Students from non-MoE curricula that are taught in English are exempt from providing English Language proficiency evidence.
- Students from non-MoE curricula taught in a language other than English must demonstrate proficiency through international standardized tests (IELTS 5 and above or its established equivalent).
- Students from the MoE Curriculum must prove their proficiency through High School English grades, which should not be less than 80%.

Conditional admission can be allowed for not achieving the English proficiency scores for students from both non-MoE curricula taught in any other language other than English as well as those from MoE curricula. The following requirements are to be adhered to:

- Non-MoE curricula taught in any other language other than English:
  - Students securing an IELTS score between 4.0 and 4.9 or its established equivalent are permitted to register for the non-credit bearing English remedial course along with two General Education courses. These students ought to secure a minimum CGPA of 2.0 on a 4.0 scale in semester 1; failure to which shall lead to probation.
  - Students securing an IELTS score between 3.0 and 3.9 or its established equivalent are permitted to register for the non-credit bearing Intensive English course along with one General Education course. These students ought to secure a minimum CGPA of 2.0 on a 4.0 scale in semester 1; failure to which shall lead to probation.
  - Students securing an IELTS score less than 3.0 or its established equivalent are permitted to register for the non-credit bearing Intensive English course only.
- MoE Curricula:
  - Students with high school English score ranging from 70% to 79% are permitted to register for 12 credits of courses which shall encompass credit bearing courses and remedial courses. The student ought to secure a CGPA of 2.0 on a scale of 4.0 in semester 1; failure to which shall lead to probation.
  - Students with high school English score ranging from 60% to 69% are permitted to register for the non-credit bearing English remedial course along with two General Education courses. These admitted students ought to secure a minimum CGPA of 2.0 on a 4.0 scale in semester 1; failure to which shall lead to probation.
  - Students with high school English score less than 60% are permitted to register for the non-credit bearing Intensive English course along with General Education Arabic course.

## **Program-Specific Requirements:**

### Cluster 1: Engineering Programs:

For BS Aerospace Engineering, BS in Civil Engineering, BS in Electrical Engineering, BS in Mechanical Engineering:

- High School Requirements:
  - Students must have achieved a 60% average in their Secondary School Certificate (Grade 12).
  - Students must have scored 80% or higher in Mathematics and Physics in UAE Ministry of Education (MoE) curriculum or its equivalent.
  - Students must have scored 80% or higher in Chemistry or Biology in UAE Ministry of Education (MoE) curriculum or its equivalent.
- Conditional Admission:
  - Students with a high school average below 60% may be granted conditional admission. Conditionally accepted students will be allowed to register for a maximum of 12 credits for Semester 1.
  - Students who score less than 80% in UAE Ministry of Education (MoE) curriculum or its equivalent in the required subjects will be granted conditional admission
    - These students will have to undergo Amity Placement Test (APT) for the specific course. Failure to attain a minimum Score of 60% in APT will limit the student's enrollment to a maximum of 12 credits in Semester 1 which encompasses credit bearing courses (including a combination of GenEd courses and introductory level courses) and remedial courses, the composition of which is as per Dean's discretion.

### Cluster 2: Natural Sciences Programs:

For BS in Computer Science, BS in Information Technology and, BS in Biotechnology,

- High School Requirements:
  - For BS in Information Technology: Students must have achieved a 60% average in their Secondary School Certificate (Grade 12) in the UAE Ministry of Education (MoE) curriculum or its equivalent.
  - For BS in Computer Science: Students must have achieved a 60% average in their Secondary School Certificate (Grade 12) in the UAE Ministry of Education (MoE) curriculum or its equivalent, including 60% or more in Mathematics and in any one of the Science courses
  - For BS in Biotechnology: Students must have achieved a 60% average in their Secondary School Certificate (Grade 12) in the UAE Ministry of Education (MoE) curriculum or its equivalent, including 60% or more in any one of the Science courses.
- Conditional Admission:
  - Student with high school average  $\geq 60\%$  but with score in the specific subject below 60% (BS in Computer Science: Mathematics and any one Science course, BS in Biotechnology: any one Science course) may be granted conditional admission, and will undertake Amity Placement Test (APT) for the specific course. Failure to attain a score of  $\geq 60\%$  in APT will limit the student's enrollment to a maximum of 12 credits\*\* in Semester 1.
  - Students with a high school average below 60% may be granted conditional admission, under the following conditions:
    - Will undertake Amity Placement Test (APT) for the specific course:
      - BS in Computer Science: APT for Mathematics and any one of the Science courses (Physics or Chemistry or Biology)
      - BS in Biotechnology: APT for any one of the Science courses (Physics or Chemistry or Biology)

- Failure to attain a score of  $\geq 60\%$  in APT will limit the student's enrollment to a maximum of 12 credits\*\* in Semester 1.
- Student scoring less than 60% in any other subject other than Mathematics, Physics or Chemistry or Biology will be allowed to enroll for a maximum of 12 credits in Semester 1; which will solely encompass credit bearing courses.

Students must achieve a minimum CGPA of 2.0 out of 4.0 in the first semester. Failure to meet this requirement will result in probation.

*\*\*12 Credits encompasses credit bearing courses (including a combination of GenEd courses and introductory level courses) and remedial courses, the composition of which is as per Dean's discretion.*

### Cluster 3: Bachelor of Architecture, and Bachelor of Interior Design:

For Bachelor of Architecture, and Bachelor of Interior Design:

- High School Requirements:
  - Students must have achieved a 60% average in their Secondary School Certificate (Grade 12) in the UAE Ministry of Education (MoE) curriculum or its equivalent. A design-based creative aptitude test is required, in addition to the minimum high school average, for Bachelor of Architecture and Bachelor of Interior Design.
- Conditional Admission:
  - Students with a high school average below 60% may be granted conditional admission. Conditionally accepted students will be allowed to register for a maximum of 12 credits for Semester 1.
  - Students must achieve a minimum CGPA of 2.0 out of 4.0 in the first semester. Failure to meet this requirement will result in probation.

### **Admissions Criteria for Humanity, Arts and Applied Sciences Programs**

The School of Humanities, Arts, and Applied Sciences (HAAS) offers an assortment of undergraduate programs that are clustered into the following:

#### Cluster 1

- Bachelor of Fashion Design
- Bachelor of Fine Arts in Digital Media and Communications
- Bachelor of Fine Arts in Animation and Film Production
- Bachelor of Arts in Economics
- Bachelor of Science in Psychology

Entry to the above undergraduate programs requires students to have attained the General Education Secondary School Certificate (G 12) or equivalent. In addition to achieving a minimum high school average of 60%, all applicants must provide:

- Evidence of English Language Proficiency:
  - Students from non-MoE curricula that are taught in English are exempt from providing English Language proficiency evidence.
  - Students from non-MoE curricula taught in a language other than English must demonstrate proficiency through international standardized tests (IELTS 5 and above).

- Students from the MoE Curriculum must prove their proficiency through High School English grades, which should not be less than 80%.

Conditional admission can be allowed for not achieving the English proficiency scores for students from both non-MoE curricula taught in any other language other than English as well as those from MoE curricula. The following requirements are to be adhered to:

- Non-MoE curricula taught in any other language other than English:
  - Students securing an IELTS score between 4.0 and 4.9 or its established equivalent are permitted to register for the non-credit bearing English remedial course along with two General Education courses. These students ought to secure a minimum CGPA of 2.0 on a 4.0 scale in semester 1; failure to which shall lead to probation.
  - Students securing an IELTS score between 3.0 and 3.9 or its established equivalent are permitted to register for the non-credit bearing Intensive English course along with one General Education course. These students ought to secure a minimum CGPA of 2.0 on a 4.0 scale in semester 1; failure to which shall lead to probation.
  - Students securing an IELTS score less than 3.0 or its established equivalent are permitted to register for the non-credit bearing Intensive English course only.
- MoE Curricula:
  - Students with high school English score ranging from 70% to 79% are permitted to register for 12 credits of courses which shall encompass credit bearing courses and remedial courses. The student ought to secure a CGPA of 2.0 on a scale of 4.0 in semester 1; failure to which shall lead to probation.
  - Students with high school English score ranging from 60% to 69% are permitted to register for the non-credit bearing English remedial course along with two General Education courses. These admitted students ought to secure a minimum CGPA of 2.0 on a 4.0 scale in semester 1; failure to which shall lead to probation.
  - Students with high school English score less than 60% are permitted to register for the non-credit bearing Intensive English course along with General Education Arabic course.

Moreover, applicants whose minimum high school average is less than 60% may be given conditional admission, restricting their course registration to a maximum of 12 credits for the first semester. The students thus admitted ought to secure a minimum CGPA of 2.0 on a 4.0 scale by the end of semester 1, failure to which shall result in probation.

## Cluster 2

- Bachelor of Science in Forensic Sciences

Entry to the School of Humanities, Arts, and Applied Sciences (HAAS) Bachelor of Science in Forensic Sciences program requires students to have attained the General Education Secondary School Certificate (G 12) or equivalent. In addition to achieving a minimum high school average of 60%, all applicants must provide:

- Evidence of English Language Proficiency:
  - Students from non-MoE curricula that are taught in English are exempt from providing English Language proficiency evidence.
  - Students from non-MoE curricula taught in a language other than English must demonstrate proficiency through international standardized tests (IELTS 5 and above).
  - Students from the MoE Curriculum must prove their proficiency through High School English grades, which should not be less than 80%.
- Evidence of proficiency in Physics or Chemistry or Biology. This can be in the form of:
  - A minimum of 60% score in Physics or Chemistry or Biology at Grade 12 level, or
  - A minimum of 60% score in Physics or Chemistry or Biology on the Amity Placement Tests (APT).

Conditional admission can be allowed for not achieving Physics/Chemistry/Biology proficiency requirements. In this case, the student will be required to enroll in a non-credit bearing remedial course. The specific course will be determined based on the student's Grade 12 grades or APT Score and at the Dean's discretion. Students registering for remedial courses will be allowed to take a maximum of 12 credits which is to be a combination of remedial courses, GenEd courses and introductory level courses.

Moreover, applicants whose minimum high school average is less than 60% may be given conditional admission, restricting their course registration to a maximum of 12 credits for the first semester. The students thus admitted ought to secure a minimum CGPA of 2.0 on a 4.0 scale by the end of semester 1, failure to which shall result in probation.

### Admission for Transfer Students

The following principles are applied in Transfer Admission, Transfer Credit and Advanced Standing:

- Students are required to submit official transcripts showing all post-secondary work attempted.
- Transfer students should meet all of the admission requirements of AMUD. Under no circumstances, these students are admitted under the provisions stipulated for conditional admission.
- Transfer Admission:
  - Transfer admission is limited to students who are transferring from UAE institutions recorded in the National Register of Licensed HEIs, or other organizations in the UAE approved by the CAA, or recognized institutions of higher learning located outside the UAE.
  - All transfer admission students must present valid certification (EmSAT, TOEFL, IELTS or other certification approved by the CAA) demonstrating the required language competency scores for full admission.
  - Students transferring from other institutions into a program in the same field of study should present certified transcripts from the university at which they were initially enrolled, evidencing their good academic standing. For undergraduate transfers, a minimum CGPA of 2.0 on a 4.0 scale, or equivalent is required. While for the graduate programs, a minimum CGPA of 3.0 on a 4.0 scale in graduate level course work, or equivalent, is required.
  - External or internal students who are not in good academic standing are only permitted to transfer to a program in a field that is distinctly different from the one from which the student is transferring.
- Transfer Credits and Advanced Standing:
  - With respect to graduate programs, transfer credits are only allowed for courses relevant to the receiving degree that provide equivalent learning outcomes and in which the student earned at least a grade of B (3.0 on a 4.0 scale). In this case, the maximum number of transfer credit should not exceed 25% of the required credits for the graduate program.
  - AMUD does not grant credit twice for substantially the same course taken at two different institutions.
  - AMUD does not allow credits transfer for graduation projects and theses.

### Re-admission of Former Students

- New students who have missed two consecutive semesters of enrollment (excluding the summer semester) shall apply for re-admission by completing the re-enrollment form available on the student services. A new university ID will be issued and the student should pay the non-refundable fee for the application.

- 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 meet the following requirements:
  - The required average in secondary school certificate.
  - Approval of the Dean and Registrar.
  - Settling all pending dues
  - Payment of the non-refundable application fee

After reviewing above documents, the Dean of the school and the Registrar confirm student acceptance to the previous program and draft a new study plan.

## 7.2. Application Process

Admission to all programs at Amity University Dubai are processed through the Admissions Office and in order for students to apply; students can:

- Apply online at the Amity University website <https://amityuniversity.ae/join-amity/application-process> and upload their applications along with supporting documents
- Contact admissions team at [admissions@amityuniversity.ae](mailto:admissions@amityuniversity.ae) for additional information
- Visit the Admissions office located on the first floor of the University campus
- Submit the completed application form along with the required documents to [admissions@amityuniversity.ae](mailto:admissions@amityuniversity.ae)
- Offer letter shall be sent via email once the application has been accepted upon verification of the eligibility criteria.
- Pay the application and registration fees at the online payment portal on the website <https://payment.amityuniversity.ae/info>

## 7.3. List of required Documents:

Students are to submit the documents listed in the offer letter issued by the Admissions Department

### Certification of Documents

Students must provide one of the following documents as applicable for both public and private schools within and outside the country:

- A secondary school completion certificate, endorsed by the Ministry of Education or the Emirates Schools Establishment, for those graduating from public schools within the country.
- An equivalency issued by the Ministry of Education for a secondary school completion certificate obtained from private schools within or outside the country.
- If a student is unable to provide proof of equivalency due to delays in receiving the final transcripts, the student may be conditionally admitted without equivalency for one semester. The student must however submit proof of equivalency during this period.
- Students must sign an undertaking acknowledging that their admission is conditional and that the admission may be revoked if they fail to submit the equivalency document, with no liability on the University's part.

## 7.4. Seat Reservation

- Seat to an Undergraduate program can be reserved on payment of the non-refundable registration and application fees

- If the student asks to defer admission to the following semester and the request is approved by the Vice Chancellor, the same registration application fees will be applied to the following semester.

### 7.5. Falsified Admission Documents

Students found to have submitted falsified documents for seeking admission in If the student asks to defer admission to the following semester and the request is approved by the Vice Chancellor, the same registration application fees will be applied to the following semester.any of the programs will be dismissed from the University with no refund of fee paid.

### 7.6. Notification of Students Regarding Admissions Decisions

- Upon receiving the student's admission application, it shall be examined by the Admissions Department for eligibility and adherence to the admissions criteria.
- For transfer students, the admission application is forwarded to the Dean of the relevant school for review and decision-making regarding the transfer of credits, if applicable.
- Once admission application result is announced, a formal letter is communicated with applicant through their registered email address.
- The Admission/Decision letters inform the applicant of one of the following resolutions:
  - Rejection of the Application
  - Unconditional admission and/or
  - Conditional admission.
- Upon the student's acceptance of the offer letter, he/she completes the fee payment and is officially registered.

### 7.8 Program Completion Requirements

**Credits requirement:** For a student to graduate with an Amity University Dubai undergraduate program he/she must complete the following minimum credit requirements for the various programs:

- BBA, B.Com, Bachelor of Finance and BHMT: 123 credits
- All Humanities , Arts and Applied Sciences undergraduate programs: 120 credits
- Bachelor of Science in Aerospace Engineering: 133 credits
- Bachelor of Science in Civil Engineering: 135 credits
- Bachelor of Science Computer Science: 125 credits
- Bachelor of Science Electrical Engineering: 139 credits
- Bachelor of Science Mechanical Engineering: 140 credits
- Bachelor of Science in Biotechnology: 127 credits
- Bachelor of Science in Information Technology: 123 credits
- Bachelor of Interior Design: 121 credits
- Bachelor of Architecture: 162 credits

**Minimum GPA requirement:** For the successful completion of Amity undergraduate program students must secure a minimum cumulative CGPA of 2.0 on 4.0 scale (equivalent to 70%) with no course having a grade less than D (equivalent to 60%).

## 8. REGISTRATION AND WITHDRAWAL

Registration is a process in which all students provide specific details which are required to complete admissions process in addition to submitting important personal information required for administrative purposes. All students shall register through University LMS. The *User ID* and *Password* to access University LMS is provided upon payment of full tuition fees, and any other applicable, fees. Students are allotted an Enrollment Number once all information has been successfully submitted on University LMS. Please note that the Enrollment Number is an important reference and required by the student throughout the program of study. As soon as registration fees is paid, students are given access to University LMS to complete their profile submission. Students are also given time to register any remaining details during the orientation process.

### 8.1. Re-registration

Students who have already been registered and are continuing with their program should re-register and pay the tuition fee and other dues on or before the commencement of the academic session. All re-registration processes must be completed within the first two weeks of the semester. Students failing to re-register will be removed from the student list and shall not be eligible to attend classes.

### 8.2. Re-admission and Rejoining

Students who have withdrawn or taken academic break for one year and wish to rejoin or take re-admission will need to take prior approval from the Dean. For students rejoining after academic break, the fee structure will be maintained at the same level as was applicable when the break was agreed. However, students who rejoin the program after formal withdrawal or after being declared 'No show', shall pay fee as prevailing for students then on the program.

#### Add and Drop:

- 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 she/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.

### 8.3. Withdrawal

Students may withdraw from a particular course due to academic/non-academic reasons. Withdrawal from a course does not affect the GPA of the student. Students can withdraw from a course in which they have registered maximum up to 14<sup>th</sup> week of semester classes. Withdrawal from a particular course should be done before the withdrawal deadline date failing which the request to withdraw from a course will be declined. No refund of fee or adjustments shall be permitted.

### 8.4. Change of Specialization or Program

Students may request a change from their current program of study or specialization once during their time at the university. This will be considered, provided the student meets all of the eligibility criteria set for the program and there are places on the program or specialization requested. This may incur additional tuition fees and charges. All transfers for a change of specialization or program are to be requested three weeks before the commencement of the new semester and transfers will be effective from the following new semester.

No transfer requests will be entertained two weeks after the commencement of classes. The tuition fees for the new program or specialization will be applicable from the semester in which the change is made. There will be no adjustment to the fees of the previous, completed semesters. Students who are enrolled in programs that have

multiple sections are permitted to change sections once only at the beginning of the following semester, if seats are available on a first come first serve basis. Students are required to contact the Registrar's Office and their respective Program leader and complete the required form in advance of the change being made. The University reserves the right to accept or reject requests for a change of specialization or program or section.

### 8.5. Credit Transfer

- With respect to undergraduate programs, transfer credits are only allowed for courses relevant to the receiving degree that provide equivalent learning outcomes and in which the student earned at least a grade of C (2.0 on a 4.0 scale). In this case, the maximum number of transfer credits that any student could receive should not exceed 50% of total required credits for the program.
- AMUD does not grant credit twice for substantially the same course taken at two different institutions.
- AMUD does not allow credits transfer for graduation projects and theses.

## 9. FINANCIAL POLICIES

Amity University Dubai finance and fee policies are mentioned in detail in the Policies and Procedures manual. It contains a brief description of different types of fee for programs and policies governing registration and refund.

### 9.1 Application Fee:

A nonrefundable fee of AED 100/- (USD \$30) is payable along with the application.

### 9.2 Registration Fee:

A nonrefundable registration fee of AED 500/- (USD \$140) is payable for each semester, before the registration of the semester.

### 9.3 Reservation Fee:

A reservation fee of AED 5,000/- (USD \$1,370) is payable for each semester, before the registration of the semester.

### 9.4. Tuition Fees

Fees are to be paid in full before the start of the session, according to the number of subjects taken and its credit hours.

- Reservation fee of AED 5,000/- (USD \$1,370) will be adjusted against the tuition fee for the respective semester.
- Balance tuition fee to be paid in two equal installments by post-dated cheque. Date of the first cheque should be within one month from the start of the semester and the second cheque should be dated within two months from the start of the semester.
- Tuition fees are payable upon accepting the offer for admission and joining the program.
- Fees are payable in two installments, due on the first day of each semester. A post-dated cheque for the second payment should be given at the start of the first semester.
- International students are required to pay the entire fee in advance.
- Tuition fees for the subsequent academic year must be paid in full before the start of the session. In case of unpaid fees by the last payment date set by the University, a charge of AED 200 per week will accrue for late fee payment.
- The fee for remedial or bridging courses is AED 1,000 per credit. These credits are not eligible for any bursary, scholarship, or financial aid.
- A charge of AED 250 will accrue for any dishonored charges.

- Failure to pay may result in exclusion from all University facilities and from sitting examinations.
- All fees must be cleared in order to receive award certificates and course completion certificates.

*\*In the case of change of program, the program with high fee will be applicable for the rest of the duration of study.*

The University reserves the right to increase the tuition and other fees up to 10% per academic year when deemed necessary, and as per Federal Law no. (8) of 2017 on Value Added Tax, 5% VAT will be added to all fee, as applicable.

Undergraduate and graduate fees for courses and programs are determined in accordance with the credit hours system.

Upon registration, students should pay the tuition fees in full in order to avoid the late payment fees or suspension of any or all AMUD services. The University has the right to take necessary action against students with pending/balance fees.

## 9.5. Refund of Tuition Fees

### 9.5.1. Total Refund

- If the student is unsuccessful in obtaining a student visa.
- If the offer is withdrawn by AMUD due to non- fulfillment of eligibility criteria
- If the university is unable to provide the program.

### 9.5.2. Partial Refund

- If a student withdraws before the commencement of the semester, all tuition fees paid in advance are refundable except the application and registration fee.
- If a student withdraws within the first 14 days from the commencement of semester, the student shall be eligible for a refund of 50% of the tuition fee paid for the respective semester.

### 9.5.3. No Refund

- If a student withdraws after first 14 days from the commencement of any semester, the student shall not be eligible for a refund of the tuition fee or registration fee paid for the relevant semester.
- Students, who have either suspended or excluded from the university for disciplinary reasons or for not maintaining minimum standards or academic progression, shall not be eligible for any refund of tuition fees.

## 9.6 Refundable Security Deposit:

- Amity Business School – AED 2,000 (USD \$550)
- All Other Schools – AED 3,000 (USD \$825)

## 9.7 Student Visa Fees:

- For students who wish to apply for Student Visa with Amity

VISA FEE	PAYMENT FREQUENCY	AED	USD
Visa Deposit (Refundable)	One Time	3,000	825.00

VISA ISSUANCE			
Visa Fee (new) Students outside UAE (Normal)	One Time	2,600	715.00
Visa Fee (new) Students outside UAE (Express)	One Time	4,100	1,125.00
Visa Fee (new) Students inside UAE (Normal)	One Time	4,250	1,165.00
Visa Fee (new) Students inside UAE (Express)	One Time	5,750	1,580.00
VISA RENEWAL			
Visa Fee (renewal) Inside Country (Normal)	As Applicable	2,200	605.00
Visa Fee (renewal) Inside Country (Express)	As Applicable	3,200	880.00
VISA CANCELLATION			
Student Inside UAE (Normal)	As Applicable	550	155.00
Student Inside UAE (Express)	As Applicable	1,250	345.00

\* Visa fee is payable yearly and these fees are subject to change as per the UAE Government regulations.

### 9.8 Medical Insurance Fees:

Medical Insurance (Yearly)	AED 1,500	USD 415
Medical Insurance - Jan intake (for the period Jan to Aug)	AED 1,000	USD 275
Medical Insurance - (if applied from April onwards)	AED 750	USD 210

\*Medical Insurance is Mandatory for students under Amity University's sponsored visa.

### 9.9 Dorm Fee:

Double Occupancy (Yearly)	AED 20,000	USD 5,480
Single Occupancy (Yearly)	AED 35,000	USD 9,590
Refundable security deposit (One Time)	AED 2,000	USD 550

The Dorm Fees are for September 2025 - June 2026 (Academic Year 2025-26)

- Dorm Fees are subject to change as per market conditions and will be communicated in advance.
- Extended stays are chargeable on a pro-rata basis.
- Dorm fee is payable to the university in advance and is non-refundable.
- Laundry & Dining services are available on campus at an additional charge.
- Dorm Residency is subject to availability.

Note: All Fees mentioned above is exclusive of VAT.

### 9.10. Tuition Fees (Undergraduate Programs):

SCHOOL	DEGREE	DURATION	YEARLY FEES (AED   USD)
ABS	Bachelor of Business Administration	4 years	AED 64,575   USD 17,835
	Bachelor of Commerce in Accounting	4 years	AED 64,575   USD 17,835
	Bachelor of Finance	4 years	AED 64,575   USD 17,835
	Bachelor of Hotel Management and Tourism	4 years	AED 64,575   USD 17,835
EAID	Bachelor of Architecture	5 years	AED 71,280   USD 19,602
	Bachelor of Interior Design	4 years	AED 66,550   USD 18,301
	Bachelor of Science in Aerospace Engineering	4 years	AED 73,150   USD 20,116
	Bachelor of Science in Biotechnology	4 years	AED 69,850   USD 19,209
	Bachelor of Science in Civil Engineering	4 years	AED 74,250   USD 20,419
	Bachelor of Science in Computer Science	4 years	AED 68,750   USD 18,906
	Bachelor of Science in Electrical Engineering	4 years	AED 76,450   USD 21,024
	Bachelor of Science in Information Technology	4 years	AED 67,650   USD 18,604
	Bachelor of Science in Mechanical Engineering	4 years	AED 77,000   USD 21,175
HAAS	Bachelor of Fashion Design	4 years	AED 63,000   USD 17,400
	Bachelor of Fine Arts in Animation and Film Production	4 years	AED 63,000   USD 17,400
	Bachelor of Fine Arts in Digital Media and Communications	4 years	AED 63,000   USD 17,400
	Bachelor of Science in Forensic Sciences	4 years	AED 66,000   USD 18,150
	Bachelor of Science in Psychology	4 years	AED 63,000   USD 17,400

*Please note that all fees above are excluding VAT*

### 9.11. Other Fees

#### Miscellaneous Charges

DETAILS	AED	USD
Duplicate Student ID Card	100	30
Duplicate Student Parking Card	100	30
Duplicate Student Admit Card	50	15

*\* All fees are excluding VAT, which shall be charged as applicable.*

#### Certificate and Letter Charges

SERVICES	FEE (AED)	FEE (USD)
Bonafide Letter	150	45

Letter for Driving License	100	30
Letter for Fee Details	50	15
No Objection Certificate	100	30
Letter for NOL Card (RTA)	50	15
Letter for Timetable (Working Students)	150	45
WES (For Canadian Admission)	150	45
Medium of Instruction	150	45
Certificate of Good Conduct	150	45
No Backlog Letter	150	45
Recommendation Letters	150	45
Golden Visa Letter	200	60

*\* All fees are excluding VAT which shall be charged as applicable.*

### 9.12. Payment Methods

Payment can be made at the Fee Counter in the university between 9.00am and 3.30pm on all working days by cash, cheque or credit card. Fees can also be paid by bank transfer

Mode of payment:

For UAE residents - Bank transfers / remittance in UAE Dirhams to:

ACCOUNT NAME	AMITY UNIVERSITY
ACCOUNT NUMBER	AE600340003708438543801
BANK NAME AND ADDRESS	Emirates Islamic Bank, Health Care City Branch, Dubai, UAE
SWIFT CODE	MEBLAEAD

For International students - Wire transfers / remittance to:

ACCOUNT NAME	AMITY UNIVERSITY
ACCOUNT NUMBER	AE600340003708438543801
BANK NAME AND ADDRESS	Emirates Islamic Bank, Health Care City Branch, Dubai, UAE
SWIFT CODE	MEBLAEAD

- All bank charges are to be borne by the remitter.
- Please mention full name and Student ID Number as mentioned on Offer Letter on all remittance.

- Copy of the bank confirmation (swift advice) must be forwarded to the University in order to collect official receipts.

### 9.13 Eligibility of scholarship/financial assistance for undergraduate and graduate programs

To be eligible for the Scholarship/financial assistance, applicants must meet the following criteria:

- Must be a full-time student\* enrolled in a degree program at the university. Must submit a complete scholarship application. (\*For any clarification please refer to University Admission Policy)
- Students are required to be punctual and attend all registered classes and be present for entire duration of the class.
- Students are expected to have 100% attendance. However, minimum 75% attendance\* in each subject/course is compulsory for scholarship/financial assistance. If student absenteeism is because of ill health or other valid reasons, student must submit written requests, along with the necessary evidence to the Program Chair/Leader upon rejoining. Absence should not exceed more than 25% of Semester Duration. (For any further detail please refer to University attendance policy)
- If a student is participating in any national or international level extracurricular/co-curricular activities representing the University and has achieved a minimum of 50% attendance, they can be permitted to continue in the course/scholarship/financial assistance with approval of their School Dean.
- Students must take responsibility for checking their attendance record and should contact their Program Chair/Leader immediately if there are any discrepancies.

### General Provisions on Scholarships and Financial Aid

The provisions hereunder shall apply to the offered scholarships/financial assistance specified in this policy:

- The provisions hereunder shall apply to the offered scholarships/financial assistance specified in this policy:
- Scholarships/financial assistance percentages shall apply to tuition fees and lab fees only, whereas training fees are not included.
- Scholarships shall not apply to the foundation year in all majors and for any remedial/bridging courses.
- Upon fulfilling all conditions, the scholarship shall only apply to the Fall, Spring and Summer Semesters undertaken at Amity University only.
- Scholarships/financial assistance do not cover the fees for failed courses or the courses withdrawn after the drop and add period.
- Students are entitled to one scholarship/financial assistance per semester. If the student is eligible for more than one scholarship, s/he shall be awarded the highest scholarship.
- Students aspiring to get scholarship/financial aid need to apply for the same within prescribed period on prescribed format by submitting application to Student Services at Students Hub.
- All scholarships would be cleared by Scholarship and financial assistance would be put to mandated Ad-hoc Committee comprising of Registrar, Representative from Finance, Representative from Admissions department and one representative each from three schools (Business, EAID & HAAS) duly nominated by Dean of respective school.
- The student may change his/her major within the same school. Transferring to another school with scholarship/financial assistance may only be processed upon the consent of the Vice Chancellor or whom he authorizes.

- The student is entitled to scholarship / financial assistance after submitting the English proficiency certificate and before the end of the drop and add period in the semester in which the scholarship/financial assistance is awarded. The scholarship/financial assistance may not be postponed to the subsequent semester.
- The scholarship/financial assistance shall be suspended if the student's CGPA drops below the minimum average grade.
- If the student ceases to register the courses, s/he will be required to apply for retaining the scholarship/financial assistance when s/he registers again.
- The right of the student to claim the grant/scholarship/financial assistance shall drop after the expiry of the period of submission specified by the university administration in each semester. In case the date of expiry of the application period is not specified, this period shall end with the end of the semester in which the scholarship/financial assistance is due.
- All university regulations shall apply to all students.
- In the event of conflict with the provisions of this policy or any other policy, booklet or manual, this policy shall apply.
- Disbursement of Scholar/financial aid would be in the form of applicable waiver in the fees and be cleared by mandated ad-hoc committee

For various categories of Scholarship/Financial Assistance: See Next Page onwards

<b>Amity University Dubai Campus</b>	
<b>Scholarship and Financial Aid Policy - Academic Year 2025-26 - Fall Intake</b>	
<b>Conditions</b>	
<b>Fall Bursary 2025-2026</b>	The scholarship only includes tuition fee and does not cover any other fees
	All students applying from the UAE are eligible for a 30% bursary.
	➤ Applicable for all undergraduate and graduate programs
<b>International Students</b>	The scholarship only includes tuition fee and does not cover any other fees
	All students having completed their grade 12 outside the UAE are eligible for a 30% bursary.
	➤ Applicable for all undergraduate and graduate programs
<b>Merit Scholarship 1</b>	The scholarship only includes tuition fee and does not cover any other fees
	<b>50% Merit Scholarship granted to students who scored more than 95% in CBSE/UK/US/ Other boards</b>
	Continued at 50% in subsequent semesters, if achieved more than 3.7/4.0 GPA for undergraduate programs.
	➤ Applicable for undergraduate programs only
<b>Merit Scholarship 2</b>	The scholarship only includes tuition fee and does not cover any other fees
	<b>35 % Merit Scholarship granted to students who scored more than 85% upto 95% CBSE/UK/US / Other boards</b>
	Continued at 45% in subsequent semesters, if achieved more than 3.3/4.0 GPA for undergraduate programs
	➤ Applicable for undergraduate programs only
<b>Common conditions for all scholarships</b>	
<ul style="list-style-type: none"> <li>Obtain a minimum passing grade in undergraduate and graduate programs, with the exception of Merit Scholarships, in order to continue receiving the scholarship.</li> </ul>	
<ul style="list-style-type: none"> <li>Not have an indiscipline incident recorded in any semester</li> </ul>	
<ul style="list-style-type: none"> <li>Applicable for all undergraduate and postgraduate programmes</li> </ul>	
<ul style="list-style-type: none"> <li>Scholarships are not applicable for repeat courses (if the student failed in one course and enrolls again in the same course then the scholarship will not be applicable for that course)</li> </ul>	

Scholarship and Financial Aid Policy - Academic Year 2025-26 - Spring Intake			
S No	School	Program Name	Scholarship
1.	HAAS	Bachelor of Science in Psychology	30%
2.		Bachelor of Science in Forensic Sciences	
3.		Bachelor of Fashion Design	
4.		Bachelor of Fine Arts in Animation and Film Production	
5.		Bachelor of Fine Arts in Digital Media and Communications	
6.	ENGG	Bachelor of Science in Information Technology	30%
7.		Bachelor of Science in Biotechnology	
8.		Bachelor of Science in Aerospace Engineering	
9.		Bachelor of Architecture	
10.		Bachelor of Interior Design	
11.		Bachelor of Science in Computer Science	
12.		Bachelor of Science in Civil Engineering	
13.		Bachelor of Science in Electrical Engineering	
14.		Bachelor of Science in Mechanical Engineering	
15.	ABS	Bachelor of Business Administration	30%
16.		Bachelor of Commerce in Accounting	
17.		Bachelor of Hotel Management and Tourism	
Merit-Based Scholarships		• 50% (Merit 1): Students with more than 95% academic score • 35% (Merit 2): Students scoring between 85% to 95%	

## 10. UNDERGRADUATE GRADING POLICY

### 10.1. Undergraduate Grading Policy Letter Grade System

Students' academic performance, as the aggregate of all components of evaluation, shall be reflected by letter grades on a 4-point scale, the descriptions of which are provided in below table

GRADE UG	MARK EQUIVALENT	NUMERIC VALUE	NOTATION
A	90-100	4.00	Distinction
A-	87-89	3.70	Excellent
B+	84-86	3.30	Very Good
B	80-83	3.00	Good
B-	77-79	2.70	Fair High
C+	74-76	2.30	Fair
C	70-73	2.00	Satisfactory High
C-	67-69	1.70	Satisfactory
D+	64-66	1.30	Weak
D	60-63	1.00	Conditional Pass
F	Fail [<60]		
P	Pass		
W	Withdrawal before the 'Drop End Period'		
I	Incomplete		
NC	Credits are not counted towards graduation requirements		
WF	Administrative Withdrawal		
CC	Satisfactory progress in a continuing course		
TR	Transferred credits from another accredited institution or prior learning		
CX	Passing grade via proficiency of challenge exam		
AU	Auditing the course only. No assessment required		

Minimum GPA requirement: For the successful completion of Amity undergraduate program students must secure a minimum cumulative CGPA of 2.0 on 4.0 scale (equivalent to 70%) with no course having a grade less than D (equivalent to 60%) according to the above grading scheme.

### 10.2. General Guidelines for Award of Grades are:

- Evaluation of different components of a course unit for each student shall be initially done in numerical marks.
- The marks of different components shall be assigned out of 100 and the same would be converted into grades as per grading policy.
- The Grade Point Average (GPA) is a numeric representation of a student's academic performance over a specific period. The Office of the Registrar calculates, records, and reports both the Semester GPA and Cumulative GPA at the end of each academic term (regular or summer semester).
- The GPA is calculated on a 4.00-point scale, representing the weighted average of final grades. It is reported to two decimal places. Courses that do not carry university degree credit are excluded from GPA calculations.
- The Semester GPA is determined by dividing the sum of numeric values (credit hours multiplied by the earned numeric values) for all courses taken during the semester by the total credit hours attempted in that term.

- The Cumulative GPA is calculated by dividing the total numeric values for all courses taken at the University, including the current semester, by the total number of credit hours attempted for all degree-credit courses at the University, including the current semester.

### 10.3. Passing Criteria

A student has to fulfill the following conditions to pass any academic program of the University:

- A student who has earned minimum number of credits prescribed for the concerned program as per the structure, curriculum and scheme of examinations, shall be declared to have passed the program of study. Credit Units for each program shall be decided by the Academic & Research Council.
- Degree Requirement is 2.0 on 4.0 for all undergraduate programs.

## 11. ACADEMIC PROGRESS

Academic probation is a formal status applied to students who fail to meet the minimum academic performance requirements set by AMUD, typically determined by the Cumulative Grade Point Average (CGPA) or completion rates. Academic probation identifies students at risk and provides them with an opportunity to improve their academic performance within a specified timeframe. During this period, students will receive additional academic support and guidance.

### 11.1. Academic Probation

#### Criteria for Academic Probation

- *Academic Probation:* A student whose CGPA falls below 2.0 at the end of any regular semester will be placed on academic probation. The student will receive an academic probation notice and must raise their CGPA to at least 2.0 by the next semester. Students on academic probation will be allowed to enroll in no more than 12 credit hours in the following semester.
- Any student who fails a course will be required to retake the course during the next available offering.
- *Continuing Academic Probation:* If a student remains below a 2.0 CGPA during the next semester, they will be placed on continuing academic probation and will be allowed to register for a maximum of 9 credit hours.
- *Strict Academic Probation:* If a student on continuous academic probation still has a CGPA below 2.0 at the end of the next semester, they will be placed on strict academic probation and will be limited to 6 credit hours. If the student does not raise their CGPA to 2.0 by the end of this semester, they will be allowed to apply to join another program at the discretion of the Deans. They may also be allowed to return to their original program/major if their probation is removed.
- *Summer Semester Exclusion:* The summer semester is not counted toward the probationary period.
- *Maximum Probation Notices:* Once a student successfully removes probation, the counter starts from academic probation again.

### 11.2. Academic Break

- The Academic break recommended by Program Leader/Academic Advisor for any justifiable reasons (which must be recorded), can be granted for a period of one year. The final decision on Academic break will be taken by the Dean of respective School, taking in consideration circumstances of each case.
- The duration of approved academic break(s) shall not be counted in calculating maximum duration of completing a program.

### 11.3. Re-Registration

Students will be granted re-registration if they fall under the following categories:

- Students availing themselves of academic break;

- The name of the student has been struck off from the rolls due to non-payment of semester fee as per fee payment rules;
- The name of student has been stuck off due to continuous absences as per attendance policy;
- The student has been rusticated for a semester/year;

#### **11.4. Repetition of Courses**

Students are permitted to repeat any credit bearing course. The following conditions apply::

- Before enrolling in the repeated course, the student must obtain approval from their designated Academic Advisor, and the Program Leader.
- The higher score secured for the repeated course will be factored into the student's GPA calculation.
- The grade not included in the GPA will remain on the student's academic record and will be marked accordingly in all transcripts. Despite being excluded from GPA calculations, all final grades will be recorded and appear on the transcript.

#### **11.5. Disciplinary Control of Students in Relation to University Examinations**

- During examinations, the candidates shall be under the disciplinary control of the examination team members who will issue necessary instructions. If a candidate disobeys instructions or misbehaves with any member of the supervisory staff or university observer or the invigilators at the center, he/she may be asked to leave the examination hall. The invigilator shall immediately report the facts of such a case with full details of evidence to the Head of Examinations who can formulate a committee to look into the case and suggest appropriate actions. The said committee will make recommendations for disciplinary action as it may deem fit to the Dean of the concerned program.
- Students shall maintain proper discipline and orderly conduct during the examinations. They shall not make use of any unfair or dishonest means or indulge in disorderly conduct in the examinations.

##### Acts of Disorderly Conduct in the Examination

- Intentionally tearing off the answer book(s) or a part thereof or a continuation sheet or any other specific response sheet used in the examination.
- Causing damage to laboratory equipment.
- Disturbing or disrupting or instigating others to disturb/disrupt the examination.
- Instigating others to leave the examination room

##### Acts of Unfair Means

- Talking to another candidate or any other person, inside or outside the examination hall, during the examination without the permission of a member of the supervisory staff.
- Leaving the examination hall without handing over the answer book and/or continuation sheet, if any, or any other specifically designed response sheet to the invigilator or the concerned supervisor or the concerned authorized officer of the University deputed to the examination center, and taking away, tearing off or otherwise disposing off the same or any part thereof.
- Possession of writing matter connected with or relating to a question or solving a question on anything (such as piece of paper or cloth, scribbling pad), other than the answer book, the continuation sheet, or any other response sheet specifically provided by the University to the candidate.
- Deliberately disclosing one's identity or making any distinctive marks in the answer book for that purpose.
- Making appeals to the examiner/ evaluator soliciting favor through the answer book or through any other mode.

- Possession or having access to books, notes, paper or any other material, whether written, inscribed or engraved, or any other device, which could be of help or assistance to a candidate in answering any part of the question paper
- Possession of mobile phone, laptop or any electronic device which can be of help or assistance to the student in answering any part of the question paper.
- Concealing, destroying, disfiguring, running away with, causing the disappearance of or attempting to do any of these things in respect of any book, notes, paper or other material or device, used or attempted to be used by a student for assistance or help in answering a question or a part thereof.
- Passing on or attempting to pass on, during the examination hours, a copy of a question, or a part thereof, or solution to a question paper or a part thereof, to any other candidate or to any person.
- Smuggling into the examination hall, and or receiving/attempting to receive any of the following:
  - An answer book or a continuation sheet,
  - Any other form of response sheet or a solution to a question paper or to a part thereof.
- Taking out or arranging to send an answer book or continuation sheet, or replacing or attempting to get replaced the answer book or continuation sheet or any other response sheet during or after the examination with or without the help of or in connivance with any person connected with the examination, or through any other agency, whatsoever.
- Arranging to impersonate any person, or be impersonated by any other person at the examination.
- Forging a document or using a forged document knowing it to be so in any manner relating to the examination.
- Any other act of omission or commission declared by the Academic and Research Council/Executive Council to be unfair means in respect of any or all examinations.

#### Appeals and Review

A student has a right to appeal against any punishment imposed on him/her within 10 days of the punishment being imposed. Student can do a representation to the concern Dean in writing. The Dean after investigating the case will make a final decision which will be binding on all.

#### **11.6. Rechecking/Re-Evaluation of Answer Books/Project Reports and Examination Results**

After the publication of the results of the University examinations, if

- A candidate, whether passed or failed, has strong grounds and belief that some mistake has been made in connection with his results, they may apply to the Head of Examinations through their Program Leader.
- The Head of Examinations may accept the application for rechecking of answer books up to 10 days from the declaration of results, in exceptional cases. Whereas, the re-checking does not mean reassessment or re-evaluation of the answer book.
- The Head of Examination may appoint any officer to see that:
  - There is no mistake in the grand total on the title page of the answer book;
  - The total of various parts of a question has been correctly made at the end of each question;
  - All totals have been correctly brought forward on the title page of the answer book;
  - No portion of any answer has been left un-evaluated;
  - Total marks in the answer book tally with the marks sheet;
  - The answer book or any part thereof has not been changed/detached;
  - The handwriting of the candidate in supplementary answer sheet tallies with the main answer book.
- In the event of detection of any omission or mistake in the script or in the compilation of the result of a student, the matter shall be reported to the Head of Examinations who will get the omission rectified by referring the

answer book to the concerned examiner or to any other examiner who may be identified in consultation with respective Dean

- If the re-checking revealed any discrepancy by virtue of which the marks of the student are revised, the record shall be corrected accordingly and a revised Grade Card shall be issued after the previous Grade Card is surrendered.
- There shall be no contest on academic judgment.

### **11.7. Official Transcripts to Students**

The University will issue an official transcript based on student application. The request for additional transcript has to be made in the prescribed format and after paying the prescribed fee.

## **12. ACADEMIC APPEAL PROCEDURE**

University aims to ensure that university days are happy and run smoothly. Nevertheless, there may be issues that need to be resolved and suggestions for improvements that should be heard. If there is an issue, students are advised to contact the person in charge of relevant department to resolve the concern. Grievances can also be registered on Amity-Learning Management System (LMS) and will be forwarded to the appropriate person to be resolved. In the event of an unresolved issue, a complaint can be made in writing to the Dean of school to which the student belongs to. The information below details who to contact across a range of areas within the university. The Student Services will be able to help to direct any issues outside of these areas.

### **12.1. Internal Assessment: Appeals**

- A student has a right to appeal against any punishment imposed on him/her within 10 days of the punishment being imposed. Student can do a representation to the concern Dean in writing. The Dean after investigating the case will make a final decision which will be binding on all.
- In the event that the Program Leader is the faculty member of the course in which the student makes an appeal, Dean will appoint an alternative faculty member;
- Final appeals can be made to Deans within ten days of receiving the outcome of the meeting with the Program Leader. The Deans may identify an academic staff member based on the subject expertise to advise him on the issue. The decision of the Dean is final and binding;
- There shall be no contest on the final academic judgement.

### **12.2. Appeals against Disciplinary Action**

- A student may submit an appeal to the Pro-Vice Chancellor to review the disciplinary action imposed within five working days of receiving notice of the punishment;
- The Pro-Vice Chancellor may refer the appeal to the Disciplinary Committee for review or constitute a committee for the same.

### **12.3. Examination Appeals**

After the publication of the results of the University examinations, if

- A candidate, whether passed or failed, has strong grounds and belief that some mistake has been made in connection with his results, they may apply to the Head of Examinations through their Program Leader.
- The Head of Examinations may accept the application for rechecking of answer books up to 10 days from the declaration of results, in exceptional cases. Whereas, the re-checking does not mean reassessment or re-evaluation of the answer book.
- The Head of Examination may appoint any officer to see that:

- There is no mistake in the grand total on the title page of the answer book;
- The total of various parts of a question has been correctly made at the end of each question;
- All totals have been correctly brought forward on the title page of the answer book;
- No portion of any answer has been left un-evaluated;
- Total marks in the answer book tally with the marks sheet;
- The answer book or any part thereof has not been changed/detached;
- The handwriting of the candidate in supplementary answer sheet tallies with the main answer book.
- In the event of detection of any omission or mistake in the script or in the compilation of the result of a student, the matter shall be reported to the Head of Examinations who will get the omission rectified by referring the answer book to the concerned examiner or to any other examiner who may be identified in consultation with respective Dean
- If the re-checking revealed any discrepancy by virtue of which the marks of the student are revised, the record shall be corrected accordingly and a revised Grade Card shall be issued after the previous Grade Card is surrendered.
- There shall be no contest on academic judgment.

Other appeals not covered in the above categories can be raised to the Vice Chancellor Office. The decision of the Pro-Vice Chancellor on all such matters is final and binding.

### 13. ACADEMIC ADVISING

Academic advising is offered through the Centre for Teaching and Learning (CTL) where advisors provide the necessary knowledge and resources to promote students in the attainment of their academic goals. The University hosts the orientation session for freshmen students at the beginning of each Academic year which is mandatory for all students to attend. Academic orientations are essential for all freshmen students, followed by the Registration and advising week. Students are allotted Academic Advisors from the respective schools at the beginning of their first term at AMUD. Students are notified of the assigned advising and registration dates for each group by the Office of Student Services. AMUD students are placed on Academic Advising hold at the beginning of each term. Students meet with their academic advisors during the assigned advising weeks first 2 weeks of starting the semester, week 9 and week 14 of the academic calendar. Advisors remain academic mentors from the first year of the program till the student graduates.

Academic Advisors are Program Leaders and full-time faculty members. At-risk students are identified by faculty and the Program Leader (PL) and referred to the University's Counselling and Wellness Centre for additional support. The team works together, based on the student's CGPA and academic record to provide necessary support and resources to the students.

The CTL identifies all students who have Conditional Academic Standing and/ or who have failed to achieve a minimum SGPA of 2 in undergraduate and 3 in graduate programs at the end of each semester and are on Probationary Academic Standing. This standing allows the student to register and proceed in their chosen program of study. However, the student is advised to take a lower course load and meet their PL and Academic Advisor regularly to develop a mutually agreed plan of study to enhance the prospect of progression. The SSC is also responsible for engaging with the Counseling and Wellness Centre for the students who need additional help because of low academic performances, increased absentia, and personal and emotional concerns.

The academic advising process at Amity University Dubai includes providing help to students to reach their full academic potential. In agreement with the AMUD's strategic initiative of constantly improving the quality of

undergraduate/ graduate learning and producing lifelong learners, the CTL will seek to assist students in achieving their academic success. The CTL ensures positive and well-defined support to freshmen students with their transition from school to the university and works vigorously with students who are facing academic challenges. The CTL will facilitate academic progression by providing opportunities and services for students at risk of probation, advising, skills enhancement, and connections to the University resources and services. The CTL will also liaise with Academic Accommodations for students with documented disabilities, to the extent permissible by available resources, so that they can enhance their academic performance. CTL also shares an opportunity with students for successful peer advising.

Academic orientations are essential for all freshmen students, followed by the Registration and advising week. Students are allotted Academic Advisors from the Student Success Centre at the beginning of their first term at AMUD. A maximum of 30 students are assigned to one Academic advisor and they are advised to maintain student academic records for all semesters. Students are encouraged to maintain a close liaison with their Academic Advisor from the first term till graduation from AMUD. Academic Advisors often provide students with information and perspective related to academic policy and concerns, address their specific course-related problems/issues, and are instrumental in other academic professionally related development. However, the ultimate responsibility for fulfilling degree requirements rests only and only with the student as they are required to become intimately familiar with the various program requirements and necessary requisite coursework and sequencing. The CTL is responsible for keeping records of advising sessions and of any actions and follow-up required for students. The CTL coordinates between students and academic advisors on a regular basis.

#### **14. ATTENDANCE POLICY**

Students are expected to be in class for all scheduled class periods as per the published syllabus of that course. Students need to attend at least 75% of all theory and practical classes in all courses to be allowed to sit in the final exam.

- Students are required to be punctual and attend all registered classes and be present for entire duration of the class.
- Students are expected to have 100% attendance. However, 75% attendance in each course is compulsory. If student absenteeism is because of ill health or other valid reasons, student must submit written requests, along with the necessary evidence to the Program Leaders upon rejoining. Absence should not exceed more than 25%.
- If a student is participating in any national or international level extracurricular/co-curricular activities representing the University and has achieved a minimum of 50% attendance, they can be permitted to continue in the course with approval of their Program Leader.
- Students must take responsibility for checking their attendance record and should contact their Program Leader immediately if there are any discrepancies.
- Students who have missed all those classes that they have registered for, without any communication, for a continued period of two weeks and whose attendance is less than 25%, will be declared as “No Show students”. The names of such students who are “No Shows” will be de-registered from the list of registered students. In such cases, the student will need to re-apply for fresh registration by paying the registration fees again. The student must clear all outstanding dues before re-registration.
- Students who do not fulfill the minimum attendance requirement of 75% will have to withdraw from the course irrespective of marks they have been awarded for various components of assessments in that course. There would be no carry forward of marks for any of the assessments completed. The withdrawal will not affect the CGPA but

will be reflected on the student transcript. Such students may re-register for that course by paying the prescribed fee, whenever it is offered next. There will be no refund of fee for withdrawal on account of not meeting minimum attendance requirements. Fees already paid will not be adjusted nor refunded.

- If a student fails to withdraw from the course where attendance requirement is not met it would be a forced withdrawal with no carry forward of marks.
- Any Grievance appeal relating to attendance must be submitted to Program Leaders before the withdrawal deadline. An attendance appeal form will have to be filled stating the reasons for missed classes and attaching valid documents as required. The Program leader on the basis of student's previous semesters' performance, and after examining the circumstances of long absences will make necessary recommendations to the Dean. The Dean will make the final decision on withdrawal or continuation of the student in that particular course.
- Depending on the nature and scope of a particular course/ program, learning outcomes and practical laboratory requirements, the University gives flexibility to the faculty/ Program Leader to set attendance requirement for that particular course/ program.
- For all programs, the students will have to catch up on any classes missed, on their own. Any assessments missed due to absences will be sole responsibility of the students. If an assessment is missed, the associated grade will be forfeited unless documented mitigating circumstances are submitted to the faculty member responsible for the course within 48 hours of the missed assessment. Make-up opportunities will not be provided for tests, assignments, or projects. However, at their discretion, the faculty member may reallocate the weight of the missed assessment to other assessment components, provided this is feasible. A make-up final examination may be granted only where adequate documented justification is submitted within 48 hours of the scheduled examination date

## 15. STUDENT SERVICES

Student services caters to different needs of students including issuing of recommendation letters, bonafide letters, visa support, health insurance support etc. Other prominent services include:

### 15.1 Careers and Employment: Student Success Center (SSC)

The Student Success Center (SSC) at the University is an important unit bringing academicians, leaders from industry and students together. A student who enrolls for an academic program, which includes an internship or placement, is oriented to work base learning. Students attend workshops to improve their CVs, build their profiles and learn communication skills before they go on internship/placement. The programs and services are designed to increase student confidence, positive attitude, and marketability for job opportunity and provide the necessary skills and information to succeed in pursuing a successful career.

The SSC also provides comprehensive career planning services to students by providing expertise, resources, and support. It facilitates students to build bridges for successful future careers and helps them to make a smooth transition from educational environment to employment or further educational pursuits. Summer internships and placements for students are coordinated by the SSC.

Career counselling sessions are also organized for students to orient them towards corporate world. Students are reminded that a successful internship is an integral part of their program and provides opportunities for easy migration to an industry setting. During internship, every student is assigned an *industry guide* and an *academic guide*. While the industry mentor shall facilitate the student to understand the demands of the task assigned, the academic *guide* shall be an easy point of reference to support the student with any additional academic demands placed on him/her. Students shall present themselves on time during the period of internship. Absence, abandoning the project, and/or any unprofessional approach at the internship site may exclude students from consideration for future internships and placements. Students, while on their internships, shall submit periodical reports to their

academic *guide*/SSC as may be required. Failure to submit the forms required for the internship at different stages will result in an “F” grade being awarded to the student in internship course.

### **15.2 Incubation Center**

The Incubation Center supports student ventures from concept-stage startup to a sustainable, disruptive business with real-world impact.

These services include, but are not limited to, the following:

- Step-by-step guidance on how to create a successful business.
- Assistance with basic business concepts.
- Help with developing a viable business model.
- Assistance with intellectual property issues.
- Linkages to prospective customers.
- Linkages to strategic partners.
- Networking opportunities among participants.

### **15.3 Counselling and Wellness Center**

Amity University Counselling and Wellness Centre offers a confidential counselling service. The counsellors can help with social, emotional, personal and behavioral problems and is accessible to all students. When required, outside agencies are also engaged to provide further support. The counselling team also assists students with additional needs to gain access to any other required support to succeed on their chosen program.

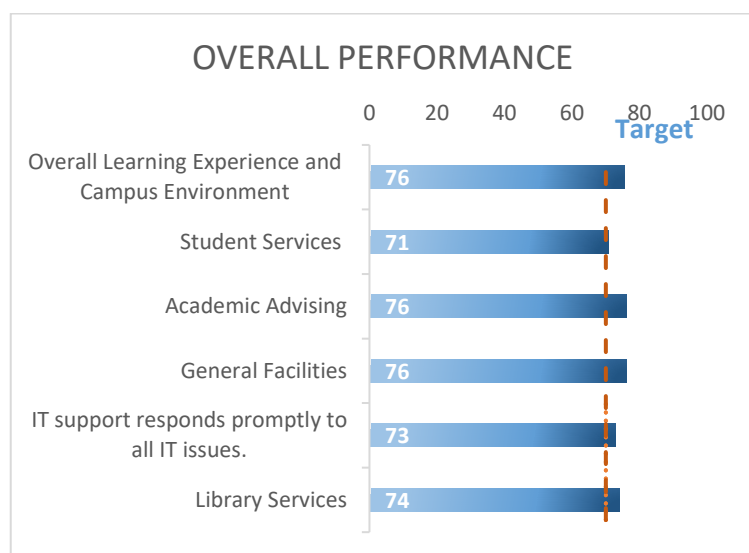
Amity University Dubai is committed to providing an environment that encourages personal growth and social interaction in an atmosphere of acceptance and support. We strive to remove all stigma, embrace differences and be an inclusive university where respect for self and others is given.

### **15.4 FTE: Student Ratio**

For Academic Year 24-25 for Graduate courses- 1:4.03

### **15.5 Student Satisfaction Rate**

The University met the institutional benchmark of 74.3% across many service areas. Areas like Library Hours, Instructor Quality, Laboratory Safety, and Cleanliness of Facilities scored well above expectations, indicating operational effectiveness and student satisfaction.



## 16. STUDENT CODE OF CONDUCT

Code of Conduct is a set of guidelines and policies required to maintain standards of behavior expected of the students inside and outside the campus. Failure to observe and adhere to the guidelines and policies set by the University will have corresponding implications and sanctions to the students.

The guidelines and policies set by the University are periodically reviewed to comply with the local laws and regulations, academic regulations from relevant agencies, and to align with the best practices in the international standards. Code of conduct shall apply to all students from the time of enrollment in any program offered at Amity University Dubai. The University reserves the right to impose sanctions in cases in which a student has withdrawn from courses, withdrawn from the University, or been awarded a degree prior to the resolution of a case.

### 16.1. General Code of Conduct

Students are strongly advised to avoid engaging in any of the following:

- Raising false alarms or reporting false incidents.
- Engaging in any form of criminal behavior as defined by the laws of the country, including the possession/use/sale of illegal substances or materials.
- Consuming and possessing illegal intoxicants.
- Possession of firearms and explosives, and engaging in acts of arson.
- Engaging in inappropriate behavior on the internet by accessing, downloading or sharing data from inappropriate sites and chatrooms.
- Engaging in any form of bullying and harassment, including online harassment.
- Engaging in any form of disrespectful, intolerant or aggressive behavior towards members of the community or visitors to campus.
- Taking part in physical fighting, and stealing.
- Misusing social media in a way that damages the reputation of the University.
- Falsifying documents and/or submitting falsified documents to the University for any purpose.
- Discriminating against one or more individuals based on race, place of origin, color, ethnic origin, creed, gender, age, marital status, and family status etc. while on campus;
- Unauthorized accessing of information or material that is confidential to the University or a member of the University;

- Misusing university smart technologies (including social media, cameras, blocking university parent communication software);
- Smoking in the University campus (all forms of smoking);
- Gambling or any other form of betting in University campus;
- Violating the terms of any disciplinary sanction imposed by the Disciplinary Committee
- No inappropriate physical contact between males and females
- Students should conduct themselves in an orderly manner while they are on the University premises, off-campus, at a University-sanctioned event, or when representing the University, including, but not limited to, tours, field trips, and events of student organizations, clubs, and teams that are under the direct or indirect supervision of the University.

Any violation of the code of conduct will be reported to the disciplinary committee for appropriate action to be taken.

### **16.2. Classroom Code of Conduct**

Students are expected to take note of the following:

- Mobile phones must be on silent mode or switched off, whilst attending classes unless permitted by the faculty member for learning purpose.
- Consumption of food and beverages inside classrooms, labs, workshops and other learning spaces is not permitted.
- Writing on walls and desks, destroying University property or restricting access to general student resources is considered destruction of property.
- Students shall maintain proper discipline and orderly conduct during the examinations. They shall not make use of any unfair or dishonest means or indulge in disorderly conduct in the examinations or any other assessment.
- In line with the aim to become a green campus, students are encouraged to follow the principles of reduce, re-use and recycle and endeavor to conserve water and energy.
- Utilize all the student resources on campus wisely and judiciously.
- Students are not permitted to install new software. Software already installed shall not be removed/ uninstalled. Computers and other hardware devices must be handled with care and shall be used for their intended purpose only. Computers shall not be moved from their designated locations without prior permission.

### **16.3. Transportation Code of Conduct**

- Students should not cause inconvenience to others and should ensure that they are at the bus pick up at the scheduled time.
- Should carry student ID cards.
- Failure to adhere to the transportation code of conduct may result in a warning and referral to the Disciplinary Committee for further action. Repeated offences may lead to withdrawal of the transport service.
- Compensation for damages caused as a result of inappropriate behavior will be charged to the student concerned.

### **16.4. Dress Code**

- Dress appropriately, respecting local customs and practices of the UAE. Refer to Dubai International Academic City (DIAC) Code of Conduct.
- Avoid excessive, gender-inappropriate or revealing clothing that falls outside societal norms and inconsistent with professional and expected University standards.

The code of conduct does neither address every possible situation that may arise nor serve as a substitute for any Federal or local law. Issues that are not covered under the Student Code of Conduct shall be interpreted further by the Disciplinary Committee.

## 17. STUDENT RIGHTS AND RESPONSIBILITY

Amity University Dubai endeavors to ensure that all the students joining the institution, successfully complete their programs and pass out as well-rounded graduates. For this, the students are provided with equal opportunities depending on the demands of their respective programs.

In addition, all students have equal access to extracurricular activities. In all such engagements, students shall, at all times, abide by and respect the laws of the land, and uphold its rich culture and heritage, as well as the institutional values. The university also provides designated student-centric services that specifically address both academic and non-academic needs. The university expects students to be responsible and meet the higher standards of conduct as they are essential members of the academic community. The university is committed to safeguarding the well-being of its students, while promoting a safe and inclusive environment conducive to learning and personal development..

### 17.1 Student Rights

#### **Students have the right to:**

- Students have the right to ask for details about their programs, bodies associated with accreditation and licensing, costs associated with their studies, scholarship support, internship and placement, procedures to be followed for obtaining various certificates from the institution, facilities that are available, and support for smooth academic progression;
- Students are also encouraged to ask or follow up about any actions taken based on the suggestions and feedback provided by them;
- Students have the right to enquire their status of attendance and academic scores in various internal assessment components;
- The university has an open door policy with regards to any issues related to students. The students may meet the concerned department head or write an email to the same, with regards to their concerns. The students shall then be counseled and guided accordingly;
- Upon registration and completion of fee payment, students have access to Amity-Learning Management System (LMS) - the intranet at Amity University Dubai Campus. Amity-(LMS) provides an option for students to submit details of their experiences through survey questionnaires. Students may also use Amity-(LMS) to submit their grievances. Deans or Head of Student Services meet with students who have specific issues in order to find a resolution.
- Students have the right to report issues concerning personal safety including physical assault, mental health, bullying, cyber bullying, online grooming, criminal and sexual exploitation, gang activity, harassment, discrimination and bias
- Students have the right to voice concerns regarding discriminatory behavior or bias incidents related to race, gender, sexual orientation, religion, or any other protected characteristics.

### 17.2 Student Responsibilities

- Students are responsible for payment of their fees, completing the registration process, submission of examination forms, and other documents required as the academic year progresses;
- Students are expected to report health and safety concerns encountered within the laboratory premises to the concerned laboratory in-charge.
- Students are expected to report observations of substance abuse, addiction, or intoxicated behavior that may pose a risk to student safety

- Students are expected to also complete visa requirements, meet the university attendance requirements, and complete all internal and external academic tasks on timely basis;
- Students should read the notice boards, regularly check their emails and look for updates on Amity-(LMS), with regards to any announcements. Lack of awareness or incorrect understanding will not be accepted as a reason to review decisions taken as a consequence of non-fulfillment of a student's responsibilities;
- While in university, students are expected to fully comply with the DIAC Code of Conduct in terms of behavior and dress which is in line with the local customs and practices of the UAE;
- Students found to be violating the DIAC Code of Conduct shall be firmly dealt with. The Disciplinary Committee may recommend appropriate punishments, ranging from issuing a warning letter, to suspension for a specific period and community service on campus or such other punishment as may be warranted, based on the circumstances and nature of the violation. Appeals against the decision of the Disciplinary Committee must be submitted to the Pro-Vice Chancellor within 5 working days. In all such cases, the decision of the Pro- Vice Chancellor is final and binding;

## 18. ACADEMIC INTEGRITY

Amity University Dubai is committed to operate in a fair and transparent manner in every area to ensure the highest standards in the conduct and delivery of all assessments. In order to demonstrate academic integrity, students must produce their own work. Any material received from other sources or project collaboration must be appropriately acknowledged. Students must also present their findings, conclusions, or any other information based on appropriate and ethical practice.

### 18.1 Types of Academic Misconduct/Breach of Academic Integrity:

#### 18.1.1 Plagiarism

Plagiarism is an act committed by someone who presents the ideas or work of other people and represents them as his/her own work. It includes copying from a variety of sources and types of materials such as:

- Written research, books, articles, and theses.
- Graphic illustrations, images, and motion pictures.
- Graphs, maps and models
- Audio-visual material
- Online material
- Material including students copying from scripts of other students
- Using Artificial Intelligence (AI) tools or programs to generate creative work or material, wholly or in part, without proper citation or acknowledgment (except where the use of AI has been approved in advance, for a student's disability).

Similarly, the following are considered as an act of plagiarism:

- When any academic work is submitted, which is an identical work of someone, and its source is not acknowledged or is without the quotation marks.
- When the same assignment is submitted in different courses without taking the permission from the faculty involved. This also applies to the submission of a student's own previous submitted assignment, or combining the parts of his/her previous assignment in current work, without taking any prior permission from the faculty involved.

- When a student uses phrases from an original source without putting them in quotation marks, or replaces the words with the synonyms and keeps the structure and meaning same as the original source.
- When a student does not cite the source from where he/she has taken the information, and misquotes, or paraphrases the original source using the same structure of the sentences and does not acknowledge the source.
- When a student, without taking any prior permission from the concerned faculty, asks or hires someone to write his/her research or assignment on behalf of him/her.
- When a student presents a false or invalid research data in a given assignment deliberately.
- When a student copies any content from any online source without giving a due credit to the original source.
- When a student uses any graphic materials (audio visual aids, images, motion pictures, etc.) and presents them as his own without giving credit to the original source from where they have been taken.
- When a student presents or submits the translation of someone's work as his own and does not cite or credit the original source or the author.
- When a student Cheats during examination including the following types;
  - The use of materials not permitted by the University during the exams, including stored information on electronic devices.
  - Copying answers from another student during examinations/academic submissions.
  - Amending graded exams or assignments and submitting for re-evaluating.
  - Collaborating with or assisting another student without permission.
  - Providing the wrong facts such as wrong or false data for a computer lab exam.
  - Getting someone else to help with the exam.

Any other form of dishonest behavior that results in undue advantage

### **18.1.2 Facilitating Academic Dishonesty**

- Sharing an assignment with another student and allowing him/her to copy that assignment or set problem which is meant to be done individually.
- Showing the answers during the test or any other assessment to another student and allowing him/her to copy.
- Taking a test or writing an assignment for another student.

### **18.1.3 Deception**

When a student provides information that is fabricated to faculty members regarding a formal academic exercise, which includes making a false excuse for missing a deadline or falsely claiming to have submitted the work.

### **18.1.4 Sabotage**

When a student prevents others from finishing or submitting their work, which includes tearing pages from books borrowed from the library or deliberately disrupting other people's experiments and projects.

### **18.1.5 Violation of Examination Rules Conducted on Campus or Online:**

The provisions of this policy shall apply to all academic students. Appropriate actions will be taken to ensure that the academic integrity is not breached at any time during the examination (On Campus or Online)

### 18.1.6 Examination Code of Conduct

The following actions will result in the disqualification of a student from the exam, if he/she:

- Arrives 30 minutes late than the scheduled examination time without a valid reason.
- Does not carry valid AMUD student ID and Examination admit card.
- Shows non-compliance with the instructions of the examination hall supervisor or any of the invigilators and disrupts the decorum of the examination, and/or causes examination delays for no reason.
- Attempts to cheat or assists another student to cheat in any form.
- Provides false personal information on answer booklet (on campus) sheets or attendance sheet.
- Possesses or uses any form of communication, storage or any other electronic devices during on- campus or online exams. These include but not limited to mobile phones, smart watches, headphones, and earphones even if switched off.
- Possesses unauthorized academic materials related to the examination subject matter in any shape or form.
- Refuses to hand over the answer booklet to the examination supervisor or any of the invigilators before he/she leaves the exam hall.
- Gets involved in any physical or verbal assault with an invigilator, other students, or any other person in the examination hall.
- 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 use of any electronic devices or software, unlawful communications with other students or individuals, impersonation, fully or partially obscuring the face and head by wearing for example, a cap or hat, i.e. the face and head must be in the center of the webcam view at all times, leaving the examination for a while, taking screen shots during the examination, taking a break from the examination, and any other act that violates the sanctity of fair online assessment.

### 18.1.7 Violating Examination Code of Conduct

One of the following penalties shall be imposed on the student who violates the Examination Code of Conduct:

- A written warning is issued for every student committing a violation with regards to examination code of conduct (on campus or online).
- A student committing one or more examination violation for the **first time** will be awarded a failing grade (grade F) for the course in which the student committed the violation. The student shall pay the full course backlog fee.
- A student committing one or more examination violation for the **second time** will be awarded a failing grade (grade F) 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.

A student committing one or more examination violation for the **third time** will be awarded a failing grade “F” 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

### 18.1.8 Responsibility of Faculty:

Faculty members must provide guidance to students on the following points:

- How to avoid plagiarism

- How to reference the works of others properly and correctly

Faculty members are also required to take every act of plagiarism seriously and must ensure proper penalties for such acts. Faculty members must include warnings in the beginning when they are issuing instruction for assignments and project work. Faculty members must ensure that every student submits the assignments with all relevant documents along with the declaration of originality report.

#### **18.1.9 Responsibility of Students:**

Amity University Dubai wants to be fair to the students who do not resort to cheating and plagiarism or any other form of academic misconduct and at the same time wants to lower the probability of plagiarism. For this purpose, a set of procedures are established to detect the occurrence of plagiarism and to penalize those found guilty of being involved in such acts. While doing assignments, projects and making any reports, students must act with integrity and own the responsibility for creation and presentation of the work produced by them. They are also advised to seek guidance on detecting and preventing plagiarism from their faculty from time to time.

Students may take guidance from faculty members and faculty guides on ways to avoid plagiarism and referencing styles. All work must be written in student's own words. However, if required to cite the work of others, all the sources (for words, data, arguments and ideas) have to be appropriately acknowledged. Students are required to pass all written assignments through plagiarism detection software. A duly signed declaration form of originality is also required to be submitted along with all submissions.

In the case of group work submitted for assessment, the responsibility of the assignment is on each member of the group. Equally, the consequences of plagiarism are also on each member of the group. If students have worked in a group, but the submissions are different, it is the responsibility of each student to make sure that the submitted work is his/her own original work.

#### **18.1.10 Originality Report:**

AMUD uses TurnItIn as a plagiarism detection software tool that generates originality reports for student's written assignments. These reports are used by faculty members to assist in the detection of plagiarism.

- AMUD requires all faculty members to brief students on how to use TurnItIn to check the originality of their work before submission.
- To ensure that students are not unfairly penalized, faculty should pay particular attention to blocks of borrowed materials, cited sources of diagrams, and misleading concerns that could be due to the usage of common terminologies in particular those related to methods and statistical output.
- For cited coursework, Similarity percentage should not exceed 15% including all sources and 5% from a single source. Coursework with similarity percentage above 15% shall be considered plagiarized.
- Shall the student need any clarification or has any inquires on academic integrity or plagiarism policy, It will explained and resolved by the faculty member.

#### **18.1.11 Late Submission:**

As a protocol, students are strictly advised to adhere to the deadline given by the respective faculty for the submission of the course work. In case of the delay in course work submission, the student is advised to seek prior permission from the course faculty/Program Leader stating clear and valid reasons along with evidences for requesting the extension in the submission. Any late submission without the approvals will not be graded.

### 18.1.12 Plagiarism Penalty

The concerned Faculty is responsible for checking the plagiarism in his/her coursework. If the faculty finds out that the plagiarism has been committed, an incident report along with the supporting evidence must be submitted to Program Leader, which will be subsequently forwarded to the Dean by the Program Leader for necessary action. AMUD has zero tolerance towards any act of plagiarism and overall, the Dean is responsible for taking an appropriate action depending on the seriousness of the case.

The Plagiarism penalty for the student will be as follows: -

- First-time offense:
  - The faculty will assign a grade of zero to the particular assignment and the case is reported to the Program Leader who will send a warning letter to the student. A copy of the letter is kept in the student record.
- Second-time offense:
  - This is considered as a repeated offense and dictates higher penalties. The faculty will assign a zero to the course. The case is reported to the Dean who issues a second and final warning letter to the student. A copy of the letter is kept in the student record.
- Third-time offense:
  - The matter is reported to the Disciplinary Committee who can make decisions ranging from suspending the student for one semester to expelling him/her from the University.

### 18.1.13 Copying/Cheating/use of unfair means during examinations:

Use of any unfair means during test or examination would be reported to Examinations department by the faculty concerned. The faculty gives an incident report after which an unfair means form is filled in along with the evidence attached. The examination committee will convene and decide the penalty of the offence depending on the severity.

### 18.1.14 False documents:

Any falsified documents submitted during admissions would result in immediate dismissal from the university.

## 19. GENERAL EDUCATION

The General Education Program provides students with an overarching framework of knowledge and skills, to facilitate their intellectual, personal and professional growth. It further prepares them for being globally responsible citizens. Each program includes general education as an essential component, along with major core, major electives, open electives and common courses across programs in a particular school. Each program has a minimum of 30 credits for major core and 15 credits for major electives. Open electives can be taken across programs above 200 level and as long as the prerequisites are met. Registration for open elective courses shall be done on first come first serve basis.

### 19.1 General Education Courses

The courses that fulfill the General Education requirement are:

- Public Speaking
- English for Academic Writing
- Arabic language
- Islamic Culture
- UAE studies

- Ethics and Professional Responsibility
- Innovation, entrepreneurship and sustainability

## GENERAL EDUCATION (UNIVERSITY REQUIREMENTS) - 21 CR

COURSE CODE	COURSE #	COURSE TITLE	CR
ARAB	102	Arabic Language	3
COMM	105	Public Speaking	3
ENGL	102	English for Academic Writing	3
GENE	120	Islamic Culture	3
GENE	210	UAE Studies	3
GENE	340	Innovation, Entrepreneurship and Sustainability	3
GENE	440	Ethics and Professional Responsibility	3

### 19.2 General Education Learning Outcomes:

- Demonstrate ethical and cultural sensitivity in regional and global contexts.
- Apply knowledge of innovation and sustainability in making entrepreneurial and socially responsible decisions.
- Demonstrate appropriate oral and written communication skills in various contemporary languages

## 20. UNDERGRADUATE DEGREES

### 20.1 Amity Business School

The vision at Amity Business School is to prepare the next generation of business professionals through a culture that promotes engagement, risk-taking, cross-disciplinary collaboration, and data-driven decisionmaking. The School offers an academic setting that challenges students' intellectual abilities, deploys contemporary teaching and learning strategies to promote experiential learning, cultivates an ecosystem that develops future entrepreneurs, enhances emotional intelligence and soft skills, and practices applied research techniques throughout the curriculum.

Presently the Amity Business School offers programs in Bachelor of Business Administration, Bachelor of Finance and Bachelor of Commerce. The curriculum is aligned with reputable industry certifications in accounting (ACCA, CIMA, and ICAEW), finance (CFA), logistics (CIPS), marketing (CIM), and human resources (SHRM). All undergraduate and graduate programs are accredited by the International Accreditation Council for Business Education (IACBE).

The case-based teaching and learning strategy is a significant aspect of the learning model adopted by Amity Business School. Since 2011 close to a hundred GCC-based business cases have been developed by the Amity Dubai faculty members. The cases address challenges faced by both private and public sectors. All Case Studies are hosted by The Case Center- UK and are used by universities and organisations in various countries. Frequently, ABS brings out publications highlighting important activities in the UAE. In 2019, the school published a case booklet that consists of 11 cases that were focused only on Dubai Expo challenges and its positive impacts on the UAE economy. Applied research is another domain where the school excels. The supportive, collaborative, and

vibrant research culture has produced many research papers that are presented or published in the Scopus conferences or journals.

### **20.1.1 Bachelor of Business Administration**

#### **BBA MISSION STATEMENT**

The Bachelor of Business Administration Program at Amity Business School Dubai equips students with knowledge and skills allowing them to be socially responsible professionals able to make sound business decisions in local and global dynamic environments. Our graduates are critical thinkers, assertive communicators, and lifelong learners able to conceptualize new ideas and transform them into viable business opportunities.

#### **EDUCATIONAL AIM OF THE PROGRAM**

The Bachelor of Business Administration at Amity Business School Dubai aims at:

- (G1) Imparting theoretical and practical knowledge of business concepts across the different functional areas of the organization
- (G2) Developing students skills and abilities to make informed business decisions based on a critical analysis of the business environment
- (G3) Facilitating lifelong learning and the development of assertive learners who are able to express themselves responsibly and openly.

## **PROGRAM LEARNING OUTCOMES**

On successful completion of the Bachelor of Business Administration program, the graduate will be able to:

### **1. Knowledge**

- 1.1. Demonstrate understanding of relevant business management and allied subjects and research concepts and their application to various dynamic business contexts

### **2. Skills**

- 2.1. Critically analyze, solve, and formulate solutions to business problems
- 2.2. Assess the micro and macro environments of a firm and propose viable business strategies
- 2.3. Use information technology in data retrieval and business application
- 2.4. Communicate effectively orally and in writing using appropriate media

### **3. Competence**

#### *3.1. Autonomy and Responsibility*

- 3.1.1. Work independently as well as collaborate effectively in a team setting
- 3.1.2. Express personal views in a range of business contexts
- 3.1.3. Take responsibility for developing innovative entrepreneurial and sustainable management approaches to ethically overcome complex business challenges

#### *3.2. Self-Development*

- 3.2.1. Take responsibility for own learning and development needs

#### *3.3. Role in Context*

- 3.3.1. Take responsibility for achieving outcomes with little or no supervision

## **MARKETING CONCENTRATION**

In addition to preceding Program Learning Outcomes, graduates opting for the Marketing Concentration will be able to:

MC1: Demonstrate in-depth understanding of relevant principles of contemporary marketing concepts and their application to business contexts

MC2: Formulate marketing strategies based on market research to achieve sustainable competitive advantages

## **HUMAN RESOURCE MANAGEMENT CONCENTRATION**

In addition to preceding Program Learning Outcomes, graduates opting for the Human Resource Management Concentration will be able to:

HR1: Demonstrate in-depth understanding of principles of contemporary Human Resources Management concepts and practices and their application to business contexts

HR2: Formulate human resource strategies that account for diversity and inclusion in the workplace

## **FAMILY BUSINESS AND ENTREPRENEURSHIP CONCENTRATION**

In addition to preceding Program Learning Outcomes, graduates opting for the Family Business and Entrepreneurship Concentration will be able to:

FB1: Demonstrate in-depth understanding of principles of contemporary Family Business and Entrepreneurship concepts and practices and their application to business contexts

FB2: Conceptualize new ideas and transform them into viable business opportunities

## **INTERNATIONAL BUSINESS CONCENTRATION**

In addition to preceding Program Learning Outcomes, graduates opting for the International Business Concentration will be able to:

IB1: Demonstrate in-depth understanding of global economy forces and related concepts and their application to business contexts

IB2: Evaluate diverse international business strategies by accounting for regulatory, environmental, and multicultural forces

## Mapping (PLOs) to National Qualifications Framework (NQF)

The following matrix illustrates the link of Program Learning Outcomes to the National Qualifications Framework strands.

BBA – QFEMIRATES [L7]	1. Knowledge					2. Skills				3. Competence										
										3.1. Autonomy and Responsibility				3.2. Role in Context				3.3. Self Development		
	A1	A2	A3	A4	A5	B1	B2	B3	B4	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
	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	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	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	a comprehensive understanding of critical analysis, research systems and methods and evaluative problem-solving techniques	familiarity with sources of current and new research and knowledge with integration of concepts from outside fields	technical, creative and analytical skills appropriate to solving specialised 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	evaluating, selecting and applying appropriate methods, procedures or techniques in processes of investigation towards identified solutions	evaluating and implementing appropriate research tools and strategies associated with the field of work or discipline	highly developed advanced communication and information technology skills to present, explain and/or critique complex and unpredictable matters	can take responsibility for developing innovative and advanced approaches to evaluating and managing complex and unpredictable	can manage technical, supervisory or design processes in unpredictable, unfamiliar and varying contexts	can work creatively and/or effectively as an individual, in team leadership, managing contexts, across technical or professional activities	can express an internalised, personal view, and accept responsibility to society at large and to socio-cultural norms and relationships	can function with full autonomy in technical and supervisory contexts and adopt para-professional roles with little guidance	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 specialisation in field of work or discipline	can participate in peer relationships with qualified practitioners and lead multiple, complex groups	can take responsibility for managing the professional development and direct mentoring of individuals and groups	can self-evaluate and take responsibility for contributing to professional practice, and undertake regular professional development and/or further learning	can manage learning tasks independently and professionally, in complex and sometimes unfamiliar learning contexts	can contribute to and observe ethical standards
<b>1. Knowledge</b>																				
1.1. Demonstrate understanding of relevant business management and allied subjects and research concepts and their application to various dynamic business contexts	X	X		X																
<b>2. Skills</b>																				

BBA – QFEMIRATES [L7]	1. Knowledge					2. Skills				3. Competence										
										3.1. Autonomy and Responsibility				3.2. Role in Context				3.3. Self Development		
	A1	A2	A3	A4	A5	B1	B2	B3	B4	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
2.1. Critically analyze, solve, and formulate solutions to business problems						X														
2.2. Assess the micro and macro environments of a firm and propose viable business strategies							X													
2.3. Use information technology in data retrieval and business application									X											
2.4. Communicate effectively orally and in writing using appropriate media									X											
<b>3. Competence</b>																				
<u>3.1. Autonomy and Responsibility</u>																				
3.1.1. Work independently as well as collaborate effectively in a team setting												X								
3.1.2. Express personal views in a range of business contexts													X							
3.1.3. Take responsibility for developing innovative entrepreneurial and sustainable management approaches to ethically overcome complex business challenges										X										X
<u>3.2. Self-Development</u>																				

BBA – QFEMIRATES [L7]	1. Knowledge					2. Skills				3. Competence										
	A1	A2	A3	A4	A5	B1	B2	B3	B4	3.1. Autonomy and Responsibility				3.2. Role in Context				3.3. Self Development		
										C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
3.2.1. Take responsibility for own learning and development needs																		X	X	
<u>3.3. Role in Context</u>																				
3.3.1. Take responsibility for achieving outcomes with little or no supervision														X						
<b><u>MARKETING CONCENTRATION</u></b>																				
MC1: Demonstrate in-depth understanding of relevant principles of contemporary marketing concepts and their application to business contexts	X																			
MC2: Formulate marketing strategies based on market research to achieve sustainable competitive advantages						X	X	X												
<b><u>HUMAN RESOURCE MANAGEMENT CONCENTRATION</u></b>																				
HR1: Demonstrate in-depth understanding of principles of contemporary Human Resources Management concepts and practices and their application to business contexts	X																			
HR2: Formulate human resource strategies that account for diversity and inclusion in the workplace						X														

<b><u>INTERNATIONAL BUSINESS CONCENTRATION</u></b> IB1: Demonstrate in-depth understanding of global economy forces and related concepts and their application to business contexts	X																			
IB2: Evaluate diverse international business strategies by accounting for regulatory, environmental, and multicultural forces		X					X													
<b><u>FAMILY BUSINESS AND ENTREPRENEURSHIP CONCENTRATION</u></b> FB1: Demonstrate in-depth understanding of principles of contemporary Family Business and Entrepreneurship concepts and practices and their application to business contexts	X																			
FB2: Conceptualize new ideas and transform them into viable business opportunities						X														

## Program Structure

### GENERAL EDUCATION (UNIVERSITY REQUIREMENTS) - 21 CR

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
ARAB	102	Arabic Language			3
ENGL	102	English for Academic Writing			3
COMM	105	Public Speaking			3
GENE	120	Islamic Culture			3
GENE	210	UAE Studies			3
GENE	340	Innovation, Entrepreneurship and Sustainability			3
GENE	440	Ethics and Professional Responsibility			3

### COMMON CORE (SCHOOL REQUIREMENTS) - 48 CR

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
ISYS	110	Computer Software for Business		ENGL102	3
QMET	110	Business Mathematics		ENGL102	3
ACCT	110	Financial Accounting I		ENGL102	3
ACCT	120	Financial Accounting II	ACCT110		3
MRKT	120	Principles of Marketing	ENGL102		3
MGMT	120	Principles of Management	ENGL102		3
ACCT	220	Managerial Accounting	ACCT110		3
QMET	210	Statistics for Business	QMET110		3
BUSN	220	Business Law		ENGL102	3
FINE	220	Managerial Finance	ACCT120; QMET110		3
ECON	210	Microeconomic Theory	QMET110		3
BUSN	230	Business Communication	ENGL102		3
ECON	310	Macroeconomic Theory	ECON210		3
BUSN	340	Business Research Methods	45 Cr./H		3
MGMT	350	Strategic Management	MGMT120; MRKT120; FINE220; QMET210		3
BUSN	450	Business Simulation	MGMT350		3

**MAJOR CORE (PROGRAM REQUIREMENTS) - 33 CR**

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
ISYS	220	Management Information System	ISYS110		3
MGMT	240	Human Capital Management	MGMT120		3
MGMT	320	Fundamentals of Supply Chain Management	QMET210		3
ISYS	320	E-Commerce	ISYS220		3
FINE	340	Financial Markets and Institutions	FINE220		3
QMET	350	Operations Research	QMET210	MGMT320	3
ECON	330	Managerial Economics	ECON210		3
MGMT	340	International Business Management	MGMT120; ECON310		3
BUSN	360	Internship	60 Cr /H		3
QMET	430	Business Analytics	QMET210		3
BUSN	440	Business Case Analysis and Writing	90 Cr/H		3

**MAJOR ELECTIVES (CONCENTRATION REQUIREMENTS: MARKETING) - 15 CR**

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
MRKT	420	Consumer Behavior	MRKT120		3
MRKT	430	Strategic Brand Management	MRKT120		3
MRKT	435	Digital Marketing	MRKT120; ISYS220		3
MRKT	440	Retail Management	MRKT120		3
QMET	445	Marketing Analytics	MRKT120; QMET430		3
MRKT	450	Global Marketing	MRKT120; MGMT340		3
MRKT	490	Market Intelligence and Research	MRKT420		3

**MAJOR ELECTIVES (CONCENTRATION REQUIREMENTS: HUMAN RESOURCE MANAGEMENT) - 15 CR**

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
MGMT	410	Performance and Competency Assessment	MGMT240		3
MGMT	420	Training and Development of the Workforce	MGMT240		3
MGMT	425	Employee Engagement and Retention	MGMT240		3
MGMT	430	Managing Diversity and Inclusion	MGMT240		3
MGMT	440	Total Rewards	MGMT240		3
MGMT	470	International Human Resource Management	MGMT240; MGMT340		3

**MAJOR ELECTIVES (CONCENTRATION REQUIREMENTS: INTERNATIONAL BUSINESS) - 15 CR**

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
BUSN	445	International Legal Frameworks for Business	BUSN220; MGMT340		3
ECON	450	Global Economy	ECON210		3
ECON	455	Shipping and Documentation	MGMT320		3
ECON	460	International Trade	ECON210		3
MRKT	450	Global Marketing	MRKT120; MGMT340		3
MGMT	455	Global Sourcing and Negotiation	MGMT340		3
MGMT	470	International Human Resource Management	MGMT240; MGMT340		3

**MAJOR ELECTIVES (CONCENTRATION REQUIREMENTS: FAMILY BUSINESS AND ENTREPRENEURSHIP) - 15 CR**

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
MGMT	425	Employee Engagement and Retention	MGMT240		3
MGMT	465	SME Ecosystem	MGMT120; ECON310		3
MGMT	475	Family Business Management and Governance	MGMT120		3
MGMT	480	Managing Venture Growth and Transition	MGMT350		3
MRKT	465	Technology, Innovation and New Product Development	MRKT120		3
FINE	410	Finance and Tax Strategies for Family Business	BUSN220; FINE220		3
FINE	430	Financial Risk Management	FINE220		3

**MAJOR ELECTIVES (GENERAL BBA WITH NO CONCENTRATION: CHOOSE A MIX OF 15 CREDITS FROM DIFFERENT CONCENTRATIONS) - 15 CR**

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
		Any Combination of Credits from Offered Concentrations	As per Catalog		15

**OPEN ELECTIVES (CHOOSE 6 CREDITS FROM ANY PROGRAM SUBJECT TO FULFILLING THEIR PREREQUISITES IF ANY)****- 6 CR**

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
		Open Elective I	As per Catalog		3
		Open Elective II	As per Catalog		3

**Proposed Schedule of Delivery**

YEAR/SEM	COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
<b>YEAR 1</b>	ISYS	110	Computer Software for Business		ENGL102	3
<b>FALL</b>	QMET	110	Business Mathematics		ENGL102	3
	ACCT	110	Financial Accounting I		ENGL102	3
	ENGL	102	English for Academic Writing			3
	GENE	120	Islamic Culture			3
						<b>15</b>
<b>SPRING</b>	ACCT	120	Financial Accounting II	ACCT110		3
	MRKT	120	Principles of Marketing	ENGL102		3
	MGMT	120	Principles of Management	ENGL102		3
	COMM	105	Public Speaking			3
	ARAB	102	Arabic Language			3
						<b>15</b>
<b>YEAR 2</b>	ACCT	220	Managerial Accounting	ACCT110		3
<b>FALL</b>	QMET	210	Statistics for Business	QMET110		3
	BUSN	220	Business Law		ENGL102	3
	FINE	220	Managerial Finance	ACCT120; QMET110		3
	GENE	210	UAE Studies			3
						<b>15</b>
<b>SPRING</b>	ECON	210	Microeconomic Theory	QMET110		3
	ISYS	220	Management Information System	ISYS110		3
	BUSN	230	Business Communication	ENGL102		3
	MGMT	240	Human Capital Management	MGMT120		3
			Open Elective 1			3
						<b>15</b>
<b>YEAR 3</b>	ECON	310	Macroeconomic Theory	ECON210		3
<b>FALL</b>	MGMT	320	Fundamentals of Supply Chain Management	QMET210		3
	ISYS	320	E-Commerce	ISYS220		3
	FINE	340	Financial Markets and Institutions	FINE220		3
	GENE	340	Innovation, Entrepreneurship and Sustainability			3
						<b>15</b>
<b>SPRING</b>	ECON	330	Managerial Economics	ECON210		3
	BUSN	340	Business Research Methods	45 CR		3
	QMET	350	Operations Research	QMET210	MGMT320	3
	MGMT	340	International Business Management	MGMT120; ECON310		3
	MGMT	350	Strategic Management	MGMT120; MRKT120; FINE220; QMET210		3
						<b>15</b>
<b>INTERNSHIP</b>	BUSN	360	Internship	60 CR		3
						<b>3</b>
<b>YEAR 4</b>	BUSN	450	Business Simulation	MGMT350		3
<b>FALL</b>	GENE	440	Ethics and Professional Responsibility			3

			Major Elective 1		3
			Major Elective 2		3
			Major Elective 3		3
					<u>15</u>
SPRING	QMET	430	Business Analytics	QMET210	3
	BUSN	440	Business Case Analysis and Writing	90 CR	3
			Major Elective 4		3
			Major Elective 5		3
			Open Elective 2		3
					<u>15</u>
					<u>123</u>

### Completion Requirements:

For the successful completion of the Bachelor of Business Administration program, students must complete 123 credits and secure a minimum Cumulative Grade Point Average (CGPA) of 2.0 on a 4.0 (equivalent to 70%) scale with no course having a grade less than D (equivalent to 60%)..

### 20.1.2 Bachelor of Finance

#### BFIN Mission Statement

The Bachelor of Finance program at Amity Business School Dubai provides students with a comprehensive exposure to contemporary financial models, products, and strategies, including those requiring compliance with Sharia laws. Our graduates are team players and life-long learners who possess appropriate financial competencies and skills allowing them to assess and mitigate financial risks and make sound ethical financial decisions.

#### Educational Aim of the Program

The Bachelor of Finance at Amity Business School Dubai aims at:

- (G1) Imparting theoretical and practical knowledge of finance concepts and models necessary to overcome contemporary financial challenges
- (G2) Developing students skills and abilities to make informed financial decisions based on a critical analysis of the business environment
- - (G3) Facilitating lifelong learning and the development of assertive learners who are able to express themselves responsibly and openly.

#### Program Learning Outcomes

On successful completion of the Bachelor of Finance, the graduate will be able to:

##### 1. Knowledge

- 1.1. Demonstrate understanding of relevant financial theories and concepts and their application to overcoming contemporary financial challenges

##### 2. Skills

- 2.1. Assess financial risks and propose strategies to mitigate them

- 2.2. Analyze financial problems and build financial models
- 2.3. Use information technology for data retrieval and financial applications
- 2.4. Communicate effectively orally and in writing using appropriate media

### 3. Competence

#### 3.1. *Autonomy and Responsibility*

- 3.1.1. Work independently as well as collaborate effectively in a team setting
- 3.1.2. Express personal views in a range of business contexts
- 3.1.3. Take responsibility for developing innovative entrepreneurial and sustainable management approaches to ethically overcome complex business challenges

#### 3.2. *Self-Development*

- 3.2.1. Take responsibility for own learning and development needs

#### 3.3. *Role in Context*

- 3.3.1. Take responsibility for achieving outcomes with little or no supervision

### Islamic Finance Concentration

In addition to preceding Program Learning Outcomes, graduates opting for the Islamic Finance Concentration will be able to:

IF1: Demonstrate in-depth understanding of Sharia' finance-related concepts and products

IF2: Apply Sharia' principles in proposing sustainable solutions to financial problems

### Mapping (PLOs) to National Qualifications Framework (NQF)

The following matrix illustrates the link of Program Learning Outcomes to the National Qualifications Framework strands.

QFEMIRATES [L7]	1. Knowledge					2. Skills				3. Competence										
										3.1. Autonomy and Responsibility				3.2. Role in Context				3.3. Self Development		
	A1	A2	A3	A4	A5	B1	B2	B3	B4	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
	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	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	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	a comprehensive understanding of critical analysis, research systems and methods and evaluative problem-solving techniques	familiarity with sources of current and new research and knowledge with integration of concepts from outside fields	technical, creative and analytical skills appropriate to solving specialised 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	evaluating, selecting and applying appropriate methods, procedures or techniques in processes of investigation towards identified solutions	evaluating and implementing appropriate research tools and strategies associated with the field of work or discipline	highly developed advanced communication and information technology skills to present, explain and/or critique complex and unpredictable matters	can take responsibility for developing innovative and advanced approaches to evaluating and managing complex and unpredictable work procedures and processes, resources or learning	can manage technical, supervisory or design processes in unpredictable, unfamiliar and varying contexts	can work creatively and/or effectively as an individual, in team leadership, managing contexts, across technical or professional activities	can express an internalised, personal view, and accept responsibility to society at large and to socio-cultural norms and relationships	can function with full autonomy in technical and supervisory contexts and adopt para-professional roles with little guidance	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 specialisation in field of work or discipline	can participate in peer relationships with qualified practitioners and lead multiple, complex groups	can take responsibility for managing the professional development and direct mentoring of individuals and groups	can self-evaluate and take responsibility for contributing to professional practice, and undertake regular professional development and/or further learning	can manage learning tasks independently and professionally, in complex and sometimes unfamiliar learning contexts	can contribute to and observe ethical standards
<b>1. Knowledge</b> 1.1. Demonstrate understanding of relevant financial theories and concepts and their application to overcoming contemporary financial challenges	X																			
<b>2. Skills</b> 2.1. Assess financial risks and propose strategies to mitigate them							X													

QFEMIRATES [L7]	1. Knowledge					2. Skills				3. Competence										
										3.1. Autonomy and Responsibility				3.2. Role in Context				3.3. Self Development		
	A1	A2	A3	A4	A5	B1	B2	B3	B4	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
2.2. Analyze financial problems and build financial models						X														
2.3. Use information technology for data retrieval and financial applications									X											
2.4. Communicate effectively orally and in writing using appropriate media									X											
<b>3. Competence</b>																				
<u>3.1. Autonomy and Responsibility</u>																				
3.1.1. Work independently as well as collaborate effectively in a team setting												X								
3.1.2. Express personal views in a range of business contexts													X							
3.1.3. Take responsibility for developing innovative entrepreneurial and sustainable management approaches to ethically overcome complex business challenges										X										X
<u>3.2. Self-Development</u>																				
3.2.1. Take responsibility for own learning and development needs																		X	X	

QFEMIRATES [L7]	1. Knowledge					2. Skills				3. Competence										
										3.1. Autonomy and Responsibility				3.2. Role in Context				3.3. Self Development		
	A1	A2	A3	A4	A5	B1	B2	B3	B4	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
<u>3.3. Role in Context</u> 3.3.1. Take responsibility for achieving outcomes with little or no supervision														X						
<b><u>ISLAMIC FINANCE CONCENTRATION</u></b> IF1: Demonstrate in-depth understanding of Sharia' finance-related concepts and products	X																			
IF2: Apply Sharia' principles in proposing sustainable solutions to financial problems							X													

## Program Structure

### GENERAL EDUCATION (UNIVERSITY REQUIREMENTS) - 21 CR

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
ARAB	102	Arabic Language			3
ENGL	102	English for Academic Writing			3
COMM	105	Public Speaking			3
GENE	120	Islamic Culture			3
GENE	210	UAE Studies			3
GENE	340	Innovation, Entrepreneurship and Sustainability			3
GENE	440	Ethics and Professional Responsibility			3

### COMMON CORE (SCHOOL REQUIREMENTS) - 48 CR

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
ISYS	110	Computer Software for Business		ENGL102	3
QMET	110	Business Mathematics		ENGL102	3
ACCT	110	Financial Accounting I		ENGL102	3
ACCT	120	Financial Accounting II	ACCT110		3
MRKT	120	Principles of Marketing	ENGL102		3
MGMT	120	Principles of Management	ENGL102		3
ACCT	220	Managerial Accounting	ACCT110		3
QMET	210	Statistics for Business	QMET110		3
BUSN	220	Business Law		ENGL102	3
FINE	220	Managerial Finance	ACCT120; QMET110		3
ECON	210	Microeconomic Theory	QMET110		3
BUSN	230	Business Communication	ENGL102		3
ECON	310	Macroeconomic Theory	ECON210		3
BUSN	340	Business Research Methods	45 CR		3
MGMT	350	Strategic Management	MGMT120; MRKT120; FINE220; QMET210		3
BUSN	450	Business Simulation	MGMT350		3

### MAJOR CORE (FINANCE PROGRAM REQUIREMENTS) - 33 CR

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
FINE	230	Corporate Finance	FINE 220		3
FINE	260	Fundamentals of Financial Technology	ISYS 110		3
FINE	310	Financial Statement Analysis	ACCT 120		3
FINE	320	Investment Analysis	FINE 220		3
ECON	330	Managerial Economics	ECON 310		3
FINE	330	Commercial Banking	ACCT 110		3
FINE	340	Financial Markets and Institutions	FINE 220		3
FINE	350	Financial Simulation	ISYS 110, FINE 320		3
BUSN	360	Internship	60 CR		3
FINE	430	Financial Risk Management	FINE 220		3

BUSN	440	Business Case Analysis and Writing	90 CR	3
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**MAJOR ELECTIVES - 15 CR**

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
FINE	450	Advanced Corporate Finance	FINE 230		3
FINE	455	Entrepreneurial Finance	FINE 230		3
FINE	460	International Finance	FINE 230		3
FINE	465	Equity Valuation	FINE 320		3
FINE	470	Fixed Income Instruments	FINE 230, FINE 320		3
FINE	475	Financial Derivatives	FINE 320		3
FINE	480	Islamic Finance: Principles and Practices*	FINE 220		3
FINE	482	Islamic Banking*	FINE 330		3
FINE	484	Islamic Insurance: Takaful*	FINE 340		3
FINE	486	Islamic Capital Markets*	FINE 220		3
FINE	488	Islamic Wealth Management*	FINE 320		3

**OPEN ELECTIVES (CHOOSE 6 CREDITS FROM ANY PROGRAM SUBJECT TO FULFILLING THEIR PREREQUISITES IF ANY) - 6 CR**

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
		Open Elective I	As per Catalog		3
		Open Elective II	As per Catalog		3

\* Choose all these courses as major electives to earn a BFIN with concentration in Islamic Finance

**Proposed Schedule of Delivery**

YEAR/SEM	COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
<b>YEAR 1</b>	ISYS	110	Computer Software for Business		ENGL102	3
<b>FALL</b>	QMET	110	Business Mathematics		ENGL102	3
	ACCT	110	Financial Accounting I		ENGL102	3
	ENGL	102	English for Academic Writing			3
	GENE	120	Islamic Culture			3
						<b>15</b>
<b>SPRING</b>	ACCT	120	Financial Accounting II	ACCT110		3
	MRKT	120	Principles of Marketing	ENGL102		3
	MGMT	120	Principles of Management	ENGL102		3
	COMM	105	Public Speaking			3
	ARAB	102	Arabic Language			3
						<b>15</b>

<b>YEAR 2</b>	ACCT	220	Managerial Accounting	ACCT110	3
<b>FALL</b>	QMET	210	Statistics for Business	QMET110	3
	BUSN	220	Business Law	ENGL102	3
	FINE	220	Managerial Finance	ACCT120; QMET110	3
	GENE	210	UAE Studies		3
					<b>15</b>
<b>SPRING</b>	ECON	210	Microeconomic Theory	QMET110	3
	FINE	230	Corporate Finance	FINE 220	3
	BUSN	230	Business Communication	ENGL102	3
	FINE	260	Fundamentals of Financial Technology	ISYS 110	3
Open Elective 1					3
					<b>15</b>
<b>YEAR 3</b>	ECON	310	Macroeconomic Theory	ECON210	3
<b>FALL</b>	FINE	310	Financial Statement Analysis	ACCT 120	3
	FINE	320	Investment Analysis	FINE 220	3
	FINE	340	Financial Markets and Institutions	FINE220	3
	GENE	340	Innovation, Entrepreneurship and Sustainability		3
					<b>15</b>
<b>SPRING</b>	ECON	330	Managerial Economics	ECON210	3
	BUSN	340	Business Research Methods	45 Cr./H	3
	FINE	330	Commercial Banking	ACCT 110	3
	FINE	350	Financial Simulation	ISYS 110, FINE 320	3
	MGMT	350	Strategic Management	MGMT120; MRKT120; FINE220; QMET210	3
					<b>15</b>
<b>INTERNSHIP</b>	BUSN	360	Internship	60 CR	3
					<b>3</b>
<b>YEAR 4</b>	BUSN	450	Business Simulation	MGMT350	3
<b>FALL</b>	GENE	440	Ethics and Professional Responsibility		3
			Major Elective 1		3
			Major Elective 2		3
			Major Elective 3		3
					<b>15</b>
<b>SPRING</b>	FINE	430	Financial Risk Management	FINE 220	3
	BUSN	440	Business Case Analysis and Writing	90 CR	3
			Major Elective 4		3
			Major Elective 5		3
			Open Elective 2		3
					<b>15</b>
					<b>123</b>

## Completion Requirements

For the successful completion of the Bachelor of Finance program, students must complete 123 credits and secure a minimum Cumulative Grade Point Average (CGPA) of 2.0 on a 4.0 (equivalent to 70%) scale with no course having a grade less than D (equivalent to 60%).

### 20.1.3 Bachelor of Commerce in Accounting

#### BCOM ACC MISSION STATEMENT

The Bachelor of Commerce in Accounting program at Amity Business School Dubai develops learners' numerical abilities and skills and provides them with a strong exposure to the best accounting and auditing practices as promulgated by international professional societies. Our graduates are life-long learners who possess the ability to use digital tools to make informed ethical business decisions across a wide range of business activities.

#### Educational Aim of the Program

The Bachelor of Commerce in Accounting at Amity Business School Dubai aims at:

- (G1) Imparting theoretical and practical knowledge of accounting and auditing as promulgated by leading accountancy bodies.
- (G2) Developing students' skills and abilities to make informed accounting and auditing decisions that observe professional ethical standards.
- (G3) Facilitating lifelong learning and the development of assertive learners who are able to express themselves responsibly and openly

#### Program Learning Outcomes

On successful completion of the Bachelor of Commerce in Accounting, the graduate will be able to:

##### 1. Knowledge

- 1.1. Demonstrate understanding of accounting and auditing standards and concepts as promulgated by leading accountancy bodies

##### 2. Skills

- 2.1. Critically analyze and solve accounting and auditing problems and interpret the related results
- 2.2. Propose data-driven business decisions that observe professional ethical standards
- 2.3. Use information technology for data retrieval and accounting and auditing applications
- 2.4. Communicate effectively orally and in writing using appropriate media

##### 3. Competence

###### 3.1. *Autonomy and Responsibility*

- 3.1.1. Work independently as well as collaborate effectively in a team setting
- 3.1.2. Express personal views in a range of business contexts
- 3.1.3. Take responsibility for developing innovative entrepreneurial and sustainable management approaches to ethically overcome complex business challenges

###### 3.2. *Self-Development*

- 3.2.1. Take responsibility for own learning and development needs

###### 3.3. *Role in Context*

- 3.3.1. Take responsibility for achieving outcomes with little or no supervision

#### Mapping (PLOs) to National Qualifications Framework (NQF)

The following matrix illustrates the link of Program Learning Outcomes to the National Qualifications Framework strands.

QFEMIRATES [L7]	1. Knowledge					2. Skills				3. Competence										
	A1	A2	A3	A4	A5	B1	B2	B3	B4	3.1. Autonomy and Responsibility				3.2. Role in Context				3.3. Self Development		
										C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
	specialized factual and theoretical knowledge and an understanding of the boundaries in a field of work or discipline, encompassing a broad and coherent	an understanding of allied knowledge and theories in related fields of work or disciplines and in the case of professional disciplines including related	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	a comprehensive understanding of critical analysis, research systems and methods and evaluative problem-solving techniques	familiarity with sources of current and new research and knowledge with integration of concepts from outside fields	technical, creative and analytical skills appropriate to solving specialised problems using evidentiary and procedural based processes in predictable and	evaluating, selecting and applying appropriate methods, procedures or techniques in processes of investigation towards identified solutions	evaluating and implementing appropriate research tools and strategies associated with the field of work or discipline	highly developed advanced communication and information technology skills to present, explain and/or critique complex and unpredictable matters	can take responsibility for developing innovative and advanced approaches to evaluating and managing complex and unpredictable work procedures and	can manage technical, supervisory or design processes in unpredictable, unfamiliar and varying contexts	can work creatively and/or effectively as an individual, in team leadership, managing contexts, across technical or professional activities	can express an internalised, personal view, and accept responsibility to society at large and to socio-cultural norms and relationships	can function with full autonomy in technical and supervisory contexts and adopt para-professional roles with little guidance	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	can participate in peer relationships with qualified practitioners and lead multiple, complex groups	can take responsibility for managing the professional development and direct mentoring of individuals and groups	can self-evaluate and take responsibility for contributing to professional practice, and undertake regular professional development and/or further learning	can manage learning tasks independently and professionally, in complex and sometimes unfamiliar learning contexts	can contribute to and observe ethical standards
<b>1. Knowledge</b>																				
1.1. Demonstrate understanding of accounting and auditing standards and concepts as promulgated by leading accountancy bodies	X	X																		
<b>2. Skills</b>																				
2.1. Critically analyze and solve accounting and auditing problems and interpret the related results						X														
2.2. Propose data-driven business decisions that observe professional ethical standards							X													X
2.3. Use information technology for data retrieval and accounting and auditing applications								X												
2.4. Communicate effectively orally and in writing using appropriate media								X												
<b>3. Competence</b>																				
<b>3.1. Autonomy and Responsibility</b>												X								

QFEMIRATES [L7]	1. Knowledge					2. Skills				3. Competence										
										3.1. Autonomy and Responsibility				3.2. Role in Context				3.3. Self Development		
	A1	A2	A3	A4	A5	B1	B2	B3	B4	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
3.1.1. Work independently as well as collaborate effectively in a team setting																				
3.1.2. Express personal views in a range of business contexts													X							
3.1.3. Take responsibility for developing innovative entrepreneurial and sustainable management approaches to ethically overcome complex business challenges										X										X
<u>3.2. Self-Development</u>																				
3.2.1. Take responsibility for own learning and development needs																		X	X	
<u>3.3. Role in Context</u>																				
3.3.1. Take responsibility for achieving outcomes with little or no supervision														X						

## Program Structure

## GENERAL EDUCATION (UNIVERSITY REQUIREMENTS) - 21 CR

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
ARAB	102	Arabic Language			3
ENGL	102	English for Academic Writing			3
COMM	105	Public Speaking			3
GENE	120	Islamic Culture			3
GENE	210	UAE Studies			3
GENE	340	Innovation, Entrepreneurship and Sustainability			3
GENE	440	Ethics and Professional Responsibility			3

## COMMON CORE (SCHOOL REQUIREMENTS) - 48 CR

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
ISYS	110	Computer Software for Business		ENGL102	3
QMET	110	Business Mathematics		ENGL102	3
ACCT	110	Financial Accounting I		ENGL102	3
ACCT	120	Financial Accounting II	ACCT110		3
MRKT	120	Principles of Marketing	ENGL102		3
MGMT	120	Principles of Management	ENGL102		3
ACCT	220	Managerial Accounting	ACCT110		3
QMET	210	Statistics for Business	QMET110		3
BUSN	220	Business Law		ENGL102	3
FINE	220	Managerial Finance	ACCT120; QMET110		3
ECON	210	Microeconomic Theory	QMET110		3
BUSN	230	Business Communication	ENGL102		3
ECON	310	Macroeconomic Theory	ECON210		3
BUSN	340	Business Research Methods	45 CR		3
MGMT	350	Strategic Management	MGMT120; MRKT120; FINE220; QMET210		3
BUSN	450	Business Simulation	MGMT350		3

**MAJOR CORE (PROGRAM REQUIREMENTS) - 33 CR**

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
ACCT	230	Audit and Assurance	ACCT120		3
FINE	230	Corporate Finance	FINE220		3
ACCT	320	Forensic Accounting Analytics	ISYS 110; QMET 110; ACCT 120		3
ACCT	330	Taxation I	ACCT110		3
ACCT	340	Taxation II	ACCT330		3
ACCT	345	Accounting Information Systems	ACCT 110; ISYS 110		3
ACCT	360	Intermediate Financial Accounting	ACCT120		3
FINE	310	Financial Statement Analysis	FINE220		3
ACCT	430	Advanced Financial Accounting	ACCT360		3
BUSN	360	Internship	60 CR		3
BUSN	440	Business Case Analysis and Writing	90 CR		3

**MAJOR ELECTIVES - 15 CR**

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
ACCT	350	Corporate Governance	ACCT340		3
ACCT	440	Advanced Audit and Assurance	ACCT230		3
ACCT	450	Advanced Taxation	ACCT340		3
FINE	450	Advanced Corporate Finance	FINE230		3
FINE	430	Financial Risk Management	FINE220		3
FINE	460	International Finance	FINE 230		3

**OPEN ELECTIVES (CHOOSE 6 CREDITS FROM ANY PROGRAM SUBJECT TO FULFILLING THEIR PREREQUISITES IF ANY) - 6 CR**

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
		Open Elective I	As per Catalog		3
		Open Elective II	As per Catalog		3

**Proposed Schedule of Delivery**

YEAR/SEM	COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
YEAR 1	ISYS	110	Computer Software for Business		ENGL102	3
FALL	QMET	110	Business Mathematics		ENGL102	3
	ACCT	110	Financial Accounting I		ENGL102	3
	ENGL	102	English for Academic Writing			3
	GENE	120	Islamic Culture			3
						15
SPRING	ACCT	120	Financial Accounting II	ACCT110		3
	MRKT	120	Principles of Marketing	ENGL102		3
	MGMT	120	Principles of Management	ENGL102		3
	COMM	105	Public Speaking			3
	ARAB	102	Arabic Language			3
						15

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<b>YEAR 2</b>	ACCT	220	Managerial Accounting	ACCT110	3
<b>FALL</b>	QMET	210	Statistics for Business	QMET110	3
	BUSN	220	Business Law	ENGL102	3
	FINE	220	Managerial Finance	ACCT120; QMET110	3
	GENE	210	UAE Studies		3
					<b>15</b>
<b>SPRING</b>	ECON	210	Microeconomic Theory	QMET110	3
	ACCT	230	Audit and Assurance	ACCT120	3
	BUSN	230	Business Communication	ENGL102	3
	FINE	230	Corporate Finance	FINE220	3
			Open Elective 1		3
					<b>15</b>
<b>YEAR 3</b>	ECON	310	Macroeconomic Theory	ECON210	3
<b>FALL</b>	FINE	310	Financial Statement Analysis	FINE220	3
				ISYS 110; QMET 110;	
	ACCT	320	Forensic Accounting Analytics	ACCT 120	3
	ACCT	330	Taxation I	ACCT 110	3
			Innovation, Entrepreneurship and		
	GENE	340	Sustainability		3
					<b>15</b>
<b>SPRING</b>	ACCT	340	Taxation II	ACCT330	3
	BUSN	340	Business Research Methods	45 CR	3
	ACCT	345	Accounting Information Systems	ACCT110; ISYS110	3
	ACCT	360	Intermediate Financial Accounting	ACCT120	3
				MGMT120; MRKT120; FINE220;	
	MGMT	350	Strategic Management	QMET210	3
					<b>15</b>
<b>INTERNSHIP</b>	BUSN	360	Internship	60 CR	3
					3
<b>YEAR 4</b>	BUSN	450	Business Simulation	MGMT350	3
<b>FALL</b>	GENE	440	Ethics and Professional Practices		3
			Major Elective 1		3
			Major Elective 2		3
			Major Elective 3		3
					<b>15</b>
<b>SPRING</b>	FINE	430	Financial Risk Management	FINE220	3
	BUSN	440	Business Case Analysis and Writing	90 CR	3
			Major Elective 4		3
			Major Elective 5		3
			Open Elective 2		3
					<b>15</b>
					<b>123</b>

### **Completion Requirements:**

For the successful completion of the Bachelor of Finance program, students must complete 123 credits and secure a minimum Cumulative Grade Point Average (CGPA) of 2.0 on a 4.0 (equivalent to 70%) scale with no course having a grade less than D (equivalent to 60%).

### **20.1.4 Bachelor of Hotel Management and Tourism**

#### **BHTM MISSION STATEMENT**

The Bachelor of Hotel Management and Tourism at Amity Business School Dubai inspires and cultivates future leaders in the dynamic realms of hospitality and tourism, by providing a transformative educational experience that merges academic rigor with real-world application. Through experiential learning opportunities and industry immersion, our graduates become effective team players, assertive communicators, and socially responsible industry actors equipped to excel in diverse hospitality and tourism contexts.

#### **EDUCATIONAL AIM OF THE PROGRAM**

The Bachelor of Hotel Management and Tourism at Amity Dubai aims at:

- (G1) Imparting theoretical and practical knowledge of hospitality and tourism concepts and their impact on economy, culture and environment
- (G2) Developing students technical and soft skills allowing them to function with full autonomy in technical and supervisory contexts related to hospitality and tourism
- (G3) Facilitating lifelong learning and the development of assertive learners who are able to express themselves responsibly and openly.

#### **PROGRAM LEARNING OUTCOMES (PLO)**

Upon successful completion of the Bachelor of Hospitality and Tourism Management program, the students should be able to:

##### **1. Knowledge**

- 1.1. Discuss relevant hotel management and tourism concepts, and their application in real industry contexts

##### **2. Skills**

- 2.1. Assess complex hotel management and tourism problems and formulate appropriate solutions
- 2.2. Use various tools and equipment for executing standard operational procedures in hotel and tourism settings
- 2.3. Use information technology in data retrieval and hotel management business applications
- 2.4. Communicate effectively orally and in writing using appropriate media

##### **3. Competence**

###### **3.1. *Autonomy and Responsibility***

- 3.1.1. Manage effectively complex operational procedures individually or as a team member
- 3.1.2. Express personal views in a range of hospitality and tourism contexts
- 3.1.3. Propose innovative entrepreneurial and sustainable hospitality and tourism approaches to ethically overcome related contemporary challenges

###### **3.2. *Self-Development***

- 3.2.1. Plan for personal and professional development needs

###### **3.3. *Role in Context***

- 3.3.1. Take responsibility for achieving outcomes with little or no supervision

#### **Mapping (PLOs) to National Qualifications Framework (NQF)**

The following matrix illustrates the link of Program Learning Outcomes to the National Qualifications Framework strands.

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BBA – QFEMIRATES [L7]	1. Knowledge					2. Skills				3. Competence										
	A1	A2	A3	A4	A5	B1	B2	B3	B4	3.1. Autonomy and Responsibility				3.2. Role in Context				3.3. Self Development		
										C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
	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	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	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	a comprehensive understanding of critical analysis, research systems and methods and evaluative problem-solving techniques	familiarity with sources of current and new research and knowledge with integration of concepts from outside fields	technical, creative and analytical skills appropriate to solving specialised 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	evaluating, selecting and applying appropriate methods, procedures or techniques in processes of investigation towards identified solutions	evaluating and implementing appropriate research tools and strategies associated with the field of work or discipline	highly developed advanced communication and information technology skills to present, explain and/or critique complex and unpredictable matters	can take responsibility for developing innovative and advanced approaches to evaluating and managing complex and unpredictable	can manage technical, supervisory or design processes in unpredictable, unfamiliar and varying contexts	can work creatively and/or effectively as an individual, in team leadership, managing contexts, across technical or professional activities	can express an internalised, personal view, and accept responsibility to society at large and to socio-cultural norms and relationships	can function with full autonomy in technical and supervisory contexts and adopt para-professional roles with little guidance	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 specialisation in field of work or discipline	can participate in peer relationships with qualified practitioners and lead multiple, complex groups	can take responsibility for managing the professional development and direct mentoring of individuals and groups	can self-evaluate and take responsibility for contributing to professional practice, and undertake regular professional development and/or further learning	can manage learning tasks independently and professionally, in complex and sometimes unfamiliar learning contexts	can contribute to and observe ethical standards
<b>1. Knowledge</b> 1.1. Discuss relevant hotel management and tourism concepts, and their application in real industry contexts.	X	X		X																
<b>2. Skills</b> 2.1. Assess complex hotel management and tourism problems and formulate appropriate solutions						X	X													
2.2. Use various tools and equipment for executing standard operational							X													

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BBA – QFEMIRATES [L7]	1. Knowledge					2. Skills				3. Competence										
										3.1. Autonomy and Responsibility				3.2. Role in Context				3.3. Self Development		
	A1	A2	A3	A4	A5	B1	B2	B3	B4	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
procedures in hotel and tourism settings																				
2.3. Use information technology in data retrieval and hotel management business applications									X											
2.4. Communicate effectively orally and in writing using appropriate media									X											
<b>3. Competence</b>																				
<u>3.1. Autonomy and Responsibility</u>																				
3.1.1. Manage effectively complex operational procedures individually or as a team member											X	X								
3.1.2. Express personal views in a range of hospitality and tourism contexts													X							
3.1.3. Propose innovative entrepreneurial and sustainable hospitality and tourism approaches to ethically overcome related contemporary challenges										X										X
<u>3.2. Self-Development</u>																				
3.2.1. Plan for personal and professional development needs														X				X	X	

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BBA – QFEMIRATES [L7]	1. Knowledge					2. Skills				3. Competence										
										3.1. Autonomy and Responsibility				3.2. Role in Context				3.3. Self Development		
	A1	A2	A3	A4	A5	B1	B2	B3	B4	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
<u>3.3. Role in Context</u>																				
3.3.1. Take responsibility for achieving outcomes with little or no supervision														X						

## Program Structure

### GENERAL EDUCATION (UNIVERSITY REQUIREMENTS) - 21 CR

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
ARAB	102	Arabic Language			3
ENGL	102	English for Academic Writing <sup>1</sup>			3
COMM	105	Public Speaking			3
GENE	120	Islamic Culture			3
GENE	210	UAE Studies			3
GENE	340	Innovation, Entrepreneurship and Sustainability			3
GENE	440	Ethics and Professional Responsibility			3

### COMMON CORE (SCHOOL REQUIREMENTS) - 48 CR

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
ISYS	110	Computer Software for Business		ENGL102	3
QMET	110	Business Mathematics		ENGL102	3
ACCT	110	Financial Accounting I		ENGL102	3
ACCT	120	Financial Accounting II	ACCT110		3
MRKT	120	Principles of Marketing	ENGL102		3
MGMT	120	Principles of Management	ENGL102		3
ACCT	220	Managerial Accounting	ACCT110		3
QMET	210	Statistics for Business	QMET110		3
BUSN	220	Business Law		ENGL102	3
FINE	220	Managerial Finance	ACCT120; QMET110		3
ECON	210	Microeconomic Theory	QMET110		3
BUSN	230	Business Communication	ENGL102		3
ECON	310	Macroeconomic Theory	ECON210		3
BUSN	340	Business Research Methods	45 Cr./H		3
MGMT	350	Strategic Management	MGMT120; MRKT120; FINE220; QMET210		3
BUSN	450	Business Simulation	MGMT350		3

### MAJOR CORE (PROGRAM REQUIREMENTS) - 42 CR

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
HOSP	110	Introduction to Hospitality and Tourism		ENGL102	3
FBMT	110	Food Safety and Hygiene		ENGL102	3
FBMT	210	Professional Food Preparation	FBMT110		3
FBMT	120	Food and Beverage Service	FBMT110		3
FBMT	310	Food and Beverage Cost Control	FBMT120; ACCT220		3
HOSP	210	House Keeping Operations			3
HOSP	220	Front Office Operations	HOSP110		3
HOSP	310	Rooms Division Management	HOSP220		3
TOUR	110	World Geography and culture in Tourism	HOSP110		3

TOUR	210	MICE Tourism	HOSP110	3
TOUR	310	Sustainable Tourism	HOSP110	3
MGMT	435	Leadership in the Hospitality Sector	MGMT120	3
BUSN	355	Internship I (Tourism)	60 Cr. Hours	3
BUSN	358	Internship II (Hospitality)	60 Cr. Hours	3

**MAJOR ELECTIVES - 12 CR**

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
TOUR	410	Tourism Impacts and Challenges	TOUR110		3
TOUR	320	Destination Planning and Development	TOUR110		3
TOUR	330	Travel Agency and Tour Operations			3
FBMT	410	Restaurant Concept and Design	FBMT120		3
FBMT	320	Advanced Food Preparation	FBMT210		3
HOSP	410	Events Management	MGMT120		3
HOSP	320	Interpersonal Skills and Customer Service	HOSP110		3

<sup>1</sup> ENGL 102 English for Academic Writing is a prerequisite for MRKT 120, MGMT 120, and BUSN 230 (ENGL 102 must be successfully passed before the listed courses can be registered). Conversely, ISYS 110, QMET 110, ACCT 110, BUSN 220, HOSP 110, and FBMT 110 must be taken simultaneously with ENGL 102 as a co-requisite if a student opts to register one or more of these courses and has not yet fulfilled the ENGL 102 requirement.

**Proposed Schedule of Delivery**

YEAR/SEM	COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
<b>YEAR 1</b>	ISYS	110	Computer Software for Business		ENGL102	3
<b>FALL</b>	QMET	110	Business Mathematics		ENGL102	3
	ACCT	110	Financial Accounting I		ENGL102	3
	ENGL	102	English for Academic Writing			3
	GENE	120	Islamic Culture			3
						<b>15</b>
<b>SPRING</b>	ACCT	120	Financial Accounting II	ACCT110		3
	HOSP	110	Introduction to Hospitality and Tourism		ENGL102	3
	MGMT	120	Principles of Management	ENGL102		3
	COMM	105	Public Speaking			3
	ARAB	102	Arabic Language			3
						<b>15</b>
<b>YEAR 2</b>	HOSP	210	House Keeping Operations			3
<b>FALL</b>	QMET	210	Statistics for Business	QMET110		3
	FBMT	110	Food Safety and Hygiene		ENGL102	3
	FINE	220	Managerial Finance	ACCT120; QMET110		3
	GENE	210	UAE Studies			3
						<b>15</b>
<b>SPRING</b>	ECON	210	Microeconomic Theory	QMET110		3
	HOSP	220	Front Office Operations	HOSP110		3
	BUSN	230	Business Communication	ENGL102		3

	TOUR	210	MICE Tourism	HOSP110	3
	TOUR	110	World Geography and culture in Tourism	HOSP110	3
					<b>15</b>
<b>INTERNSHIP</b>	BUSN	355	Internship I (Tourism)	60 CR	3
					<b>3</b>
<b>YEAR 3</b>	ECON	310	Macroeconomic Theory	ECON210	3
<b>FALL</b>	MRKT	120	Principles of Marketing	ENGL102	3
	FBMT	210	Professional Food Preparation	FBMT110	3
	ACCT	220	Managerial Accounting	ACCT110	3
	GENE	340	Innovation, Entrepreneurship and Sustainability		3
					<b>15</b>
<b>SPRING</b>	FBMT	120	Food and Beverage Service	FBMT110	3
	BUSN	340	Business Research Methods	45 CR	3
	HOSP	310	Rooms Division Management	HOSP220	3
	BUSN	220	Business Law	ENGL102	3
	MGMT	350	Strategic Management	MGMT120; MRKT120; FINE220; QMET210	3
					<b>15</b>
<b>INTERNSHIP</b>	BUSN	358	Internship II (Hospitality)	60 CR	3
					<b>3</b>
<b>YEAR 4</b>	BUSN	450	Business Simulation	MGMT350	3
<b>FALL</b>	GENE	440	Ethics and Professional Responsibility		3
	FBMT	310	Food and Beverage Cost Control	FBMT120; ACCT220	3
					Major Elective 1
					3
					Major Elective 2
					3
					<b>15</b>
<b>SPRING</b>	TOUR	310	Sustainable Tourism	HOSP110	3
	MGMT	435	Leadership in the Hospitality Sector	MGMT120	3
					Major Elective 3
					3
					Major Elective 4
					3
					<b>12</b>
					<b>123</b>

## 20.2 School of Engineering, Architecture and Interior Design

The School of Engineering, Architecture and Interior Design works in line with the vision of Amity University Dubai to prepare the next generation of engineering professionals through a culture that promotes creative design, problem solving, innovation and entrepreneurship. The School offers an academic setting that challenges students' intellectual abilities, deploys contemporary teaching and learning strategies including laboratory based and experiential learning, enhances soft skills, and practices applied research techniques throughout the curriculum.

Presently the School of Engineering, Architecture and Interior Design offers programs in Bachelor of Architecture, Bachelor of Interior Design, Bachelor of Science Aerospace Engineering, Bachelor of Science Biotechnology, Bachelor of Science Civil Engineering, Bachelor of Science Computer Science, Bachelor of Science Electrical Engineering, Bachelor of Science

Information Technology and Bachelor of Science Mechanical Engineering. The Bachelor of Science programs in Aerospace Engineering and Computer Science are accredited by Institution of Engineering and Technology (IET). The Architecture program is accredited by the Council of Architecture. Students take up professional memberships in organizations like the IEEE and IMechE.

Students of Architecture, Interior Design and Civil Engineering were also involved in the *Baitykool* project (done in collaboration with University of Bordeaux, France and Al Najah University in Palestine) that competed and secured third place in Solar Decathlon Middle East (SDME) 2018. The resultant eco sensitive, energy efficient solar house has been commissioned at Sustainable City Dubai working as a living lab for research and development. Students have been involved in projects funded by EXPO LIVE: *Hydrobeats* and *Le Solarium*. The Le Solarium prototype was recently demonstrated in EXPO 2020. The School faculty have published over 325 Scopus indexed conference or journal papers since 2017. About twenty percent of the School's publications are jointly co-authored by students. The School has organized two editions of the International Conference on Computational Intelligence and Knowledge Economy (ICCIKE) in 2019 and 2021. Students of the School of Engineering, Architecture and Interior Design have started up companies, most notably the Unitors and Pupilar.

One of the main priorities of the school is to foster strong links to the local, regional and global industry. Students are given internship opportunities in various prestigious organizations. The School aims to continue to broaden and strengthen these industry relationships.

We are confident that the learning experience of students at the School of Engineering, Architecture and Interior Design, paves the way for our graduates to become creative, innovative and ethical industry leaders, with human values, providing sustainable solutions to the local, regional and global community.

## 20.2.1 Bachelor of Architecture

### BACHELOR OF ARCHITECTURE MISSION STATEMENT

The mission of the Architecture program is to deliver a modern curriculum that is nationally and internationally benchmarked and that equips graduates with knowledge, skills and competence to analyze, design, apply technology, formulate and solve problems with real-world constraints, including sustainability and resilience, by working in teams and communicating effectively using appropriate tools. Students will be afforded the opportunity for industry and community engagement which builds capacity to incorporate latest industry trends and practices. Our graduates are creative designers, life-long learners, ethical leaders and entrepreneurs: they are professionals who contribute to socio-economic and urban development with competencies for design interventions from concept to detailing who can contribute to the growth of UAE, regional and global communities.

### EDUCATIONAL AIM OF THE PROGRAM

The Bachelor of Architecture at School of Engineering, Architecture and Interior Design aims at:

- (G1) Create, preserve and disseminate knowledge in the domain of Built Environment, to educate and train future ready professionals, and to promote a culture of trans-disciplinary inquiry throughout and beyond the domain.
- (G2) Provide design solutions in architecture and urban design in relation to developments in the sciences, arts and technology.
- (G3) Provide sustainable solutions to global society through innovation, analysis, formulation, modeling, designing, implementing and verification.
- (G4) Enhance their knowledge, skills and competencies through continuing education, training, engaging in professional activities, graduate studies and lifelong learning.

- (G5) Work independently and collaboratively in teams, demonstrate leadership, autonomy, and ethical, social and professional responsibility.
- (G6) Successfully pursue entrepreneurship, careers in the industry or higher education to contribute to the growth of local and global communities.

## PROGRAM LEARNING OUTCOMES

On successful completion of the Bachelor of Architecture program, the graduate will be able to:

**PLO 1:** Acquire and apply knowledge of principles of design, theories of architecture, history, culture, related art, technology, and human sciences.

**PLO 2:** Implement knowledge based on the relationships between people, buildings, ecosystem and employ research, to arrive at design solutions with iterative processes.

**PLO 3:** Demonstrate ability to prepare design brief and develop proposals that respond to the local, regional and global context.

**PLO 4:** Produce designs that illustrate the knowledge of structural design, building services, construction techniques, and information and communications technology into the building design proposal.

**PLO 5:** Translate and present design ideas, proposals using graphical skills, architectural models, in verbal and written formats.

**PLO 6:** Work independently and in multidisciplinary teams whose members together provide leadership, take responsibility, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives

**PLO 7:** Demonstrate design considering all requirements including regulations, building codes, economic aspects, site factors and other constraints.

**PLO 8:** Evaluate, select and execute design with computer aided tools to create and communicate appropriate, accurate, and speedy design solutions

**PLO 9:** Acquire and integrate new knowledge as needed, using appropriate learning strategies and concepts from other allied disciplines.

**PLO 10:** Demonstrate an understanding of the standards and ethical issues of professional practice.

### Mapping (PLOs) to National Qualifications Framework (NQF)

The following matrix illustrates the link of Program Learning Outcomes to the National Qualifications Framework strands.

BARCH– QFEMIRATES [L7]	1. Knowledge					2. Skills				3. Competence										
	A1	A2	A3	A4	A5	B1	B2	B3	B4	3.1. Autonomy and Responsibility				3.2. Role in Context				3.3. Self Development		
										C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
	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	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.	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	a comprehensive understanding of critical analysis, research systems and methods and evaluative problem-solving	familiarity with sources of current and new research and knowledge with integration of concepts from outside fields	technical, creative and analytical skills appropriate to solving specialised 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	evaluating, selecting and applying appropriate methods, procedures or techniques in processes of investigation towards	evaluating and implementing appropriate research tools and strategies associated with the field of work or discipline	highly developed advanced communication and information technology skills to present, explain and/or critique complex and unpredictable matters	can take responsibility for developing innovative and advanced approaches to evaluating and managing complex and	can manage technical, supervisory or design processes in unpredictable, unfamiliar and varying contexts	can work creatively and/or effectively as an individual, in team leadership, managing contexts, across technical or professional activities	can express an internalised, personal view, and accept responsibility to society at large and to socio-cultural norms and	can function with full autonomy in technical and supervisory contexts and adopt para-professional roles with little guidance	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 specialisation in field of work or discipline	can participate in peer relationships with qualified practitioners and lead multiple, complex groups	can take responsibility for managing the professional development and direct mentoring of individuals and groups	can self-evaluate and take responsibility for contributing to professional practice, and undertake regular professional development and/or further learning	can manage learning tasks independently and professionally, in complex and sometimes unfamiliar learning contexts	can contribute to and observe ethical standards
PLO 1: Acquire and apply knowledge of principles of design, theories of architecture, history, culture, related art, technology, and human sciences	X					X														
PLO 2: Implement knowledge based on the relationships between people, buildings, ecosystem and employ research, to arrive at design solutions with iterative processes.				X																
PLO 3: Demonstrate ability to prepare design brief and develop proposals that			X																	



BARCH– QFEMIRATES [L7]	1. Knowledge					2. Skills				3. Competence										
	A1	A2	A3	A4	A5	B1	B2	B3	B4	3.1. Autonomy and Responsibility				3.2. Role in Context				3.3. Self Development		
										C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
respond to the local, regional and global context.																				
PLO 4: Produce designs that illustrate the knowledge of structural design, building services, construction techniques, and information and communications technology into the building design proposal.		X																		
PLO 5: Translate and present design ideas, proposals using graphical skills, architectural models, in verbal and written formats.									X											
PLO 6: Work independently and in multidisciplinary teams whose members together provide leadership, take responsibility, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives											X	X	X	X	X	X	X			
PLO 7: Demonstrate design considering all requirements including regulations, building codes, economic aspects, site factors and other constraints.		X																		

PLO 8: Evaluate, select and execute design with computer aided tools to create and communicate appropriate, accurate, and speedy design solutions							X	X												
PLO 9: Acquire and integrate new knowledge as needed, using appropriate learning strategies and concepts from other allied disciplines.					X					X	X			X				X	X	
PLO 10: Demonstrate an understanding of the standards and ethical issues of professional practice																				X

## Program Structure

COURSE CODE	COURS E #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR [L+P/S]
ARAB	102	Arabic Language			3 [3+0]
ENGL	102	English for Academic Writing			3 [3+0]
COMM	105	Public Speaking			3 [3+0]
GENE	120	Islamic Culture			3 [3+0]
GENE	210	UAE Studies			3 [3+0]
GENE	340	Innovation, Entrepreneurship and Sustainability			3 [3+0]
GENE	440	Ethics and Professional Responsibility			3 [3+0]
<b>BASIC ARCHITECTURE - 30 CR</b>					
COURSE CODE	COURS E #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR [L+P/S]
MATH	115	Applied Mathematics			3 [3+0]
PHYS	110	Physics for Architects			3 [2+1]
ARCH	100	Design Fundamentals in Architecture			3[1+2]
ARCH	105	Architectural Graphics			3[1+2]
CSCI	100	Computer Applications I			3[0+3]
ARCH	115	History of Architecture			3[3+0]
ARCH	200	Building Construction I			3[1+2]
CIVL	205	Theory of Structures I			3[2+1]
ARCH	215	Climate Responsive Architecture			3[3+0]
ARCH	315	Environment Science in Architecture			3[3+0]
<b>MAJOR CORE (PROGRAM REQUIREMENTS) - 96 CR</b>					
COURSE CODE	COURS E #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR [L+P/S]
ARCH	120	Architectural Design Studio I	ARCH 100		4[2+2]
ARCH	205	Architectural Design Studio II	ARCH 120		5[2+3]
CSCI	220	Computer Applications II	CSCI 100		3[0+3]
CIVL	210	Theory of Structures II			3[3+0]
ARCH	220	Architectural Design Studio III	ARCH 205		5[2+3]
ARCH	225	Building Construction II	ARCH 200		3[1+2]
CSCI	225	Computer Applications - III	CSCI 220		3[0+3]
CIVL	235	Theory of Structures III			3[2+1]
CIVL	200	Surveying			3[2+1]
ARCH	300	Architectural Design Studio IV	ARCH 220		5[2+3]
ARCH	305	Building Services and Engineering: Water supply and Sanitation			3[2+1]
ARCH	310	Building Construction III	ARCH 225		3[1+2]
ARCH	320	Architectural Design Studio V	ARCH 300		5[2+3]
ARCH	325	Building services and Engineering: Electrical and Mechanical			3[2+1]
ARID	330	Research Paradigms			3[3+0]
ARCH	335	Landscape Architecture			3[2+1]
ARCH	400	Architectural Design Studio VI	ARCH 320		5[2+3]
ARCH	405	Architectural Professional Practice			3[3+0]
ARCH	410	Building Services and Engineering: Firefighting and Automation			3[2+1]
ARCH	415	Urban Design Studio	ARCH 400		5[1+4]
ARCH	420	Working Drawings	ARCH 310		3[1+2]
ARCH	500	Major Project I	ARID 330, INTE 300		5[0+5]
ARCH	505	Project Management in Built Environment			3[3+0]
ARCH	510	Estimation, Costing and Specifications			3[3+0]
ARCH	515	Major Project II	ARCH 500		5[0+5]
INTE 200		Internship I	70 credit hours		2
INTE 300		Internship II	90 credit hours, INTE 200		2

**MAJOR ELECTIVES – 12 CR**

COURSE	COURS	COREQUISITE	CR
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CODE	E #	COURSE TITLE	PREREQUISITES	S	[L+P/S]
ARCH	520	Interior Architecture			3[1+2]
ARCH	525	Architectural Conservation			3[3+0]
ARCH	530	Building Information Modeling			3[1+2]
ARCH	535	Architectural Journalism			3[1+2]
ARCH	540	Green Buildings			3[3+0]
ARCH	545	Smart cities			3[3+0]

**OPEN ELECTIVES -- 3 CR (CHOOSE 3 CREDITS FROM ANY PROGRAM SUBJECT  
TO FULFILLING THEIR PREREQUISITES IF ANY)**

COURSE CODE	COURS E #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR [L+P/S]
		Open Elective I	As per Catalog		3

## Proposed Schedule of Delivery

YEAR/SE M	COURSE CODE	COURS E #	COURSE TITLE	PREREQUIS ITES	COREQUIS ITES	CR [L+P/S]
<b>YEAR 1 FALL</b>	ARCH	100	Design Fundamentals in Architecture			3[1+2]
	ARCH	115	History of Architecture			3[3+0]
	PHYS	110	Physics for Architects			3[2+1]
	ARCH	105	Architectural Graphics			3[1+2]
	ENGL	102	English for Academic Writing			3
	GENE	120	Islamic Culture			3
						<b>18</b>
<b>SPRING</b>	CSCI	100	Computer Applications I			3[0+3]
	MATH	115	Applied Mathematics			3[3+0]
	ARCH	120	Architectural Design Studio I	ARCH 100		4[2+2]
	COMM	105	Public Speaking			3
	ARAB	102	Arabic Language			3
						<b>16</b>
<b>YEAR 2 FALL</b>	ARCH	200	Building Construction I			3[1+2]
	ARCH	205	Architectural Design Studio II	ARCH 120		5[2+3]
	CSCI	220	Computer Applications II	CSCI 100		3[0+3]
	CIVL	205	Theory of Structures I			3[2+1]
	GENE	210	UAE Studies			3[3+0]
						<b>17</b>
<b>SPRING</b>	ARCH	215	Climate Responsive Architecture			3[3+0]
	ARCH	220	Architectural Design Studio III	ARCH 205		5[2+3]
	ARCH	225	Building Construction II	ARCH 200		3[1+2]
	CSCI	225	Computer Applications - III	CSCI 220		3[0+3]
	CIVL	210	Theory of Structures II			3[3+0]
						<b>17</b>
<b>YEAR 3</b>	ARCH	300	Architectural Design Studio IV	ARCH 220		5[2+3]
			Building Services and Engineering: Water			
	ARCH	305	supply and Sanitation			3[2+1]
	CIVL	235	Theory of Structures III			3[2+1]
	ARCH	310	Building Construction III	ARCH 225		3[1+2]
<b>FALL</b>	ARCH	315	Environment Science in Architecture			3[3+0]
						<b>17</b>
<b>SPRING</b>	ARCH	320	Architectural Design Studio V	ARCH 300		5[2+3]
	CIVL	200	Surveying			3[2+1]
			Building services and Engineering: Electrical			
	ARCH	325	and Mechanical			3[2+1]
	ARID	330	Research Paradigms			3[3+0]
<b>FALL</b>	ARCH	405	Architectural Professional Practice			3[3+0]
						<b>17</b>
<b>INTERNS</b>						

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<b>HIP</b>	INTE 200		Internship I	70 credit hours	2
<b>YEAR 4</b>					
<b>FALL</b>	GENE	440	Ethics and Professional Responsibility		3[3+0]
	ARCH	400	Architectural Design Studio VI	ARCH 320	5[2+3]
	ARCH	335	Landscape Architecture		3[2+1]
	ARCH	410	Building Services and Engineering: Firefighting and Automation		3[2+1]
					<b>14</b>
<b>SPRING</b>	GENE	340	Innovation, Entrepreneurship and Sustainability		3[3+0]
			Major Elective 1		3
	ARCH	415	Urban Design Studio	ARCH 400	5[1+4]
	ARCH	420	Working Drawings	ARCH 310	3[1+2]
					<b>14</b>
<b>INTERNSHIP</b>				90 credit hours,	
<b>HIP</b>	INTE 300		Internship II	INTE 200	2
<b>YEAR 5</b>					
<b>FALL</b>			Major Elective 2		3
	ARCH	500	Major Project I	ARID 330, INTE 300	5[0+5]
	ARCH	505	Project Management in Built Environment		3[3+0]
	ARCH	510	Estimation, Costing and Specifications		3[3+0]
					<b>14</b>
<b>SPRING</b>			Open Elective 1		3
			Major Elective 3		3
			Major Elective 4		3
	ARCH	515	Major Project II	ARCH 500	5[0+5]
					<b>14</b>
					<b>162</b>

### 20.2.2 Bachelor of Interior Design

#### BACHELOR OF INTERIOR DESIGN MISSION STATEMENT

The mission of the Interior Design program is to deliver a modern curriculum that is nationally and internationally benchmarked and that equips graduates with knowledge, skills and competence to analyze, apply technology, design, formulate and solve problems with real-world constraints by working in teams and communicating effectively using appropriate tools. Students will be afforded the opportunity for industry and community engagement which builds capacity to incorporate latest industry trends and practices. Our graduates are life-long learners, aesthetic and creative designers with various spatial typologies in built environment, ethical leaders and entrepreneurs: they are professionals who enhance quality spaces for healthy living cum working experiences incorporating all technicalities and contributing to socioeconomic and cultural sustainability who can contribute to the growth of UAE, regional and global communities.

#### EDUCATIONAL AIM OF THE PROGRAM

The Bachelor of Interior Design at School of Engineering, Architecture and Interior Design aims at:

- (G1) Create, preserve, and disseminate knowledge in the domain of Interior Design, to educate future-ready professionals for entry-level interior design practice, and promote a culture of trans-disciplinary inquiry for advanced study in this domain.
- (G2) Provide design solutions by identifying the intent and purpose of the interior design program concerning creative developments in the field of arts, sciences, and technology.
- (G3) Deliver sustainable solutions to global society through design implementation and verification of innovation, analysis, formulation, and modeling to address the content and student learning using distinguished attributes of educational philosophy and goals.

- (G4) Enhance knowledge, skills, and competencies, by engaging in professional activities, graduate studies, and lifelong learning.
- (G5) Work independently and collaboratively in teams, demonstrate leadership, autonomy, and ethical, social, and professional responsibility that supports strategic planning and program improvement through the program assessment and placement data.
- (G6) Successfully pursue entrepreneurship and interior design careers in the industry and academia to contribute to the growth of local/regional and global communities including structured internal and external feedback from all stakeholders in assessing the overall effectiveness of the program.

## PROGRAM LEARNING OUTCOMES

On successful completion of the Bachelor of Interior Design program, the graduate will be able to:

**PLO 1:** Apply knowledge to execute creative, effective, and evidence-based design solutions by using the design process precedents

**PLO 2:** Implement literature research in design-based iterations using appropriate materials, construction technology, aesthetics, and interior detailing.

**PLO 3:** Evaluate, select, and apply computer-aided tools to create and communicate appropriate, accurate and speedy design solutions.

**PLO 4:** Prepare design proposals by specifying a broad range of sustainable interior materials, finishes & products considering code compliance, construction techniques & interior services for user comfort, health & safety.

**PLO 5:** Demonstrate the ability to produce design ideas and solutions using professional vocabulary in documentation and representation for graphical & physical models.

**PLO 6:** Design independently and in multidisciplinary teams whose members together provide leadership, take responsibility, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.

**PLO 7:** Employ design process and problem-solving skills to develop interior design solutions by applying theories of human behavior, human factors, socio-cultural, and economic aspects.

**PLO 8:** Acquire and apply new knowledge as needed using appropriate learning strategies and concepts from other allied disciplines.

**PLO 9:** Demonstrate the understanding of professional ethics & conduct, business practice, formations, instruments of service, elements of project management, and the impact of regional/global markets on interior design practices.

### Mapping (PLOs) to National Qualifications Framework (NQF)

The following matrix illustrates the link of Program Learning Outcomes to the National Qualifications Framework strands.

BS INTERIOR DESIGN – QFEMIRATES [L7]	1. Knowledge					2. Skills				3. Competence										
	A1	A2	A3	A4	A5	B1	B2	B3	B4	3.1. Autonomy and Responsibility				3.2. Role in Context				3.3. Self Development		
										C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
	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	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,	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	a comprehensive understanding of critical analysis, research systems and methods and evaluative problem-solving	familiarity with sources of current and new research and knowledge with integration of concepts from outside fields	technical, creative and analytical skills appropriate to solving specialised 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	evaluating, selecting and applying appropriate methods, procedures or techniques in processes of investigation towards identified solutions	evaluating and implementing appropriate research tools and strategies associated with the field of work or discipline	highly developed advanced communication and information technology skills to present, explain and/or critique complex and unpredictable matters	can take responsibility for developing innovative and advanced approaches to evaluating and managing complex and	can manage technical, supervisory or design processes in unpredictable, unfamiliar and varying contexts	can work creatively and/or effectively as an individual, in team leadership, managing contexts, across technical or professional activities	can express an internalised, personal view, and accept responsibility to society at large and to socio-cultural norms and	can function with full autonomy in technical and supervisory contexts and adopt para-professional roles with little guidance	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 specialisation in field of work or discipline	can participate in peer relationships with qualified practitioners and lead multiple, complex groups	can take responsibility for managing the professional development and direct mentoring of individuals and groups	can self-evaluate and take responsibility for contributing to professional practice, and undertake regular professional development and/or further learning	can manage learning tasks independently and professionally, in complex and sometimes unfamiliar learning contexts	can contribute to and observe ethical standards
PLO 1: Apply knowledge to execute creative, effective, and evidence-based design solutions by using the design process precedents..	X	X		X																
PLO 2: Implement literature research in design-based iterations using appropriate materials, construction technology, aesthetics, and interior detailing.					X			X												

BS INTERIOR DESIGN – QFEMIRATES [L7]	1. Knowledge					2. Skills				3. Competence										
	A1	A2	A3	A4	A5	B1	B2	B3	B4	3.1. Autonomy and Responsibility				3.2. Role in Context				3.3. Self Development		
										C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
PLO 3: Evaluate, select, and apply computer-aided tools to create and communicate appropriate, accurate and speedy design solutions.							X				X									
PLO 4: Prepare design proposals by specifying a broad range of sustainable interior materials, finishes & products considering code compliance, construction techniques & interior services for user comfort, health & safety.		X									X			X						
PLO 5: Demonstrate the ability to produce design ideas and solutions using professional vocabulary indocumentation and representation for graphical & physical models.						X			X											
PLO 6: Design independently and in multidisciplinary teams whose members together provide leadership, take responsibility, create a collaborative and inclusiveenvironment, establish goals, plan tasks, and meet objectives.											X	X	X	X	X	X				

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PLO 7: Employ design process and problem-solving skills to develop interior design solutions by applying theories of human behavior, human factors, socio-cultural, and economic aspects.						X							X							
PLO 8: Acquire and apply new knowledge as needed using appropriate learning strategies and concepts from other allied disciplines.					X					X	X			X				X	X	
PLO 9: Demonstrate the understanding of professional ethics & conduct, business practice, formations, instruments of service, elements of project management, and the impact of regional/global markets on interior design practices.															X	X		X		X

## Program Structure

COURSE CODE	COURS E #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR [L+P/S]
ARAB	102	Arabic Language			3 [3+0]
ENGL	102	English for Academic Writing			3 [3+0]
COMM	105	Public Speaking			3 [3+0]
GENE	120	Islamic Culture			3 [3+0]
GENE	210	U.A.E Studies			3 [3+0]
GENE	340	Innovation, Entrepreneurship and Sustainability			3 [3+0]
GENE	440	Ethics and Professional Responsibility			3 [3+0]

**DESIGN FOUNDATION - 22 CR**

COURSE CODE	COURS E #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR [L+P/S]
NSCI	100	Natural Sciences			4[3+1]
ARTS	100	Art & Graphics			3[1+2]
IDES	105	Interior Graphics			3[0+3]
IDES	115	Colors in Interiors			3[2+1]
IDES	200	History of Interior Design			3[2+1]
CSCI	100	Computer Applications I			3[0+3]
IDES	215	Textiles in Interiors			3[3+0]

**MAJOR CORE (PROGRAM REQUIREMENTS) - 69 CR**

COURSE CODE	COURS E #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR [L+P/S]
IDES	120	Fundamentals of Interior Design	IDES 105		5[2+3]
IDES	110	Materials in Interiors			3[2+1]
IDES	210	Interior Design Studio I (Residence)	IDES 120		5[2+3]
IDES	220	Interior Services			3[2+1]
IDES	225	Interior Design Studio II (Restaurants)	IDES 210		5[1+4]
IDES	230	Materials & Construction Techniques I	IDES 110		3[1+2]
IDES	235	Furniture Design & Detailing	IDES 120, IDES 230		3[1+2]
CSCI	220	Computer Applications II	CSCI 100		3[0+3]
INTE	200	Internship I	50 Credit Hours		2
INTE	300	Internship II	70 Credit Hours, INTE200		2
IDES	300	Interior Design Studio III (Retail Outlet)	IDES 225		5[1+4]
IDES	305	Interior Estimation & Specifications	IDES 110		3[3+0]
IDES	310	Professional Practice			3[3+0]
IDES	315	Materials & Construction Techniques II	IDES 230		3[1+2]
CSCI	225	Computer Applications III	CSCI 220		3[0+3]
IDES	325	Interior Design Studio IV (Office)	IDES 300		5[1+4]
ARID	330	Research Paradigms			3[3+0]
IDES	405	Major Project I	ARID 330, INTE 300		5[0+5]
IDES	410	Major Project II	IDES 405		5[0+5]

**MAJOR ELECTIVE Core - 3 CR**

COURSE CODE	COURS E #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR [L+P/S]
IDES	420	Lighting design & technology	IDES 220		3[3+0]

**MAJOR ELECTIVES - 6 CR**

COURSE CODE	COURS E #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR [L+P/S]
IDES	415	Universal design & ergonomics	IDES 420		3[3+0]
IDES	425	Sustainable Interiors	IDES 420		3[3+0]
IDES	430	Project Management for Interiors	IDES 420		3[3+0]
IDES	435	Product Design & Branding	IDES 420		3[3+0]
IDES	440	Intelligent Interior	IDES 420		3[3+0]

## Proposed Schedule of Delivery

YEAR/SEM	COURSE CODE	COURS E #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR [L+P/S]
<b>YEAR 1 FALL</b>	GENE	120	Islamic Culture			3
	ENGL	102	English for Academic Writing			3
	NSCI	100	Natural Sciences			4 [3+1]
	ARTS	100	Art & Graphics			3[1+2]
	IDES	105	Technical Drawing			3[0+3]
						<b>16</b>
<b>SPRING</b>	COMM	105	Public Speaking			3
	ARAB	102	Arabic Language			3
	IDES	110	Materials in Interiors			3[2+1]
	IDES	120	Fundamentals of Interior Design	IDES 105		5[2+3]
	CSCI	100	Computer Applications I			3[0+3]
						<b>17</b>
<b>YEAR 2</b>	IDES	115	Colors in Interiors			3[2+1]
	GENE	210	UAE Studies			3
	IDES	210	Interior Design Studio I (Residence)	IDES 120		5[2+3]
	CSCI	220	Computer Applications II	CSCI 100		3[0+3]
						<b>14</b>
<b>SPRING</b>	IDES	200	History of Interior Design			3 [2+1]
	IDES	225	Interior Design Studio II (Restaurants)	IDES 210		5[1+4]
	IDES	230	Materials & Construction Techniques I	IDES 110		3[1+2]
	CSCI	225	Computer Applications III	CSCI 220		3[0+3]
						<b>14</b>
<b>INTERNSHIP</b>	INTE	200	Internship I	50 credit hours		2
<b>YEAR 3 FALL</b>	IDES	300	Interior Design Studio III (Retail Outlet)	IDES 225		5[1+4]
	IDES	220	Interior Services			3[2+1]
	IDES	315	Materials & Construction Techniques II	IDES 230		3[1+2]
	IDES	215	Textiles in Interiors			3[3+0]
						<b>14</b>
<b>SPRING</b>	IDES	235	Furniture Design & Detailing	IDES 120, IDES 230		3[1+2]
	IDES	310	Professional Practice			3[3+0]
	IDES	325	Interior Design Studio IV (Office)	IDES 300		5[1+4]
	ARID	330	Research Paradigms			3[3+0]
						<b>14</b>
<b>INTERNSHIP</b>	INTE	300	Internship II	70 credit hours, INTE 200		2
<b>YEAR 4 FALL</b> (MAJOR ELECTIVE Core)	GENE	440	Ethics and Professional Responsibility	ENGL 102		3[3+0]
	IDES	305	Interior Estimation & Specifications	IDES 110		3[3+0]
	IDES	420	Lighting design & technology	IDES 220		3[3+0]
	IDES	405	Major Project I	ARID 330, INTE 300		5[0+5]
						<b>14</b>
<b>SPRING</b>	GENE	340	Innovation, Entrepreneurship and Sustainability			3[3+0]
			Major Elective 1			3
			Major Elective 2			3
	IDES	410	Major Project II	IDES 405 Project I		5 [0+5]
						<b>14</b>
						<b>121</b>

### 20.2.3 Bachelor of Science in Aerospace Engineering

#### BACHELOR OF SCIENCE IN AEROSPACE ENGINEERING MISSION STATEMENT

The mission of the Aerospace Engineering program is to deliver a modern curriculum that is nationally and internationally benchmarked and that equips graduates with knowledge, skills and competence to analyze, design, formulate and solve problems pertaining to aeronautical and astronautical systems, with real-world constraints, including sustainability, by working in teams and communicating effectively. The students develop experimental skills in well-equipped Aerospace Engineering Labs. Our graduates are innovators, life-long learners, ethical leaders and entrepreneurs who can contribute to the growth of UAE, regional and global communities.

#### EDUCATIONAL AIM OF THE PROGRAM

The Bachelor of Science Aerospace Engineering at School of Engineering, Architecture and Interior Design aims at:

- (G1) Draw upon the fundamental and allied knowledge, multidisciplinary skills, and tools of Aerospace engineering to solve complex problems and provide sustainable solutions that satisfy constraints imposed by a global society through innovation, analysis, formulation, modeling, designing, implementing and verification.
- (G2) Enhance their knowledge, skills and competencies through continuing education, training, engaging in professional activities, graduate studies and lifelong learning.
- (G3) Work independently and collaboratively in teams, demonstrate leadership, autonomy, and ethical, social and professional responsibility.
- (G4) Successfully pursue entrepreneurship, careers in the industry or higher education to contribute to the growth of local and global communities

#### PROGRAM LEARNING OUTCOMES

On successful completion of the Bachelor of Science Aerospace Engineering program, the graduate will be able to:

**PLO 1:** Identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics

**PLO 2:** 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:** Communicate effectively with a range of audiences

**PLO 4:** 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:** 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:** Develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions

**PLO 7:** Acquire and apply new knowledge as needed, using appropriate learning strategies

### **Mapping (PLOs) to National Qualifications Framework (NQF)**

The following matrix illustrates the link of Program Learning Outcomes to the National Qualifications Framework strands.

BS AERO – QFEMIRATES [L7]	1. Knowledge					2. Skills				3. Competence										
	A1	A2	A3	A4	A5	B1	B2	B3	B4	3.1. Autonomy and Responsibility				3.2. Role in Context				3.3. Self Development		
										C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
	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	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,	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	a comprehensive understanding of critical analysis, research systems and methods and evaluative problem-solving	familiarity with sources of current and new research and knowledge with integration of concepts from outside fields	technical, creative and analytical skills appropriate to solving specialised 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	evaluating, selecting and applying appropriate methods, procedures or techniques in processes	evaluating and implementing appropriate research tools and strategies associated with the field of work or discipline	highly developed advanced communication and information technology skills to present, explain and/or critique complex and	can take responsibility for developing innovative and advanced approaches to evaluating and managing complex and	can manage technical, supervisory or design processes in unpredictable, unfamiliar and varying contexts	can work creatively and/or effectively as an individual in team leadership, managing contexts, across technical or professional activities	can express an internalised, personal view, and accept responsibility to society at large and to socio-cultural norms and	can function with full autonomy in technical and supervisory contexts and adopt para-professional roles with little guidance	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 specialisation in field of work or discipline	can participate in peer relationships with qualified practitioners and lead multiple, complex	can take responsibility for managing the professional development and direct mentoring of individuals and groups	can self-evaluate and take responsibility for contributing to professional practice, and undertake regular professional development and/or further learning	can manage learning tasks independently and professionally, in complex and sometimes unfamiliar learning contexts	can contribute to and observe ethical standards
PLO 1: identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics	X			X																
PLO 2: apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as		X	X				X	X												

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global, cultural, social, environmental, and economic factors																				
PLO 3: communicate effectively with a range of audiences								X												
PLO 4: 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																				X
PLO 5: function effectively on a team whose members together provide leadership create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives											X	X	X	X	X		X	X		
PLO 6: develop and conduct appropriate experimentation, analyze and interpret						X	X													

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data, and use engineering judgment to draw conclusions																				
PLO 7: acquire and apply newknowledge as needed, using appropriate learning strategies					X				X	X			X					X	X	

## Program Structure

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR [L+P/S]
ARAB	102	Arabic Language			3 [3+0]
ENGL	102	English for Academic Writing			3 [3+0]
COMM	105	Public Speaking			3 [3+0]
GENE	120	Islamic Culture			3 [3+0]
GENE	210	UAE Studies			3 [3+0]
GENE	340	Innovation, Entrepreneurship and Sustainability			3 [3+0]
GENE	440	Ethics and Professional Responsibility			3 [3+0]

**BASIC SCIENCE AND MATH (ENGINEERING REQUIREMENTS) - 30 CR**

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR [L+P/S]
PHYS	100	Mechanics and Wave Optics	MATH 100	MATH 105	4[3+1]
MATH	100	Mathematics I			4[4+0]
CHEM	100	General Chemistry			4[3+1]
MATH	105	Mathematics II	MATH 100		3[3+0]
PHYS	105	Electromagnetics and Modern Physics	PHYS 100		3[2+1]
MATH	120	Probability and Statistics			3[3+0]
MATH	200	Linear algebra	MATH 105		3[3+0]
MATH	210	Numerical Methods & Optimization	MATH 105		3[3+0]
MATH	220	Differential Equations	MATH 105		3[3+0]

**MAJOR CORE (PROGRAM REQUIREMENTS) - 73 CR**

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR [L+P/S]
ECON	370	Fundamentals of Engineering Economics			3[3+0]
MECH	200	Engineering Mechanics	MATH 105		5[4+1]
CSCI	200	Introduction to Computers and Programming			3[2+1]
EEEN	200	Basic Electrical and Electronics Engineering	MATH 100		4[3+1]
AERO	200	Elements of Aerospace Engineering	PHYS 100		3[2+1]
AERO	350	Aerodynamics I	MECH 315		3[2+1]
AERO	300	Aircraft Structures	MECH 310		3[2+1]
AERO	305	Space Mechanics and Control	MECH 200		3[3+0]
AERO	310	Aerodynamics II	AERO 350		3[2+1]
AERO	315	Aircraft Propulsion	MECH 300		3[2+1]
AERO	320	Aircraft Stability and Control	AERO 350		3[3+0]
AERO	330	Aircraft Design	AERO 320, AERO 315, AERO 300, ECON 370		4[4+0]
AERO	335	Airplane Performance	AERO 200		3[3+0]
AERO	340	Aerospace Materials	MECH 310		3[2+1]

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AERO	345	Spacecraft Propulsion	AERO 315	3[3+0]
AERO	400	Rockets and Missiles	AERO 320	3[3+0]
MECH	205	Engineering Graphics and Workshop Practices		2[0+2]
MECH	300	Engineering Thermodynamics	MATH 105	3[3+0]
MECH	310	Strength of Materials	MECH 200 or CIVL 200	4[3+1]
MECH	315	Engineering Fluid Mechanics	MECH 200 or CIVL 200	4[3+1]
PROE	400	Senior Design Project	INTE 300 AERO 330 90 credit hours	4[1+3]
INTE 200		Internship I	50 credit hours AERO 200	2
INTE 300		Internship II	90 credit hours INTE 200, AERO 305	2

**MAJOR ELECTIVES- 9 CR**

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR [L+P/S]
AERO	405	Space System Engineering	AERO 305, ECON 370		3[3+0]
AERO	410	Satellite Engineering	AERO 340, ECON 370		3[3+0]
AERO	415	Unmanned Aerial Vehicles and Artificial Intelligence	AERO 320, AERO 350, ECON 370		3[3+0]
AERO	420	Remote Sensing	AERO 305		3[3+0]
MECH	415	Finite Element Methods	MECH 200, MATH 210, MATH 220		3[2+1]
AERO	430	Computational Fluid Dynamics	AERO 310		3[2+1]

**Proposed Schedule of Delivery**

YEAR/SEM	COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR [L+P/S]
YEAR 1	MATH	100	Mathematics I			4[4+0]
FALL	CHEM	100	General Chemistry			4[3+1]
	ENGL	102	English for Academic Writing			3
	GENE	120	Islamic Culture			3

<b>SPRING</b>	MATH	200	Linear algebra	MATH 105	3[3+0]
	AERO	200	Elements of Aerospace Engineering	PHYS 100	3[2+1]
	MECH	310	Strength of Materials	MECH 200 or CIVL 200	4[3+1]
	MECH	315	Engineering Fluid Mechanics	MECH 200 or CIVL 200	4[3+1]
	EEEN	200	Basic Electrical and Electronics Engineering		4[3+1]
					<b>18</b>
<b>SUMMER INTERNSHIP</b>	<b>INTE</b>	<b>200</b>	<b>Internship - I</b>	<b>AERO 200 90 Credit Hours</b>	<b>2</b>
<b>YEAR 3</b>	MATH	120	Probability and Statistics		3[3+0]
<b>FALL</b>	AERO	350	Aerodynamics I	MECH 315	3[2+1]
	AERO	340	Aerospace Materials	MECH 310	3[2+1]
	AERO	300	Aircraft Structures	MECH 310	3[2+1]
	AERO	315	Aircraft Propulsion	MECH 300	3[2+1]
	AERO	305	Space Mechanics and Control	MECH 200	3[3+0]
					<b>18</b>
<b>SPRING</b>	MATH	210	Numerical Methods & Optimization	MATH 105	3[3+0]
	ECON	370	Fundamentals of Engineering Economics		3[3+0]
					<b>15</b>
<b>SUMMER INTERNSHIP</b>	<b>INTE 300</b>		<b>Internship - II</b>	<b>90 credit hours, ECON 370</b>	<b>2</b>
<b>YEAR 4</b>	GENE	440	Ethics and Professional Responsibility		3[3+0]
<b>FALL</b>	AERO	330	Aircraft Design	AERO 315, AERO 300, AERO 320, ECON 370	4[4+0]
	AERO	335	Airplane Performance	AERO 200	3[3+0]
	AERO		Major Elective 1		3
	AERO		Major Elective 2		3

## 20.2.4 Bachelor of Science in Biotechnology

### BACHELOR OF SCIENCE IN BIOTECHNOLOGY MISSION STATEMENT

The mission of the Biotechnology program is to deliver a modern curriculum that is nationally and internationally benchmarked and that equips graduates with knowledge, skills and competence to analyze, design, formulate and solve technical or scientific problems with real-world constraints by working in teams and communicating effectively. Students will be afforded the opportunity for industry and community engagement. The students will develop experimental skills in well-equipped Biotechnology Labs. Graduates are equipped with research and development skills in science, healthcare, agriculture, environment and sustainability. Our graduates are innovators, life-long learners, ethical leaders and entrepreneurs who can contribute to the growth of UAE, regional and global communities.

### EDUCATIONAL AIM OF THE PROGRAM

The Bachelor of Science Biotechnology at School of Engineering, Architecture and Interior Design aims at:

- (G1) Draw upon the fundamental and allied knowledge, multidisciplinary skills, and tools of Biotechnology to solve complex problems and provide sustainable solutions that satisfy constraints imposed by a global society through innovation, analysis, formulation, modeling, designing, implementing and verification.
- (G2) Enhance their knowledge, skills and competencies through continuing education, training, engaging in professional activities, graduate studies and lifelong learning.
- (G3) Work independently and collaboratively in teams, demonstrate leadership, autonomy, and ethical, social and professional responsibility.
- (G4) Successfully pursue entrepreneurship, careers in the industry or higher education to contribute to the growth of local and global communities

### PROGRAM LEARNING OUTCOMES

On successful completion of the Bachelor of Science Biotechnology program, the graduate will be able to:

**PLO 1:** identify, formulate, and solve broadly defined technical or scientific problems by applying knowledge of mathematics and science and/or technical topics to areas relevant to the discipline. **PLO 2:** formulate or design a system, process, procedure or program to meet desired needs.

**PLO 3:** communicate effectively with a range of audiences.

**PLO 4:** understand ethical and professional responsibilities and the impact of technical and/or scientific solutions in global, economic, environmental, and societal contexts.

**PLO 5:** function effectively on teams that establish goals, plan tasks, meet deadlines, and analyze risk and uncertainty.

**PLO 6:** develop and conduct experiments or test hypotheses, analyze and interpret data and use scientific judgment to draw conclusions.

**PLO 7:** acquire and apply new knowledge as needed, using appropriate learning strategies

### **Mapping (PLOs) to National Qualifications Framework (NQF)**

The following matrix illustrates the link of Program Learning Outcomes to the National Qualifications Framework strands.

BS BIOT – QFEMIRATES [L7]	1. Knowledge					2. Skills				3. Competence										
	A1	A2	A3	A4	A5	B1	B2	B3	B4	3.1. Autonomy and Responsibility				3.2. Role in Context				3.3. Self Development		
										C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
	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	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	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	a comprehensive understanding of critical analysis, research systems and methods and evaluative problem-solving	familiarity with sources of current and new research and knowledge with intention of concepts from outside fields	technical, creative and analytical skills appropriate to solving specialised 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	evaluating, selecting and applying appropriate methods, procedures or techniques in processes of investigation towards	evaluating and implementing appropriate research tools and strategies associated with the field of work or discipline	highly developed advanced communication and information technology skills to present, explain and/or critique complex and unpredictable matters	can take responsibility for developing innovative and advanced approaches to evaluation and managing complex and	can manage technical, supervisory or design processes in unpredictable, unfamiliar and varying contexts	can work creatively and/or effectively as an individual, in team leadership, managing contexts, across technical or professional activities	can express an internalised, personal view, and accept responsibility to society at large and to socio-cultural norms and	can function with full autonomy in technical and supervisory contexts and adopt para-professional roles with little evidence	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 specialisation in field of work or discipline	can participate in peer relationships with qualified practitioners and lead multiple, complex groups	can take responsibility for managing the professional development and direct mentoring of individuals and groups	can self-evaluate and take responsibility for contributing to professional practice, and undertake regular professional development and/or further learning	can manage learning tasks independently and professionally, in complex and sometimes unfamiliar learning contexts	can contribute to and observe ethical standards
PLO 1: identify, formulate, and solve broadly defined technical or scientific problems by applying knowledge of mathematics and science and/or technical topics to areas relevant to the discipline	X			X																
PLO 2: formulate or design a system, process, procedure or program to meet desired needs		X	X				X	X												

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PLO 3: communicate effectively with a range of audiences.									X											
PLO 4: understand ethical and professional responsibilities and the impact of technical and/ or scientific solutions in global, economic, environmental, and societal contexts.																				X
PLO 5: function effectively on teams that establish goals, plan tasks, meet deadlines, and analyze risk and uncertainty.											X	X	X	X	X	X	X			
PLO 6: develop and conduct experiments or test hypotheses, analyze and interpret data and use scientific judgment to draw conclusions.						X	X													
PLO 7: acquire and apply new knowledge as needed, using appropriate learning strategies.					X					X	X			X				X	X	

## Program Structure

**GENERAL EDUCATION (UNIVERSITY REQUIREMENTS) - 21**

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR [L+P/S]
ARAB	102	Arabic Language			3 [3+0]
ENGL	102	English for Academic Writing			3 [3+0]
COMM	105	Public Speaking			3 [3+0]
GENE	120	Islamic Culture			3 [3+0]
GENE	210	UAE Studies			3 [3+0]
GENE	340	Innovation, Entrepreneurship and Sustainability			3 [3+0]
GENE	440	Ethics and Professional Responsibility			3 [3+0]

**BASIC SCIENCE AND MATH (ENGINEERING REQUIREMENTS) - 20 CR**

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR [L+P/S]
PHYS	100	Mechanics and Wave Optics	MATH 125		4[3+1]
MATH	125	Mathematics for Biotechnology			3[3+0]
CHEM	100	General Chemistry			4[3+1]
MATH	130	Computational Statistics			3[3+0]
CHEM	105	Organic Chemistry	CHEM 100		3[2+1]
BIOL	100	Biology I			3[2+1]

**MAJOR CORE (PROGRAM REQUIREMENTS) - 71 CR**

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR [L+P/S]
CSCI	200	Introduction to Computers and Programming			3[2+1]
EEEN	200	Basic Electrical and Electronics Engineering	MATH 125 or MATH 100		4[3+1]
BIOL	105	Biology II	BIOL 100		3[2+1]
BIOT	220	General Genetics	BIOL 105		3[3+0]
BIOT	200	Biochemistry	BIOL 100, CHEM 105		4[3+1]
BIOT	205	General Microbiology	BIOL 100		4[3+1]
BIOT	210	Molecular Biology	BIOT 220		4[3+1]
BIOT	215	IPR Biosafety & Bioethics	BIOL 100		2[2+0]
BIOT	300	Analytical techniques in biotechnology	CHEM 100, BIOT 200		4[3+1]
BIOT	305	Biochemical thermodynamics	BIOT 200		3[3+0]
BIOT	310	Plant & Animal Biotechnology	BIOT 200		3[3+0]
BIOT	315	Bioinformatics	CSCI 200, BIOT 220		4[3+1]
BIOT	320	Environmental Biotechnology	BIOT 205		3[3+0]
BIOT	325	Downstream processing	BIOT205, BIOT210		4[3+1]
BIOT	330	Immunology & Serology	BIOT210		3[2+1]
BIOT	335	Introduction to Nanoscience & Nanotechnology	CHEM 105		4[3+1]
BIOT	430	Biotechnology & Genetic Engineering	BIOT 220, BIOT 210		4[4+0]
BIOT	435	Enzyme Engineering & Technology	BIOT 200		4[3+1]
INTE	200	Internship – I	BIOL 105, 50 credit hours		2
INTE	300	Internship - II	INTE 200, BIOT 300, 80 credit hours		2

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PROE	400	Senior Design Project	90 credit hours, INTE 300, BIOT 430	4[1+3]
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**MAJOR ELECTIVES – 9 CR**

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR [L+P/S]
BIOT	400	Food Biotechnology	BIOT 205		3[3+0]
BIOT	405	Biopharmaceutical Technology	CHEM 105		3[3+0]
BIOT	410	Nanobiotechnology	BIOT 335		3[3+0]
BIOT	415	Fermentation Technology and Applications	BIOT 325		3[3+0]
BIOT	420	Applied and Industrial Microbiology	BIOT 205		3[3+0]
BIOT	425	Advanced Instrumentation Techniques	BIOT 300		3[3+0]

**OPEN ELECTIVES (CHOOSE 6 CREDITS FROM ANY PROGRAM SUBJECT TO FULFILLING THEIR PREREQUISITES IF ANY) - 6 CR**

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR [L+P/S]
		Open Elective I	As per Catalog		3
		Open Elective II	As per Catalog		3

**Proposed Schedule of Delivery**

YEAR/SEM	COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR [L+P/S]
<b>YEAR 1 FALL</b>	MATH	125	Mathematics for Biotechnology			3[3+0]
	BIOL	100	Biology I			3[2+1]
	CHEM	100	General Chemistry			4[3+1]
	ENGL	102	English for Academic Writing			3
	GENE	120	Islamic Culture			3
						<b>16</b>
<b>SPRING</b>	PHYS	100	Mechanics and Wave Optics	MATH 125		4[3+1]
	BIOL	105	Biology II	BIOL 100		3[2+1]
	CSCI	200	Introduction to Computers and Programming			3[2+1]
	COMM	105	Public Speaking			3
	ARAB	102	Arabic Language			3
						<b>16</b>
<b>YEAR 2 FALL</b>	MATH	130	Computational Statistics			3[3+0]
	BIOT	220	General genetics	BIOL 105 MATH 125 or MATH 100		3[3+0]
	EEEN	200	Basic Electrical and Electronics Engineering	100		4[3+1]
	CHEM	105	Organic Chemistry	CHEM 100		3[2+1]
	GENE	210	UAE Studies			3[3+0]
						<b>16</b>
<b>SPRING</b>	BIOT	200	Biochemistry	BIOL 100, CHEM 105		4[3+1]
	BIOT	205	General Microbiology	BIOL 100		4[3+1]
	BIOT	210	Molecular Biology	BIOT 220		4[3+1]
	BIOT	215	IPR, Biosafety & Bioethics	BIOL 100		2[2+0]
						<b>14</b>

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INTERNSHP	INTE 200		Internship I	BIOL 105, 50 credit hours	2
					<b>2</b>
<b>YEAR 3 FALL</b>	BIOT	320	Environmental Biotechnology	BIOT 205	3[3+0]
	BIOT	300	Analytical techniques in Biotechnology	CHEM 100, BIOT 200	4[3+1]
	BIOT	305	Biochemical thermodynamics	BIOT 200	3[3+0]
	BIOT	330	Immunology & Serology	BIOT210	3[2+1]
	BIOT	335	Introduction to Nanoscience & Nanotechnology	CHEM 105	4[3+1]
					<b>17</b>
<b>SPRING</b>					
	BIOT	315	Bioinformatics	CSCI 200, BIOT 220	4[3+1]
	BIOT	325	Downstream processing	BIOT205, BIOT210	4[3+1]
	BIOT	430	Biotechnology & Genetic Engineering	BIOT 220, BIOT210	4[4+0]
	BIOT	310	Plant & Animal Biotechnology	BIOT 200	3[3+0]
					<b>15</b>
INTERNSHIP	INTE 300		Internship II	INTE 200, BIOT 300 80 credit hours	2
					<b>2</b>
<b>YEAR 4 FALL</b>			Open Elective 1		3[3+0]
	GENE	440	Ethics and Professional Responsibility		3[3+0]
	BIOT	435	Enzyme Engineering & Technology	BIOT 200	4[3+1]
	BIOT		Major Elective 1		3[3+0]
	BIOT		Major Elective 2		3[3+0]
					<b>16</b>
<b>SPRING</b>					
	GENE	340	Innovation, Entrepreneurship and Sustainability		3[3+0]
			Open Elective 2		3[3+0]
	BIOT		Major Elective 3		3[3+0]
	PROE	400	Senior Design Project	INTE 300, BIOT 430 90 credit hours	4[1+3]
					<b>13</b>
					<b>127</b>

### 20.2.5 Bachelor of Science in Civil Engineering

#### BACHELOR OF SCIENCE IN CIVIL ENGINEERING MISSION STATEMENT

The mission of the Civil Engineering program is to deliver a modern curriculum that is nationally and internationally benchmarked and that equips graduates with knowledge, skills and competence to analyze, design, formulate and solve problems with real-world constraints, including sustainability, by working in teams and communicating effectively. Students will be afforded the opportunity for engagement with industry through site visits, community and professional bodies. The students develop experimental skills in well-equipped Civil Engineering Labs. Our graduates are innovators, life-long learners, ethical leaders and entrepreneurs who can contribute to the growth of UAE, regional and global communities.

#### EDUCATIONAL AIM OF THE PROGRAM

The Bachelor of Science Civil Engineering at School of Engineering, Architecture and Interior Design aims at:

- (G1) Draw upon the fundamental and allied knowledge, multidisciplinary skills, and tools of Civil engineering to solve complex problems and provide sustainable solutions that satisfy constraints imposed by a global society through innovation, analysis, formulation, modeling, designing, implementing and verification.
- (G2) Enhance their knowledge, skills and competencies through continuing education, training, engaging in

- professional activities, graduate studies and lifelong learning.
- (G3) Work independently and collaboratively in teams, demonstrate leadership, autonomy, and ethical, social and professional responsibility.
  - (G4) Successfully pursue entrepreneurship, careers in the industry or higher education to contribute to the growth of local and global communities

## PROGRAM LEARNING OUTCOMES

On successful completion of the Bachelor of Science Civil Engineering program, the graduate will be able to:

**PLO 1:** identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.

**PLO 2:** 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:** communicate effectively with a range of audiences.

**PLO 4:** 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:** 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:** develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.

**PLO 7:** acquire and apply new knowledge as needed, using appropriate learning strategies

### Mapping (PLOs) to National Qualifications Framework (NQF)

The following matrix illustrates the link of Program Learning Outcomes to the National Qualifications Framework strands.

BS CIVIL – QFEMIRATES [L7]	1. Knowledge					2. Skills				3. Competence										
	A1	A2	A3	A4	A5	B1	B2	B3	B4	3.1. Autonomy and Responsibility				3.2. Role in Context				3.3. Self Development		
										C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
	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	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,	understanding of critical approach to the creation and compilation of a systematic and coherent body of knowledge and concepts gained	a comprehensive understanding of critical analysis, research systems and methods and evaluative problem-solving	familiarity with sources of current and new research and knowledge with	technical, creative and analytical skills appropriate to solving specialised 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	evaluating, selecting and applying appropriate methods, procedures or techniques in processes of investigation towards	evaluating and implementing appropriate research tools and strategies associated with the field of work or discipline	highly developed advanced communication and information technology skills to present, explain and/or critique complex and unpredictable matters	can take responsibility for developing innovative and advanced approaches to	can manage technical, supervisory or design processes in unpredictable, unfamiliar and varying contexts	can work creatively and/or effectively as an individual, in team leadership, managing contexts, across technical or professional activities	can express an internalised, personal view, and accept responsibility to society at large and to socio-cultural norms and	can function with full autonomy in technical and supervisory contexts and adopt	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 specialisation in field of work or discipline	can participate in peer relationships with qualified practitioners and lead	can take responsibility for managing the professional development and direct mentoring of individuals and groups	can self-evaluate and take responsibility for contributing to professional practice, and undertake regular professional development and/or further	can manage learning tasks independently and professionally, in complex and sometimes unfamiliar learning contexts	can contribute to and observe ethical standards
PLO 1: identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.	X			X																
PLO 2: apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social,		X	X				X	X												

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environmental, and economic factors.																				
PLO 3: communicate effectively with a range of audiences.									X											
PLO 4: 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.																				X
PLO 5: function effectively on a team whose members together provide leadership create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.											X	X	X	X	X	X	X			
PLO 6: develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.						X	X													

PLO 7: acquire and apply new knowledge as needed, using appropriate learning strategies.					X					X	X			X				X	X	
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## Program Structure

**GENERAL EDUCATION (UNIVERSITY REQUIREMENTS) - 21 CR**

<b>COURSE CODE</b>	<b>COURS E #</b>	<b>COURSE TITLE</b>	<b>PREREQUISITES</b>	<b>COREQUISITE S</b>	<b>CR [L+P/S]</b>
ARAB	102	Arabic Language			3 [3+0]
ENGL	102	English for Academic Writing			3 [3+0]
COMM	105	Public Speaking			3 [3+0]
GENE	120	Islamic Culture			3 [3+0]
GENE	210	UAE Studies			3 [3+0]
GENE	340	Innovation, Entrepreneurship and Sustainability			3 [3+0]
GENE	440	Ethics and Professional Responsibility			3 [3+0]

**BASIC SCIENCE AND MATH (ENGINEERING REQUIREMENTS) – 30 CR**

<b>COURSE CODE</b>	<b>COURS E #</b>	<b>COURSE TITLE</b>	<b>PREREQUISITES</b>	<b>COREQUISIT ES</b>	<b>CR [L+P/S]</b>
PHYS	100	Mechanics and Wave Optics	MATH100	MATH105	4[3+1]
MATH	100	Mathematics I			4[4+0]
CHEM	100	General Chemistry			4[3+1]
MATH	105	Mathematics II	MATH 100		3[3+0]
PHYS	105	Electromagnetics and Modern Physics	PHYS100		3[2+1]
MATH	120	Probability and Statistics			3[3+0]
MATH	200	Linear algebra	MATH 105		3[3+0]
BIOL	100	Biology I			3[2+1]
MATH	220	Differential Equations	MATH 105		3[3+0]

**MAJOR CORE (PROGRAM REQUIREMENTS) - 63 CR**

<b>COURSE CODE</b>	<b>COURS E #</b>	<b>COURSE TITLE</b>	<b>PREREQUISITES</b>	<b>COREQUISIT ES</b>	<b>CR [L+P/S]</b>
CIVL	200	Basic Mechanics	MATH 105		3[2+1]
CSCI	200	Introduction to Computers and Programming			3[2+1]
MECH	205	Engineering Graphics and Workshop Practices			2[0+2]
CIVL	215	Surveying			4[3+1]
CIVL	225	Transportation Engineering	CIVL 215 & CIVL 230		4[3+1]
MECH	310	Strength of Materials	CIVL 200		4[3+1]
CIVL	230	Building Materials			3[2+1]
MECH	315	Engineering Fluid Mechanics	CIVL 200		4[3+1]
CIVL	300	Structural Analysis	CIVL 200		3[3+0]
CIVL	305	Soil and Rock Mechanics		MECH 315	4[3+1]
CIVL	315	Design of Reinforced Concrete structures	CIVL300&CIVL230		3[2+1]
CIVL	320	Water resources and water supply engineering	MECH 315		3[2+1]
CIVL	405	Waste water engineering	MECH 315		3[2+1]
CIVL	330	Traffic Engineering management	CIVL 225		3[3+0]
CIVL	325	Design of Steel Structures	CIVL300		3[2+1]

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CIVL	310	Foundation Engineering	CIVL 305	3[3+0]
CIVL	420	Construction Project management	CIVL 230	3[2+1]
ENGR 400		Senior Design Project I	90 credit hours & INTE 300	2[1+1]

ENGR 405		Senior Design Project II	ENGR 400	2[0+2]
INTE 200		Internship I	50 credit hours	2
INTE 300		Internship II	90 credit hours & INTE 200	2

MAJOR ELECTIVES					
COURSE CODE	COURS E #	COURSE TITLE	PREREQUISITES	COREQUI SITES	CR [L+P/S]
CIVL	400	Quantity surveying and estimation	CIVL 310 & CIVL 315		3[3+0]
CIVL	410	Analysis and design of prestressed concrete structures			3[3+0]
CSCI	470	Data Science for Engineers	MATH 120		3[2+1]
CIVL	435	Green building concepts	CIVL 420 3[2+1]		
CIVL	430	Ground improvement techniques	CIVL 305		3[2+1]
CIVL	440	Health, Safety and Environmental Engineering for Construction.			3[3+0]

MAJOR ELECTIVES (GENERAL BS CIVIL ENGINEERING WITH NO CONCENTRATION: CHOOSE A MIX OF 15 CREDITS FROM TWO POOLS) - 15 CR					
COURSE CODE	COURS E #	COURSE TITLE	PREREQUISITES	COREQUI SITES	CR [L+P/S]
		Any Combination of Credits from Major			
		Electives	As per Catalog		15

OPEN ELECTIVES (CHOOSE 6 CREDITS FROM ANY PROGRAM SUBJECT TO FULFILLING THEIR PREREQUISITES IF ANY) - 6 CR					
COURSE CODE	COURS E #	COURSE TITLE	PREREQUISITES	COREQUISIT ES	CR [L+P/S]
		Open Elective I	As per Catalog		3
		Open Elective II	As per Catalog		3

## Proposed Schedule of Delivery

YEAR/SEM	COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR [L+P/S]
YEAR 1 FALL	BIOL	100	Biology I			3[2+1]
	MATH	100	Mathematics I			4[4+0]
	CHEM	100	General Chemistry			4[3+1]
	ENGL	102	English for Academic Writing			3
	GENE	120	Islamic Culture			3
						17
SPRING	MATH	105	Mathematics II	MATH 100		3[3+0]
	PHYS	100	Mechanics and Wave Optics	MATH100	MATH105	4[3+1]
	CSCI	200	Introduction to Computers and Programming			3[2+1]
	MECH	205	Engineering Graphics and Workshop Practices			2[0+2]
	COMM	105	Public Speaking			3
	ARAB	102	Arabic Language			3
						18
YEAR 2 FALL	MATH	220	Differential Equations	MATH 105		3[3+0]
	MATH	200	Linear algebra	MATH 105		3[3+0]
	PHYS	105	Electromagnetics and Modern Physics	PHYS100		3[2+1]
	CIVL	200	Basic Mechanics	MATH 105		3[2+1]
	GENE	210	UAE Studies			3[3+0]
						15
SPRING	MATH	120	Probability and Statistics			3[3+0]
	CIVL	215	Surveying			4[3+1]
	MECH	310	Strength of materials	CIVL 200		4[3+1]
	CIVL	300	Structural Analysis	CIVL 200		3[3+0]
	CIVL	230	Building Materials			3[2+1]
						17
INTE 200		Internship I		50 credit hours		2
YEAR 3						
	CIVL	225	Transportation Engineering	CIVL 230 & CIVL215		4[3+1]
FALL	CIVL	305	Soil and Rock Mechanics		MECH 315	4[3+1]
	MECH	315	Engineering fluid mechanics	CIVL 200		4[3+1]
	CIVL	420	Construction Project management	CIVL 230		3[2+1]
	CIVL	315	Design of Reinforced Concrete Structures	CIVL 230, CIVL 300		3[2+1]

					<b>18</b>
<b>SPRING</b>	CIVL	405	Waste water engineering	MECH 315	3[2+1]
	CIVL	330	Traffic Engineering management	CIVL 225	3[3+0]
	CIVL	320	Water Resources & water supply Engineering	MECH 315	3[2+1]
	CIVL	325	Design of Steel Structures	CIVL 300	3[2+1]
	CIVL	310	Foundation Engineering	CIVL 305	3[3+0]
					<b>15</b>
<b>INTERNSHIP</b>	INTE 300		Internship II	90 credit hours & INTE 200	2
<b>YEAR 4</b>			Open Elective 1		3
			Major Elective 1		3
<b>FALL</b>			Major Elective 2		3
			Major Elective 3		3
			Innovation, Entrepreneurship and Sustainability		3 [3+0]
	GENE ENGR	340			
			Senior Design Project I	90 credit hours & INTE 300	2[1+1]
					<b>17</b>
<b>SPRING</b>					
			Open Elective 2		3
	GENE	440	Ethics and Professional Responsibility		3 [3+0]
			Major Elective 4		3
			Major Elective 5		3
	ENGR	405	Senior Design Project II	ENGR 400	2[0+2]
					<b>14</b>
					<b>135</b>

### 20.2.6 Bachelor of Science in Computer Science

#### BACHELOR OF SCIENCE IN COMPUTER SCIENCE MISSION STATEMENT

The mission of the Computer Science program is to deliver a modern curriculum that is nationally and internationally benchmarked and that equips graduates with knowledge, skills and competence to analyze, design and solve computing problems with real-world constraints (including sustainability) by working in teams and communicating effectively. Students will be afforded the opportunity for industry and community engagement and to develop research skills. Our graduates are innovators, life-long learners, ethical leaders and entrepreneurs who can contribute to the growth of UAE, regional and global communities.

#### EDUCATIONAL AIM OF THE PROGRAM

The Bachelor of Science Computer Science at School of Engineering, Architecture and Interior Design aims at:

- (G1) Draw upon the fundamental and allied knowledge, multidisciplinary skills, and tools of Computer Science to solve complex problems and provide sustainable solutions that satisfy constraints imposed by a global society through innovation, analysis, formulation, modeling, designing, implementing and verification.
- (G2) Enhance their knowledge, skills and competencies through continuing education, training, engaging in professional activities, graduate studies and lifelong learning.
- (G3) Work independently and collaboratively in teams, demonstrate leadership, autonomy, and ethical,

social and professional responsibility.

- (G4) Successfully pursue entrepreneurship, careers in the industry or higher education to contribute to the growth of local and global communities

### **PROGRAM LEARNING OUTCOMES**

On successful completion of the Bachelor of Science Computer Science program, the graduate 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:** apply computer science theory and software development fundamentals to produce computing-based solutions.

**PLO 7:** acquire and apply new knowledge as needed, using appropriate learning strategies

### **CYBERSECURITY CONCENTRATION**

In addition to preceding Program Learning Outcomes, graduates opting for the Cybersecurity Concentration will be able to:

**PLO 8:** analyze security in enterprise networks, define cybersecurity policies and procedures to manage risks.

**PLO 9:** apply knowledge to assess and deploy cybersecurity solutions to IT infrastructure.

### **ARTIFICIAL INTELLIGENCE CONCENTRATION**

In addition to preceding Program Learning Outcomes, graduates opting for the Artificial Intelligence Concentration will be able to:

**PLO 10:** apply basic principles, models, and algorithms in Artificial Intelligence to identify, evaluate and solve complex computing problems.

**PLO 11:** analyze and solve cognitive problems using machine learning, analytics, and intelligent algorithms

### **Mapping (PLOs) to National Qualifications Framework (NQF)**

The following matrix illustrates the link of Program Learning Outcomes to the National Qualifications Framework strands.

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[illegible]

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[illegible]

**Program Structure****GENERAL EDUCATION (UNIVERSITY REQUIREMENTS) - 21 CR**

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR [L+P/S]
ARAB	102	Arabic Language			3 [3+0]
COMM	105	Public Speaking			3 [3+0]
ENGL	102	English for Academic Writing			3 [3+0]
GENE	120	Islamic Culture			3 [3+0]
GENE	210	UAE Studies			3 [3+0]
GENE	340	Innovation, Entrepreneurship and Sustainability			3 [3+0]
GENE	440	Ethics and Professional Responsibility			3 [3+0]

**BASIC SCIENCE AND MATH (ENGINEERING REQUIREMENTS) – 23 CR**

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR [L+P/S]
MATH	100	Mathematics I			4[4+0]
MATH	105	Mathematics II	MATH 100		3[3+0]
MATH	110	Mathematics for Technology			3[3+0]
MATH	120	Probability and Statistics			3[3+0]
MATH	210	Numerical Methods & Optimization	MATH 105		3[3+0]
PHYS	100	Mechanics and Wave Optics	MATH 100	Math 105	4[3+1]
PHYS	105	Electromagnetism and Modern Physics	PHYS 100		3[2+1]

**MAJOR CORE (PROGRAM REQUIREMENTS) - 66 CR**

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR [L+P/S]
EEEN	200	Basic Electrical and Electronics Engineering	MATH 100 or MATH 125		4[3+1]
EEEN	215	Digital Design	CSCI 200		4[3+1]
CSCI	200	Introduction to Computers and Programming			3[2+1]
CSCI	205	Object-Oriented Programming using Java			4[3+1]
CSCI	210	Database Management Systems			4[3+1]
CSCI	215	Data Structures and Algorithms	CSCI 200		4[3+1]
CSCI	300	Operating Systems			3[2+1]
CSCI	305	Computer Architecture and Organization	EEEN 215		4[3+1]
CSCI	310	Principles of Programming Languages	CSCI 205		3[3+0]
CSCI	315	Theory of Computation			4[4+0]
CSCI	320	Analysis and Design of Algorithms	CSCI 215		4[3+1]
CSCI	330	Computer Networks			4[3+1]
CSCI	335	Software Engineering	CSCI 205		3[2+1]
CSCI	340	Computer Security and the Internet	CSCI 330		3[3+0]
CSCI	400	Artificial Intelligence			4[3+1]
CSCI	405	Parallel and Distributed Computing	CSCI 300		3[3+0]
INTE 200		Internship I	45 credit hours		2
INTE 300		Internship II	80 credit hours and INTE 200		2
PROE	400	Senior Design Project	90 credit hours		4[1+3]

**MAJOR ELECTIVES (CONCENTRATION REQUIREMENTS: CYBERSECURITY) - 15 CR**

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR [L+P/S]
CSCI	440	Advanced Networking and Cybersecurity	CSCI 330		3[3+0]
CSCI	445	Applied Cryptography			3[3+0]
CSCI	450	Network Security			3[3+0]
CSCI	455	Digital Forensics			3[3+0]
CSCI	460	Security Policy, Laws and Governance			3[3+0]
CSCI	465	Information Security Management			3[3+0]

**MAJOR ELECTIVES (CONCENTRATION REQUIREMENTS: ARTIFICIAL INTELLIGENCE) - 15**

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR [L+P/S]
CSCI	410	Digital Image Processing and Computer Vision			3[3+0]
CSCI	415	AI for Data Analytics			3[3+0]
CSCI	420	Natural Language Processing			3[3+0]
CSCI	425	Cognitive Robotics			3[3+0]
CSCI	430	Machine Learning	CSCI 215		3[3+0]
CSCI	435	Neural Networks	CSCI 215		3[3+0]

**MAJOR ELECTIVES (GENERAL BS COMPUTER SCIENCE WITH NO CONCENTRATION: CHOOSE A MIX OF 15 CREDITS FROM TWO POOLS) - 15 CR**

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR [L+P/S]
		Any Combination of Credits from Offered Concentrations	As per Catalog		15

## Schedule of Delivery

YEAR/SEM	COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR [L+P/S]
<b>Year 1 FALL</b>	ARAB	102	Arabic Language			3
	ENGL	102	English for Academic Writing			3
	GENE	120	Islamic Culture			3
	MATH	100	Mathematics I			4[4+0]
						<b>13</b>
<b>SPRING</b>	COMM	105	Public Speaking			3[3+0]
	MATH	105	Mathematics II	MATH 100		3[3+0]
	PHYS	100	Mechanics and Wave Optics	MATH 100	Math 105	4[3+1]
	CSCI	200	Introduction to Computers and Programming			3[2+1]
						<b>13</b>
<b>YEAR 2 FALL</b>	GENE	210	UAE Studies			3[3+0]
	PHYS	105	Electromagnetics and Modern Physics	PHYS 100		3[2+1]
	EEEN	200	Basic Electrical and Electronics Engineering	MATH 100		4[3+1]
	CSCI	205	Object-Oriented Programming using Java			4[3+1]
	CSCI	215	Data Structures and Algorithms	CSCI 200		4[3+1]
						<b>18</b>
<b>SPRING</b>	MATH	120	Probability and Statistics			3[3+0]
	MATH	210	Numerical Methods & Optimization	Math 105		3[3+0]
	EEEN	215	Digital Design	CSCI 200		4[3+1]
	CSCI	210	Database Management Systems			4[3+1]
	CSCI	300	Operating Systems			3[2+1]
						<b>17</b>
<b>INTERNSHIP</b>	INTE 200		Internship - I	45 credit hours		2
<b>YEAR 3 FALL</b>	MATH	110	Mathematics for Technology			3[3+0]
	CSCI	305	Computer Architecture and Organization	EEEN 215		4[3+1]
	CSCI	310	Principles of Programming Languages	CSCI 205		3[3+0]
	CSCI	315	Theory of Computation			4[4+0]
	CSCI	330	Computer Networks			4[3+1]
						<b>18</b>
<b>SPRING</b>	CSCI	320	Analysis and Design of Algorithms	CSCI 215		4[3+1]
	CSCI	335	Software Engineering	CSCI 205		3[2+1]
	CSCI	340	Computer Security and the Internet	CSCI 330		3[3+0]
	CSCI	400	Artificial Intelligence			4[3+1]
	CSCI	405	Parallel and Distributed Computing	CSCI 300		3[3+0]
						<b>17</b>

<b>INTERNSHIP</b>	<b>INTE 300</b>		<b>Internship - II</b>	<b>80 credit hours and INTE 200</b>	<b>2</b>
<b>YEAR 4</b>	<b>GENE</b>	<b>440</b>	<b>Ethics and Professional Responsibility</b>		<b>3[3+0]</b>
<b>FALL</b>	CSCI		Major Elective 1		3
	CSCI		Major Elective 2		3
	CSCI		Major Elective 3		3
					<b>12</b>
<b>SPRING</b>	<b>GENE</b>	<b>340</b>	<b>Innovation, Entrepreneurship and Sustainability</b>		<b>3</b>
					<b>[3+0]</b>
	CSCI		Major Elective 4		3
	CSCI		Major Elective 5		3
	PROE 400		Senior Design Project	<b>90 credit hours</b>	<b>4[1+3]</b>
					<b>13</b>
					<b>125</b>

### 20.2.7 Bachelor of Science in Electrical Engineering

#### BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING MISSION STATEMENT

The mission of the Electrical Engineering program is to deliver a modern curriculum that is nationally and internationally benchmarked and that equips graduates with knowledge, skills and competence to analyze, design, formulate and solve electrical engineering problems with real-world constraints (including sustainability) by working in teams and communicating effectively. The students develop experimental skills in well-equipped Electrical and Electronics Engineering Labs. Our graduates are innovators, life-long learners, ethical leaders and entrepreneurs who can contribute to the growth of UAE, regional and global communities.

#### EDUCATIONAL AIM OF THE PROGRAM

The Bachelor of Science Electrical Engineering at School of Engineering, Architecture and Interior Design aims at:

- (G1) Draw upon the fundamental and allied knowledge, multidisciplinary skills, and tools of Electrical engineering to solve complex problems and provide sustainable solutions that satisfy constraints imposed by a global society through innovation, analysis, formulation, modeling, designing, implementing and verification.
- (G2) Enhance their knowledge, skills and competencies through continuing education, training, engaging in professional activities, graduate studies and lifelong learning.
- (G3) Work independently and collaboratively in teams, demonstrate leadership, autonomy, and ethical, social and professional responsibility.
- (G4) Successfully pursue entrepreneurship, careers in the industry or higher education to contribute to the growth of local and global communities

#### PROGRAM LEARNING OUTCOMES

On successful completion of the Bachelor of Science Electrical Engineering program, the graduate will be able to:

**PLO 1:** identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.

**PLO 2:** 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:** communicate effectively with a range of audiences.

**PLO 4:** 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:** 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:** develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.

**PLO 7:** acquire and apply new knowledge as needed, using appropriate learning strategies

## **SOLAR ENERGY CONCENTRATION**

In addition to preceding Program Learning Outcomes, graduates opting for the Solar Energy Concentration will be able to:

**PLO 8:** use concepts and applications of solar energy to identify, formulate, and solve energy problems.

**PLO 9:** design solar energy systems to produce solutions that meet specified needs with sustainable, environmental, and economic factors.

### **Mapping (PLOs) to National Qualifications Framework (NQF)**

The following matrix illustrates the link of Program Learning Outcomes to the National Qualifications Framework strands.

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[illegible]

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BS ELECTRICAL – QFEMIRATES [L7]	1. Knowledge					2. Skills				3. Competence										
										3.1. Autonomy and Responsibility				3.2. Role in Context				3.3. Self Development		
	A1	A2	A3	A4	A5	B1	B2	B3	B4	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
PLO 4: 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.																				X
PLO 5: function effectively on a team whose members together provide leadership create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.											X	X	X	X	X	X	X			
PLO 6: develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.						X	X													
PLO 7: acquire and apply new knowledge as needed, using appropriate learning strategies.					X					X	X			X				X	X	
<b><u>SOLAR ENERGY CONCENTRATION</u></b>		X		X																
PLO 8: use concepts and applications of renewable energy to identify, formulate, and solve energy problems.																				
PLO 9: design renewable energy systems to produce solutions that meet specified needs with sustainable, environmental, and economic factors.		X	X				X	X												

## Program Structure

### GENERAL EDUCATION (UNIVERSITY REQUIREMENTS) - 21 CR

COURS E CODE	RSE #	COURSE TITLE	PREREQUISITES	COREQUISIT ES	CR [L+P/S]
ARAB	102	Arabic Language			3 [3+0]
ENGL	102	English for Academic Writing			3 [3+0]
COMM	105	Public Speaking			3 [3+0]
GENE	120	Islamic Culture			3 [3+0]
GENE	210	UAE Studies			3 [3+0]
GENE	340	Innovation, Entrepreneurship and Sustainability			3 [3+0]
GENE	440	Ethics and Professional Responsibility			3 [3+0]

### BASIC SCIENCE AND MATH (ENGINEERING REQUIREMENTS) - 30 CR

COURS E CODE	RSE #	COURSE TITLE	PREREQUISITES	COREQUISIT ES	CR [L+P/S]
PHYS	100	Mechanics and Wave Optics	MATH 100	MATH 105	4[3+1]
MATH	100	Mathematics I			4[4+0]
CHEM	100	General Chemistry			4[3+1]
MATH	105	Mathematics II	MATH 100		3[3+0]
PHYS	105	Electromagnetics and Modern Physics	PHYS 100		3[2+1]
MATH	120	Probability and Statistics			3[3+0]
MATH	200	Linear algebra	MATH 105		3[3+0]
MATH	210	Numerical Methods and Optimization	MATH 105		3[3+0]
MATH	220	Differential Equations	MATH 105		3[3+0]

### MAJOR CORE (PROGRAM REQUIREMENTS) - 70 CR

COURS E CODE	RSE #	COURSE TITLE	PREREQUISITES	COREQUISIT ES	CR [L+P/S]
CIVL	200	Basic Mechanics	MATH 105		3[2+1]
CSCI	200	Introduction to Computers and Programming			3[2+1]
EEEN	200	Basic Electrical and Electronics Engineering	MATH 100		4[3+1]
EEEN	205	Circuits and Systems	EEEN 200, MATH 220		4[3+1]
EEEN	300	Linear Integrated Circuits	EEEN 200		4[3+1]
EEEN	225	Electrical Machines	EEEN 200		4[3+1]
EEEN	215	Digital Design	CSCI 200		4[3+1]
EEEN	210	Signals and Systems	MATH 220		3[3+0]
EEEN	310	Control Systems	EEEN 210		4[3+1]
EEEN	315	Electronics Measurements and Instrumentation	EEEN 210, EEEN 215		4[3+1]
EEEN	220	Microprocessors, Microcontrollers & Interfacing	EEEN 215, CSCI 200		4[3+1]
EEEN	320	Electromagnetic Field Theory	PHYS 105, MATH 220		3[3+0]
EEEN	325	Analog and Digital Communications	EEEN 210, MATH 120		4[3+1]
EEEN	330	Power Systems	EEEN 225		4[3+1]
EEEN	335	Analog and Digital VLSI Design	EEEN 215		3[2+1]
EEEN	340	Power Electronics	EEEN 300		4[3+1]
EEEN	400	Data Communication Networks	EEEN 325		3[3+0]
ENGR	400	Senior Design Project I	EEEN 220, EEEN 310, 75 Credit Hours		2[1+1]
ENGR	405	Senior Design Project II	EEEN 330, ENGR 400		2[0+2]
INTE	200	Internship I	EEEN 200, 50 Credit Hours		2

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INTE	300	Internship II	EEEN 315, INTE 200, 75 Credit Hours		2
MAJOR ELECTIVES					
COURS E CODE	COU RSE #	COURSE TITLE	PREREQUISITES	COREQUI SITES	CR [L+P/S]
EEEN	430	Power Plant Instrumentation	EEEN 330		3[3+0]
EEEN	405	Flexible AC Transmission Systems	EEEN 330		3[3+0]
EEEN	415	Power Systems Analysis and Stability	EEEN 330		3[3+0]
EEEN	420	Industrial Automation and Control	EEEN 315		3[3+0]
EEEN	425	Smart Grid Technologies	EEEN 340		3[3+0]
EEEN	410	Power System Protection and Switch Gear	EEEN 340		3[3+0]
EEEN	475	Digital Signal Processing	EEEN 210		3[3+0]
EEEN	480	Embedded Systems	EEEN 315		3[3+0]
MAJOR ELECTIVES (CONCENTRATION REQUIREMENTS: SOLAR ENERGY) - 15 Credit Hours					
COURS E CODE	COU RSE #	COURSE TITLE	PREREQUISITES	COREQUI SITES	CR [L+P/S]
EEEN	435	Solar Cell Engineering	EEEN 200		3[3+0]
EEEN	440	Design and simulation of Solar Cells	EEEN 200		3[2+1]
EEEN	445	Wind Power Technology	EEEN 200		3[3+0]
EEEN	450	Thin Film Photovoltaics	EEEN 200		3[3+0]
EEEN	455	Energy Management	EEEN 330		3[3+0]
EEEN	460	Energy Storage	EEEN 200, CHEM 100		3[3+0]
EEEN	465	Building Integrated Photovoltaics	EEEN 200		3[3+0]
EEEN	470	Organic Solar Cells	EEEN 200, CHEM 100		3[3+0]
MAJOR ELECTIVES (GENERAL BS ELECTRICAL ENGINEERING WITH NO CONCENTRATION: CHOOSE A MIX OF15 CREDITS FROM TWO POOLS) - 15 CR					
COURS E CODE	COU RSE #	COURSE TITLE	PREREQUISITES	COREQUI SITES	CR [L+P/S]
		Any Combination of 15 Credit Hours from list of 16 courses including the 8 Solar Concentration courses	As per Catalog		15
OPEN ELECTIVE (CHOOSE 3 CREDITS FROM ANY PROGRAM SUBJECT TO FULFILLING THEIR PREREQUISITES IF ANY) - 3 CR					
COURS E CODE	COU RSE #	COURSE TITLE	PREREQUISITES	COREQUI TES	CR [L+P/ S]
		Open Elective I	As per Catalog		3
ECON	370	Fundamentals of Engineering Economics	--		3[3+0]
ACCT	110	Financial Accounting I		ENGL 101	3[3+0]

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## Proposed Schedule of Delivery

YEAR/SEM	COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR [L+P/S]
<b>YEAR 1 FALL</b>	MATH	100	Mathematics I			4[4+0]
	CHEM	100	General Chemistry			4[3+1]
	ENGL	102	English for Academic Writing			3[3+0]
	GENE	120	Islamic Culture			3[3+0]
	MATH	120	Probability and Statistics			3[3+0]
						<b>17</b>
<b>SPRING</b>	MATH	105	Mathematics II	MATH 100		3[3+0]
	CSCI	200	Introduction to Computers and Programming			3[2+1]
	COMM	105	Public Speaking			3[3+0]
	ARAB	102	Arabic Language			3[3+0]
	PHYS	100	Mechanics and Wave Optics	MATH 100	MATH 105	4[3+1]
						<b>16</b>
<b>YEAR 2 FALL</b>	MATH	220	Differential Equations	MATH 105		3[3+0]
	EEEN	200	Basic Electrical and Electronics Engineering	MATH 100		4[3+1]
	GENE	210	UAE Studies			3[3+0]
	PHYS	105	Electromagnetics and Modern Physics	PHYS 100		3[2+1]
	CIVL	200	Basic Mechanics	MATH 105		3[2+1]
						<b>16</b>
<b>SPRING</b>	EEEN	210	Signals and Systems	MATH 220		3[3+0]
	EEEN	215	Digital Design	CSCI 200		4[3+1]
	EEEN	225	Electrical Machines	EEEN 200		4[3+1]
	EEEN	205	Circuits & System	EEEN 200, MATH 220		4[3+1]
	MATH	200	Linear algebra	MATH 105		3[3+0]
						<b>18</b>
<b>SUMMER</b>	INTE	200	Internship I	EEEN 200, 50 Credit Hours		2
						<b>2</b>
<b>YEAR 3 FALL</b>	MATH	210	Numerical Methods and Optimization	MATH 105		3[3+0]
	EEEN	310	Control Systems	EEEN 210		4[3+1]
	EEEN	315	Electronics Measurements and Instrumentation	EEEN 210, EEEN 215		4[3+1]
	EEEN	300	Linear Integrated Circuits	EEEN 200		4[3+1]
	EEEN	320	Electromagnetic Field Theory	PHYS 105, MATH 220		3[3+0]
						<b>18</b>
<b>SPRING</b>	EEEN	325	Analog and Digital Communications	EEEN 210, MATH 120		4[3+1]
	EEEN	330	Power Systems	EEEN 225		4[3+1]
	EEEN	340	Power Electronics	EEEN 300		4[3+1]
	EEEN	220	Microprocessors, Microcontrollers & Interfacing	EEEN 215, CSCI 200		4[3+1]
						<b>16</b>
<b>SUMMER</b>	INTE	300	Internship II	EEEN 315, INTE 200, 75 Credit Hours		2

					2
YEAR 4					
FALL	EEEN	335	Analog and Digital VLSI Design	EEEN 215	3[2+1]
	GENE	340	Innovation, entrepreneurship and sustainability		3[3+0]
	EEEN	-	Major Elective 1		3[3+0]
	EEEN	-	Major Elective 2		3[3+0]
	EEEN	400	Data Communication Networks	EEEN 325	3[3+0]
	ENGR	400	Senior Design Project I	EEEN 220, EEEN 310, 75 Credit Hours	2[1+1]
					17
SPRING	GENE	440	Ethics and Professional Practice		3 [3+0]
			Open Elective 1		3[3+0]
	EEEN	-	Major Elective 3		3[3+0]
	EEEN	-	Major Elective 4		3[3+0]
	EEEN	-	Major Elective 5		3[3+0]
	ENGR	405	Senior Design Project II	EEEN 330, ENGR 400, 90 Credit Hours	2[0+2]
					17
					139

## 20.2.8 Bachelor of Science in Information Technology

### BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY MISSION STATEMENT

The mission of the Information Technology program is to deliver a modern curriculum that is nationally and internationally benchmarked and that equips graduates with knowledge, skills and competence to select, develop, apply, integrate, and administer computing technologies to achieve customer goals by working in teams and communicating effectively. Students will be afforded the opportunity for industry and community engagement and to obtain professional certifications. Our graduates are innovators, life-long learners, ethical leaders and entrepreneurs who can contribute to the growth of UAE, regional and global communities.

### EDUCATIONAL AIM OF THE PROGRAM

The Bachelor of Science Information Technology at School of Engineering, Architecture and Interior Design aims at:

- (G1) Draw upon the fundamental and allied knowledge, multidisciplinary skills, and tools of Information Technology to solve complex problems and provide sustainable solutions that satisfy constraints imposed by a global society through innovation, analysis, formulation, modeling, designing, implementing and verification.
- (G2) Enhance their knowledge, skills and competencies through continuing education, training, engaging in professional activities, graduate studies and lifelong learning.
- (G3) Work independently and collaboratively in teams, demonstrate leadership, autonomy, and ethical, social and professional responsibility.
- (G4) Successfully pursue entrepreneurship, careers in the industry or higher education to contribute to the growth of local and global communities

### PROGRAM LEARNING OUTCOMES

On successful completion of the Bachelor of Science Information Technology program, the graduate 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:** Develop systemic approaches to select, develop, apply, integrate, and administer secure computing technologies to accomplish user goals.

**PLO 7:** Acquire and apply new knowledge as needed, using appropriate learning strategies.

### **Mapping (PLOs) to National Qualifications Framework (NQF)**

The following matrix illustrates the link of Program Learning Outcomes to the National Qualifications Framework strands.



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[illegible]

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BS ITEC – QFEMIRATES [L7]	1. Knowledge					2. Skills				3. Competence										
	A1	A2	A3	A4	A5	B1	B2	B3	B4	3.1. Autonomy and Responsibility				3.2. Role in Context				3.3. Self Development		
	A1	A2	A3	A4	A5	B1	B2	B3	B4	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
PLO 4: recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.																				X
PLO 5: function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.											X	X	X	X	X	X	X			
PLO 6: Use systemic approaches to select, develop, apply, integrate, and administer secure computing technologies to accomplish user goals.	X					X														
PLO 7: acquire and apply new knowledge as needed, using appropriate learning strategies.					X					X	X			X				X	X	

## Program Structure

GENERAL EDUCATION (UNIVERSITY REQUIREMENTS) - 21 CR					
COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
ARAB	102	Arabic Language			3[3+0]
ENGL	102	English for Academic Writing			3[3+0]
COMM	105	Public Speaking			3[3+0]
GENE	120	Islamic Culture			3[3+0]
GENE	210	UAE Studies			3[3+0]
GENE	340	Innovation, Entrepreneurship and Sustainability			3[3+0]
GENE	440	Ethics and Professional Responsibility			3[3+0]
Essentials of IT - 26 CR					
COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
NSCI	100	Natural Sciences			4 [3+1]
MATH	110	Mathematics for Technology			3 [3+0]
ITEC	105	Introduction to Programming			4[3+1]
CSCI	205	Object Oriented Programming using Java			4[3+1]
CSCI	210	Database Management Systems			4[3+1]
MATH	130	Computational Statistics			3[3+0]
ITEC	100	IT Fundamental PC Software			4[3+1]
MAJOR CORE (PROGRAM REQUIREMENTS) – 61 CR					
COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
ITEC	200	Network Basics	ITEC 100		4[3+1]
ITEC	205	Systems Analysis and Design	ITEC 105		4[4+0]
CSCI	215	Data Structures and Algorithm	ITEC 105		4[3+1]
CSCI	300	Operating Systems			3[2+1]
ITEC	220	Web Technologies and Applications	ITEC 105		3[2+1]
ITEC	225	Cyber and Information Security	ITEC 200		3[3+0]
ITEC	300	Computer Communications and Networking	ITEC 200		3[3+0]
CSCI	335	Software Engineering	CSCI 205		3[2+1]
ITEC	310	Internet of Things	ITEC 200		3[2+1]
ITEC	315	Open Source Technologies with PHP and MySql	ITEC 220 and CSCI 210		3[2+1]
ITEC	320	Python Programming	CSCI 205		4[3+1]
ITEC	400	Data Warehousing and Mining	CSCI 210		3[2+1]
CSCI	400	Artificial Intelligence			4[3+1]
ITEC	330	IT Project Management	CSCI 335		3[3+0]
CSCI	415	AI for Data Analytics			3[3+0]
ITEC	410	Human Computer Interface	ITEC 205		3[2+1]
PROE	400	Senior Design Project	INTE 300	90 Credit Hour	4[1+3]
INTE	200	Internship – I		70 Credit Hour	2
INTE	300	Internship -II	INTE 200	90 Credit Hour	2
MAJOR ELECTIVES - 15 CR					
COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
ITEC	415	Cloud Computing	ITEC 220		3[3+0]
CSCI	430	Machine Learning	CSCI 215		3[3+0]
ITEC	430	Data Science	ITEC 400		3[2+1]
ITEC	435	Blockchain Technologies	ITEC 225		3[3+0]
ITEC	440	Mobile Application Development	CSCI 205		3[2+1]
CSCI	465	Information Security Management			3[3+0]
ITEC	420	Digital Marketing	ITEC 320		3[2+1]

## Proposed Schedule of Delivery

YEAR/SEM	COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
<b>YEAR 1</b>	GENE	120	Islamic Culture			3[3+0]
<b>FALL</b>	ENGL	102	English for Academic Writing			3[3+0]
	NSCI	100	Natural Sciences			4[3+1]
	MATH	110	Mathematics for Technology			3[3+0]
	ITEC	100	IT Fundamental PC Software			4[3+1]
						<b>17</b>
<b>SPRING</b>	COMM	105	Public Speaking			3[3+0]
	ARAB	102	Arabic Language			3[3+0]
	ITEC	105	Introduction to Programming			4[3+1]
	ITEC	200	Network Basics	ITEC 100		4[3+1]
						<b>14</b>
<b>YEAR 2</b>	MATH	130	Computational Statistics			3[3+0]
<b>FALL</b>	CSCI	205	Object Oriented Programming using Java			4[3+1]
	GENE	210	UAE Studies			3[3+0]
	CSCI	215	Data Structures and Algorithm	ITEC 105		4[3+1]
	ITEC	205	Systems Analysis and Design	ITEC 105		4[4+0]
						<b>18</b>
<b>SPRING</b>	CSCI	210	Database Management Systems			4[3+1]
	CSCI	300	Operating Systems			3[2+1]
	CSCI	335	Software Engineering	CSCI 205		3[2+1]
	ITEC	220	Web Technologies and Applications	ITEC 105		3[2+1]
						<b>13</b>
<b>INTERNSHIP</b>	INTE	200	Internship –I		45 HRS	<b>2</b>
<b>YEAR 3</b>	ITEC	300	Computer Communications and Networking	ITEC 200		3[3+0]
<b>FALL</b>	ITEC	225	Cyber and Information Security	ITEC 200		3[3+0]
	ITEC	310	Internet of Things	ITEC 200		3[2+1]
	ITEC	320	Python Programming	CSCI 205		4[3+1]
	ITEC	400	Data Warehousing and Mining	CSCI 210		3[2+1]
						<b>16</b>
<b>SPRING</b>			Major Elective - 1			3
	ITEC	410	Human Computer Interface	ITEC 205		3[2+1]
	CSCI	400	Artificial Intelligence			4[3+1]
	ITEC	330	IT Project Management	CSCI335		3[3+0]
	ITEC	315	Open Source Technologies with PHP and MySql	ITEC 220 and CSCI 210		3[2+1]
						<b>16</b>
<b>INTERNSHIP</b>	INTE	300	Internship -II	INTE 200	70 HRS	<b>2</b>
						<b>2</b>
<b>YEAR 4</b>	GENE	440	Ethics and Professional Responsibility			3[3+0]
<b>FALL</b>	CSCI	415	AI for Data Analytics			3[3+0]
			Major Elective 2			3
			Major Elective 3			3
						<b>12</b>
<b>SPRING</b>	GENE	340	Innovation, Entrepreneurship and Sustainability			3[3+0]
			Major Elective 4			3
			Major Elective 5			3
	PROE	400	Senior Design Project	INTE 300	90 hours	4[1+3]
						<b>13</b>
						<b>123</b>

## 20.2.9 Bachelor of Science in Mechanical Engineering

### EDUCATIONAL AIM OF THE PROGRAM

The Bachelor of Science Mechanical Engineering at School of Engineering, Architecture and Interior Design aims at:

- (G1) Draw upon the fundamental and allied knowledge, multidisciplinary skills, and tools of Mechanical engineering to solve complex problems and provide sustainable solutions that satisfy constraints imposed by a global society through innovation, analysis, formulation, modeling, designing, implementing and verification.
- (G2) Enhance their knowledge, skills and competencies through continuing education, training, engaging in professional activities, graduate studies and lifelong learning.
- (G3) Work independently and collaboratively in teams, demonstrate leadership, autonomy, and ethical, social and professional responsibility.
- (G4) Successfully pursue entrepreneurship, careers in the industry or higher education to contribute to the growth of local and global communities

### PROGRAM LEARNING OUTCOMES

On successful completion of the Bachelor of Science Mechanical Engineering program, the graduate will be able to:

**PLO 1:** identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.

**PLO 2:** 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:** communicate effectively with a range of audiences.

**PLO 4:** 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:** 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:** develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.

**PLO 7:** acquire and apply new knowledge as needed, using appropriate learning strategies

### RENEWABLE ENERGY CONCENTRATION

In addition to preceding Program Learning Outcomes, graduates opting for the Renewable Energy Concentration will be able to:

**PLO 8:** use concepts and applications of renewable energy to identify, formulate, and solve energy problems.

**PLO 9:** design renewable energy systems to produce solutions that meet specified needs with sustainable, environmental, and economic factors.

### Mapping (PLOs) to National Qualifications Framework (NQF)

The following matrix illustrates the link of Program Learning Outcomes to the National Qualifications Framework strands.

BS MECH – QFEMIRATES [L7]	1. Knowledge					2. Skills				3.1. Autonomy and Responsibility				3.2. Role in Context				3.3. Self Development		
	A1	A2	A3	A4	A5	B1	B2	B3	B4	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
	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	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,	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	a comprehensive understanding of critical analysis, research systems and methods and evaluative problem-solving	familiarity with sources of current and new research and knowledge with integration of concepts from outside fields	technical, creative and analytical skills appropriate to solving specialised 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	evaluating, selecting and applying appropriate methods, procedures or techniques in processes of investigation towards	evaluating and implementing appropriate research tools and strategies associated with the field of work or discipline	highly developed advanced communication and information technology skills to present, explain and/or critique complex and unpredictable matters	can take responsibility for developing innovative and advanced approaches to evaluating and managing complex and	can manage technical, supervisory or design processes in unpredictable, unfamiliar and varying contexts	can work creatively and/or effectively as an individual, in team leadership, managing contexts, across technical or professional activities	can express an internalised, personal view, and accept responsibility to society at large and to socio-cultural norms and	can function with full autonomy in technical and supervisory contexts and adopt para-professional roles with little guidance	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 specialisation in field of work or discipline	can participate in peer relationships with qualified practitioners and lead multiple, complex groups	can take responsibility for managing the professional development and direct mentoring of individuals and groups	can self-evaluate and take responsibility for contributing to professional practice, and undertake regular professional development and/or further learning	can manage learning tasks independently and professionally, in complex and sometimes unfamiliar learning contexts	can contribute to and observe ethical standards
PLO 1: identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.	X			X																
PLO 2: 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.		X	X				X	X												

BS MECH – QFEMIRATES [L7]	1. Knowledge					2. Skills				3.1. Autonomy and Responsibility				3.2. Role in Context				3.3. Self Development		
	A1	A2	A3	A4	A5	B1	B2	B3	B4	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
PLO 3: communicate effectively with a range of audiences.									X											
PLO 4: 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.																				X
PLO 5: function effectively on a team whose members together provide leadership create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.											X	X	X	X	X	X	X			
PLO 6: develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.						X	X													
PLO 7: acquire and apply new knowledge as needed, using appropriate learning strategies.					X					X	X			X				X	X	
<b><u>RENEWABLE ENERGY CONCENTRATION</u></b> PLO 8: use concepts and applications of renewable energy to identify, formulate, and solve energy problems.		X		X																

PLO 9: design renewable energy systems to produce solutions that meet specified needs with sustainable, environmental, and economic factors.		X	X				X	X												
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## PROGRAM STRUCTURE

GENERAL EDUCATION (UNIVERSITY REQUIREMENTS) - 21 CR					
COURSE CODE	COURS E #	COURSE TITLE	PREREQUISITES	COREQUISIT ES	CR [L+P/S]
ARAB	102	Arabic Language			3 [3+0]
ENGL	102	English for Academic Writing			3 [3+0]
COMM	105	Public Speaking			3 [3+0]
GENE	120	Islamic Culture			3 [3+0]
GENE	210	UAE Studies			3 [3+0]
GENE	340	Innovation, Entrepreneurship and Sustainability			3 [3+0]
GENE	440	Ethics and Professional Responsibility			3 [3+0]
BASIC SCIENCE AND MATH (ENGINEERING REQUIREMENTS) - 30 CR					
COURSE CODE	COURS E #	COURSE TITLE	PREREQUISITES	COREQUISIT ES	CR [L+P/S]
PHYS	100	Mechanics and Wave Optics	MATH 100	MATH 105	4[3+1]
MATH	100	Mathematics I			4[4+0]
CHEM	100	General Chemistry			4[3+1]
MATH	105	Mathematics II	MATH 100		3[3+0]
PHYS	105	Electromagnetics and Modern Physics	PHYS 100		3[2+1]
MATH	120	Probability and Statistics			3[3+0]
MATH	200	Linear algebra	MATH 105		3[3+0]
MATH	210	Numerical Methods and Optimization	MATH 105		3[3+0]
MATH	220	Differential Equations	MATH 105		3[3+0]
MAJOR CORE (PROGRAM REQUIREMENTS) - 74 CR					
COURSE CODE	COURS E #	COURSE TITLE	PREREQUISITES	COREQUISIT ES	CR [L+P/S]
MECH	200	Engineering Mechanics	MATH 105		5[4+1]
CSCI	200	Introduction to Computers and Programming			3[2+1]
EEEN	200	Basic Electrical and Electronics Engineering	MATH 100		4[3+1]
MECH	205	Engineering Graphics and Workshop Practices			2[0+2]
MECH	210	Engineering Materials	PHYS 100, MECH 200		3[3+0]
MECH	300	Engineering Thermodynamics	MATH 105		3[3+0]
MECH	305	Manufacturing Technology	MECH 210		3[2+1]
MECH	310	Strength of Materials	MECH 200 or CIVL 200		4[3+1]
MECH	215	Machine Drawing with CAD Lab	MECH 205		1[0+1]
MECH	315	Engineering Fluid Mechanics	MECH 200 or CIVL 200		3[2+1]
MECH	320	Fundamentals of Heat and Mass Transfer	MECH 300, MECH 315		4[3+1]
MECH	325	Machine Design I	MECH 310		3[3+0]
MECH	330	Theory of Machines	MECH 200		3[2+1]
MECH	335	Metrology and Quality Control	MECH 305		3[2+1]
EEEN	345	Instrumentation and Control Systems	EEEN 200		3[2+1]
MECH	340	Internal Combustion Engine	MECH 300		3[2+1]
MECH	345	Thermal and Fluid Machinery	MECH 300, MECH 315		4[3+1]
MECH	400	Machine Design II	MECH 325		3[3+0]

MECH	470	Mechanical Vibrations	MECH 330	3[3+0]
ECON	370	Fundamentals of Engineering Economics		3[3+0]
CSCI	470	Data Science for Engineers	CSCI 200	3[2+1]
PROE	400	Senior Design Project	90 credit hours, INTE 300, MECH 400	4[1+3]
INTE 200		Internship I	60 credit hours, MECH 215	2
INTE 300		Internship II	90 credit hours, INTE 200, MECH 305	2

#### MAJOR ELECTIVES- 15 CR

COURSE CODE	COURS E #	COURSE TITLE	PREREQUISITES	COREQUI SITES	CR [L+P/S]
MECH	410	Computer Aided Design	CSCI 200, MECH 205		3[2+1]
MECH	415	Finite Element Methods	MATH 210, MATH 220, MECH 200		3[2+1]
MECH	420	Computer Aided Manufacturing	MECH 215, MECH 305		3[2+1]
MECH	425	Automobile Engineering	MECH 300, MECH 340		3[2+1]
MECH	430	Introduction to Robotics	MECH 330, EEEN 345		3[3+0]
MECH	435	HVAC design Engineering	MECH 320		3[2+1]
MECH	405	Operations Research	MATH 200, CSCI 200		3[3+0]

#### MAJOR ELECTIVES (CONCENTRATION REQUIREMENTS: RENEWABLE ENERGY) - 15 CR

COURSE CODE	COURS E #	COURSE TITLE	PREREQUISITES	COREQUI SITES	CR [L+P/S]
MECH	460	Energy, Ecology and Environment	MECH 300		3[3+0]
MECH	440	Wind Energy Engineering	EEEN 200, MECH 315		3[3+0]
MECH	445	Fuel Cells	CHEM 100, EEEN 200 MECH 300		3[3+0]
MECH	450	Solar Photovoltaic Systems	EEEN 200		3[2+1]
MECH	465	Solar Thermal Engineering Processes	MECH 300, ECON 370		3[3+0]
MECH	455	Hydrogen as Future Energy Source	MECH 300, ECON 370		3[3+0]
MECH	475	Biomass	CHEM 100, MECH 300		3[3+0]

#### MAJOR ELECTIVES (GENERAL BS MECHANICAL ENGINEERING WITH NO CONCENTRATION: CHOOSE A MIX OF 15 CREDITS FROM TWO POOLS) - 15 CR

#### Proposed Schedule of Delivery

YEAR/SEM	COURSE CODE	COUR SE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR [L+P/S]
<b>YEAR 1</b>						
<b>FALL</b>	MATH	100	Mathematics I			4[4+0]
	CHEM	100	General Chemistry			4[3+1]
	ENGL	102	English for Academic Writing			3
	GENE	120	Islamic Culture			3
	MATH	120	Probability and Statistics			3[3+0]
						<b>17</b>
<b>SPRING</b>	MATH	105	Mathematics II	MATH 100		3[3+0]
	PHYS	100	Mechanics and Wave Optics	MATH 100	MATH 105	4[3+1]
	CSCI	200	Introduction to Computers and Programming			3[2+1]

	MECH	205	Engineering Graphics and Workshop Practices			2[0+2]
	COMM	105	Public Speaking			3
	ARAB	102	Arabic Language			3
						<b>18</b>
<b>YEAR 2</b>	MATH	220	Differential Equations	MATH 105		3[3+0]
<b>FALL</b>	MECH	300	Engineering Thermodynamics	MATH 105		3[3+0]
	GENE	210	UAE Studies			3[3+0]
	MECH	200	Engineering Mechanics	MATH 105		5[4+1]
	PHYS	105	Electromagnetics and Modern Physics	PHYS 100		3[2+1]
						<b>17</b>
<b>SPRING</b>	EEEN	200	Basic Electrical and Electronics Engineering	MATH 100		4[3+1]
	MECH	210	Engineering Materials	PHYS100, MECH 200		3[3+0]
	MECH	315	Engineering Fluid Mechanics	MECH 200 or CIVL 200		3[2+1]
	MECH	310	Strength of Materials	MECH 200 or CIVL 200		4[3+1]
	MECH	215	Machine Drawing with CAD Lab	MECH 205		1[0+1]
	MATH	200	Linear algebra	MATH 105		3[3+0]
						<b>18</b>
<b>INTERNSH IP</b>	INTE 200		Internship I	60 credit hours, MECH 215		<b>2</b>
<b>YEAR 3</b>	MATH	210	Numerical Methods and Optimization	MATH 105		3[3+0]
	MECH	340	Internal Combustion Engine	MECH 300		3[2+1]
<b>FALL</b>	MECH	325	Machine Design I	MECH 310		3[3+0]
	MECH	330	Theory of Machines	MECH 200		3[2+1]
	MECH	305	Manufacturing Technology	MECH 210		3[2+1]
						<b>15</b>
<b>SPRING</b>	ECON	370	Fundamentals of Engineering Economics			3[3+0]
	MECH	400	Machine Design II	MECH 325		3[3+0]
	EEEN	345	Instrumentation and Control Systems	EEEN 200		3[2+1]
	MECH	320	Fundamentals of Heat and Mass Transfer	MECH 300, MECH 315		4[3+1]
	MECH	345	Thermal and Fluid Machinery	MECH 300, MECH 315		4[3+1]
						<b>17</b>
<b>INTERNSH IP</b>	INTE 300		Internship II	90 credit hours, INTE 200, MECH 305		2
<b>YEAR 4</b>	MECH	XXX	Major Elective 1			3
<b>FALL</b>	GENE	440	Ethics and Professional Responsibility			3[3+0]
	MECH	XXX	Major Elective 2			3
	MECH	XXX	Major Elective 3			3
	MECH	470	Mechanical Vibrations	MECH 330		3[3+0]
	MECH	335	Metrology and Quality Control	MECH 305		3[2+1]
						<b>18</b>
<b>SPRING</b>	GENE	340	Innovation, Entrepreneurship and Sustainability			3[3+0]

	CSCI	470	Data Science for Engineers	CSCI 200		3[2+1]
	MECH	XXX	Major Elective 4			3
	MECH	XXX	Major Elective 5			3
	PROE 400		Senior Design Project	90 credit hours, INTE 300, MECH 400		4[1+3]
						<b>16</b>
						<b>140</b>

## 20.3 School of Humanities, Arts, and Applied Sciences (HAAS)

The vision of the School of Humanities, Arts, and Applied Sciences (HAAS) is anchored to the intellectual core of Amity University-Dubai led by its guiding values. Our vision seeks to inspire our students to fulfil their dreams and ambitions, unleash their creativity, and become lifelong learners and engaged citizens.

HAAS offers seven quality undergraduate and four graduate degree programs pillared on contemporary interdisciplinary and transversal content knowledge. These programs are taught by seasoned faculty members hailing from different academic backgrounds and equipped with outstanding academic and industry experience in their respective areas of specialty. They utilize original styles of pedagogy centering on experiential learning and 21st Century Competencies (21st CC) and skills.

Our curricula, explained in this Catalog, promote analytical and moral reasoning, problem solving, creativity, innovation, and communication skills for preparing knowledgeable, skillful, talented, and engaged citizens.

In line with the University's Mission, HAAS cultivates a sustainable ecosystem that renders numerous opportunities for learners to achieve their career prospects and become socially responsible citizens. In this respect, one of our main priorities is create cooperative links with private and public sector institutions and companies at local, regional, and international levels, through the provision of internships and numerous community engagement activities.

We are confident that our students will enjoy a rich and engaging lifelong learning journey at the School of Humanities, Arts, and Applied Sciences and make use of their education for realizing their career prospects.

### 20.3.1 Bachelor of Fine Arts in Animation and Film Production

#### PROGRAM LEARNING OUTCOMES (PLO)

Upon successful completion of the Bachelor of Fine Arts in Animation and Film Production program, the students should be able to:

##### 1. Knowledge:

- 1.1. Understand the evolution of film and animation productions and their significant eras, practices, and pioneers in the field.
- 1.2. Identify the potential of art and technology and how it can be used to execute conceptual work.

##### 2. Skills:

- 2.1. Use traditional and computer-generated animation skills for media content creation
- 2.2. Apply production skills using the latest professional equipment and software.

##### 3. Competences:

##### 3.1. Autonomy and Responsibility

- 3.1.1. Work creatively as an individual or in team settings to produce media outputs.
- 3.1.2. Can produce content using advanced approaches to evaluate and manage complex and unpredictable work processes and resources..

### **3.2. Self-Development**

- 3.2.1. Develop a mindset of growth and lifelong learning in line with the contemporary industry trends

### **3.3. Role in context**

- 3.3.1. Collaborate with interdisciplinary teams to produce animations and films that meet the needs and expectations of different stakeholders.

### **Concentration Film and Television**

CFT 1.1. Demonstrate in-depth knowledge in craft of filmmaking and television production.

CFT 1.2. Use latest technologies and software for new age storytelling

### **Concentration Animation**

CA 1.1. Demonstrate in-depth knowledge of traditional and computer-generated animation content.

CA 1.2. Use latest technologies and software to create naturalistic and expressive movements.

### **Mapping (PLOs) to National Qualifications Framework (NQF)**

The following matrix illustrates the link of Program Learning Outcomes to the National Qualifications Framework strands.

QFEMIRATES [L7]	1. Knowledge					2. Skills				3. Competence										
										3.1. Autonomy and Responsibility				3.2. Role in Context				3.3. Self Development		
	A1	A2	A3	A4	A5	B1	B2	B3	B4	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
	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	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	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	a comprehensive understanding of critical analysis, research systems and methods and evaluative problem-solving techniques	familiarity with sources of current and new research and knowledge with integration of concepts from outside fields	technical, creative and analytical skills appropriate to solving specialised 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	evaluating, selecting and applying appropriate methods, procedures or techniques in processes of investigation towards identified solutions	evaluating and implementing appropriate research tools and strategies associated with the field of work or discipline	highly developed advanced communication and information technology skills to present, explain and/or critique complex and unpredictable matters	can take responsibility for developing innovative and advanced approaches to evaluating and managing complex and unpredictable work procedures and processes, resources or learning	can manage technical, supervisory or design processes in unpredictable, unfamiliar and varying contexts	can work creatively and/or effectively as an individual, in team leadership, managing contexts, across technical or professional activities	can express an internalised, personal view, and accept responsibility to society at large and to socio-cultural norms and relationships	can function with full autonomy in technical and supervisory contexts and adopt para-professional roles with little guidance	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 specialisation in field of work or discipline	can participate in peer relationships with qualified practitioners and lead multiple, complex groups	can take responsibility for managing the professional development and direct mentoring of individuals and groups	can self-evaluate and take responsibility for contributing to professional practice, and undertake regular professional development and/or further learning	can manage learning tasks independently and professionally, in complex and sometimes unfamiliar learning contexts	can contribute to and observe ethical standards
<b>1. Knowledge</b>  1.1 Demonstrate theoretical and practical knowledge in the evolution of film and animation industries.	<b>X</b>		<b>X</b>																	

QFEMIRATES [L7]	1. Knowledge					2. Skills				3. Competence										
										3.1. Autonomy and Responsibility				3.2. Role in Context				3.3. Self Development		
	A1	A2	A3	A4	A5	B1	B2	B3	B4	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
1.2. Integrate technological concepts and approaches in current industry practices for compilation of systematic and coherent body of knowledge.	X		X																	
<b>2. Skills</b> 2.1. Use traditional and computer-generated animation skills for media content creation							X													
2.2. Apply production skills using the latest professional equipment and software.						X														
<b>3. Competence</b> <u>3.1. Autonomy and Responsibility</u> 3.1.1. Work creatively as an individual or in team settings to produce media outputs.												X								
3.1.2. Can produce content using advance approaches to evaluate and manage complex and unpredictable work processes , resources													X							
<u>3.2. Self-Development</u> 3.2.1. Can undertake life-long learning and professional development in the media and digital landscapes.																		X	X	
<u>3.3. Role in Context</u>																				

QFEMIRATES [L7]	1. Knowledge					2. Skills				3. Competence										
										3.1. Autonomy and Responsibility				3.2. Role in Context				3.3. Self Development		
	A1	A2	A3	A4	A5	B1	B2	B3	B4	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
3.3.1. Take responsibility for individual and group achievements for desirable outcomes.														X						
<b>FILM AND TELEVISION CONCENTRATION</b> CFT 1.1: Demonstrate in-depth knowledge in craft of filmmaking and television production.	X	X																		
CFT1.2: Use latest technologies and software for new age storytelling.							X													
<b>ANIMATION CONCENTRATION</b> CA 1.1: Demonstrate in-depth knowledge of traditional and computer-generated animation content.		X				X														
CA 1.2: Use latest technologies and software to create naturalistic and expressive movements.						X	X	X												

## Program Structure

GENERAL EDUCATION (UNIVERSITY REQUIREMENTS) - 21 CR					
COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
ARAB	102	Arabic Language			3
ENGL	102	English for Academic Writing			3
COMM	105	Public Speaking			3
GENE	120	Islamic Culture			3
GENE	210	UAE Studies			3
GENE	340	Innovation, Entrepreneurship and Sustainability			3
GENE	440	Ethics and Professional Responsibility			3
HAAS ELECTIVES - COMMON CORE (SCHOOL REQUIREMENTS) - 12 CR					
COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
HAAS	102	Media Literacy			3
HAAS	202	Practicing Sustainability			3
HAAS	208	Life and Future Skills			3
HAAS	302	Research Methods and Data Analysis			3
COMMON CORE (DEPARTMENT REQUIREMENTS) - 15 CR					
COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
MDIA	101	Introduction to Storytelling			3
MDIA	102	Basics of Camera Techniques			3
MDIA	201	Post-production for Moving Images			3
MDIA	203	Advertising			3
MDIA	207	Media Ethics, Laws and Regulations			3
MAJOR CORE (PROGRAM REQUIREMENTS) - 45 CR					
COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
ANIM	101	Drawing and Space			3
ANIM	201	Visual Design for Film and Animation			3
FILM	210	Photography Theory and Practices			3
FILM	301	History of Motion Pictures			3
ANIM	301	Principles of 2D Animation			3
FILM	315	Film Production Theory and Practices			3
ANIM	305	Motion Graphics Design	ANIM201		3
ANIM	308	3D Modeling Techniques			3
ANIM	310	Lighting and Rendering			3
FILM	317	Sound Design for Film and Animation			3
FILM	320	VFX and Digital Compositing	ANIM305		3
FILM	325	Cinematic Color Grading			3
FILM	328	Set Designing: Traditional and Virtual			3
ANIM	318	AR VR Technologies			3

ANIM	401	Industry Practices and Digital Portfolio	3
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**MAJOR ELECTIVES (CONCENTRATION REQUIREMENTS: Animation) - 15 CR**

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	C R
ANIM	402	Digital Modeling of Props and Environment	ANIM308		3
ANIM	403	Organic Surface Modeling			3
ANIM	404	3D Animation			3
ANIM	405	Animation Look Development			3
ANIM	406	Animation Production Workflow			3

**MAJOR ELECTIVES (CONCENTRATION REQUIREMENTS: Film and Television) - 15 CR**

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	C R
FILM	402	Cinematography	MDIA102		3
FILM	403	Television Production Process			3
FILM	404	Directing for Mise-en-scene	MDIA101		3
FILM	405	Creative Video Productions	FILM320		3
FILM	406	Fiction Production	FILM315		3

**OPEN ELECTIVES (CHOOSE 6 CREDITS FROM ANY PROGRAM SUBJECT TO FULFILLING THEIR PREREQUISITES IF ANY) - 6 CR**

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
		Open Elective I	As per Catalog		3
		Open Elective II	As per Catalog		3

**Proposed Schedule of Delivery**

YEAR/SEM	COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	C R
<b>YEAR 1</b>	MDIA	101	Introduction to Storytelling			3
<b>FALL</b>	MDIA	102	Basics of Camera Techniques			3
	ANIM	101	Drawing and Form			3
	ENGL	102	English for Academic Writing			3
	GENE	120	Islamic Culture			3
						<b>15</b>
<b>SPRING</b>	ANIM	201	Visual Design for Film and Animation			3
	MDIA	201	Post-production for moving Images			3
	HAAS	101	Media Literacy			3
	COMM	105	Public Speaking			3
	ARAB	102	Arabic Language			3
						<b>15</b>
<b>YEAR 2</b>	MDIA	203	Advertising			3
<b>FALL</b>	FILM	210	Photography Theory and Practices			3
	FILM	301	History of Motion Pictures			3
	HAAS	201	Practicing Sustainability			3
	GENE	210	UAE Studies			3

					1
					5
<b>SPRING</b>	MDIA	207	Media Ethics, Laws, and Regulations		3
	ANIM	301	Principles of 2D Animation		3
	ANIM	308	3D Modeling and Techniques		3
	HAAS	204	Life and Future Skills		3
					3
					1
					5
<b>YEAR 3 FALL</b>	ANIM	305	Motion Graphics Design	ANIM201	3
	FILM	315	Film Production Theory and Practices		3
	ANIM	310	Lighting and Rendering		3
	HAAS	301	Research Methods and Data Analysis		3
	GENE	340	Innovation, Entrepreneurship and Sustainability		3
					1
					5
<b>SPRING</b>	FILM	317	Sound Design for Film and Animation		3
	FILM	320	VFX and Digital Compositing	ANIM 305	3
	FILM	325	Cinematic Color Grading		3
	FILM	328	Set Designing: Traditional and Virtual		3
	ANIM	318	AR VR Technologies		3
					1
					5
<b>INTERNSHIP</b>	HAAS	340	Internship	60 CR	3
<b>YEAR 4 FALL</b>	ANIM	401	Industry Practices & Digital portfolio		3
	GENE	440	Ethics and Professional Responsibility		3
			Major Elective 1		3
			Major Elective 2		3
			Major Elective 3		3
					1
					5
<b>SPRING</b>	HAAS	450	Project	HAAS 301	3
			Major Elective 4		3
			Major Elective 5		3
			Open Elective 2		3
					1
					2

### 20.3.2 Bachelor of Arts in Economics

#### EDUCATIONAL AIM OF THE PROGRAM

The Bachelor of Arts in Economics at Amity Business School Dubai aims at:

- (G1) Impart comprehensive understanding of economics to prepare learners to address real-life economic challenges.
- (G2) Develop analytical and problem-solving skills needed to make informed decisions in dynamic local and global environments
- (G3) Cultivate a culture of independent inquiry and personal development facilitating ethical and professional approaches to modern economic issues
- (G4) Create social awareness and advocates of responsible management of scarce resources for a sustainable world

## **PROGRAM LEARNING OUTCOMES (PLO)**

Upon successful completion of the Bachelor of Arts in Economics program, the students should be able to:

### **Knowledge:**

- 1.1: Demonstrate knowledge of economic concepts and theories to analyze economic issues and make informed decisions.
- 1.2: Examine the impact of economic decisions and policies on various stakeholders and society as a whole.

### **Skills:**

- 2.1: Apply analytical tools and economic models to solve economic problems and make predictions about future economic outcomes
- 2.2: Implement economic concepts and ideas to different audiences, including policymakers and the general public.

### **Competences:**

#### **3.1: Autonomy and Responsibility:**

- 3.1.1: Take responsibility for one's own learning and development in economics.

#### **3.2. Self-Development**

- 3.2.1. Manage learning tasks independently and professionally in complex and unfamiliar economic contexts to enhance personal and professional growth.

#### **3.3. Role in context**

- 3.3.1. Take responsibility for setting and achieving individual and group outcomes in the economics discipline, demonstrating social awareness and advocacy for responsible management of scarce resources.

### **Mapping (PLOs) to National Qualifications Framework (NQF)**

The following matrix illustrates the link of Program Learning Outcomes to the National Qualifications Framework strands.

ECON – QFEMIRATES [L7]	1. Knowledge					2. Skills				3. Competence										
										3.1. Autonomy and Responsibility				3.2. Role in Context				3.3. Self Development		
	A1	A2	A3	A4	A5	B1	B2	B3	B4	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
	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 natural and theoretical concepts	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	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	a comprehensive understanding of critical analysis, research systems and methods and evaluative problem-solving techniques	familiarity with sources of current and new research and knowledge with integration of concepts from outside fields	technical, creative and analytical skills appropriate to solving specialized problems using evidentiary and procedural based processes in predictable and new contexts that include decisions and solutions associated with a field of work or discipline	evaluating, selecting and applying appropriate methods, procedures or techniques in processes of investigation towards identified solutions	evaluating and implementing appropriate research tools and strategies associated with the field of work or discipline	highly developed advanced communication and information technology skills to present, explain and/or critique complex and unpredictable matters	can take responsibility for developing innovative and advanced approaches to evaluating and managing complex and unpredictable work procedures and processes, resources or learning	can manage technical, supervisory or design processes in unpredictable, unfamiliar and varying contexts	can work creatively and/or effectively as an individual, in team leadership, managing contexts, across technical or professional activities	can express an internalized, personal view, and accept responsibility to society at large and to socio-cultural norms and relationships	can function with full autonomy in technical and supervisory contexts and adopt para-professional roles with little guidance	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	can participate in peer relationships with qualified practitioners and lead multiple, complex groups	can take responsibility for managing the professional development and direct mentoring of individuals and groups	can self-evaluate and take responsibility for contributing to professional practice, and undertake regular professional development and/or further learning	can manage learning tasks independently and professionally, in complex and sometimes unfamiliar learning contexts	can contribute to and observe ethical standards
<b>1. Knowledge</b>																				
1.1. Demonstrate knowledge of economic concepts and theories to analyze economic issues and make informed decisions	X	X	X	X																
1.2: Examine the impact of economic decisions and policies on various stakeholders and society as a whole.	X	X	X	X									X							
<b>2. Skills</b>																				

ECON – QFEMIRATES [L7]	1. Knowledge					2. Skills				3. Competence										
										3.1. Autonomy and Responsibility				3.2. Role in Context				3.3. Self Development		
	A1	A2	A3	A4	A5	B1	B2	B3	B4	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
2.1: Apply analytical tools and economic models to solve economic problems and make predictions about future economic outcomes.						X	X	X												
2.2: Implement economic concepts and ideas to different audiences, including policymakers and the general public.									X							X				
<b>3. Competence</b>																				
<u>3.1. Autonomy and Responsibility</u>																				
3.1.1: Take responsibility for one's own learning and development in economics.										X				X				X		
<u>3.2. Self-Development</u>																				
3.2.1: Manage learning tasks independently and professionally in complex and unfamiliar economic contexts to enhance personal and professional growth.																			X	
<u>3.3. Role in Context</u>																				
3.3.1: Take responsibility for setting and achieving individual and group outcomes in the economics discipline, demonstrating social awareness and advocacy for responsible management of scarce resources.										X	X	X	X		X	X	X			

## Program Structure

GENERAL EDUCATION (UNIVERSITY REQUIREMENTS) - 21 CR					
COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
ARAB	102	Arabic Language			3
ENGL	102	English for Academic Writing			3
COMM	105	Public Speaking			3
GENE	120	Islamic Culture			3
GENE	210	UAE Studies			3
GENE	340	Innovation, Entrepreneurship and Sustainability			3
GENE	440	Ethics and Professional Responsibility			3
HAAS ELECTIVES - COMMON CORE (SCHOOL REQUIREMENTS) - 12 CR					
COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
HAAS	102	Media Literacy		ENGL102	3
HAAS	202	Practicing Sustainability		ENGL102	3
HAAS	208	Life and Future Skills		ENGL102	3
HAAS	302	Research Methods and Data Analysis	ECON 115		3
HAAS 3	340	Internship			60 CR
HAAS	450	Project	90 CR		3
MAJOR CORE (PROGRAM REQUIREMENTS) - 60 CR					
COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
ECON	110	Mathematics for Economics	NA		3
ECON	115	Statistics for Economics	ECON 110		3

<b>ECON</b>	200	Fundamentals of Microeconomics	NA		<b>3</b>
<b>ECON</b>	205	Fundamentals of Macroeconomics	ECON 200		<b>3</b>
<b>ECON</b>	215	History of economic thought	NA		<b>3</b>
<b>ECON</b>	220	Intermediate Microeconomics	ECON 200		<b>3</b>
<b>ECON</b>	225	Intermediate Macroeconomics	ECON 205		<b>3</b>
<b>ECON</b>	230	Economics of Growth and Development I	ECON 205		<b>3</b>
<b>ECON</b>	235	Economics of Growth and Development II	ECON 230		<b>3</b>
<b>ECON</b>	240	Economic of the Middle East	ECON 205		<b>3</b>
<b>ECON</b>	245	Energy Economics	ECON 225		<b>3</b>
<b>ECON</b>	250	Economics of Education	ECON 205		<b>3</b>
<b>ECON</b>	300	International Political Economy	ECON 225		<b>3</b>
<b>ECON</b>	305	Money and Banking	ECON 205		<b>3</b>
<b>ECON</b>	315	Basics of Health Economics	ECON 200		<b>3</b>
<b>ECON</b>	320	Fundamentals of Public Finance	ECON 205		<b>3</b>
<b>ECON</b>	325	Labor Economics	ECON 225		<b>3</b>
<b>ECON</b>	335	International Economics	ECON 225		<b>3</b>
<b>ECON</b>	340	Special Topics in Economics	ECON 235		<b>3</b>
<b>ECON</b>	345	Islamic Economics	ECON 205		<b>3</b>
<b>MAJOR ELECTIVES - 15 CR</b>					
<b>COURSE CODE</b>	<b>COURSE #</b>	<b>COURSE TITLE</b>	<b>PREREQUISITES</b>	<b>COREQUISITES</b>	<b>CR</b>
<b>ECON</b>	400	Environmental Economics	ECON 235		<b>3</b>
<b>ECON</b>	405	Regional Economics	ECON 235		<b>3</b>
<b>ECON</b>	410	Industrial Economics	ECON 235		<b>3</b>
<b>ECON</b>	415	Econometrics	ECON 200, ECON 205		<b>3</b>
<b>ECON</b>	420	Knowledge Economics	ECON 235		<b>3</b>
<b>ECON</b>	425	Behavioral Economics	ECON 400		<b>3</b>

<b>ECON</b>	450	Global Economy	ECON 225 &ECON 335		<b>3</b>
<b>OPEN ELECTIVES (CHOOSE 6 CREDITS FROM ANY PROGRAM SUBJECT TO FULFILLING THEIR PREREQUISITES IF ANY) - 6 CR</b>					
<b>COURSE CODE</b>	<b>COURSE #</b>	<b>COURSE TITLE</b>	<b>PREREQUISITES</b>	<b>COREQUISITES</b>	<b>CR</b>
	Open Elective I As per Catalog	3			
	Open Elective II As per Catalog	3			

### Proposed Schedule of Delivery-Fall Intake

<b>YEAR/SEM</b>	<b>COURSE CODE</b>	<b>COURSE #</b>	<b>COURSE TITLE</b>	<b>PREREQUISITES</b>	<b>COREQUISITES</b>	<b>CR</b>
<b>YEAR 1</b>	ECON	200	Fundamentals of Microeconomic			3
<b>FALL</b>	ECON	215	History of economic thought			3
	ECON	110	Mathematics for Economics			3
	ENGL	102	English for Academic Writing			3
	GENE	120	Islamic Culture			3
						<b>15</b>
<b>SPRING</b>	ECON	205	Fundamentals of Macroeconomic	ECON 200		3
	ECON	115	Statistics for Economics			3
	HAAS	102	Media Literacy			3
	COMM	105	Public Speaking			3
	ARAB	102	Arabic Language			3
						<b>15</b>
<b>YEAR 2</b>	ECON	220	Intermediate Microeconomics	ECON 200		3
<b>FALL</b>	BUSN	230	Economics of Growth and Development I	ECON 205		3
	ECON	240	Economics of the Middle East	ECON 205		3
	HAAS	202	Practicing Sustainability			3
	GENE	210	UAE Studies			3
						<b>15</b>
<b>SPRING</b>	ECON	225	Intermediate Macroeconomics	ECON 205		3

	ECON	235	Economics of Growth and Development II	ECON 230		3
	ECON	245	Energy Economics	ECON 225		3
	ECON	250	Economics of Education	ECON 200 & ECON 205		3
	HAAS	208	Life and Future Skills			3
						<b>15</b>
<b>SUMMER -1</b>	HAAS	340	Internship			
<b>YEAR 3</b>	ECON	315	Basics of Health Economics	ECON 200		3
<b>FALL</b>	GENE	340	Innovation, Entrepreneurship and Sustainability			3
	ECON		Major Elective -1			3
	ECON		Major Elective -2			3
			Open Elective 1			3
						<b>15</b>
<b>SPRING</b>	HAAS	302	Research Methods and Data Analysis	ECON 115		3
	ECON	305	Money and Banking	ECON 205		3
	ECON	340	Islamic Economics	ECON 205		3
	ECON		Major Elective -3			3
	ECON		Major Elective -4			3
						<b>15</b>
<b>SUMMER -2</b>	HAAS	340	Internship	60 CR		3
						<b>3</b>
<b>YEAR 4</b>	ECON	320	Fundamentals of Public Finance	ECON 205		3
<b>FALL</b>	ECON	325	Labor Economics	ECON 225		3
	ECON	345	Special Topics in Economics	ECON 235		3
	GENE	440	Ethics and Professional Responsibility			3
	ECON		Major Elective -5			3
						<b>15</b>

<b>SPRING</b>	ECON	300	International Political Economy	ECON 225		3
	ECON	335	International Economics	ECON 225		3
	HAAS	450	Project	90 CR		3
			Open Elective 2			3
						<b>12</b>
						<b>120</b>

#### Proposed Schedule of Delivery – Spring Intake

YEAR/ SEM	COURS E CODE	COURS E #	COURSE TITLE	PRERE QUISIT ES	COREQ UISITES	CR
YEAR 1	ECON	200	Fundamentals of Microeconomic			3
<b>SPRING</b>	ECON	215	History of economic thought			3
	ECON	110	Mathematics for Economics			3
	ENGL	102	English for Academic Writing			3
	GENE	120	Islamic Culture			3
						<b>15</b>
<b>FALL</b>	ECON	205	Fundamentals of Macroeconomic	ECON 200		3
	ECON	115	Statistics for Economics			3
	HAAS	102	Media Literacy			3
	COMM	105	Public Speaking			3
	ARAB	102	Arabic Language			3
						<b>15</b>
<b>YEAR 2</b>	ECON	220	Intermediate Microeconomics	ECON 200		3
<b>SPRING</b>	BUSN	230	Economics of Growth and Development I	ECON 205		3
	ECON	240	Economics of the Middle East	ECON 205		3
	GENE	210	UAE Studies			3
	HAAS	208	Life and Future Skills			3
						<b>15</b>
<b>FALL</b>	ECON	225	Intermediate Macroeconomics	ECON 205		3
	ECON	235	Economics of Growth and Development II	ECON 230		3
	ECON	245	Energy Economics	ECON 225		3

	ECON	250	Economics of Education	ECON 200 & ECON 205		3
	HAAS	202	Practicing Sustainability			3
						<b>15</b>
<b>SUMMER -1</b>	HAAS	340	Internship			
<b>YEAR 3</b>	ECON	305	Money and Banking	ECON 205		3
<b>SPRING</b>	GENE	340	Innovation, Entrepreneurship and Sustainability			3
	ECON		Major Elective -1			3
	ECON		Major Elective -2			3
			Open Elective 1			3
						<b>15</b>
<b>FALL</b>	HAAS	302	Research Methods and Data Analysis	ECON 115		3
	ECON	315	Basics of Health Economics	ECON 200		3
	ECON	340	Islamic Economics	ECON 205		3
	ECON		Major Elective -3			3
	ECON		Major Elective -4			3
						<b>15</b>
<b>SUMMER-2</b>	HAAS	340	Internship	60 CR		3
						<b>3</b>
<b>YEAR 4</b>	ECON	320	Fundamentals of Public Finance	ECON 205		3
<b>SPRING</b>	ECON	325	Labor Economics	ECON 225		3
	ECON	345	Special Topics in Economics	ECON 235		3
	GENE	440	Ethics and Professional Responsibility			3
	ECON		Major Elective -5			3
						<b>15</b>
<b>FALL</b>	ECON	300	International Political Economy	ECON 225		3
	ECON	335	International Economics	ECON 225		3
	HAAS	450	Project	90 CR		3
			Open Elective 2			3
						<b>12</b>
						<b>120</b>

### 20.3.3 Bachelor of Fashion Design

#### EDUCATIONAL AIM OF THE PROGRAM

The Bachelor of Fashion Design at Amity School of HAAS Dubai aims at:

- (G1) Provide knowledge of traditional and modern approaches to creative design, and an understanding of the intersections of diverse disciplines within the core domain of fashion.
- (G2) Develop creative, artistic, and mind mapping skills that enable the identification of minute nuances allowing socially responsible futuristic designs
- (G3) Foster hand-making, technical, and digital skills necessary to create and innovate marketable products
- (G4) Develop entrepreneurial acumen and sensitivity to multicultural norms while taking responsibility for setting and achieving outcomes

#### PROGRAM LEARNING OUTCOMES (PLO)

Upon successful completion of the Bachelor of Fashion Design program, the students should be able to:

Upon successful completion of the Bachelor of Fashion Design program, the students should be able to:

##### 1. Knowledge

- 1.1. Demonstrate in-depth knowledge of fashion design concepts and theories and their application in real industry contexts.
- 1.2. Integrate knowledge of allied fields as they relate to the core domain of fashion design.

##### 2. Skills

- 2.1. Use software applications to create designs and convert them into digital portfolios.
- 2.2. Utilized tools and equipment to renovate fashion textiles into apparel and accessories
- 2.3. Identify technical and social problems in the realm of fashion and apply research tools in view of proposing feasible solutions.
- 2.4. Use information communicative technology tools to explain design projects to an interested audience

##### 3. Competences

###### 3.1. *Autonomy and Responsibility*

- 3.1.1. Work creatively as an individual or in team settings in managing fashion design projects.
- 3.1.2. Take responsibility for developing entrepreneurial and sustainable approaches to create innovative designs.

###### 3.2. *Role in context*

- 3.2.1. Adapt responsibility of overseeing the performance of stakeholders to attain outcomes.

###### 3.3. *Self-Development*

- 3.3.1. Manage responsibility for your own learning and development needs

#### Mapping (PLOs) to National Qualifications Framework (NQF)

The following matrix illustrates the link of Program Learning Outcomes to the National Qualifications Framework strands.

BFD– QFEMIRATES [L7]	1. Knowledge					2.Skills				3. Competence									
										3.1. Autonomy and Responsibility				3.2. Role in Context				3.3. Self-Development	
	A1	A2	A3	A4	A5	B1	B2	B3	B4	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
	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	an understanding of allied knowledge and theories in related fields of work or disciplines and in the case of professional disciplines including related regulations,	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	a comprehensive understanding of critical analysis, research systems and methods and evaluative problem-solving techniques	familiarity with sources of current and new research and knowledge with integration of concepts from outside fields	technical, creative and analytical skills appropriate to solving specialised problems using evidentiary and procedural based processes in predictable and new	evaluating, selecting and applying appropriate methods, procedures or techniques in processes of investigation towards identified solutions	evaluating and implementing appropriate research tools and strategies associated with the field of work or discipline	highly developed advanced communication and information technology skills to present, explain and/or critique complex and unpredictable matters	can take responsibility for developing innovative and advanced approaches to evaluating and managing complex and unpredictable work procedures and	can manage technical, supervisory or design processes in unpredictable, unfamiliar and varying contexts	can work creatively and/or effectively as an individual, in team leadership, managing contexts, across technical or professional activities	can express an internalised, personal view, and accept responsibility to society at large and to socio-cultural norms and relationships	can function with full autonomy in technical and supervisory contexts and adopt para-professional roles with little guidance	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	can participate in peer relationships with qualified practitioners and lead multiple, complex groups	can take responsibility for managing the professional development and direct mentoring of individuals and groups	can self-evaluate and take responsibility for contributing to professional practice, and undertake regular professional development and/or further learning	can manage learning tasks independently and professionally, in complex and sometimes unfamiliar learning contexts
<b>1. Knowledge</b>																			
1.1. Demonstrate in-depth knowledge of fashion design concepts and theories and their application in real industry contexts.	X		X	X	X														
1.2. Integrate knowledge of allied fields as they relate to the core domain of fashion design.		X	X		X														
<b>2. Skills</b>																			
2.1. Use software applications to create designs and convert them into digital portfolios.						X			X										

2.2. Utilized tools and equipment to renovate fashion textiles into apparel and accessories	X						X	X											
2.3 Identify technical and social problems in the realm of fashion and apply research tools in view of proposing feasible solutions.				X	X	X	X	X											
2.4. Use information communicative technology tools to explain design projects to an interested audience									X										
<b>3. Competence</b>																			
<b><u>3.1. Autonomy and Responsibility</u></b>																			
3.1.1. Work creatively as an individual or in team settings in managing fashion design projects.											X	X				X			
3.1.2. Take responsibility for developing entrepreneurial and sustainable approaches to create innovative designs.					X				X				X						
<b><u>3.2. Self-Development</u></b>																			
3.2.1. Adapt responsibility of overseeing the performance of stakeholders to attain outcomes.															X		X		
<b><u>3.3. Role in Context</u></b>																			



## Program Structure

### GENERAL EDUCATION (UNIVERSITY REQUIREMENTS) - 21 CR

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
ARAB	102	Arabic Language			3
ENGL	102	English for Academic Writing			3
COMM	105	Public Speaking			3
GENE	120	Islamic Culture			3
GENE	210	UAE Studies			3
GENE	340	Innovation, Entrepreneurship and Sustainability			3
GENE	440	Ethics and Professional Responsibility			3

### HAAS ELECTIVES - COMMON CORE (SCHOOL REQUIREMENTS) - 12 CR

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
HAAS	102	Media Literacy		ENGL102	3
HAAS	202	Practicing Sustainability		ENGL102	3
HAAS	208	Life and Future Skills		ENGL102	3
HAAS	302	Research Methods and Data Analysis			3

### MAJOR CORE (PROGRAM REQUIREMENTS) - 60 CR

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
FASH	101	Introduction to Global Fashion			3
DSGN	102	Elements Of Design			3
FTEC	103	Textiles			3
FASH	204	History of Fashion			3
DSGN	205	Model Drawing-I			3
FTEC	306	Garment Construction			3
FTEC	207	Introduction to Pattern Making			3
DSGN	308	Model Drawing - II	DSGN 205- Model Drawing-I		3
DSGN	309	Fashion Illustration			3
FTEC	310	Advanced Pattern Making	FTEC 207- Introduction to Pattern Making		3
FTEC	311	Dyeing and printing	FTEC 103- Textiles		3
FTEC	412	Pattern Grading	FTEC 207- Introduction to Pattern Making		3
FASH	106	Fashion Photography			3
FASH	435	Digital Marketing			3
FTEC	415	Material studies	FTEC 103- Textiles		3
FASH	320	E- Commerce			3
FTEC	417	Draping			3
DSGN	413	Computer Aided Design			3
FASH	419	Studio			3

DSGN	420	Portfolio Development			3
<b>MAJOR ELECTIVES - 15 CR</b>					
<b>COURSE CODE</b>	<b>COURSE #</b>	<b>COURSE TITLE</b>	<b>PREREQUISITES</b>	<b>COREQUISITES</b>	<b>CR</b>
DSGN	414	Visual merchandising			3
FASH	418	Fashion forecasting			3
FASH	420	Fashion Advertising			3
DSGN	421	Art Appreciation			3
FASH	422	Fashion Communication			3
HAAS	340	Internship	90 Credits		3
HAAS	450	Project			3

**OPEN ELECTIVES (CHOOSE 6 CREDITS FROM ANY PROGRAM SUBJECT TO FULFILLING THEIR PREREQUISITES IF ANY) - 6 CR**

<b>COURSE CODE</b>	<b>COURSE #</b>	<b>COURSE TITLE</b>	<b>PREREQUISITES</b>	<b>COREQUISITES</b>	<b>CR</b>
	Open Elective I	As per Catalog			3
	Open Elective II	As per Catalog			3

**Proposed Schedule of Delivery**

<b>YEAR/SEM</b>	<b>COURSE CODE</b>	<b>COURSE #</b>	<b>COURSE TITLE</b>	<b>PREREQUISITES</b>	<b>COREQUISITES</b>	<b>CR</b>
<b>YEAR 1</b>	FASH	101	Introduction to Global Fashion		ENGL102	3
<b>FALL</b>	DSGN	102	Elements Of Design		ENGL102	3
	FTEC	103	Textiles		ENGL102	3
	ENGL	102	English for Academic Writing			3
	GENE	120	Islamic Culture			3
						<b>15</b>
<b>SPRING</b>	DSGN	205	Fashion Model Drawing-I	DSGN 205- Model Drawing-I		3
	FASH	106	Fashion Photography			3
	HAAS	102	Media Literacy			3
	COMM	105	Public Speaking			3
	ARAB	102	Arabic Language			3
						<b>15</b>
<b>YEAR 2</b>	FASH	204	History of Fashion			3
<b>FALL</b>	FTEC	207	Introduction to Pattern Making			3
	DSGN	308	Fashion Model Drawing - II			3
	HAAS	202	Practicing Sustainability			3
	GENE	210	UAE Studies			3
						<b>15</b>
<b>SPRING</b>	FASH	320	E- Commerce			3
	DSGN	309	Fashion Illustration			3

	FTEC	306	Garment Construction		3
	HAAS	208	Life and Future Skills		3
			Open Elective 1		3
					<b>15</b>
<b>YEAR 3</b>	FASH	435	Digital Marketing		3
<b>FALL</b>	FTEC	310	Advance Pattern Making	FTEC 207- Introduction to Pattern Making	3
	DSGN	413	Computer Aided Design		3
	HAAS	302	Research Methods and Data Analysis		3
	GENE	340	Innovation, Entrepreneurship and Sustainability		3
					<b>15</b>
<b>SPRING</b>	FASH	419	Studio		3
	DSGN	420	Portfolio Development		3
	FTEC	417	Draping		3
	FTEC	412	Pattern Grading	FTEC 306- Garment Construction	3
	FTEC	311	Dyeing and Printing	FTEC 103- Textiles	3
					<b>15</b>
<b>SUMMER INTERNSHIP</b>	HAAS	340	Internship	90 CR	3
					<b>3</b>
<b>YEAR 4</b>	FTEC	415	Material Studies	FTEC 103-Textiles	3
<b>FALL</b>	GENE	440	Ethics and Professional Responsibility		3
			Major Elective 1		3
			Major Elective 2		3
			Major Elective 3		3
					<b>15</b>
<b>SPRING</b>	HAAS	450	Project		3
			Major Elective 4		3
			Major Elective 5		3
			Open Elective 2		3
					<b>12</b>
					<b>120</b>

### 20.3.4 Bachelor of Science in Forensic Sciences

#### EDUCATIONAL AIM OF THE PROGRAM

The Bachelor of Science Forensic Science at Amity School of HAAS Dubai aims at:

(G1) Develop in-depth knowledge of concepts and theories related to forensic science and their applications in real contexts.

(G2) Equip learners with advanced techniques for the identification and analysis of various physical evidence related to real-time forensic problems.

- (G3) Develop high standards of writing and communication skills relevant to scientific and courtroom environments.
- (G4) Nurture learners' ability to work effectively either independently or in team settings in resolving forensic science cases.
- (G5) Enable students to individualize their educational experience toward specific career goals and/or further education.

## **PROGRAM LEARNING OUTCOMES (PLO)**

### **1. Knowledge**

- 1.1. Demonstrate understanding of the principles and conceptual framework of forensic science, and its applicability to the legal contexts.

### **2. Skill**

- 2.1. Employ critical evaluation and analytical skills in forensic investigation and evidence management.
- 2.2. Use effective verbal and written communication skills in legal settings.

### **3. Competence**

#### **3.1 Autonomy and responsibility**

- 3.1.1 Take individual and team responsibility in examining forensic evidence and casework.

#### **3.2 Role in context**

- 3.2.1. Participate professionally with peers to observe and opine on complex forensic cases.

#### **3.3 Self-development**

- 3.3.1. Take responsibility for advanced learning and professional development.
- 3.3.2. Facilitate forensic science solutions in social, ethical and legal contexts.

## **CSI Concentration**

CSIM1.1: Demonstrate in-depth understanding of methods and techniques applicable to crime scene investigation.

CSIM2.1: Apply the specialized skills of crime scene investigation and reconstruction in legal and professional settings.

## **QDFP Concentration**

QDFP1.1: Demonstrate in-depth understanding of tools and techniques applicable to the fields of questioned documents and dermatoglyphics.

QDFP2.1: Use specialized technology for questioned document and fingerprint evidence examination.

### **Mapping (PLOs) to National Qualifications Framework (NQF)**

The following matrix illustrates the link of Program Learning Outcomes to the National Qualifications Framework strands.

BSFS – QFEMIRATES [L7]	1. Knowledge					2. Skills				3. Competence										
										3.1. Autonomy and Responsibility				3.2. Role in Context				3.3. Self Development		
	A1	A2	A3	A4	A5	B1	B2	B3	B4	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
	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	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	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	a comprehensive understanding of critical analysis, research systems and methods and evaluative problem-solving techniques	familiarity with sources of current and new research and knowledge with integration of concepts from outside fields	technical, creative and analytical skills appropriate to solving specialised 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	evaluating, selecting and applying appropriate methods, procedures or techniques in processes of investigation towards identified solutions	evaluating and implementing appropriate research tools and strategies associated with the field of work or discipline	highly developed advanced communication and information technology skills to present, explain and/or critique complex and unpredictable matters	can take responsibility for developing innovative and advanced approaches to evaluating and managing complex and unpredictable work procedures and processes, resources or learning	can manage technical, supervisory or design processes in unpredictable, unfamiliar and varying contexts	can work creatively and/or effectively as an individual, in team leadership, managing contexts, across technical or professional activities	can express an internalised, personal view, and accept responsibility to society at large and to socio-cultural norms and relationships	can function with full autonomy in technical and supervisory contexts and adopt para-professional roles with little guidance	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 specialisation in field of work or discipline	can participate in peer relationships with qualified practitioners and lead multiple, complex groups	can take responsibility for managing the professional development and direct mentoring of individuals and groups	can self-evaluate and take responsibility for contributing to professional practice, and undertake regular professional development and/or further learning	can manage learning tasks independently and professionally, in complex and sometimes unfamiliar learning contexts	can contribute to and observe ethical standards
<b>1. Knowledge</b>																				
1.1. Demonstrate understanding of the principles and conceptual framework of forensic science, and its applicability to the legal contexts	X	X			X															
<b>2. Skills</b>																				
2.1. Employ critical evaluation and analytical skills in forensic investigation and evidence management						X	X													
2.2. Use effective verbal and written communication skills in legal settings								X												
<b>3. Competence</b>																				

BSFS – QFEMIRATES [L7]	1. Knowledge					2. Skills				3. Competence										
										3.1. Autonomy and Responsibility				3.2. Role in Context				3.3. Self Development		
	A1	A2	A3	A4	A5	B1	B2	B3	B4	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
<u>3.1. Autonomy and Responsibility</u>																				
3.1.1 Take individual and team responsibility in examining forensic evidence and casework										X		X		X						
<u>3.2. Role in Context</u>																				
3.2.1. Participate professionally with peers to observe and opine on complex forensic cases											X				X	X				
<u>3.3. Self-Development</u>																				
3.3.1. Take responsibility for advanced learning and professional development																	X	X	X	
3.3.2. Facilitate forensic science solutions in social, ethical and legal contexts													X							X
<b><u>CRIME SCENE INVESTIGATION CONCENTRATION</u></b>																				
CSIM1.1: Demonstrate in-depth understanding of methods and techniques applicable to crime scene investigation	X		X	X	X															
CSIM2.1: Apply the specialized skills of crime scene investigation and reconstruction in legal and professional settings							X	X												
<b><u>QUESTIONED DOCUMENTS &amp; FINGERPRINTS CONCENTRATION</u></b>																				
QDFP1.1: Demonstrate in-depth understanding of tools and techniques applicable to the fields of questioned documents and dermatoglyphics	X		X	X	X															
QDFP2.1: Use specialized technology for questioned document and fingerprint evidence examination							X	X												

## Program Structure

GENERAL EDUCATION (UNIVERSITY REQUIREMENTS) - 21 CR					
COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
ARAB	102	Arabic Language			3
ENGL	102	English for Academic Writing			3
COMM	105	Public Speaking			3
GENE	120	Islamic Culture			3
GENE	210	UAE Studies			3
GENE	340	Innovation, Entrepreneurship and Sustainability			3
GENE	440	Ethics and Professional Responsibility			3
HAAS ELECTIVES - COMMON CORE (SCHOOL REQUIREMENTS) - 12 CR					
COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
HAAS	102	Media Literacy		ENGL102	3
HAAS	202	Practicing Sustainability		ENGL102	3
HAAS	208	Life and Future Skills		ENGL102	3
HAAS	302	Research Methods and Data Analysis			3
MAJOR CORE (PROGRAM REQUIREMENTS) - 60 CR					
COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
FRSC	102	Elements of Criminology and Police Administration			3
BIOL	102	Introduction to Forensic Biology and Serology			3
CSIM	102	Fundamentals of Crime Scene Investigation			3
CHEM	102	Introduction to Forensic Chemistry			3
QDFP	202	Introduction to Fingerprint Science			3
FRSC	204	Trace Evidence Analysis			3
QDFP	206	Introduction to Questioned Documents			3
FRSC	302	Introduction to Forensic Psychology			3
CHEM	302	Forensic Toxicology - I			3
BIOL	302	Forensic Anthropology and Personal Identification			3
BIOL	306	Introduction to Forensic Medicine			3
CHEM	402	Forensic Toxicology - II	CHEM 302		3
CSCI	455	Digital Forensics			3
BIOL	312	Wildlife Forensics	CSIM 102		3
FRSC	406	Forensic Firearms Examination and Ballistics			3
BIOL	402	DNA Fingerprinting	BIOL 102		3

CHEM	408	Forensic Instrumentation		3
CHEM	416	Arson and Explosive Investigation	CHEM 102	3
FRSC	412	Forensic Engineering		3
FRSC	416	Quality management system and accreditation		3
HAAS	340	Internship	90 CR	3
HAAS	450	Project	HAAS 302	3

#### MAJOR ELECTIVES - 15 CR

##### CONCENTRATION REQUIREMENTS: Crime Scene Investigation

COURS E CODE	COURS E #	COURSE TITLE	PREREQUISITE S	COREQUISITE S	C R
CSIM	302	Physical Evidence and Expert Witness Testimony	CSIM102		3
CSIM	402	Forensic Photography	CSIM102		3
CSIM	408	Forensic Evidence Management	CSIM102		3
CSIM	416	Advanced Crime Scene Investigation	CSIM102		3
CSIM	422	Incident Management	CSIM102		3

#### MAJOR ELECTIVES - 15 CR

##### CONCENTRATION REQUIREMENTS: Questioned Documents & Fingerprints

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
QDFP	302	Handwriting Analysis	QDFP206		3
QDFP	402	Electronic Printers and Ink Analysis	QDFP206		3
QDFP	406	Documents and Security Features	QDFP206		3
QDFP	412	Biometrics	QDFP202		3
QDFP	416	Dermatoglyphics and other Impressions	QDFP202		3

**MAJOR ELECTIVES (GENERAL DEGREE WITH NO CONCENTRATION: CHOOSE A MIX OF 15 CREDITS FROM DIFFERENT CONCENTRATIONS) - 15 CR**

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
Any Combination of Credits from Offered Concentrations			As per Catalog		15

OPEN ELECTIVES (CHOOSE 6 CREDITS FROM ANY PROGRAM SUBJECT TO FULFILLING THEIR PREREQUISITES IF ANY) - 6 CR					
COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
		Open Elective I	As per Catalog		3
		Open Elective II	As per Catalog		3

**Proposed Schedule of Delivery**

YEAR/SEM	COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
<b>YEAR 1</b>	FRSC	102	Elements of Criminology and Police Administration			3
<b>FALL</b>	BIOL	102	Introduction to Forensic Biology and Serology			3
	CSIM	102	Fundamentals of Crime Scene Investigation			3
	ENGL	102	English for Academic Writing			3
	GENE	120	Islamic Culture			3
						<b>15</b>
<b>SPRING</b>	CHEM	102	Introduction to Forensic Chemistry			3
	QDFP	202	Introduction to Fingerprint Science			3
	HAAS	102	Media Literacy		ENGL 102	3
	COMM	105	Public Speaking			3
	ARAB	102	Arabic Language			3
						<b>15</b>
<b>YEAR 2</b>	FRSC	204	Trace Evidence Analysis			3
<b>FALL</b>	QDFP	206	Introduction to Questioned Documents			3
	FRSC	302	Introduction to Forensic Psychology			3
	HAAS	202	Practicing Sustainability		ENGL 102	3
	GENE	210	UAE Studies			3
						<b>15</b>
<b>SPRING</b>	CHEM	302	Forensic Toxicology - I			3
	BIOL	302	Forensic Anthropology and Personal Identification			3
	BIOL	306	Introduction to Forensic Medicine			3

	HAAS	208	Life and Future Skills Open Elective 1	ENGL 102	3 3
					<b>15</b>
<b>YEAR 3</b>	CHEM	402	Forensic Toxicology - II	CHEM 302	3
<b>FALL</b>	CSCI	455	Digital Forensics		3
	BIOL	312	Wildlife Forensics	CSIM 102	3
	HAAS	302	Research Methods and Data Analysis Innovation,		3
	GENE	340	Entrepreneurship and Sustainability		3
					<b>15</b>
<b>SPRING</b>	FRSC	406	Forensic Firearms Examination and Ballistics		3
	BIOL	402	DNA Fingerprinting	BIOL 102	3
	CHEM	408	Forensic Instrumentation		3
	CHEM	416	Arson and Explosive Investigation	CHEM 102	3
	FRSC	412	Forensic Engineering		3
					<b>15</b>
<b>INTERNSHIP</b>	HAAS	340	Internship	90 CR	3
					<b>3</b>
<b>YEAR 4</b>	FRSC	416	Quality management system and accreditation		3
<b>FALL</b>	GENE	440	Ethics and Professional Responsibility		3
			Major Elective 1		3
			Major Elective 2		3
			Major Elective 3		3
					<b>15</b>
<b>SPRING</b>	HAAS	450	Project	HAAS 302	3
			Major Elective 4		3
			Major Elective 5		3
			Open Elective 2		3
					<b>12</b>
					<b>120</b>

### 20.3.5 Bachelor of Science in Psychology

#### EDUCATIONAL AIM OF THE PROGRAM

The Bachelor of Science Psychology at Amity University Dubai aims at:

- (G1) Develop fundamental knowledge and understanding of traditional and contemporary theories in Psychology.
- (G2) Develop the skills of intellectual inquiry and ethical practice through experiential and researchbased approaches within the discipline of Psychology.
- (G3) Build the student's ability to independently apply their knowledge and experience in working effectively with a diverse range of individuals and groups through interdisciplinary collaborations and assessments and diagnosis.

#### PROGRAM LEARNING OUTCOMES (PLO)

Upon successful completion of the Bachelor of Science Psychology program, the students should be able to:

## **1. Knowledge**

- 1.1. Demonstrate knowledge and understanding of the fundamental principles and theories in Psychology.
- 1.2. Demonstrate expertise in psychological knowledge integrating critical analysis, classical and creative research methodology to explain and propose solutions in various psychological contexts.

## **2. Skills**

- 2.1. Apply psychological methods, procedures, and techniques to identify and analyze the impact of social and cultural factors on human behavior.
- 2.2. Employ counseling, critical thinking, inquiry, and effective communication skills to develop and implement solutions that address the complexities of human behavior.

## **3. Competences**

### **3.1. *Autonomy and Responsibility***

- 3.1.3. Demonstrate ability to work independently and within a team in diverse contexts across technical or professional complex settings.

### **3.4. *Self-development***

- 3.4.1. Take responsibility to develop professional knowledge, practice and entrepreneurship using sustainable approaches and ethical considerations of innovative techniques and emerging trends in psychology.

### **3.5. *Role in context***

- 3.5.1. Demonstrate ability to work independently and with peers in technical and supervisory contexts and engage in collaborative relationships with professionals.

## **Mapping (PLOs) to National Qualifications Framework (NQF)**

The following matrix illustrates the link of Program Learning Outcomes to the National Qualifications Framework strands.

QFEMIRATES [L7]	1. Knowledge					2. Skills				3. Competence										
	A1	A2	A3	A4	A5	B1	B2	B3	B4	3.1. Autonomy and Responsibility				3.2. Role in Context				3.3. Self Development		
										C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
	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	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	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	a comprehensive understanding of critical analysis, research systems and methods and evaluative problem-solving techniques	familiarity with sources of current and new research and knowledge with integration of concepts from outside fields	technical, creative, and analytical skills appropriate to solving specialised 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	evaluating, selecting, and applying appropriate methods, procedures, or techniques in processes of investigation towards identified solutions	evaluating and implementing appropriate research tools and strategies associated with the field of work or discipline	highly developed advanced communication and information technology skills to present, explain and/or critique complex and unpredictable matters	can take responsibility for developing innovative and advanced approaches to evaluating and managing complex and unpredictable work procedures and processes, resources, or learning	can manage technical, supervisory or design processes in unpredictable, unfamiliar, and varying contexts	can work creatively and/or effectively as an individual, in team leadership, managing contexts, across technical or professional activities	can express an internalised, personal view, and accept responsibility to society at large and to socio-cultural norms and relationships	can function with full autonomy in technical and supervisory contexts and adopt professional roles with little guidance	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 specialisation in field of work or discipline	can participate in peer relationships with qualified practitioners and lead multiple, complex groups	can take responsibility for managing professional development and direct mentoring of individuals and groups	can self-evaluate and take responsibility for contributing to professional practice, and undertake regular professional development and/or further learning	can manage learning tasks independently and professionally, in complex and sometimes unfamiliar learning contexts	can contribute to and observe ethical standards
<b>1. Knowledge</b>																				
1.1. Demonstrate knowledge and understanding of the fundamental principles and theories in Psychology.	X	X																		
1.2. Demonstrate expertise in psychological knowledge integrating critical analysis, classical and creative research methodology to explain and propose solutions in various psychological contexts.			X	X	X															

QFEMIRATES [L7]	1. Knowledge					2. Skills				3. Competence										
										3.1. Autonomy and Responsibility				3.2. Role in Context				3.3. Self Development		
	A1	A2	A3	A4	A5	B1	B2	B3	B4	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
<b>2. Skills</b>																				
2.1. Apply psychological methods, procedures, and techniques to identify and analyze the impact of social and cultural factors on human behavior..							X	X												
2.2. Employ counseling, critical thinking, inquiry, and effective communication skills to develop and implement solutions that address the complexities of human behavior..								X	X											
<b>3. Competence</b>																				
3.1. Autonomy and Responsibility																				
3.1.1. Demonstrate ability to work independently and within a team in diverse contexts in technical or professional complex settings.										X	X	X								
<b>3.2. Self-Development</b>																				
3.2.1. Take responsibility to develop professional knowledge, practice and entrepreneurship using sustainable approaches and ethical considerations of innovative techniques and emerging trends in psychology.													X				X	X	X	X
<b>3.3. Role in Context</b>																				
3.3.1. Demonstrate ability to work independently and with peers in technical and supervisory contexts engaging in collaborative														X	X	X				

QFEMIRATES [L7]	1. Knowledge					2. Skills				3. Competence										
										<i>3.1. Autonomy and Responsibility</i>				<i>3.2. Role in Context</i>				<i>3.3. Self Development</i>		
	A1	A2	A3	A4	A5	B1	B2	B3	B4	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
relationships with professionals.																				

## Program Structure

### GENERAL EDUCATION (UNIVERSITY REQUIREMENTS) - 21 CR

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
ARAB	102	Arabic Language			3
ENGL	102	English for Academic Writing			3
COMM	105	Public Speaking			3
GENE	120	Islamic Culture			3
GENE	210	UAE Studies			3
GENE	40	Innovation, Entrepreneurship and Sustainability			3
GENE	440	Ethics and Professional Responsibility			3

### HAAS ELECTIVES - COMMON CORE (SCHOOL REQUIREMENTS) - 12 CR

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
HAAS	102	Media Literacy		ENGL102	3
HAAS	202	Practicing Sustainability		ENGL102	3
HAAS	208	Life and Future Skills		ENGL102	3
HAAS	302	Research Methods and Data Analysis			3

### MAJOR CORE (PROGRAM REQUIREMENTS) - 60 CR

COURSE CODE	COURSE #	COURSE TITLE	PREREQUISITES	COREQUISITES	CR
PSGP	101	General Psychology		ENGL102	3
PSGP	103	Introduction to Behavioral Neuroscience			3
PSGP	105	Theoretical Paradigm of Psychology		ENGL102	3
PSCL	201	Psychological Testing and Assessment			3
PSGP	203	Developmental Psychology			3
PSGP	205	Cognitive Psychology	PSGP 101		3
PSCO	207	Ethics in Psychology, Research and Practice			3
PSGP	303	Applied Statistics			
PSGP	305	Introduction to Child Psychology	PSGP 203		3
PSAP	307	Personality Psychology	PSGP 101		3

<b>PSAP</b>	309	Organizational Psychology	PSGP 101	3
<b>PSAP</b>	311	Educational Psychology	PSGP 203	
<b>PSCL</b>	405	Psychopathology		3
<b>PSAP</b>	407	Health Psychology	PSAP 307	3
<b>PSCL</b>	411	Introduction to Psychotherapeutic Interventions	PSCL 405	3
<b>PSGP</b>	413	Psychology of Motivation and Leadership	PSAP 309	3
<b>PSCO</b>	415	Counseling and Interviewing Skills	PSAP 307	3
<b>PSAP</b>	417	Social and Community Psychology		3
<b>PSCO</b>	419	Positive Psychology Interventions and Applications		3
<b>PSCO</b>	421	Psychology of Exceptional Children		3

<b>MAJOR ELECTIVES - 15 CR</b>					
<b>COURSE CODE</b>	<b>COURSE #</b>	<b>COURSE TITLE</b>	<b>PREREQUISITES</b>	<b>COREQUISITES</b>	<b>CR</b>
<b>FRSC</b>	302	Introduction to Forensic Psychology			3
PSAP	427	Psychology of Creativity			3
PSGP	429	Climate and Environmental Psychology			3
PSAP	431	Coaching Psychology	PSGP 101		3
PSAP	435	Sports and Performance Psychology			3
PSCP	437	Art Therapy			3
PSGP	439	Artificial Intelligence and Debates in Psychology			3
PSCL	441	Drug Addiction and Rehabilitation			3

**OPEN ELECTIVES (CHOOSE 6 CREDITS FROM ANY PROGRAM SUBJECT TO FULFILLING THEIR PREREQUISITES IF ANY) - 6 CR**

<b>COURSE CODE</b>	<b>COURSE #</b>	<b>COURSE TITLE</b>	<b>PREREQUISITES</b>	<b>COREQUISITES</b>	<b>CR</b>
Open Elective I	As per Catalog	3			
Open Elective II	As per Catalog	3			

**Proposed Schedule of Delivery**

<b>YEAR/ SEM</b>	<b>COURSE CODE</b>	<b>COURS E #</b>	<b>COURSE TITLE</b>	<b>PRERE QUISIT ES</b>	<b>COREQ UISITES</b>	<b>CR</b>
<b>YEAR 1</b>	PSGP	101	General Psychology		ENGL102	3
<b>FALL</b>	PSGP	203	Developmental Psychology			3
	PSGP	105	Theoretical Paradigm of Psychology		ENGL102	3
	ENGL	102	English for Academic Writing			3
	GENE	120	Islamic Culture			3
						<b>15</b>
<b>SPRIN G</b>	PSCL	201	Psychological Testing and Assessment			3
	PSGP	103	Introduction to Behavioral Neuroscience			3
	HAAS	102	Media Literacy			3
	COMM	105	Public Speaking			3
	ARAB	102	Arabic Language			3
						<b>15</b>
<b>YEAR 2</b>	PSGP	205	Cognitive Psychology		PSGP 101	3
<b>FALL</b>	PSCO	207	Ethics in Psychology, Research and Practice			3
	PSGP	305	Introduction to Child Psychology		PSGP 203	3
	HAAS	201	Practicing Sustainability			3
	GENE	210	UAE Studies			3
						<b>15</b>
<b>SPRIN G</b>	PSAP	307	Personality Psychology		PSGP 101	3
	PSAP	309	Organizational Psychology		PSGP 101	3
	PSAP	311	Educational Psychology		PSGP 203	3
	HAAS	208	Life and Future Skills			3
			Open Elective 1			3
						<b>15</b>
<b>YEAR 3</b>	PSCL	405	Psychopathology			3
<b>FALL</b>	PSGP	303	Applied Statistics			3
	PSCO	421	Psychology of Exceptional Children			3
	HAAS	302	Research Methods and Data Analysis			3
	GENE	340	Innovation, Entrepreneurship and Sustainability			3
						<b>15</b>
<b>SPRIN G</b>	PSAP	407	Health Psychology		PSAP 307	3
	PSAP	413	Psychology of Motivation and Leadership		PSAP 309	3
	PSCO	415	Counseling and Interviewing Skills		PSAP 307	3
	PSAP	417	Social and Community Psychology			3
	PSCO	419	Positive Psychology Interventions and Applications			3
						<b>15</b>

<b>INTERNSHIP</b>	HAAS	340	Internship	60 CR	3
					<b>3</b>
<b>YEAR 4 FALL</b>	PSCL	411	Introduction to Psychotherapeutic Interventions	PSCL 405	3
	GENE	440	Ethics and Professional Responsibility		3
			Major Elective 1		3
			Major Elective 2		3
			Major Elective 3		3
					<b>15</b>
<b>SPRING</b>			Project		3
<b>G</b>			Major Elective 4		3
			Major Elective 5		3
			Open Elective 2		3
					<b>12</b>
					<b>120</b>

### 20.3.6 Bachelor of Fine Arts in Digital Media and Communications

#### EDUCATIONAL AIM OF THE PROGRAM

The Bachelor of Digital Media Communications at Amity HAAS Dubai aims at:

- (G1) Develop an understanding of the relationship between media and society through relevant theories and mass communication processes as they relate to contemporary issues
- (G2) Provide guidance towards best media practices in local and global contexts in view of fostering sustainable and responsible environments
- (G3) Equip students with the skills necessary for ethical and mindful newsgathering, digital media content creation, and content dissemination across all media platforms

#### PROGRAM LEARNING OUTCOMES (PLOs)

Upon successful completion of the Bachelor of Digital Media and Communications, the students should be able to:

##### 1. Knowledge

- 1.1 Understand mass media concepts, production processes, approaches, and theories.
- 1.2 Identify the diverse allied disciplines in multimedia stories creation.

##### 2. Skills

- 2.1 Use software applications and equipment to create, record, and edit media content.
- 2.2 Apply research methods to gather information from credible sources and present it ethically in print and audiovisual forms.
- 2.3 Interpret complex arguments and communicate them effectively on varied platforms.

##### 3. Competences

##### 3.1 Autonomy and Responsibility

- 3.1.1 Work efficiently as an individual or in team settings to produce creative media outputs using the latest media technologies.
- 3.1.2 Perform a variety of roles connected with media productions on different platforms.

### **3.2 Role in context**

3.2.1 Independently gather, organize and arrange information to formulate complex arguments and communicate them fluently.

3.2.2 Utilize media for larger social good in partnership with other stakeholders.

### **3.3 Self-Development**

Take responsibility to contribute toward professional practice and undertake further learning.

### **Mapping (PLOs) to National Qualifications Framework (NQF)**

The following matrix illustrates the link of Program Learning Outcomes to the National Qualifications Framework strands.

## Undergraduate Catalog 2022-2023

[illegible]

QFEMIRATES [L7]	1. Knowledge					2. Skills				3. Competence										
										3.1. Autonomy and Responsibility				3.2. Role in Context				3.3. Self Development		
	A1	A2	A3	A4	A5	B1	B2	B3	B4	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
involved in creating multimedia stories.																				
<b>2. Skills</b>																				
2.1 Use software applications and equipment to create, record, and edit media content.						X	X	X												
2.2 Apply research methods to gather information from credible sources and present it ethically in print and audiovisual forms.							X													
2.3 Summarize complex arguments and communicate them effectively on varied platforms.							X	X												
<b>3. Competence</b>																				
<b>3.1. Autonomy and Responsibility</b>																				
3.1.1. Work efficiently as an individual or in team settings to produce creative media outputs using the latest media technologies.											X	X								
3.1.2. Perform a variety of roles connected with media productions on different platforms															X	X				
Role in Context:																				
3.2.1 Take responsibility for adopting paraprofessional roles in a given social and cultural context.															X		X			
3.2.2 Can participate in peer relationships with qualified practitioners and																X	X			

QFEMIRATES [L7]	1. Knowledge					2. Skills				3. Competence										
										3.1. Autonomy and Responsibility				3.2. Role in Context				3.3. Self Development		
	A1	A2	A3	A4	A5	B1	B2	B3	B4	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
lead multiple complex groups.																				
<u>3.2. Self-Development</u> 3.3.1 Take responsibility to contribute toward professional practice and undertake further learning.															X			X		

## Program Structure

**GENERAL EDUCATION (UNIVERSITY REQUIREMENTS) - 21 CR**

<b>COURSE CODE</b>	<b>COURSE #</b>	<b>COURSE TITLE</b>	<b>PREREQUISITES</b>	<b>COREQUISITES</b>	<b>CR</b>
ARAB	102	Arabic Language			3
ENGL	102	English for Academic Writing			3
COMM	105	Public Speaking			3
GENE	120	Islamic Culture			3
GENE	210	UAE Studies			3
GENE	340	Innovation, Entrepreneurship and Sustainability			3
GENE	440	Ethics and Professional Responsibility			3

**HAAS ELECTIVES - COMMON CORE (SCHOOL REQUIREMENTS) - 12 CR**

<b>COURSE CODE</b>	<b>COURSE #</b>	<b>COURSE TITLE</b>	<b>PREREQUISITES</b>	<b>COREQUISITES</b>	<b>CR</b>
HAAS	102	Media Literacy			3
HAAS	202	Practicing Sustainability			3
HAAS	208	Life and Future Skills			3
HAAS	302	Research Methods and Data Analysis			3

**COMMON CORE (DEPARTMENT REQUIREMENTS) – 15 CR**

<b>COURSE CODE</b>	<b>COURSE #</b>	<b>COURSE TITLE</b>	<b>PREREQUISITES</b>	<b>COREQUISITES</b>	<b>CR</b>
<b>MDIA</b>	101	Introduction to Storytelling			3
<b>MDIA</b>	102	Basics of Camera Techniques			3
<b>MDIA</b>	201	Post-production for Moving Images			3
<b>MDIA</b>	203	Advertising			3
<b>MDIA</b>	207	Media Ethics, Laws, and Regulations			3

**MAJOR CORE (PROGRAM REQUIREMENTS) – 45 CR**

<b>COURSE CODE</b>	<b>COURSE #</b>	<b>COURSE TITLE</b>	<b>PREREQUISITES</b>	<b>COREQUISITES</b>	<b>CR</b>
<b>BDMC</b>	101	Understanding Media			3
<b>BDMC</b>	201	Writing for Print			3
<b>FILM</b>	202	Digital Photography			3
<b>BDMC</b>	301	Radio Programming and Production			3
<b>ANIM</b>	302	Graphic Design			3
<b>BDMC</b>	304	Public Relations and Corporate Communication			3
<b>BDMC</b>	308	Media and Society			3
<b>FASH</b>	435	Digital Marketing			3
<b>BDMC</b>	312	Social Media and Content Creation			3
<b>BDMC</b>	316	Global Media and Culture			3
<b>BDMC</b>	401	Communication for Development			3

<b>BDMC</b>	405	Emerging Media Platforms and Audiences	3
<b>BDMC</b>	410	Urban Radio and Podcasting	3
<b>BDMC</b>	415	Multimedia Campaigns	3
<b>FILM</b>	407	Advertising & Corporate Film Production	3

**MAJOR ELECTIVES - 15 CR**

<b>COURSE CODE</b>	<b>COURSE #</b>	<b>COURSE TITLE</b>	<b>PREREQUISITES</b>	<b>COREQUISITES</b>	<b>CR</b>
BDMC	418	Principles of Convergent Journalism			3
BDMC	421	News Anchoring and Packaging			3
BDMC	425	News Gathering and Media Technologies			3
BDMC	426	Lifestyle Journalism			3
BDMC	429	Non-Fiction / Documentary Filmmaking			3

**OPEN ELECTIVES (CHOOSE 6 CREDITS FROM ANY PROGRAM SUBJECT TO FULFILLING THEIR PREREQUISITES IF ANY) - 6 CR**

<b>COURSE CODE</b>	<b>COURSE #</b>	<b>COURSE TITLE</b>	<b>PREREQUISITES</b>	<b>COREQUISITES</b>	<b>CR</b>
		Open Elective I As per Catalog	3		
		Open Elective II As per Catalog	3		

**Proposed Schedule of Delivery**

<b>YEAR/SEM</b>	<b>COURSE CODE</b>	<b>COURSE #</b>	<b>COURSE TITLE</b>	<b>PREREQUISITES</b>	<b>COREQUISITES</b>	<b>CREDIT</b>
<b>YEAR 1 FALL</b>	MDIA	101	Introduction to Storytelling			3
	MDIA	105	Basics of Camera Techniques			3
	BDMC	101	Understanding Media			3
	ENGL	102	English for Academic Writing			3
	GENE	120	Islamic Culture			3
						<b>15</b>
<b>SPRING</b>	BDMC	201	Writing for Print			3
	MDIA	201	Postproduction for moving images			3
	HAAS	101	Media Literacy			3
	COMM	105	Public Speaking			3
	ARAB	102	Arabic Language			3
						<b>15</b>
<b>YEAR 2 FALL</b>	MDIA	203	Advertising			3
	FILM	202	Digital Photography			3
	BDMC	301	Radio Programming and Production			3
	HAAS	201	Practicing Sustainability			3
	GENE	210	UAE Studies			3
						<b>15</b>
<b>SPRING</b>	MDIA	207	Media Ethics, Laws, and Regulations			3
	ANIM	302	Graphic Design			3
	BDMC	304	Public Relations and Corporate Communication			3
	HAAS	204	Life and Future Skills			3
			Open Elective 1			3
						<b>15</b>
<b>YEAR 3 FALL</b>	BDMC	308	Media and Society			3
	FASH	435	Digital Marketing			3
	BDMC	312	Social Media and Content Creation			3
	HAAS	301	Research Methods and Data Analysis			3
	GENE	340	Innovation, Entrepreneurship and Sustainability			3
						<b>15</b>
<b>SPRING</b>	BDMC	316	Global Media and Culture			3
	BDMC	401	Communication for Development			3
	BDMC	405	Emerging Media Platforms and Audiences			3

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	BDMC	410	Urban Radio and Podcasting		3
	BDMC	415	Multimedia Campaigns		3
					<b>15</b>
<b>INTERNSHIP</b>	HAAS	340	Internship	60 CR	3
<b>YEAR 4</b>	FILM	407	Advertising & Corporate Film Production		3
<b>FALL</b>	GENE	440	Ethics and Professional Responsibility	ENGL102	3
					3
					3
					3
					<b>15</b>
<b>SPRING</b>			Project	HAAS 301	3
					3
					3
					3
					<b>12</b>

## 21 FACULTY- LIST

### Amity Business School Faculty

**Dr. Priyadarshini Baguant**

*Dean of Amity Business School*

*Ph.D. in Human Resource Management - University of Mauritius (supervised London School of economics, UK)*

**Dr. Adel Ahmed**

*Professor*

*Ph.D. in Accounting and Finance - Liverpool Business School, Liverpool JM University, UK*

**Dr. Shahzia Khan**

*Associate Professor*

*Ph.D in Marketing - MJP Rohilkhand University, India*

**Dr. Bhawna Gaur**

*Associate Professor*

*Ph.D in Organizational Development - JRN University, Udaipur, India*

**Dr. Kamaladevi Baskaran**

*Assistant Professor*

*Ph.D in Marketing - Bharathiar University, India*

**Dr. Swamynathan Ramakrishnan**

*Assistant Professor*

*Ph.D in Supply Chain Management, Bharathiar University, India*

**Dr. Shaista Alvi**

*Assistant Professor*

*Ph.D in Business Administration, Aligarh Muslim University, India*

**Dr. Ruhi Sethi**

*Assistant Professor*

*Ph.D. Management - Amity University Uttar Pradesh, Noida India*

**Dr. Nancy Bouchra Hanna**

*Assistant Professor*

*Ph.D in Strategic Management - The German University in Cairo*

**Dr. Mukund Ramniklal Jakhiya**

*Assistant Professor*

*Ph.D in Management - Banasthali Vidyapith*

**Dr. Nagendra Singh**

*Assistant Professor*

*Ph.D in Hospitality and Tourism - S.P Jain Centre of Management, Dubai*

**Mr. Mehrdad Mohasses**

*Assistant Professor*

*MBA & Master of Education - Training and Development - University of Windsor*

*Pursuing Ph.D*

**Mr. Satish Raman Menon**

*Assistant Professor*

*MBA - Institute of Technology and Management*

*Pursuing Ph.D*

**Dr. Reena George**

*Assistant Professor*

*PhD in Social Science in Tourism - Awadhesh Pratap Singh University*

**Dr. Ganga Bhavani Maddula**

*Associate Professor*

*PhD in Commerce - Banasthali Vidyapith*

**Dr. Afreen Arif**

*Assistant Professor*

*PhD. In Statistics, Mangalore University, India,*

**Dr. Prachi Trivedi**

*Assistant Professor*

*PhD in Commerce - Amity University UP*

**Dr. Ashok Chopra**

*Associate Professor*

*PhD in Marketing Management - Banasthali University*

**Dr. Robin Sharma**

*Lecturer*

*PhD in Management - Banasthali Vidyapith*

**Mr. Gary Paul Smith**

*Assistant Professor*

*MSc Marketing - University of Greenwich*

**School of Engineering, Architecture and Interior Design**

**Dr. Sathish Kannan**

*Dean of School of Engineering, Architecture and Interior Design*

*PhD in Mechanical Engineering - University of New Brunswick, Canada*

**Dr. Ramachandran Anand Kumar**

*Professor*

*PhD in Electrical and Computer Engineering- Rice, University, USA*

**Dr. Vinod Kumar Shukla**

*Associate Professor*

*PhD in Computer Science Engineering, Mewar University, India*

**Dr. Swaroop Ramaswamy Pillai**

*Associate Professor*

*Ph.D in Electrical and Electronics Engineering, Jadavpur University, India*

**Dr. Ved Prakash Mishra**

*Associate Professor*

*Ph.D in Computer Science Engineering, Amity University, India*

**Dr. Bhopendra Mahavir Singh**

*Associate Professor*

*PhD in Power Systems, CMJ University, India*

**Dr Dinesh Chand Sharma**

*Associate Professor*

*PhD in Physical Chemistry, Jamia Millia Islamia (Central University), New Delhi, India*

**Mr. Kovelil Abraham Samuel**

*Associate Professor*

*Masters in Construction Project Management, Heriott Watt University, Dubai*

*Pursuing Ph.D from Institute of Mechanics and Engineering, Bordeaux, France*

**Ms. Vidya Mohanan**

*Lecturer*

*Masters in Structural Engineering, University of Manchester, UK*

*Pursuing Ph.D from Institute of Mechanics and Engineering, Bordeaux, France*

**Dr. Sarath Raj**

*Lecturer*

*Ph.D in Engineering from Lincoln University College, Malaysia*

**Dr. Ishu Sharma**

*Professor*

*Ph.D in Physics, Jaypee University of Information Technology, Solan, H.P, India*

**Ms. Reshmi Sethu Nair**

*Lecturer*

*Masters in Nanotechnology, Amrita Vishwa Vidyapeetam, India*

*Pursuing Ph.D from IIT Madras, India*

**Dr. Ramesh Vandanapu**

*Assistant Professor*

*PhD in Geotechnical Engineering , Kingston University, UK*

**Ms. Amna Rafi Chaudhry**

*Lecturer*

*Masters in Landscape Architecture, Harvard University, USA*

**Dr. Vishal Gangadhar Naranje**

*Associate Professor*

*Ph.D in Mechanical Engineering, S.V. National Institute of Technology, India*

**Dr. Apurv Yadav**

*Assistant Professor*

*Ph.D in Renewable and Alternate Energy, Amity University Noida, India*

**Dr. Siddharth Kizhakkelan Sudhakaran**

*Assistant Professor*

*Ph.D in Mechanical Engineering, Indian Institute of Technology, India*

**Mr. Deepak Tulsiram Patil**

*Lecturer*

*Masters of Science in Engineering, University of Leeds, UK*

*Pursuing Ph.D from University of Salford, UK*

**Dr. Efstratios Ntantis**

*Assistant Professor*

*Ph.D in Gas Turbine Performance Diagnostics, Cranfield University, UK*

**Dr. Rafe Khalaf Mohammed Alasem**

*Assistant professor*

*PhD in Network & Control Engineering. - University of Bradford, UK*

**Dr. Ashok Ghanapathy Iyer**

*Associate Professor*

*PhD in Architecture - Cardiff University, UK*

**Ms. Salma Al Zahabi**

*Lecturer*

*Masters in Master of Science in Sustainable Design of the Built Environment, The British University in Dubai, UAE*

**Dr. Mohammed Almakki**

*Assistant Professor*

*PhD in Applied Mathematics, University of Kwazulu-Natal, South Africa*

**Dr. Archana Pandita**

*Assistant Professor*

*PhD in Computer Science and Engineering, Banasthali Vidyaputh, India*

**Dr. Soumaya Boudagga**

*Lecturer*

*PhD in Biological Science, University of Tunis El Manar, Tunisia*

**Dr Steffy Varghese**

*Assistant Professor*

*PhD in Science and Technology, University of Mumbai, India*

**Lamiaa Shaheen**  
*Assistant Professor*  
*Alexandria University*

**School of Humanities, Arts and Applied Science**

**Dr. Rajneesh Mishra**  
*Dean of School of Humanities, Arts and Applied Science*  
*PhD in Economics – DDU, Gorakhpur University, India*

**Dr. Akram Haddad**  
*Professor*  
*Ph.D. in Economics, Nagpur University, India*

**Dr. Aradhana Bhardwaj**  
*Associate Professor*  
*Ph.D. in Psychology, H.P. University, Shimla, India*

**Dr. Nrashant Singh**  
*Associate Professor*  
*Ph.D. in Toxicology, Jamia Hamdard, India*

**Mr. Aby Joseph**  
*Assistant Professor*  
*Masters in Forensic Science, University of Madras, India*  
*Pursuing Ph.D. from Banasthali University, India*

**Dr. Gursirat Khokhar**  
*Assistant Professor*  
*Masters (MD) in Forensic Medicine, Baba Farid University, India*

**Dr. Jihene Mrabet**  
*Assistant Professor*  
*Ph.D. in Clinical Psychology, University of Rouen Normandie, France*

**Dr. Malini Bishnoi**  
*Assistant Professor*  
*Ph.D. in Sociology, Delhi University, India*

**Dr. Richa Gupta**  
*Assistant Professor*  
*Ph.D. from Banasthali University, India*

**Dr. Sagee Sethu**  
*Assistant Professor*

*Ph.D. in Law, National Law University, Delhi, India*

**Ms. Seema Sangra**

*Assistant Professor*

*MA in Mass Communication, Guru Jambheshwar University, India*

*Pursuing Ph.D. from Banasthali University, India*

**Dr. Ziaurrahman Azmi**

*Assistant Professor*

*Ph.D. in Arabic, J.N.U, New Delhi, India*

**Ms. Achuthy Kottangal**

*Lecturer*

*M.Sc. in Costume Design and Fashion, Bharathiar University, India*

**Ms. Nilam Khunti**

*Lecturer*

*Masters in Fashion & Marketing, ESMOD Dubai, UAE*

**Mr. Robert Studholme**

*Lecturer*

*Masters in Applied Linguistics, University of Southern Queensland, Australia*

**Mr. Sambhram Pattanayak**

*Lecturer*

*Masters in Journalism and Mass Communication, Sikkim Manipal, India*

*Pursuing Ph.D. from Amity University, India*

**Dr. Ahmed Jumah Al Haddad**

*Professor*

*Ph.D. in Forensic, University of Lincoln, UK*

**Ms. Arifa Zahra**

*Assistant Professor*

*Law, Aligarh Muslim University*

**Ms. Bochra Boudjemaa**

*Instructor*

*Master of Art in Teaching, Djillai Liabes University*

**Dr. Mahshid Manouchehri**

*Assistant Professor*

*Ph.D. in Psychology, University Putra Malaysia*

**Dr. Meghry Nazarian**

*Assistant Professor*

*Ph.D. in Leadership & Policy Studies in Education, The United Arab Emirates University*

**Dr. Nawal Henouz**

*Lecturer*

*Linguistic General, University of Lamin Debaghine Setif 2*

**Dr. Nitya Prasad**

*Assistant Professor*

*Ph.D. in Psychology, University of Kerala*

**Ms. Pooja Sakhare**

*Lecturer*

*Master of Fine Arts, Savannah College of Art and Design*

**Mr. Ubair Showkat**

*Lecturer*

*Masters in Animation and VFX, Jamia Millia Islamia*

**Dr. Vishnu Nair**

*Assistant Professor*

*Phd. In Law, University of Kerala*

**Ms. Saher Nabi**

*Lecturer -*

*Master in Business Administration, Jamia Hamdard University*

**Ms. Corrine Martin**

*Lecturer -*

*American University Dubai*

## **22 COURSE DESCRIPTIONS**

### **ARAB 102 Arabic Language**

The Arabic language is a popular and the fifth largest spoken language worldwide. It contributes to understanding culture and people, and increases job opportunities. This course is designed to develop an understanding of Arabic to help students communicate confidently with others, and to equip them with the skills needed in a variety of situations by promoting the four language skills, namely, reading, writing, speaking and listening, by acquiring day to day words of common parlance and expressions in addition to some grammatical rules through a combination of lectures and interactive elements, such as group work, in-class exercises, conversations and audio-video aids.

### **COMM 105 Public Speaking**

Civility and ethical speech are the foundations of effective public interaction. The course emphasises the practical skill of public speaking, including techniques to lessen speaker's anxiety, and the use of visual aids to enhance delivery. The course is heavily practice-oriented and has been designed to develop the skills of speech-making through class discussions, group work, presenting papers, and giving seminars.

### **ENGL 102 English for Academic Writing**

Writing persuasively is a fundamental skill required by students throughout their academic and professional career. Students learn to identify and use persuasive language, summarize, paraphrase, and read and write critically. Additionally, they learn to compose and construct well written pieces of composition that meet the requirements of the university's curricula. Through group activities, discussion, debate, and analysis of authentic writings, students apply and demonstrate their understanding of language competency.

### **GENE 120 Islamic Culture**

Islamic Culture is one of the richest cultures in the world and reflects tolerance in diversity. Students realize key beliefs and practices of Islam, the broad spectrum of cultural and social diversity, and gain skills which they apply across different fields. It also discusses social values, ethics and human rights and highlights the contribution of Islamic civilization to human civilization in general. It also provides an understanding of Islamic tolerance and connection to all nations based on moderate non-extremist approach. Course teaching methodologies like: Presentations, discussions, audio video aids, storytelling and group projects are used.

### **GENE 210 UAE Studies**

UAE is a unique cohesive society that is inclusive of all, while preserving its culture, heritage and traditions. Students acknowledge the UAE identity, and appreciate the history and achievements of Emirati culture through the social moorings of the community and its values. It covers a variety of important fields related to the UAE history, geography, political economy, social responsibility, women empowerment, and highlights the UAE tolerance, liberal approach and position in the global competitiveness through class discussions, storytelling, documentary films, project-based learning and other teaching methodologies.

### **GENE 340 Innovation, Entrepreneurship and Sustainability**

The need, significance and movement for sustainable practices around the world is driven by the policies, practices and the spirit of innovation and entrepreneurship transcending business size and industry. Students explore the relationship between creativity, innovation, entrepreneurship and sustainability using techniques and concepts such as the lean canvas, design thinking, MVP (minimum viable product) ideation, incubation and the acceleration of business ideas and concepts. Through a combination of case studies, research, group projects, interactive discussions, seminars, activities and role play the students develop the ability to recognize, create and deliver sustainable innovative solutions to a complex global market.

### **GENE 440 Ethics and Professional Responsibility**

Ethically sensitive employees are valuable to creating socially responsible workplaces and improved business outcomes. It also helps equip students to develop an overarching ethics-based approach to professional conduct. The course examines changing societal demands and expectations and elaborates on existing ethical norms and practice. The course offers insight into relationship of ethics and professions, ethical nuances of employer-employee relationship, whistleblowing and women and family issues in professional settings. Through case studies, current events, open discussions and debates students address the concept of professional ethics.

### **ACCT 220 Managerial Accounting**

Cost and Management accounting is essential for assessing business performance and management decision making. The students garner knowledge of different cost accounting tools, techniques, and methods and their practical applications. In addition, the students develop budgetary control skills and the awareness of recent trends and developments in cost and management accounting. The pedagogy will focus on class discussions, lectures, assignments, case studies illustrating real-life business situations and solving numerical. *Pre-Requisite(s): ACCT110*

### **ACCT 230 Audit and Assurance**

Auditors play a significant role in the true and fair disclosure of a corporation's financial performance and position. Students gain an in-depth understanding of the auditing concepts and standards, role and responsibility of auditors (including legal liability), regulation of audit function, audit evidence and risk-based approach to auditing. Classroom lectures, individual

and group activities, case studies, role-plays, debates, and discussions are used to help students appreciate the role of auditors.

*Pre-Requisite(s): ACCT 120*

### **ACCT 320 Forensic Accounting Analytics**

The early detection of accounting frauds has become increasingly important in the aftermath of major accounting scandals over the past two decades. Students learn a spectrum of computer-assisted analytics techniques used to detect frauds in large accounting data sets. The pedagogical approach used in this course includes in-class discussions, problem-based case studies, computer-based analysis, and projects based on real accounting data. *Pre-Requisite(s): ISYS 110; QMET 110; ACCT 120*

### **ACCT 330 Taxation I**

Taxation is a means to fund public services and ensure social equity. Students will be acquainted with the basic principles underlying direct tax laws and their application in various business situations. The teaching and learning focus on class discussions, lectures, problem solving, and tax cases illustrating real-life tax issues. *Pre-Requisite(s): ACCT 110*

### **ACCT 340 Taxation II**

Ethical compliance with direct and indirect tax obligations is required by the Law. Students are introduced to the scope of inheritance, coporation, and value added taxes as well as their appropriate application in business contexts. Teaching and learning focus on class discussions, lectures, assignments, case studies, and analysis of real-life taxation issues.

*Pre-Requisite(s): ACCT 330*

### **ACCT 345 Accounting Information Systems**

Accountants use information technology in recording, analyzing, and reporting financial information to internal and external users of accounts. Students assess the role of Accounting Information Systems (AIS) in business contexts and learn how these systems contribute to data modelling and managing business processes. Moreover, students are introduced to emerging technologies including automation and artificial intelligence as well as to how to evaluate and audit AIS. Hands-on sessions, case studies focusing on the application of information technology, and projects are used to deliver the course.

*Pre-Requisite(s): ACCT 110, ISYS 110*

### **ACCT 350 Corporate Governance**

Effective corporate governance fosters transparency and accountability and aids in avoiding major financial disasters. Students learn about ownership structures, regulatory guidelines, corporate social responsibility and overall principles and practices of corporate governance. Through case studies, group and individual assignments, debates, and role-play, the students learn to appreciate and imbibe globally accepted best practices in Corporate Governance.

*Pre-Requisite(s): ACCT 340*

### **ACCT 360 Intermediate Financial Accounting**

International Financial Reporting Standards (IFRS) make the financial statements of public companies consistent and comparable around the globe. The students gain a working knowledge of the accounting standards—IFRS, GAAP—and their comparative characteristics. They also develop skills in applying IFRS and underlying theoretical framework in the preparation of financial statements of business entities. Class lectures, assignments, case studies and practice questions are used to demonstrate the application of IFRS and strengthens students' knowledge of financial accounting.

*Pre-Requisite(s): ACCT 120*

### **ACCT 430 Advanced Financial Accounting**

The main emphasis of this course is on the application of advanced accounting concepts and techniques to situations dealing with business combinations and consolidated financial statements. The students gain in-depth understanding of the parent company-subsidaries relationships and the different methods for arranging business combinations. Inter-company transactions, hedging foreign exchange risk accounting, translation of foreign currency financial statements, as well as

contemporary accounting diversity issues, are some of the topics covered in this course. problem solving, cases and class discussions, are used to help students understand the application of the course contents. *Pre-Requisite(s): ACCT 360*

#### **ACCT 440 Advanced Audit and Assurance**

Stakeholders rely on auditor's judgement to make informed decisions with respect to their relationship with the organization. Students learn the methodology and intricacies of auditing various types of institutions, and how analyse, evaluate and conclude social, cost, management and forensic audit engagements. This is done through classroom lectures, individual and group activities, case studies, role-plays, and debates. *Pre-Requisite(s): ACCT 230*

#### **ACCT 450 Advanced Taxation**

Businesses need to understand the impact of major taxes on their revenue line and factor them in their financial decisions. The students apply the knowledge of local and international tax laws towards tax planning of corporates and evaluate the impact of taxation on business revenue. In addition, the students will develop the skills to differentiate between tax avoidance and tax planning. The pedagogy is lectures, assignments, case studies on direct and indirect taxation, and numerical exercises on corporate tax planning.

*Pre-Requisite(s): ACCT 340*

#### **BUSN 220 Business Law**

Every business should work within the legal framework under which it operates. This course is designed to provide students with an understanding of the fundamentals of business law. It provides an overall working knowledge of the legal framework within which business organizations must operate. The course particularly focuses on the nature and types of business law, including contract, tort, employment, labour, partnership and agency laws. The students will acquire this knowledge through lectures, class discussions, group activities, quiz and presentations.

*Pre-Requisite(s): ENGL 102*

#### **BUSN 230 Business Communication**

Communication skills are important in the market place. Students are introduced to verbal, nonverbal, written, and oral forms of communication. Further, they get trained in specific techniques for delivering presentations and writing reports. Resume writing and interviews are also emphasized. Teaching methodologies include discussions, multimedia aids, and case studies.

*Pre-Requisite(s): ENGL 102*

#### **BUSN 340 Business Research Methods**

Research is key to solving business problems through the application of suitable business methods. Students learn the basic principles of defining research problems, literature review, data collection and analysis using statistical tools and interpretation. Using spreadsheets and SPSS, students analyse and interpret industry problems through project-based learning, case studies and collaborative learning. *Pre-Requisite(s): 45 CR*

#### **BUSN 360 Internship**

Industry exposure builds up career aspirations in students and drives them to attain professional goals. The students will be exposed to industry environment for a specific period to build corporate connections, apply theory into practice and understand the industry expectations to develop hard and soft skills. Internship in a specific domain enhances technical and professional skills to succeed in the competitive environment. For internship, students select the domain in consultation with the industry and faculty guide in terms of the academic requirements and compile the internship experience in his report.

*Pre-Requisite(s): 60 CREDITS*

#### **BUSN 440 Business Case Analysis & Writing**

Complex business problems can be effectively addressed through case-based analysis. Students learn to analyse business cases and report the findings. They will also be introduced to the art of writing business cases. This is done through group activities, case analysis, and writing exercises. *Pre-Requisite(s): 90 CR/H*

**BUSN 445 International Legal Frameworks**

In a globalized world, businesses grow transnational, operate across borders and need to observe the global trading practices and compliance framework. The students learn international trade procedures and documentation for efficient handling of multinational trade transactions. Through lectures, class discussions, role-plays, group activities and case studies, students get an insight into the complexities of international trade, strategies to resolve them and effectively running a business spread globally across the domestic borders. *Pre-Requisite(s): BUSN220; MGMT340*

**BUSN 450 Business Simulation**

Simulating real life business situations and operational processes through technology-based pedagogy significantly contributes to preparing students for real-life business challenges. Students learn to coordinate and manage different business functions, particularly marketing, finance, strategy, and operations. Through simulated exercises and projects, individual assignments, and group activities, students practice complex decision-making as a prequel to their entry into the real world of business.

*Pre-Requisite(s): MGMT 350*

**ECON 210 Microeconomic Theory**

Determinants of demand and supply and their influence on consumer behaviour are essential to understand the dynamics of various forms of markets and prudent business decision making. The students learn about various forms of markets, theories of consumer behaviour, producer's equilibrium, profit maximisation and pricing of commodities and factors of production. By using case studies and numerical examples, the students gain an insight into making practical business decisions for optimising returns.

*Pre-Requisite(s): QMET 110*

**ECON 310 Macroeconomic Theory**

A fair understanding of the fundamental principles governing macroeconomic variables is essential for business practitioners. Students learn to define, measure and critically appraise the fundamental macroeconomic variables like national income, price stability, interest rates, employment of resources, aggregate demand and supply and the overall level of economic activity. Through project-based techniques and group assignments, the students develop an insight into the roles of fiscal and monetary policy in stabilizing an economy within the framework of Classical, Keynesian, and other models of economic growth both in developed and developing economies. *Pre-Requisite(s): ECON 210*

**ECON 330 Managerial Economics**

Understanding economic theory and its application in management decision-making is fundamental to the survival and growth of a business. Students explore the dynamics of demand and supply from the perspective of individuals and businesses, market arrangements within which enterprises operate, and the impact of business cycles on economic activities. Through class discussions, exercises, and case studies, students gain managerial dimensions of Economics and its application in decision making.

*Pre-Requisite(s): ECON310, ECON210*

**ECON 450 Global Economy**

The changes in global economy have significant impact on the everyday life, which affect practically everyone. The students examine the increasing economic interdependence of the nations against a globalized backdrop and learn the significance of trade and capital flows, exchange rates, challenges of balance of payment, factors hindering growth of international trade and the way out. Through case studies, group activities and project-based approaches, the students gain an insight into the forces promoting and impeding global economic development and the required framework within which a sustained growth and development of the global economy may be achieved.

*Pre-Requisite(s): ECON 210*

**ECON 455 Shipping and Documentation**

The advancements in the shipping business and documentation have been instrumental in the emergence of the contemporary world trade order. Students gain an in-depth understanding of the components, procedures, and legal provisions of shipping

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documentation. They learn the role of documentation in identifying permissible imports and duties levied on them. Case studies, flip classes, group activities, and assignments and presentations are used to acquaint the students with the practical aspects of shipping and documentation. *Pre-Requisite(s): MGMT 320*

### **ECON 460 International Trade**

The increased economic integration in recent years had a major impact on the welfare of nations. The purpose of the course is to introduce students to the analytical framework that is used to study international trade and trade policy. After a short introduction to the principles of international trade, students analyse the causes and consequences of international trade and investment. Case studies, lecturing, class debates, and guest lectures by trade and policy experts are used to educate the students about the intricacies and nuances of international trade. *Pre-Requisite(s): ECON 210*

### **FINE 220 Managerial Finance**

All business activities center around the concept of value addition to an organization and working knowledge of the fundamentals of finance is required of the managers across the functional areas in an organization. Students are introduced to the founding concepts of the time value of money, returns and associated risks, valuation of securities used by companies to raise funds, and short- and long-term investment decisions. Practical exercises, case studies and discussions are used to help students build a solid conceptual foundation in financial management.

*Pre-Requisite(s): ACCT 120; QMET 110*

### **FINE 230 Corporate Finance**

Managing the finance portfolio of a corporate implies complex decision making aimed at maximizing shareholders' wealth. Students get acquainted with investing, financing and pay out decisions as pillars of corporate finance. Through case studies, group activities and numerical assignments students develop an understanding of conceptual and practical aspects of corporate finance. *Pre-Requisite(s): FINE 220*

### **FINE 260 Fundamentals of Financial Technology**

Financial Technology (FinTech) has pervaded all spheres of the financial world and transformed the way financial institutions and markets operate. Students learn the fundamentals of the main components of Fintech such as cryptocurrencies, blockchain, and machine learning and their role in the contemporary financial world. Discussions, case studies, and assignments on the use of Fintech are used as pedagogical tools for the delivery of the course.

*Pre-Requisite(s): ISYS 110*

### **FINE 310 Financial statement Analysis**

Managers' ability to make strategic financial decisions depends on a thorough analysis of the financial statements of firms using relevant financial tools. Students learn about tools and techniques used to analyze financial statements, the quality of reported reporting, and credit and security analysis. Discussions, group work, reviews financial reports of, and case studies will be used for content delivery. *Pre-Requisite(s): ACCT 120*

### **FINE 320 Investment Analysis**

Investments in financial markets contribute to capital formation and growth of an economy. Students explore topics such as dynamics of financial markets, security market indexes and valuation of securities using fundamental and technical analytical tools. Also, they learn how to formulate investment strategies that help individuals and institutions to achieve their investment objectives. Through in-class discussions, case studies and market simulation exercises, students develop a strong foundation in tools and techniques used in investment analysis.

*Pre-Requisite(s): FINE 220*

### **FINE 330 Commercial Banking**

Banks are major growth partners in any economic system. The unavoidable dependence of individuals and institutions on banks makes the understanding of commercial banking essential for a student of finance for transacting with banks and also for seeking a rewarding career in banking. Students are acquainted with the role and major functions of commercial banks, their expertise in working capital finance and various other products and services they offer to their clientele in general.

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Through case studies, group activities and simulation exercises, the students learn the nuances of commercial banking. *Pre-Requisite(s): ACCT 110*

### **FINE 340 Financial Markets and Institutions**

Financial markets and institutions bring together the economic agents with varied financial and investment objectives to facilitate efficient flow of funds for the benefits of all participants. The students learn the distinguishing characteristics of different types of financial institutions, financial markets and the instruments trade thereon, and the key performance ratios for the analysis of bank and insurance companies. The primary methods of course delivery are classroom exercises, quizzes, case study, projects and lectures. *Pre-Requisite(s): FINE 220*

### **FINE 350 Financial Simulation**

Computer technology has transformed the landscape of the financial world by facilitating instantaneous access to information and providing sophisticated data modelling tools. Students gain expertise in using computer technology to perform a range of financial tasks including planning use of money over different time periods, analyzing risk and return feature of individual assets and portfolios, financial forecasting, and planning long-term capital investments. Hands-on sessions, case studies, and projects based on real data are used to deliver the content.

*Pre-Requisite(s): ISYS 110, FINE 320*

### **FINE 410 Finance and Tax Strategies for Family Business**

Growth of entrepreneurial firms depends massively on their ability to access and secure funds. Students explore the different financing options that can help entrepreneurs scale up their business operations, including venture capitalists, angel investors, loans, crowdfunding, leasing and strategic partners. They also learn how to develop pro-forma financial statements and proper company valuation to obtain investments and improve its terms. Through case studies, in-class discussions and exercises, students grasp the financing process and cycles of smallmedium firms that; if effectively implemented; can nurture their growth. *Pre-Requisite(s): BUSN 220; FINE 220*

### **FINE 430 Financial Risk Management**

The nature of risks and the tools used to manage them are becoming increasingly similar among diverse types of financial institutions like commercial banks, savings banks, investment banks, and insurance companies. The students gain an insight into the nature and management of financial risks that emanate from the markets, modes of financing, local and internal business operations, and evolving technology. Through case studies, simulation exercises, and projects based on real life situations, the students gain thorough understanding of the dynamics of financial risk management. *Pre-Requisite(s): FINE 220*

### **FINE 450 Advanced Corporate Finance**

Corporate finance in its advanced version incorporates theories and policies for evaluation and analysis of financial strategies pursued by the corporations. Students are acquainted with the techniques of long-term capital investment, assessment of capital structure, payout theories and policies and fundamentals of corporate restructuring in the context of value creation. Real world practices, case analysis, and projects are used to help students master the course. *Pre-Requisite(s): FINE 230*

### **FINE 455 Entrepreneurial Finance**

Entrepreneurial activities play a significant role in innovation and job creation in an economy and act as a hub of economic growth. The major challenge faced by the entrepreneurs is the arrangement of financing for their ventures. Students are introduced to modes and processes of financing for entrepreneurial activities, valuation of entrepreneurial ventures, and benefits that accrue to the parties that finance entrepreneurial activities. Case studies, assignments and projects based on real data are used as pedagogical tools are used to equip students with a solid foundation in various dimensions of entrepreneurial finance. *Pre-Requisite(s): FINE 230*

### **FINE 460 International Finance**

With ever growing globalization, business has crossed the domestic frontiers and is increasingly extending across the borders in various formats. That has added enormous significance to the practice and modes of international finance. Students are

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acquainted with the international monetary system and financial markets, sources of international finance, exchange rate determination, management of foreign exchange risk and multinational capital structure. Through case studies, group activities, and project-based learning, the students imbibe the nuances of international finance.

*Pre-Requisite(s): FINE 230*

### **FINE 465 Equity Valuation**

Equity markets are considered barometers of investor confidence in an economy. Fair valuation of securities is mandatory for both survival of the markets and the attainment of investment objectives by market participants. Students learn the dynamics of valuation process, types of models that are applied for valuing firms with different characteristics with respect to earnings, investment policies, and stages in lifecycle. Case studies, practical problems, and real-world projects are used to help students master the techniques of equity valuation. *Pre-Requisite(s): FINE 320*

### **FINE 470 Fixed Income Instruments**

Fixed income securities not only act as source funds for governments, government agencies and corporations but also cater to the investment needs of wide range of investors. Students are exposed to the vast universe of fixed income securities; their distinctive features and designs, risk and return dimensions, and models used for their valuation. In additions, students learn about the securitization of mortgages. Real cases and data-driven projects are used to help gain a good understanding of the dynamics of the fixed income world. *Pre-Requisite(s): FINE 230, FINE 320*

### **FINE 475 Financial Derivatives**

Financial Derivatives are crucial for managing risk and availing arbitrage opportunities in contemporary volatile financial markets. Students explore the features and application of derivative instruments, such as forward, futures, options, and swaps. They also learn back-to-back parallel agreements and application of hedging techniques in risk management. Case studies, group discussions and activities, and projects based on real data are used to deliver the course. *Pre-Requisite(s): FINE 320*

### **FINE 480 Islamic Finance –Principles and Practices**

Islamic Finance has witnessed an unprecedented surge in the market share in the global financial system in recent years. Students learn about the major tenets of the Islamic financial system like the governing laws, the nature of prohibitive financial activities, the characteristics and applications of financing agreements and investment options. The pedagogical tools used are case studies, analysis of the relevant industry data, group presentations and role plays.

*Pre-Requisite(s): FINE 220*

### **FINE 482 Islamic Banking**

Shariah based Islamic banking with all its religious connotations is transforming from a regional to a global phenomenon. It is growing in presence and gaining wider acceptability with every passing decade. Students acquaint themselves with fundamental principles of Islamic finance, prohibitions, types of contracts and the overall principles of Islamic finance and their practical applications. Through case studies, project-based activities and group discussions students understand the nuances of Islamic banking and its role in adding to the bouquet of available banking options for the eligible clientele.

*Pre-Requisite(s): FINE 330*

### **FINE 484 Islamic Insurance-Takaful**

Islamic insurance has gained prominence in financial world and has become an integral part of the insurance industry. Students are familiarized with the characteristics and applications of the various types of Takaful products, their relevance to the insurance needs of the customers, and the management of Takaful products by professionals. Through real world cases, and group assignments students gain a boarder understanding of the Islamic insurance.

*Pre-Requisite(s): FINE 340*

### **FINE 486 Islamic Capital Markets**

Shariah-compliant investment vehicles cater to the financial and investment needs of a sizable portion of the investment community around the globe. The students gain an insight into the framework of the Islamic capital markets and the products traded on them, which include equity and debt securities, different types of funds, and derivatives. Case studies, assignments

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and projects based on the real-world data are used to help students comprehend the dynamics of the Islamic financial markets.

*Pre-Requisite(s): FINE 220*

### **FINE 488 Islamic Wealth Management**

The awareness of Islamic principles as applicable to investments, income generation, accumulation of wealth and protection against law suits, is essential for a finance professional. The students learn the treatment and governance of wealth under Islamic laws, functioning of Islamic institutions and Sovereign Wealth Funds, wealth distribution through Waqfs and the mechanism of Zakat. The pedagogy tools employed are lectures, case studies and group presentations. *Pre-Requisite(s): FINE 320*

### **ISYS 110 Computer Software for Business**

Computerization and digitalization are central concepts to modern business world. The main focus of this course is to introduce students to the most popular office productivity application software including word processing, spreadsheets, databases, presentation graphics, and business intelligence software. Lectures, hands-on practice, laboratory experience, group assignments, and assignments are among learning activities in the course. *Pre-Requisite(s): ENGL101*

### **ISYS 220 Management Information System**

The information system plays a vital role in achieving strategic and operational goals. After a short introduction to the essential components of a management information system, students learn about information structures, basic business processes, information system security, and networks. Students will have an opportunity to apply their skills by designing a management information system for a small or medium enterprise. Through group discussions, projects, and assignments students learn to use emerging business technologies for managing business intelligence. *Pre-Requisite(s): ISYS 110*

### **ISYS 320 E-Commerce**

Technology has dramatically transformed the way companies orchestrate value-creation. This course provides the learner with an overview of the basic principles of electronic commerce and the related concepts. Students will be provided with opportunity to gain in-depth knowledge in establishing and conducting a successful online business. They also are expected to examine the ethical, legal, and environmental issues on shaping the rules of modern electronic business environments. Through projects, class discussion and hands on activities, students will develop the skills and knowledge required to function successfully in the digital world. *Pre-Requisite(s): ISYS 220*

### **MGMT 120 Principles of Management**

A dynamic and evolving business environment have made the managerial assignments challenging. Students are exposed to the main management functions including planning, organizing, staffing, directing, and controlling. They also learn about the different management concepts, techniques, and principles necessary for acquiring important managerial skills. It is done through classroom lectures, group projects, case studies, industrial visits, and guest lectures.

### **MGMT 240 Human Capital Management**

Effective management of human resources has significant impact on organizations and employees. Students learn methods and techniques employed for managing, forecasting and planning human resource activities. Through case analysis, role play and group activities, students are introduced to the underlying human resource concepts, related challenges and application in various business contexts.

*Pre-Requisite(s): MGMT 120*

### **MGMT 320 Fundamentals of Supply Chain Management**

Organizations deliver value to their customers by creating a well-integrated supply chain. Students develop an understanding of basic concepts and the role of Logistics and supply chain management in business and how supply chain drivers play an important role in redefining the value chain excellence of organizations. Another significant aspect of the course is providing opportunities for developing analytical and critical skills for planning, designing, and operations a domestic and an

international supply chain system. Through lectures, case studies, and in-class discussions, students will learn how to optimize the supply chain process for effective business operations.

*Pre-Requisite(s): QMET 210*

### **MGMT 340 International Business Management**

Compared with domestic business international business is fraught with multiple risk obligations and complexities making its management all the more challenging. Students learn different theories and practices of international business management and acquire the required skills to assess the impact of international operations on firms' internal management and long-term profitability. Through case studies, group projects industrial visits, role plays, and guest lectures students grasp the nuances of international business management. *Pre-Requisite(s): MGMT 120, ECON 310*

### **MGMT 350 Strategic Management**

Sustainable competitive advantage is the product of well-formulated strategies. As such, students explore how strategies are developed in firms by pertaining to the tools and principles of strategy formulation and competitive analysis. Concepts as environmental scanning, internal analysis, levels and types of strategies aid the students to grasp the strategic management process with its different phases. Through case studies, readings, in-class presentations and discussions, students acquire knowledge on how to articulate appropriate strategies that address market challenges and enable firms to pursue valuable business opportunities. *Pre-Requisite(s): MGMT120; MRKT120; FINE220; QMET210*

### **MGMT 410 Performance and Competency Assessment**

Performance management helps to identify, measure and develop individual and team performance, aligning it with the strategic objectives of the organization. Students learn to map competencies, use various performance appraisal tools, and develop job related performance standards to enhance productivity in the organization. Through case analysis, group projects, and role play exercises they link performance management systems with development plans of employees in the organization.

*Pre-Requisite(s): MGMT 240*

### **MGMT 420 Training and Development of the Workforce**

The development of an organization's human resources is becoming more critical as an organization attempts to survive in an increasingly turbulent, dynamic, and competitive global marketplace. Students get an overview of the individual and organizational approaches to learning in organizations. Major topics include identifying training and development needs through needs-assessments, analysing jobs and tasks to determine training and development objectives. Such a process includes learning, designing, and evaluating the effectiveness of a variety of T&D programs. Through case analysis, training projects, presentations and role plays they learn to structure training plans and processes for organizations.

*Pre-Requisite(s): MGMT 240*

### **MGMT 425 Employee Engagement and Retention**

Engaged workforce is essential to accelerate profitability in a competitive economy. Students learn the principles and approaches of employee engagement in the organization. They also identify successful retention strategies followed by organizations to enhance employee experience. Through case analysis, integrated projects and group discussions students are introduced to the engagement and retention practices, related challenges and application in various business contexts.

*Pre-Requisite(s): MGMT 240*

### **MGMT 430 Diversity and Inclusion in the Workplace**

Successful management of diverse workforce is one of the most important challenges faced by organizations globally. Inclusion is the key to unleashing the potential embedded in a multicultural workforce. Students learn the concepts of cross-cultural management, inclusion, socio economic transitions to make sound management decisions in a multi-cultural environment. Through presentations, role plays, group discussions and projects students learn to develop diversity management strategies in organizations. *Pre-Requisite(s): MGMT 240*

### **MGMT 440 Total Rewards**

Total Reward management helps organizations to successfully compete in the ongoing competition for talent. Students learn to formulate compensation and reward plans and assess the role of internal and external stakeholders in designing pay systems. Through case analysis, assignments, and group activities, students are introduced to the underlying concept of total reward management, related challenges and application in various business contexts.

*Pre-Requisite(s): MGMT 240*

### **MGMT 455 Global Sourcing and Negotiation**

In the modern supply chain, global procurement of raw materials, components, and manufacturing is the norm rather than the exception. The objective of the course is to provide students with concepts, models, and frameworks to analyze and develop global sourcing management practices. Students learn to identify new suppliers, negotiate contracts, review new products with existing suppliers, and confirm supplier production deadlines. Students comprehend subject intricacies through case studies, assignments, presentations learning, and guest lectures.

*Pre-Requisite(s): MGMT 340*

### **MGMT 465 SME Ecosystem**

Small and Medium Enterprises (SME) contribute to the national economy's growth by expanding markets and creating more job opportunities. Students are introduced to how small businesses are formed and managed in entrepreneurial manner. They learn about the different forms of small businesses including family business or private small businesses. Additionally, they study the different elements constituting an SME's ecosystem including the customers, competitors, investors, intermediaries, suppliers and firms providing complementary business activities. Through case studies, in-class discussion and presentations and quizzes students develop knowledge on SMEs practices to operate in a healthy ecosystem where all parties are benefiting. *Pre-Requisite(s): MGMT120; ECON310*

### **MGMT 470 International Human Resource Management**

Managing a diversified workforce is important for international human resource managers and organizations. Students learn about issues related to cross-cultural management, talent management, diversity management, international assignments, and pay models for international organizations. Through case analysis, projects and field visits, students learn to apply HR practices in global context. *Pre-Requisite(s): MGMT 240; MGMT340*

### **MGMT475 Family Business Management & Governance**

World's famous brands originated as family businesses. Students will explore and analyze business practices, functions, operations, and dynamics of family businesses from a strategic management perspective. Through a combination of case studies, research, group projects, interactive discussions, seminars, activities and role play the students develop the ability to recognize the challenges and opportunities for family-owned enterprises in the modern global market. *Pre-Requisite(s):MGMT120*

### **MGMT480 Managing Venture Growth & Transition**

The creation, formulation and growth of new entrepreneurial ventures is the key driving force for the global economy. The start-ups of today are the unicorns of tomorrow. Students explore the relationship between the management and growth of new ventures using techniques and concepts such as growth hacking, strategic positioning, Blue Ocean thinking, unique value proposition and design thinking. Through case studies, research, group projects, interactive discussions, seminars, and role play the students develop the ability to recognize, create, deliver and manage the growth of promising new ventures.

*Pre-Requisite(s): MGMT350*

### **MRKT 120 Principles of Marketing**

Marketing offers opportunity for businesses to create purpose driven, sustainable and ethical solutions to consumer needs. Students will explore the marketing environment and its influence on regional and international marketing strategies. They will gain insight into vital concepts like market segmentation, positioning and target marketing strategies. Through case studies and group discussions, students will examine the shifts and contemporary issues in marketing.

*Pre-Requisite(s): ENGL 101*

**MRKT 420 Consumer Behavior**

Understanding consumer behavior is vital for making customer-centric business decisions. It helps to identify the internal and external forces that influence pre-purchase, purchase, and post-purchase behavior of the target market. Students are exposed to various models and frameworks that enable them to develop insight into theoretical and conceptual knowledge of consumer behavior critical for achieving competitive advantage. With the help of research, case discussions and industry-based projects, students learn to analyze consumer behavior for strategic marketing decisions. *Pre-Requisite(s): MRKT 120*

**MRKT 430 Strategic Brand Management**

Branding helps in acquiring and building a loyal customer base in a dynamic business environment. Students will learn aspects of strategic branding, brand equity, value chain analysis and gain insights into managing brands and positioning in a global market. Through interactive discussions, integrated projects, business cases and group work, students will develop in-depth understanding of branding strategies and its application to cultivate strong brands.

*Pre-Requisite(s): MRKT 120*

**MRKT 435 Digital Marketing**

The rising demand for establishing online business presence has opened doors to colossal opportunities for digital marketing specialists. To succeed in competitive digital environment, students need to possess a comprehensive knowledge of digital marketing strategies and analytics. Students develop understanding of digital channels and knowledge of integrating variety of digital media to create effective marketing strategies. This will be done through case discussions, projects, and hands-on activities.

*Pre-Requisite(s): MRKT 120; ISYS 220*

**MRKT 440 Retail Management**

Retail management is critical for planning retail operations to achieve sustainable competitive advantage in a rapidly changing retail landscape. Students will develop insight into retail formats, location decisions, and global retail practices, by integrating dynamics of retail environment with the theoretical framework. Through retail site visits, case discussions and hands-on project, students gain comprehensive knowledge, skills, and attitude necessary to carve a career in retail industry.

*Pre-Requisite(s): MRKT 120*

**MRKT 450 Global Marketing**

The exponential growth of online business and the challenges of emerging technologies create huge opportunities to exploit global markets. Students develop understanding of the strategic implications of segmentation, targeting, and positioning on a global scale. Emphasis will be placed on the role of disruptive positioning strategies and how firms can utilize such strategies to their advantage. Through a combination of case studies, research, group project, interactive discussions, seminars, activities, and role play, the students develop the ability to recognize, create and deliver sustainable innovative solutions to a complex global market. *Pre-Requisite(s): MRKT120, MGMT340*

**MRKT 465 Technology, Innovation and New Product Development**

Start-up's competitiveness depends on its ability to innovate and create new products. Students explore the different types of technology and innovation that can be adopted by firms to diversify and grow its business operations. Concepts such as patents, copy rights protection, process and product innovation and resource acquisition inform the students about critical elements of technology and innovation management. Through class simulations, case studies, projects and presentations, students learn how firms develop new and innovative products to sustain a competitive position in the market.

*Pre-Requisite(s): MRKT120*

**MRKT 490 Market Intelligence and Research**

Business intelligence is a key enabler for organizations to have a sustained competitive advantage. Students learn the aspects of strategic planning, supply chain management, innovation, product portfolio management from a market intelligence perspective. Through class discussions, hands-on activities, project, and case studies students will be able to review tools and techniques critical to effective marketing intelligence. *Pre-Requisite(s): MRKT 420*

**QMET 110 Business Mathematics**

Numeracy is an essential skill for the market place. The students are introduced to essential mathematical methods needed to understand, analyze, and solve business problems related to business and economics. Topics related to matrix operations, simple and compound interest, and annuities are used to evaluate various financial decisions, while topics related to business calculus are used to determine marginal revenue and costs. Through problem-solving, group activities and assignments, numerical skills are introduced and emphasized.

*Pre-Requisite(s): ENGL 101*

**QMET 210 Statistics for Business**

Quantitative tools and methods are necessary skills required in the contemporary world of business. The current business environment demands managers' ability to analyze and summarize data and use statistical tools for decision-making and problem solving. Students are acquainted with the topics related to data organization, visualization, hypotheses testing for parametric and nonparametric test. Through group activities, assignments and using Microsoft Excel students are prepared to deliver effective business presentations.

*Pre-Requisite(s): QMET110*

**QMET 350 Operations Research**

Mathematical models assist managers in making decisions and finding optimal solutions to operational problems. Students are trained in building models for linear programming, simplex algorithm, transportation, network and non-linear data to solve real world business problems. Through problem solving sessions, group activities and projects students learn how to use the Microsoft Excel/SAS to create mathematical models for optimal solutions. *Pre-Requisite(s): QMET 201, MGMT 320*

**QMET 430 Business Analytics**

Data Analytics provide a competitive edge for business managers. Analytical knowledge refers to the way in which enterprises such as businesses, non-profits and governments use data to gain meaningful insights and make better decisions. The course focuses on developing insights from various visualization techniques, predictive analysis, forecasting techniques and to interpret the results using performance measures. Through assignments, group-activities students will be analyzing the business problems to improve business performance and support important decisions using Microsoft excel/R.

*Pre-Requisite(s): QMET210*

**QMET 445 Marketing Analytics**

Quantitative tools are used to develop models that uncover customer insights, monitor and maximize the effectiveness of marketing initiatives. Students will have a clear progression from foundation of statistics to techniques in predictive modelling, segmentation, pivotal role of consumer behavior and big data analytics. Through assignments, group activities and projects students will develop innovative ways for marketing analytics techniques using Excel/SAS/R. *Pre-Requisite(s): MRKT120, QMET430*

**QMET 480 HR Analytics**

The availability of classified data on employees enables human resource managers to optimize their performance and enhance business capabilities in a dynamic business environment. Students learn to improve human resource practices by using techniques like HR metrics, recruitment and selection analytics, compensation analytics, career planning and attrition analysis. Students get a practical exposure to analysis and application of HR data through SAS/Excel, group projects and case studies.

*Pre-Requisite(s): MGMT 240, QMET 430*

**FBMT 110 Food Safety and Hygiene**

Safeguarding the health and wellbeing of consumers to ensure their protection is a primary requirement for food industry professionals. This course examines the best practices in implementing and monitoring an efficient system for food safety

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at work. Students learn and apply these fundamental concepts through theoretical inputs, group activities, problem solving, and industry interaction.

*Pre-Requisite(s): ENGL102*

### **FBMT 120 Food and Beverage service**

Food and Beverage service is a major revenue generating department for a hotel; hence this course focuses student's attention on the management aspects of food and beverage operations by developing basic concepts of planning, organizing, and controlling its operation profitably. Theory sessions focus on the business of running a successful food and beverage outlet while lab practical sessions and hotel visits enhance hands-on skills and actual interaction with hotel guests.

*Pre-Requisite(s): FBMT 110*

### **FBMT 210 Professional Food Preparation**

Culinary Arts is a core area in food service operations. Food production is both science and art. From this perspective, this introductory course introduces students to the best practices of professional kitchen settings and cooking procedures and methods. Delivery is facilitated through theoretical inputs, hands-on practical sessions in the lab and visits to the industry.

*Pre-Requisite(s): FBMT 110*

### **FBMT 310 Food and Beverage cost control**

The Food and Beverage cost control is essential to manage the finances and day to day operations of the hospitality firm. The course introduces students to forecasting, budgeting and cost control techniques in the domain of food and beverage as well as to methods of maintaining the overall profit margin of the business. Delivery is done through class lectures, case studies and industry inputs by experts.

*Pre-Requisite(s): FBMT 120; ACCT 220*

### **FBMT 320 Advanced Food Preparation**

Advanced Food Preparation equips students with specialized skills, foster food preparation creativity, and prepares them for leadership roles within the culinary industry. This advanced course emphasizes the concept and skills required to excel in kitchen management roles, create innovative menus, and contribute to sustainable culinary practices within the food industry. Throughout the course, students will engage in practical exercises and real-world scenarios, allowing them to apply theoretical knowledge to real culinary situations.

*Pre-Requisite(s): FBMT 210*

### **FBMT 410 Restaurant Concept and Design**

Appropriate concept designs are essential in developing commercially viable restaurants. Students gain insights into planning a restaurant and equipping it for efficient operations. Moreover, they will be introduced to basic business planning in particular marketing plans. Knowledge and skills are enhanced through theoretical inputs, practical insights from industry experts and group discussions.

*Pre-Requisite(s): FBMT 120*

### **HOSP 110 Introduction to Hospitality and Tourism**

The Hospitality and Tourism sectors are constantly evolving and expanding. This introductory course provides an overview of these sectors, their growth and development stages, as well as their organization, structure, and functional areas. Students gain insights through classroom lecture presentations, discussions, short case studies, industry visits and guest lectures.

### **HOSP 210 Housekeeping Operations**

Housekeeping is a major division responsible for up-keeping rooms and public areas according to established operating standards, in view of ensuring excellent customer experience. Students are introduced to systematic operational approaches of managing and maintaining serene and welcoming spaces. This is facilitated through lectures, class discussions, industry visits and practical sessions.

**HOSP 220 Front Office Operations**

The front office is the central hub connecting all stakeholders of the lodging industry, and is an important revenue generating division of the hotel. This course introduces the students to the fundamental principles, best practices, and industry-standard procedures to efficiently manage the front office operations. Learning will be facilitated through lectures, practical exercises, usage of property management systems, case studies, role-play and Industry visits to enhance students problem-solving and decision-making abilities.

*Pre-Requisite(s): HOSP 110*

**HOSP 310 Rooms Division Management**

A significant revenue generating department of the lodging sector, rooms division is a key functional area in hotels. This course introduces the students to standard property management systems allowing them to effectively manage revenues and enhance the business performance. Delivery is done through teaching lectures, class discussions, PMS (Property Management System) applications and industry interaction.

*Pre-Requisite(s): HOSP 220*

**HOSP 320 Interpersonal Skills & Customer Service**

Interpersonal skills are critical for successful career in the service industry. This course equips students with skills and competencies necessary to uphold excellent customer relationships and satisfy their needs. Students are introduced to various aspects of customer service, in particular, proper communication, professional attitude and techniques for delivering an outstanding customer service. Delivery is through class presentations; role play and videos.

*Pre-Requisite(s): HOSP 110*

**HOSP 410 Events Management**

Executing successful events require careful planning and organization. This course is tailored for the hospitality students seeking to deepen their understanding of the strategic, operational, and creative aspects of events management in real settings. Students will explore the nuances of event design, logistics, financials, marketing, on-site management and other events related elements. Through a blend of theoretical concepts and hands on application, students will acquire the skills and confidence to excel in planning and executing various types of events.

*Pre-Requisite(s): MGMT 120*

**MGMT 435 Leadership In The Hospitality Sector**

Effective leadership is consequential for the overall performance of organizations particularly those in the tourism and hospitality industry. This course introduces the different types and approaches to leadership with an emphasis on the leader qualities and ethical behavior. Delivery is through a combination of class lectures, case studies, group discussions and role-playing exercises.

*Pre-Requisite(s): MGMT 120*

**TOUR 110 World Geography and Culture in Tourism**

Geography inspires curiosity and wonder about the diversity of the world's places, peoples, cultures, and environments. Through a structured way of exploring, analysing, and understanding the characteristics of the places that make up our world, students develop contextual knowledge of the location of globally significant places. Students will engage in class discussions and prepare projects based on touristic attractions worldwide.

*Pre-Requisite(s): HOSP 110*

**TOUR 210 MICE Tourism**

MICE tourism is an essential component of the hospitality and tourism industry. It complements leisure travel and contributes to economic growth, visibility, and reputation. This course gives students the skills they need to plan leisure activities and effectively handle MICE events while taking sustainability and cultural sensitivity into account. Delivery is through class discussions, case studies, guest lectures and lecture presentations.

*Pre-Requisite(s): HOSP 110*

### **TOUR 310 Sustainable Tourism**

This interdisciplinary course examines the complex relationship between tourism and its impacts on the natural, built, and socio-cultural environments. By exploring various contexts, students will gain a comprehensive understanding of sustainable tourism practices and develop the necessary skills to create balanced and responsible tourism development plans. Delivery is through class discussions, case studies, guest lectures and lecture presentations.

*Pre-Requisite(s): HOSP 110*

### **TOUR 320 Destination Planning and Development**

Tourism offers great potentials for strategic economic development. In this line, destination planning and management play a crucial role in harnessing this potential. This course emphasizes the importance of creating sustainable coalitions between the civil society, businesses and the government to support sustainable growth and foster the long term success of tourism initiatives. By assessing the tourism potential of a destination, students will be equipped with the skills to design effective tourism development plans with a strong focus on sustainability. Class discussions, case studies, interaction with government bodies and destination management organizations (DMOs) will enrich students' understanding of real-world challenges and opportunities in destination planning.

*Pre-Requisite(s): TOUR 110*

### **TOUR 330 Travel Agency and Tour Operations**

The travel and tourism industry is a significant contributor to the global economy. This course will expose students to the crucial role played by travel and tour operation agencies, as well as to the current trends and practices in the tourism and travel trade sector. Delivery is through class lecture presentations, short case studies and interaction with industry experts.

### **TOUR 410 Tourism Impacts and Challenges**

The contemporary tourism industry faces various kinds of risks. These are multifaceted challenges that require a thorough understanding of their drivers and potential impacts. This course exposes students to the major macro-environmental factors exerting critical influence on tourism, in particular, the environmental, economic, and socio-cultural perspectives. Students will engage in class discussions, case studies and interaction with government and private tourism bodies thus developing knowledge and skills required to analyze the impacts of tourism.

*Pre-Requisite(s): TOUR 110*

### **AERO 200 Elements of Aerospace Engineering**

The prospects of aerospace engineering is promising as technology for space exploration and travel advances. This course provides an overview of aircraft engineering from a design perspective. The student will learn about flight mechanics, principles of aerospace propulsion, airframe, aircraft systems, airports and airspace management. Students will also acquire skills to sketch aircraft components using 3D CAD software through the practical sessions. The course will be delivered through lectures, assignments, and hands- on laboratory practices.

*Pre-Requisite(s) - PHY100*

### **AERO 300 Aircraft Structures**

The aerospace vehicles are intricate systems with millions of interrelated parts and the aerospace industry is vastly adapting to the new design and development of aerospace structures. Aerospace structures function in harsh conditions, including a wide range of temperatures experienced during flight operation. The course provides students with a detailed understanding of linear static analysis of determinate and indeterminate structures, columns and buckling plates and stress analysis of aircraft wings and fuselage. Students will also conduct aircraft structural loading experiments in aerospace laboratory. At the end of the course, student will be able to design an aircraft component or a part by considering every possible structural failure theories. The course will be delivered through lectures with audiovisual support, industry visit, presentation, assignment and quiz.

*Pre-Requisite(s) - MECH 310*

**AERO 305 Space Mechanics & Control**

Space exploration was the catalyst for the commercial growth of space that has continued every year since and when it comes to space flight and exploration, orbital mechanics is essential. The course is structured to provide students acquaint with basic orbital mechanics applications such as intercept, rendezvous, planetary motions, orbital determination and interplanetary trajectories. The course will be delivered through lectures, special guest lectures by industry experts, projects, solving of exercises and problems, assignments and quiz.

Pre-Requisite(s): MECH 200

**AERO 310 Aerodynamics II**

Advanced aerodynamics will play a crucial role in the design and engineering approaches of rockets/missiles. The advancements in aerodynamics bring out the cutting edge innovations in aerospace industry. The course focuses on acquainting the students with the concept of compressibility and theories behind the formation of shocks and expansion fans in supersonic flows. This subject deals with basic concepts pertinent to finite wings. It highlights the approaches made toward the oblique shock waves along with normal shock wave relations and hypersonic technology. The course will be delivered through lectures, assignments, projects and hands-on laboratory practices.

Pre-Requisite(s) - AERO 350

**AERO 315 Aircraft Propulsion**

Jet propulsion redefined the study of flight and rendered space exploration practicable by enabling higher speeds and altitude. The primary consideration in the design and operation of an aircraft or spacecraft mission is the propulsive force. The structure of course is built to enlighten students with basics of propulsion systems of an aircraft. The course will cover fundamentals of air breathing engines, discovering different types of inlets, nozzles, turbines and combustion chambers available for aircraft engine. Students also analyze performance characterizes the gas turbine engine and its components during the laboratory sessions. The course will be delivered through lecturers, industry expert guest lectures, industry visits, hands on lab sessions, quiz and assignment.

Pre-Requisite(s) – MECH 300

**AERO 320 Aircraft Stability and Control**

The ease and accuracy with which a pilot can maintain balance and execute maneuvers depends on an aircraft's stability and control qualities, which ultimately affect flight safety and operational efficiency. Modern methods for aircraft stability and control are briefly reviewed in this course, along with applied aerodynamics. Static stability, trim, stability derivatives, typical longitudinal and lateral motions, and the actual effects of the wing, fuselage, and tail on aircraft motion are all addressed in this course. The study of control methods and systems places a focus on the stability of flight vehicles using both traditional and modern control methods. The course will be delivered through lectures with audiovisual support, special guest lectures by industry experts, assignment and quiz.

Pre-Requisite(s) – AERO 350

**AERO 330 Aircraft Design**

In order to address issues like reduced carbon emissions, reduced noise pollution, and increased passenger comfort, new aircraft design is crucial. Integrating new technologies and systems with existing and advanced configurations is a key feature of modern aircraft design. Students who complete this course will gain knowledge of the iterative nature of the design process as well as the concepts of aircraft design that combine practical design and analysis. Additionally, the cost analysis, aircraft performance computation and optimization, provisions for payload, crew, and avionics, powerplant selection and size, aerodynamic configuration optimization, stability and control characteristics are also covered in the course. The course will be delivered through lectures with audiovisual support, special guest lectures by industry experts, project, assignment and quiz.

Pre-Requisite(s) - AERO 320 ; AERO 315 ; AERO 300

**AERO 335 Airplane Performance**

The ability of an aircraft to be operated effectively and economically must be taken into account when developing and testing the aircraft. Knowing an aircraft's actual performance is crucial for safe and fuel-efficient flight as the aerospace industry anticipates more sustainable flying. This course aims to teach students about the features of a typical atmosphere, how flying objects behave in the available atmospheric conditions, and how aerodynamic forces interact to keep an object in flight at a constant speed while performing maneuvers and being subjected to control at various flying speeds. Student will also able to do performance analysis of aircraft using various numerical approaches in this course. The course will be delivered through lectures, special guest lectures by industry experts, project, assignment and quiz.

*Pre-Requisite(s): AERO 200*

**AERO 340 Aerospace Materials**

The aerospace manufacturing industry is very demanding when it comes to new developments and quality control. Selecting the right metal alloys and materials for aircraft and spacecraft parts and components is always important to ensure high performance, strength and resistance to extreme heat. Students who complete this course will gain knowledge on various materials and material requirements for aerospace industry. The course also covers the topics such as mechanical and durability testing of aerospace materials, composite material manufacturing, manufacturing process of metal components of an aircraft, inspection methods in aerospace manufacturing and corrosion. The course will be delivered through lectures with audiovisual support, industry visit, presentation, assignment and quiz.

*Pre-Requisite(s): MECH 310*

**AERO 345 Spacecraft Propulsion**

The foundation of space exploration is in-space propulsion systems, which are becoming progressively more crucial as businesses and governments put more low-earth orbit (LEO) satellite constellations into operation. The ideas underlying various spacecraft propulsion methods in various space areas are made clear to the students in this course. The student will learn various advanced propulsion technologies includes electric, nuclear, solar thermal, laser propulsion, plasma physics and solar sails. The course will be delivered through lectures with audiovisual support, special guest lectures by industry experts, discussion and solving of exercises and problems, presentation, assignments and quiz.

*Pre-Requisite(s) - AERO 315*

**AERO 350 Aerodynamics I**

Aerodynamic advancements can make a substantial contribution to lowering the total environmental effect of air travel as well as greatly increasing the operator's bottom line. It is crucial to understand fundamental aerodynamic concepts in order to understand how the parts and subparts of an airplane operate. In this course, students will learn the theory of flow over aerofoils and wings, bluff bodies including lifting-line theory, vortex panel methods, boundary layer and thin-aerofoil theory. The course will be delivered through lectures, assignments, presentations and hands-on laboratory practices.

*Pre-Requisite(s) - MECH 315*

**AERO 400 Rockets & Missiles**

In the modern space economy, the launch services sector plays an essential and inevitable role for launching and transferring cargo into orbit. This course is aimed to provide knowledge of rockets / missiles, their performance, stability & control, launch operation & re-entry. The course also covers methods of stabilization and mathematical treatment of stability and maneuverability. Student will also able to do design rockets and analyze the performance characteristics of rockets in this course. The course will be delivered through lectures, special guest lectures by industry experts, project, assignment and quiz.

*Pre-Requisite(s) - AERO320*

**AERO 405 Space System Engineering**

Space Missions are effectively created through space systems engineering and it takes into account a wide range of choices and trade-offs made between various possibilities in terms of performance, risk, cost, dependability, and turnaround time. This course offers a thorough understanding of space mission, mission goals, principles, and useful techniques for mission planning and operations. In-depth introductions are also given to risk management, failure mode analysis of space systems, test and evaluation, and standards of space systems, including reliability issues. The course will be delivered through lectures, guest lectures by industry experts, project, assignment and quiz.

*Pre-Requisite(s): AERO 305, ECON 370*

### **AERO 410 Satellite Engineering**

The course enlightens students on the concepts of engineering for manufacturing a satellite and its payload based on standards set by the aerospace industry. The students will understand the fundamentals of design and sizing, challenges of manufacturing a satellite, quality assurance and qualification programs of satellite manufacturing. The student will have a basic understanding of the factors influencing subsystem design by the end of the course and be able to assess the effects of tradeoffs between subsystem needs on performance at the system level. The course will be delivered through lectures, industry expert guest lectures, projects, quiz and assignments.

*Pre-Requisite(s): AERO 340, ECON 370*

### **AERO 415 Unmanned Aerial Vehicles & Artificial Intelligence**

Unmanned Aerial Vehicles (UAVs) increase human potential by enabling us to carry out risky or challenging jobs in a safe and effective manner, which also saves time and money. Incorporating Artificial Intelligence (AI) techniques into UAVs enables the aircraft to discern and respond intelligently to its environment. The course will cover modeling, dynamics, and standard control techniques for unmanned aerial vehicles, fundamentals of artificial intelligence, and artificial neural networks. Students will also be able to design the UAVs by considering aerodynamics, guidance, communication, and navigation with the integration of AI for various applications. Lectures, Hands on Sessions, project, assignment and quiz are used to deliver the course.

*Pre-Requisite(s): AERO 320; AERO 350*

### **AERO 420 Remote Sensing**

With increasing importance in contemporary life, remote sensing enables the collection of data from hazardous or inaccessible locations. Remote sensing data is essential for tracking and forecasting weather and climate change, as well as large-scale changes in land use. This course intends to provide students with an in-depth understanding of fundamental concepts of remote sensing. It also focuses on acquainting them with modern-day methodology used to acquire and analyze datasets, and effectively utilize the results obtained from experimental analysis. Having successfully completed the course, students will demonstrate an exemplary understanding of different remote sensing technologies, processing methodology and able to evaluate satellite imagery datasets downlinked from earth observation satellites like Landsat and Sentinel launched by NASA and ESA. Lectures, special guest lecture by industry experts, Assignments and project are used to deliver the course.

*Pre-Requisite(s): AERO 305*

### **AERO 430 Computational Fluid Dynamics**

In the aerospace sector, computational fluid dynamics (CFD) has become crucial for product design and analysis. The objective of this course is to teach students about the computational techniques of aerodynamic problems with the flow visualization and usage of the flow properties for different geometries with different boundary conditions. Students can learn about the various CFD tools through this course. This improves the students' experimental skills by allowing them to evaluate flow visualization and simulation around aerodynamic bodies in various flow streams. The course will be delivered through lectures, special guest lectures by industry experts, project, assignment and quiz.

*Pre-Requisite(s) - AERO310*

**ARCH 100 Design Fundamentals in Architecture**

Fundamental rules in design and its application are crucial in creating an effective architectural design. The key to an aesthetically pleasing, functional and sustainable design is based on the balance maintained in the elements, principles of design and use of design process with unique concepts and design solutions. The course aims at introduction of elementary design, outline based on design principles and its application in Architecture. Students will learn the development of sensory perception with abstraction and generating solutions to context-based problems instilling the aptitude of creative imagination under a set of context and constraints. The course also enables development of architectural graphic skills necessary for design visualization and communication. The studio course has engagements with lectures, site studies, analysis, demonstration for skill development and creative working, documentation, architecture project visits, concept mapping, case studies, presentations, design discussions, consultation, review and critique.

**ARCH 105 Architectural Graphics**

Architectural Graphics is one of the fundamental course establishing a base for presentation and working drawings. The course aims to familiarize students with the drawing tools, instruments and accessories used in drafting and lettering techniques to prepare technical drawings and a clear understanding about scale, measurement, drafting and dimensioning techniques. It will impart knowledge on orthogonal projections, concept of plans, elevations and sections along with descriptive drawing skills of plane geometry, solid geometry, interaction between solids, surface development and orthogonal projections. The course also aims to impart knowledge on Isometric and Axonometric drawings, perspective drawings and development of Sociography of an object or a group of objects. The course is also based on learning and application of digital soft wares such as SketchUP, required for generating above type of drawings. The studio course has engagements with lectures, demonstration for skill development on drawing techniques, design representation, consultation, review and critique.

**ARCH 115 History of Architecture**

The course is key in establishing an exploration of history of architecture in chronological order including pre-historic civilization such as Indus civilization to, Roman period in World Architecture, European movements of Gothic, Renaissance, Baroque, and Rococo to Modern Architecture. The aim of this course is to enhance the students' knowledge of different styles of Architecture flourishing in different places in a given timeline, analyse, understand, and relate architectural characteristics (elements, spatial organization, scale and proportion, structural and construction systems). Understand the roles of physical and non-physical parameters with its impact on the architectural characteristics of a given place.

Students shall be able to comprehend and compare the architectural styles, influence of art and culture, construction techniques evolved over the period of time. Lectures, case studies, documentaries, discussion, focussing on knowledge of history of architecture used in course delivery.

**ARCH 120 Architectural Design Studio I**

Architectural design is the art of articulating spaces with the purpose of creating shelter with improved life & healthy spaces. The translation of the non-physical problems to physical building using design concept with aesthetics in form and space is important is an architectural practice. The course introduces architecture as the design of human shelter with the study of anthropometrics, ergonomics in relation with various human activities. It aims to inculcate critical observation techniques, conceptualization, creative working with design principles, forms, functional interaction and appreciation for natural structures as ingredients and inspiration for architectural Design. The course shall enable students to create simple functional spaces based on a context in a logical manner and communicate designs to human/visual Scale, Proportions with rapid visualization, graphical representation and model making skills. The studio course has engagements with lectures, site studies analysis and documentation, architectural project visits, concept mapping, case studies, presentations, design discussions, consultation, review and critique.

*Pre-Requisite(s)- ARCH 100*

**ARCH 200 Building Construction I**

The course deals with the art of applying the knowledge of materials, construction techniques and technology in design solutions from an aesthetic and utilitarian perspective. Students study and analyze the elements of buildings, structural components, materials used in building construction, properties and application techniques. The course familiarizes with the structural and enclosure systems, the types of construction and other related factors like loads, forces, spans, patterns for low, mid and high rise buildings. The concepts and working details are explored with examples of architectural projects for walls, floor plates, arches, vaults, domes, shell structures, membranes and its materials, joints and connections. The course delivery includes lectures, case study, discussions, site visits, studio working with drawings and architectural models.

### **ARCH 205 Architectural Design Studio II**

A design process with a defined problem statement leads to creation of systematic architectural design solutions with exploration of ideas and concepts. The studio aims at design of a low rise residential project typology like artist / professionals living and co-working space with the application of design process. The course promotes design thinking inculcating an aptitude of association between space, form and function to achieve a spatial relationship. Design proposal developed in the studio with iterations communicated with sketches, drawings, presentations, architectural models as concepts and strategies using the approaches of the design process. The studio course has engagements with lectures, site studies analysis and documentation, architectural project visits, concept mapping, case studies, presentations, design discussions, consultation, review and critique. *Pre-Requisite(s)- ARCH 120*

### **ARCH 215 Climate Responsive Architecture**

Climate responsive design is the core tactic strategy to achieve a sustainable built environment. An important function of a building is to make its occupants comfortable. Students acquaint with procedure and practice of climate-based design approaches. It focuses on concepts of climatology with the understanding of design strategies to develop appropriate responses to the application of construction processes, materials choice and finishes relevant to the architectural typology. Moreover, students learn design simulation for the development of shading devices and setting the building orientation based on the local and contextual climatic conditions. The course lays emphasis on case study discussions, environmental design portfolio preparation, and design software simulations to learn about the climatic design aspect of architecture.

### **ARCH 220 Architectural Design Studio III**

Architectural site planning is an art of organizing structures on land, shaping spaces. It needs to create linkages locating activities in space and time responsive to the climate of the region. The course aims at site planning with horizontal spaces using multicellular units. The architectural design deals with creating an interrelationship between spaces and their respective hierarchy. The studio exercise lays focus on development of design proposals for an architectural typology like primary school, community health center, shopping complex etc. Further the course will incorporate the design working and evolution with respect to climate responsive design strategies for the buildings and its surrounding spaces. The students has engagements with lectures, site studies analysis and documentation, architectural project visits, concept mapping, case studies, presentations, design simulation

studies, discussions, consultations, reviews and critiques.

*Pre-Requisite(s)- ARCH 205*

### **ARCH 225 Building Construction II**

The knowledge of building systems, materials and its application becomes an integral in design decision making and development of technical drawings with details for construction, estimation and building performance. The course covers the fundamentals of materials and construction process for the building foundation systems, elements of building floor, walls, roof, doors, and windows. The properties, emerging technologies and application process for building materials like concrete, masonry, steel, nonferrous metals, stone, wood, engineered wood, wood panel products, plastics, glass, hardware's, tools and machinery familiarized. The course delivery includes lectures, case study, market survey, industry visits, class discussions, site visits, studio working with drawings, architectural and computer aided models.

*Pre-Requisite(s) - ARCH 200*

### **ARCH 300 Architectural Design Studio IV**

Architectural design for large congregational spaces demands large span column free spaces achieved by integrating structural systems, innovative technology with aesthetic harmony inspired from nature. The studio introduces the design of large span structures to house multi- function, large audiences, and activities for public buildings like Cultural center, Museums, Exhibition spaces etc. with a site context . Focus of the design development based on bye-laws applicable to the site context. Design developed with an architectural identity integrating the building form with structural systems. The studio enables exploration of design strategies with responses to climate along with use of innovative technology, intelligent systems. The students has engagement with lectures, site studies, analysis, documentation, architectural project visits, concept mapping, case studies, presentations, design modeling with computer aided tool, discussions, consultations, reviews and critiques.

*Pre-Requisite(s) - ARCH 220*

### **ARCH 305 Building Services & Engineering Water Supply & Sanitation**

Water supply and Sanitation services in buildings are vital for utilization, maintenance, user safety and functional requirement. The subject introduces building services and systems, its importance in built environment and the scope of Architects. It deals with the study of water supply, drainage, sanitation, sewage and waste disposal systems and fundamental knowledge of artificial intelligence in smart management of building systems. Students will be taught the integration of building services in their Architectural Design studio projects according to local and international codes and standards, selecting appropriate plumbing fixtures, accessories and sanitary wares using market surveys and site visits for construction details.

### **ARCH 310 Building Construction III**

The building performance, efficiency and safety is based on the selected systems, materials, finishes, and application of emerging technologies with the relevant level of details. The course covers the mode of connections and mobility between levels in building using staircase, ramps and mechanical systems, the varied materials and construction technology. The finishing materials for building elements wall, floors & ceiling based on performance for durability, aesthetics, fire safety, acoustics and moisture and thermal protection. The course delivery includes lectures, case study, market survey, industry visits, class discussions, site visits, studio working with drawings, architectural and computer aided models.

*Pre-Requisite(s) - ARCH 225*

### **ARCH 315- Environment Science in Architecture**

Environmental studies and architecture are natural allies and it is important to scrutiny of the environment in which the building is to be built; understanding its social/cultural context, climatic conditions, land type, etc. It is difficult to design good structures without an understanding of how buildings interact with natural systems. Students are able to identify and analyze environmental problems as well as the risks associated with them. They learn about natural resources, ecosystems, biodiversity, their importance and measures for their conservation in detail. Furthermore, it enhances students' contextual understanding of the effect of the built environment on the environment and ecology; environmental impact assessment (EIA) study, pollution control; and current major environmental issues such as global warming and the efforts required for its mitigation. The course consists of nature walks, case study discussions, and review of environmental impact assessments activities to learn about the role of the environment in the built environment

### **ARCH 320 Architectural Design V**

The rise in popularity of walkable urban environments has created a demand of mixed-use architectural projects bringing together the combination of offices, hotels, shopping and community serving uses. The studio aims at imparting knowledge on design of multi-storied functionally complex and critically serviced building with activated public realm spaces by weaving functional, open, pedestrian, breakout spaces having transit connections with retail, dining, co-working spaces. The salient planning and design goals of the project shall involve achieving seamless, streamlined, and impeccable services, energy efficiency and structural efficacy, aesthetically innovative and significant edifice complying with the International Building Codes, the local by-laws and apply knowledge of Integrated Building Systems (AI & ML) in the multi-functional building based on an urban context. The studio

has engagements with lectures, industry expert talk, urban walk, site studies, analysis and documentation. architectural project visits for the mixed use typology study, concept mapping, case studies, presentations, design modeling with computer aided tool, discussions, consultations, reviews and critiques.

*Pre-Requisite(s) - ARCH 300*

### **ARCH 325 Building services and Engineering Electrical and Mechanical**

Electrical and mechanical services in buildings are vital for operation and maintenance that includes various types and control systems for user safety and functional requirement. Students will be able to incorporate these services in building designs with specific codes, clients' needs, required capacity & load calculations and use of emerging technologies. The study of mechanical systems will cover HVAC, pumps and machineries and mechanical transport systems in buildings. Electrical services will explore supply, distribution, and installation of electricity in building, natural & artificial lighting, and acoustics. Application in projects will cover preparing technical drawings and layouts with specifications, using local and international codes and standards, selecting appropriate fixtures and accessories using market surveys and site visits for construction details.

### **ARCH 335 Landscape Architecture**

Landscape architectural design helps in creating a living synthesis between people and place using spatial language that is vital to environmental and social identity. The aim of this course is to enhance the students' knowledge of Landscape Architecture and the various natural elements used to design transitional, outside spaces and establish a linkage between nature and the built environment. Further the course enables the analysis of site, context and communicate landscape design graphically with construction details. Lectures, case studies, site visits focusing on landscape design and projects are used to deliver the course.

### **ARCH 400 Architectural Design Studio VI**

Housing is a fundamental urban issue faced by most of the global cities and the quantity and quality of this residential strata, greatly shapes a city's growth and sustainability. The design studio explores housing project for a site with definite physical, cultural and climatological context. The studio enables create design solutions integrating environmental, climatological, structural systems, building services, landscape, and urban design to provide a comprehensive approach in designing of the residential project. The studio demands significant importance on passive design strategies along with the use of artificial intelligence in home/project automation & various building services to comprehend fundamental application of BIM software for studying various design parameters. The studio has engagements with lectures, industry expert talk, urban walk, housing project case studies, site studies, analysis and documentation. The studio develops the design project proposal with concept mapping, presentation drawing, architectural model, design modeling with computer aided tool, discussions, consultations, reviews and critiques.

*Pre-Requisite(s) - ARCH 320*

### **ARCH 405 Architectural Professional Practice**

Architectural Professional Practice emphasize practice management and procedures in design development within regulatory frameworks inculcating qualities of professionalism and ethics. The course aims to familiarize students with the understanding of the basic principles and legal aspects of organizational practice, financial management, business planning, project management, risk mitigation, mediation, and arbitration. The study also covers understanding of trends that affect practice, such as globalization, outsourcing, project delivery, expanding practice settings and diversity. The course delivery includes Lectures, case studies focusing on application of Architectural Professional Practice, management of architectural projects, interaction with architects, architectural firm visits and discussions with built environment professionals.

### **ARCH 410 Building Services and Engineering Firefighting and Automation**

Fire-fighting and prevention provide safety and security for life and property, while automation is used for efficient management of building envelop and systems. The course deals with fire prevention and control, integrated building management system, application of AI in building automation and application of BIM (Building Information Modeling) in architectural projects with respect to efficiency, safety & control. Students shall be acquainted with the fire safety regulation

and security systems to be applied in building design projects and preparing technical drawings. The course delivery includes lectures, market survey, projects, site visit, guest lectures and case studies focusing on the application of information technology are used to deliver the course.

### **ARCH 415 Urban Design Studio**

The urban sprawl with inefficient use of land causes problems of housing, transport, affordability issues and use of finite resource. It is important to stimulate creativity and problem solving, and effective design technique to resolve difficult urban design and management problems. The course aims to introduce urban design and understand part of the city and the pluralities of space syntax using data collection and methodical analyses.

Further evolve people-centric design solutions through design-thinking and experiential learning. The urban design studio enables to resolve open ended problem based approaches by considering the current issues of the real world. The studio has engagements with lectures, industry expert talk, urban walk, urban case studies, site studies, analysis and documentation. The proposals developed based on performance oriented planning using urban design tools with study, presentation drawing, threedimensional models, modeling with computer aided tool, discussions, consultations, reviews and critiques.

*Pre-Requisite(s) - ARCH 400*

### **ARCH 420 Working Drawings**

Working drawings with design details and specifications becomes an important tool in communicating designs and development of tangible outcomes for real time construction. The course aims to provide knowledge about the preparation of working drawings and details following building bye-laws, regulation and building codes. Skills developed on dealing with different projects typologies considering the inter-relationships with materials, construction technology and building services. The studio explores the process of construction drawing and documentation with design detailing communicated with standards and graphical depiction of building design specifics with accuracy for implementation of the elements in design. Ethical practice, standards and guidelines followed as applicable to the local, regional and global context for construction drawings of buildings. The course delivery includes lectures, case study, market survey, industry visits, class discussions, site visits, studio working with drawings, design detailing, specification writing, development of computer aided models for accurate and speedy design solution. *Pre-Requisite(s) - ARCH 310*

### **ARCH 500 Major project I**

Major project I offers opportunity to demonstrate knowledge and acquired skill sets to visualize, analyze, design and represent complete design solution of a multi-disciplinary architectural typology. The course aims to provide design implementation of research (ARCH 330) done in previous semester. It enables students to create a design project for a building typology focusing on design elements & principles, organization of forms & spaces, visual perception, ordering principles, measurements, circulation, proportion & scale, building systems, sustainable and smart applications, codes, and guidelines. Final portfolio presentation includes design concept, space planning and visualization adding further research in relevant project-specific sub-topics and conducted under the supervision of a faculty member.

*Pre-Requisite(s) - ARID 330, INTE 300*

### **ARCH 505- Project Management in Built Environment**

Project Management imparts basic knowledge and skills required by construction project manager, while developing management solutions in a variety of situations. This course enables to provide an overview of components of built environment in general & construction sector. It fosters the knowledge of appropriate theories, concepts, and principles of management used in construction projects. Further, it appraises the overall process within which construction projects are conceived, designed, constructed and evaluate the problems that are encountered in each stage. It also helps students to develop understanding of operation management requirements of construction projects and organizations. The course consists of site visits, conference and exhibition visits, case study discussions, and review of project management reports, experts lectures to acquire skills to pursue a career in construction project management.

**ARCH 510 Estimation, Costing and Specifications**

Theory and practice of writing specification and estimation is essential part of quality & cost control of building construction and contract administration. The course aims at providing knowledge of writing the specifications and preparing cost estimation as per the prescribed standard and rate. Students learn the importance and application of costing & specifications in building projects. They will be able to prepare material and cost estimates along with the required skills to develop specifications of materials and construction techniques essential for meeting the challenges of the changing world of construction. Lectures, tutorials, site visit, guest lecture by industry expert and working on estimation of a small scaled architectural project will be part of course delivery

**ARCH 515 Major project II**

Architectural major project II offers opportunity to demonstrate knowledge and acquired skill sets to develop a design solution from design scheme stage to detailed design of a multi-disciplinary architectural typology. The course aims to provide design detailing of Major project I (ARCH 500) done in previous semester. It enables students to create detail design drawings of selected building typology focusing on performance, materials and constructions details, using sustainable and smart applications, codes and guidelines. Final portfolio presentation include construction details of building components developed for topical issues like green and intelligent buildings, parametric architecture, universal accessibility, rehabilitation, adaptable re-use, preservation and conservation etc., and conducted under the supervision of a faculty member.

*Pre-Requisite(s) - ARCH 500*

**ARCH 520 Interior Architecture**

The course is key in establishing an exploration of elements and principles of Interior Design comprised in interior space planning and layout. Students will learn designs with anthropometric, ergonomics and aesthetic considerations. Understand the relationship between form, space, and its order in interior space. Foster creative ability in students and inculcate skills to conceive and design. Further the course helps optimize and improve the functional working of interior spaces with aesthetic sensitivity and develop interior design considering health, wellness, sustainability, and energy efficiency. Lectures, case studies focusing on the application of Interior Architecture to projects are used to deliver the course.

**ARCH 525- Architectural Conservation**

Architectural conservation is the process of conserving the values of heritage buildings while preserving them. It is a field that requires specialized training and knowledge to deal with its multidisciplinary nature. The course introduces the concepts of architectural conservation with a study exploring the history, fundamentals, and theory of architectural conservation. The program exposes students to world heritage sites, building analysis, design intervention, and conservation technology. Furthermore, the course enables students to understand building repair and preservation techniques as well as architectural conservation planning regulations. The course consists of site visits, historic walks, case study discussions, and review of conservation activities to acquire skills to pursue a career in historic building conservation.

**ARCH 530- Building Information Modeling**

Building Information Modelling (BIM) in Design, Construction, and Operations is inevitably becoming the standard method for building lifecycle planning, analysis, and management. Students are enabled a systematic understanding and critical awareness of current and emerging Building Information Modelling technologies in relation to the construction industry. Students acquaint with knowledge of BIM processes, tools and techniques and to understand the method of implementation of the tools for project designing, execution and closure. The course covers use of latest BIM software to explore the process through theory lectures, and hands on practical to acquire required skill sets.

**ARCH 535- Architectural Journalism**

Architectural journalism is the practice of writing and commenting on architecture, design, and urbanism. The increasing scope of architectural projects has created a demand for expert individuals who are skilled in the art of writing, reporting

and critiquing architectural landmarks. This course intends to develop an element of inquisitiveness in student's thought process and equip them with technical writing skills. The module enables students with both content and criticism, as well as things like form, format, graphics and publishing software, production values, photography, drawing reproduction, printing, and distribution. The course consists of documenting the architectural works with the use of latest visual aids, site visits, case study discussions, expert lectures and involvement in concurrent activities to acquire skills to pursue a career in architectural journalism.

#### **ARCH 540 Green Buildings**

The course is key in establishing a connection between arts, aesthetics, the, health, and wellbeing. Students will learn traditional & alternative approaches to health and well-being in interior environment with an awareness drawn to our surroundings and the built environment in which we live, learn and work. The course will enable the students to apply wellness focused principles for improving the health and human experience through design.

Students will be able to analyze biophilic design and designs inspired by nature. Lectures, case studies and workshops focusing on the application of Green Buildings to projects are used to deliver the course.

#### **ARCH 545 Smart Cities**

Smart cities are performance oriented and operate with better synergy between citizens and the local government for resource and asset management. The course aims to introduce students to a comprehensive learning program for designing high-performing, sustainable and livable cities considering infrastructures and forward-thinking governance. It examines role of information and communication technologies in shaping the built environment at various scales, cities, districts, neighborhoods, blocks, and buildings. The course covers wide range of topics that encompasses IT data, E-Governance, human-centric design, urban sustainability, and natural resources combining technology and urbanism. Lectures, case studies focusing on the application of information and communication technology (ICT), and projects are used to deliver the course.

**ARID 330 Research Paradigms**

Research paradigms help to comprehend the basic research principles of built environment focused on design and user experience. The course enables students to indulge in systematic and appropriate methods of conducting research for design questions considering socio-cultural, economic, and environmental framework. The course provides an opportunity to explore and present individual research topics related to practices in the built environment with reference to its theoretical and practical objectives and methodologies for design research and apply the inferences to an appropriate design typology in Major Project I. Lectures, tutorials, field research, case studies and report writing are used to deliver the course.

**BIOL 100 Biology I Final**

Biology-1 deals with the study of living organisms and vital processes of life. It focuses on the various hierarchy of cell life, cell reproduction, molecular biology of gene, concepts of evolution, origin of species, concepts of biological diversity, plant structure and growth. Moreover, students are exposed to the fundamentals of ecology, behavioral adaptations and population dynamics. Lab experiments are conducted on fundamental concepts of biology relevant to ecological diversity. Lectures, theoretical assignments, lab experiments and case studies are used to deliver the course.

**BIOL 105 Biology II**

Biology-2 deals with the advanced study of biology and its applications. Students are exposed to biophysical and chemical mechanisms of gene expression and evolution. Topics include eukaryotic RNA processing, cell cycle differentiation, apoptosis and membrane bound receptors for signal transduction. Lab experiments are conducted on advanced concepts of biology relevant to cell study and nucleic acid quantification. Lectures, theoretical assignments, lab experiments and case studies are used to deliver the course.

*Pre-Requisite(s) - BIOL 100*

**BIOT 200 BIOCHEMISTRY**

Biochemistry is the bridge between biology and chemistry. It emphasizes on the fundamental concepts of biological processes, organization of biological molecules within the cell, structure and function of biological molecules. Students explore the basic concepts of biochemistry and their application to biology and chemistry focusing on human metabolism. Topics include biological macromolecules like proteins, carbohydrate, amino acids, lipids, fats, nucleic acids and their metabolic pathways. Lectures, theoretical assignments, lab experiments and R & D lab visits are used to deliver the course.

*Pre-Requisite(s) - CHEM 105, BIOL100*

**BIOT 205 General Microbiology**

General Microbiology deals with the principles of microbiology and their impact on environment and human life. It includes the evolution process, features of microbes like virus, bacteria, fungi and genetics related to these microbes and their metabolism. Students are introduced to emerging technology like rDNA technology using microbes, soil microbiology, drug microbial resistance as well as characterization mechanisms of microbes. Lectures, hands-on lab sessions, assignments, and R & D lab visits are used to deliver the course.

*Pre-Requisite(s) - BIOL100*

**BIOT 210 Molecular Biology**

Molecular Biology deals with the principles of molecular system in a living being. It includes the genetic formulation of a cell relevant to genes, genomes, subcellular genetic elements and DNA. Students are introduced to system biology, DNA sequencing, regulation of genes & their expression along with synthetic biology, transcription and translation of a cell. Lectures, theoretical assignments, lab experiments and R & D lab visits are used to deliver the course.

*Pre-Requisite(s) – BIOT220*

**BIOT 215 IPR, Biosafety & Bioethics**

The course focuses on analyzing ethical aspects involved in biotechnology. In this various topics like concepts of ethics and safety that are essential for different disciplines of science, procedures involved, protection of intellectual property and related rights are discussed. Students learn about the scientific basics and will also investigate and present viewpoints on ethical issues in various fields of biotechnology. Lectures, theoretical assignments and demonstrations are used to deliver the course

*Pre-Requisite(s) – BIOL100*

**BIOT 220 General Genetics**

General genetics deals with the fundamentals of genetics and genomics in a living system. Students are introduced to basic principles of heredity, chemical nature of gene and its function and DNA Replication. Topics include gene linkage, recombination, gene mapping, genetic code, transcription, translation, gene mutations, DNA repair and epigenetics. Lectures, assignments, presentations and demonstrations are used to deliver the course.

*Pre-Requisite(s) – BIOL105*

**BIOT 300 Analytical techniques in biotechnology**

This course provides an introduction to the fundamental principles underlying important analytical techniques used in modern biotechnology. It deals with review of general principles of analytical instrumentation, general terminologies used and performance assessment of biological experiments. Students are also introduced to different bioanalytical techniques along with their theory, common instrumentation and possible applications. Lectures, theoretical assignments and demonstrations are used to deliver the course. This course also provides hands on training in operating instruments like compound microscope, UV visible spectrophotometer, IR spectroscope etc and analyzing samples for different biological applications.

*Pre-Requisite(s) – CHEM 100, BIOT 200*

**BIOT 305 Biochemical Thermodynamics**

Thermodynamics is considered as one of the essential tools to analyze biological systems. It relates work, heat, temperature, and states of matter to each other. It helps the students in predicting the feasibility of a process or a chemical reaction and to determine the extent to which a process can attain equilibrium under a given set of conditions. The course focusses on laws of thermodynamics and its significance in biochemical processes. Lectures, theoretical assignments, and demonstrations are used to deliver the course.

*Pre-Requisite(s) – BIOT 200*

**BIOT 310 Plant and Animal Biotechnology**

This course deals with the concepts of plant and animal biotechnology in agricultural sciences, industry, and medicine. It focusses on the fundamentals of evolution of farm animal biotechnology, embryo transfer techniques and its preservation methodologies. Students learn the applications of biotechnology like crop improvement, remote sensing mechanism and different sources of animal husbandry. Lectures, assignments, and case studies are used to deliver the course.

*Pre-Requisite(s) - BIOT 200*

**BIOT 315 Bioinformatics Final**

This course is an introduction to the application of computational methods to biological data analysis and proteomic discovery. It focuses on the various biological data using BLAST and FASTA tools. Topics include sequencing of biological databases like Genbank, NCBI, Pubmed, Data mining and their predictive methods of detection. Laboratory exposure with computational approach for the application of biological data interpretation using various tools and software's are used to deliver the course.

*Pre-Requisite(s) - CSCI 200 , BIOT 220*

**BIOT 320 Environmental Biotechnology**

The subject introduces the fundamental concepts and applications of biotechnology in all aspects of environment including its protection, restoration and sustainability. This course applies biochemical and microbial principles in the application of microbial systems to remediate environmental issues and examine microorganisms. Topics are structured to provide the students with fundamental concepts of environmental biotechnology, role of biotechnology in pollution abatement, bioremediation and biodegradation principles, processes and applications will be discussed. Lectures, assignments, and demonstrations/site visits are used to deliver the course.

*Pre-Requisite(s) – BIOT 205*

**BIOT 325 Downstream processing**

Downstream processing is a significant step of bioprocess where the crude product is processed to attain purity and quality requirements. The course covers various topics like cell breakage, isolation of solids, product recovery, product polishing, finishing etc. Students will learn various separation and concentration techniques such as extraction, adsorption and membrane separation. Furthermore, the theoretical and practical aspects of purification by means of precipitation and chromatography is addressed. This course also provides hands on training in downstream processing through simple experimentations in the laboratory. Lectures, theoretical assignments and demonstrations are used to deliver the course.

*Pre-Requisite(s) - BIOT 205, BIOT 210*

**BIOT 330 Immunology and Serology**

This course deals with the concepts of immune system and serology of human. It focusses on the fundamentals of antigen, immunoglobulins, cell regulation, and immunity related to various types of diseases. The topics include innate and acquired immunity, markers and receptors related to them, immunopathology, acquired immune deficiency and the serology of associated diseases. The course is structured to provide the students with immense knowledge on the molecular level approach of cellular organs, receptors and their role in immune responses. Lectures, theoretical assignments, lab experiments and R&D site visits are used to deliver the course.

*Pre-Requisite(s) - BIOT 210*

**BIOT 335 Introduction to Nanoscience & Nanotechnology**

Nanotechnology is a fast-growing interdisciplinary scientific field leading to applications in a wide range of science and engineering fields. This course introduces basic principles and theories relevant at the nanoscale dimension. Different properties of nanomaterials in comparison with bulk materials and its applications in engineering, materials, biology, electronics, and energy are also discussed. Lectures, theoretical assignments and demonstrations are used to deliver the course. This course also provides hands on training in the synthesis of nanomaterials by different methodologies and its characterization by DLS & UV visible spectrophotometer.

*Pre-Requisite(s) – CHEM105*

**BIOT 400 Food Biotechnology**

Food biotechnology focuses on the role of natural science and genetics in food industry. This course gives an insight to the students in various mechanisms using enzymes for microbial system, dairy products, cross-linking of proteins and role of biotechnology in beverages. Topics also include genetically modifies food & animals, impact of carbon print and role of nanotechnology in food industry. Lectures, assignments, and case studies are used to deliver the course.

*Pre-Requisite(s) – BIOT 205*

**BIOT 405 Biopharmaceutical Technology**

Biopharmaceutical technology deals with the drug administration and drug development strategies of industry. Students explore the pharmaceutical formulations and physiochemical properties involved in the drug development. Topics include pharmacokinetics and pharmacodynamics of a drug, rheology, polymers in drug, radio- pharmaceuticals and biotechnology based drug delivery systems. Lectures, assignments, and case studies are used to deliver the course.

*Pre-Requisite(s) – CHEM105*

**BIOT 410 Nanobiotechnology**

This course provides an insight into the fundamentals of nanotechnology in biological and biomedical research. It will guide the students to understand the significance of nanomaterial and demonstrate the role of bionanomaterials with the principles of biotechnology and nanotechnology. Topics include interphase system, microfluidics and nanostructures, cell-nanostructure interaction, protein based nanostructures, microbial nanoparticle production, polymer nanocontainers, DNA template electronics, DNA- gold nanoparticle, bioconjugate nanoparticles and their applications. Lectures, theoretical assignments and case studies are used to deliver the course

*Pre-Requisite(s) - BIOT 335*

**BIOT 415 FERMENTATION TECHNOLOGY**

Fermentation technology emphasizes on the application of biological and engineering principles related to problems involved in biological & biochemical systems. Main aim of this course is to provide technical and biological knowledge related to the microbial utilization in production of metabolites. Students will be exposed to topics like media used for fermentation, microbial growth kinetics, and different type of fermenters & application of fermentation technology. Lectures, theoretical assignments and demonstrations are used to deliver the course.

*Pre-Requisite(s) - BIOT 325*

**BIOT 420 Applied and Industrial Microbiology**

This course focuses on the role of micro-organisms in industrial applications. It includes the generation of microbial products and biosynthetic pathways of micro-organisms. Students are introduced to different methods of preservation of industrial organisms, significance of fermentation in microbial industry, bioleaching, single cell protein and fermented food production. Lectures, theoretical assignments and case studies are used to deliver the course.

*Pre-Requisite(s) – BIOT205*

**BIOT 425 ADVANCED INSTRUMENTATION TECHNIQUES**

Advanced instrumentation techniques deals with the application of instrumental methods in qualitative and quantitative analysis of compounds and biomaterials. Students are exposed to advanced knowledge on the principle, instrumentation & application of UV Visible spectroscopy, IR spectroscopy, Raman spectroscopy, HPLC, and gas chromatography. Application of electron microscopic studies of biomaterials and nanomaterials are also included. Lectures, theoretical assignments and demonstrations are used to deliver the course. *Pre-Requisite(s)* - BIOT 300

**BIOT 430 Biotechnology and Genetic Engineering**

This course deals with the fundamentals of biotechnology and genetic engineering in various medical and health science applications. Students are exposed to in-vitro culture mechanisms relevant to gene transfer and disease diagnosis. Topics include molecular markers and plant breeding, application of genetic engineering bio-industries, transmission of transgenes through food and regulatory mechanism in genetic improvement. Lectures, assignments, and demonstrations are used to deliver the course.

*Pre-Requisite(s)* - BIOT 210, BIOT 220

**BIOT 435 ENZYME ENGINEERING & TECHNOLOGY**

Enzyme technology deals with biochemical nature of enzymes and its industrial application. The course covers topics like basic enzymatic concepts, enzyme kinetics, enzyme inhibition, various characterization techniques etc. This will help students to acquire advanced knowledge about the technical use of enzymes and the possibilities to change and improve enzyme performance for adaptation to technical applications. This course also provides hands on training in enzyme extraction, purification, & its characterization through simple experimentations in the laboratory. Lectures, theoretical assignment and demonstrations are used to deliver the course.

*Pre-Requisite(s)* – BIOT 200

**CHEM 100 General Chemistry**

The motive of this course is to develop analytical techniques, principles, methods to understand different Engineering materials. Through this course, students will gain technical knowledge, skill and also to identify, comprehend and solve problems in industry, research and academics. This course also brings adaptability to the concepts of chemistry and to acquire the required skills to become successful/perfect engineer. The students will acquire knowledge of water technology, polymer science, spectroscopy and concept of corrosion and to apply them into respective field of Engineering. Lectures, theoretical assignments and demonstrations are used to deliver the course

**CHEM 105 Organic chemistry**

This course introduces fundamental concepts of organic molecules and its significance in a chemical reaction. It encompasses nomenclature, classification of organic molecules, bonding and functional groups. Students learn the mechanistic theory of chemical reactions in the context of free radical reactions, substitution reactions and elimination reactions. Chirality and stereochemistry of molecules will help the students to understand the three dimensionality of organic and biomolecules and their significance. Lectures, theoretical assignments and experimentations are used to deliver the course.

*Pre-Requisite(s) – CHEM100*

**CIVL 200 Basic Mathematics**

Understanding the effect of different kinds of forces on rigid bodies is important from an engineer's perspective in laying a foundation in structural and mechanical design. Bodies in static equilibrium when subjected to the action of various kinds of forces will be examined using the concept of free body diagram. In this direction, the concept(s) will be extended for analyzing the force distribution in practical applications like beams, trusses, stability of structures as well as for bodies in dynamic equilibrium. Lectures and numerical assignments will be utilized to deliver the course. Lab sessions will also be held in parallel to provide practical know-how which will supplement the theoretical contents.

*Pre-Requisite(s) – MATH 105*

**CIVL 215 Surveying**

Understanding the principles of surveying is a primary need to any Civil Engineer involved in design and construction of Civil Engineering project. Students study about various principles of surveying, chain surveying, compass surveying, levelling, traverse surveys, theodolite surveying, tacheometric surveying, preparation of contour maps and curves. Lectures, analyzing numerical solutions and hands on experience in the surveying laboratory are main teaching and learning aids of this course.

**CIVL 225 TRANSPORTATION ENGINEERING**

Knowledge on transportation engineering is necessary for every Civil Engineer as they will be involved in design and construction of various transport systems like roads that are used in everyday life. Students majorly learn about various principles of pavement materials, design of flexible and rigid pavements, pavement failures, conducting surveys for highways as well as geometric design (like camber, super elevation, sight distances, speed, slopes, transition curves etc.). This course also gives brief insights to students on some traffic related topics like traffic characteristics, traffic studies, intersections, signs and markings, traffic safety etc. Lectures, analyzing numerical solutions, and hands on experience in the transportation laboratory are the main teaching and learning aids of this course.

*Pre-Requisite(s) – CIVL 215 & CIVL 230*

**CIVL 230 BUILDING MATERIALS**

Knowledge of various building materials is a prime need for any Civil Engineer as all constructions are made of different materials. The course covers fundamental principles of material science, including the composition, structure, and behavior of materials. Students study various building materials like stones, bricks, timber, cement, mortar, concrete etc. along with laboratory testing, field testing that helps in selection of materials during construction. throughout the course, students will engage in hands-on activities, such as laboratory experiments and case studies, to enhance their understanding of the materials' properties and behavior. The course aims to provide students with the knowledge and skills needed to select appropriate materials for specific building applications based on performance, sustainability, and cost effectiveness

**CIVL 300 Structural Analysis**

Understanding concepts about basic and complex Structural analysis/design process is very important for a civil engineer to work in construction site. It aids to specialize in structural design field. The structural members subjected various loading conditions in buildings, bridges, soil strata are analyzed to understand its behavior. Students learn about advanced concepts of structural analysis to identify various parameters to be considered

for design while preparing the design drawings. Complex structure includes truss, arches, long-span structures and special form of structures that will be focused for its application. Analysis and evaluation of determinate/ indeterminate structures, deflection of beams, frame analysis, deflection, and internal forces in arches and influence lines are mainly taught in the course. The results of the analysis are used to verify a structure's safety for use. Lectures, analyzing numerical solutions and hands-on

*Pre-Requisite(s) – CIVL 200*

**CIVL 305 SOIL AND ROCK MECHANICS**

Soil mechanics and rock mechanics knowledge is necessary for every Civil Engineer to learn as all structures rests on ground. Students learn about analyzing mechanics of soils and rocks required for design of foundations. Soil classification, permeability, stress distribution, compaction, consolidation and shear strength are majorly dealt as part of soil mechanics and identification of rocks, rock properties as well as strength and deformation characteristics of rocks are mainly taught in rock mechanics. Lectures, analyzing numerical solutions, field visits and hands on experience in the geotechnical laboratory are the main teaching and learning aids of this course.

**CIVL 310 FOUNDATION ENGINEERING**

Knowledge of foundation engineering is necessary for any Civil Engineer as it is required to design/construct foundations for various Civil Engineering structures in practice. Subsurface exploration, suitability and selection of foundation type, analysis and geotechnical design of shallow foundations and pile foundations are majorly dealt. Additionally, foundations on problematic soils, introduction to geo-synthetics and retaining walls are taught. Lectures and analyzing numerical solutions are the main teaching and learning aids of this course.

*Pre-Requisite(s) – CIVL 305*

**CIVL 315 Design of reinforced concrete structures**

In-depth knowledge and skill for the design of different elements of a building structure using reinforced concrete are very critical for a civil engineer to work in any field of built environment. The structure being the back bone of construction, starting from the design phase till the execution phase a civil engineer will be closely working with the reinforced concrete elements. Students will learn about basic elements governed by bending, shear,

axial forces or combination of them are identified and are considered as building blocks of the whole structure. Different methods of design will be briefly described before introducing the limit states of collapse and serviceability. The design will be done as per international standards. Lectures, analyzing various case studies focusing on design applications and hands-on experience in the concrete laboratory are the main teaching and learning aids of this course.

*Pre-Requisite(s) - CIVL 230 , CIVL 300*

**CIVL 320 WATER RESOURCES AND WATER SUPPLY ENGINEERING**

Knowledge of water resources engineering is necessary for a Civil Engineer as it is required in the planning and design of various water retaining and canal structures. In addition, understanding water supply engineering is essential for Civil Engineers as they will be involved in water treatment and supply to public. In water resources engineering, students learn about analysis of rainfall data, irrigations systems and canals. As part of water supply engineering, student study about demands of water, quality parameters, treatment methods and distribution networks to the public. Lectures, analyzing numerical solutions and hands on experience of testing water in the laboratory for drinking purpose are main teaching and learning aids of this course.

*Pre-Requisite(s) - MECH 315*

**CIVL 325 Design of steel structures**

In today's world, majority of structures are built with steel. In-Depth knowledge of designing and detailing of steel structures is very important for civil engineers in order to make structures safe and serviceable during its life span. Student learn about behavior, analysis and design of steel structural members which includes beams, columns, tension members and connections accordance with international standards. Students are expected to obtain basic knowledge about the design and failure mode of steel structural members. Lecture s,analyzing numerical solutions and hands-on experience with real-life model are the main teaching and learning aids of this course. STAAD Pro, Excel and SAFE softwares are used as tools in this course.

*Pre-Requisite(s) – CIVL300*

**CIVL 330 Traffic Engineering Management**

Knowledge of traffic engineering is necessary for any Civil Engineer as it is required to plan and design traffic systems for various road transport systems. Students learn about transportation modes, roadway and traffic stream characteristics, traffic demand, traffic volume, traffic capacity, level of service, traffic studies as well as traffic safety and analyses. Students also design intersections with pre-timed signals and actuated signals including their coordination for arterials and networks. In addition, this course also deals with roundabouts, interchanges as well as capacity and level of service analyses of various highways. Lectures and analyzing numerical solutions are the main teaching and learning aids of this course.

*Pre-Requisite(s) – CIVL225*

#### **CIVL 400 QUANTITY SURVEYING AND ESTIMATION**

Knowledge of costing and estimation is necessary for a Civil Engineer to plan quantities of various items required in engineering works. Students learn about estimating quantities of various items/materials, formulating specifications, estimating rates and preparing bid for various civil engineering works. In addition, students also gain knowledge on preparation and evaluation of tenders and contracts as well as fixing rent based on valuation.

Lectures and analyzing numerical solutions are the main teaching and learning aids of this course.

Pre-Requisite(s) – CIVL 310 & CIVL 315

#### **CIVL 405 WASTE WATER ENGINEERING**

Knowledge of waste water engineering is necessary for Civil Engineers as they will be part of design and construction of sewage treatment works and disposal. Students study about characteristics of waste water, assessment of their quantities generated in a community and design of various treatment units involved in the treatment process. In addition, students learn about various aspects related to soil waste management. Lectures and hands on experience of testing waste water samples in the laboratory are main teaching and learning aids of this course.

*Pre-requisite(s): CIVL 310 & CIVL 315*

#### **CIVL 410 Analysis of prestress concrete structures**

Precast construction is widely used across the globe for its inherent advantages. It has been widely adopted in all developing countries but is limited to infrastructures such as tunnels, bridges and underpasses. Today with a critical housing shortage, rising labor and overhead cost use of precast is considered as the future of construction. The student learn principles and methods of prestressing, stress computation and prestress loss estimation, structural design philosophy; Flexure: working stress and ultimate strength analysis and Design, Design for shear and torsion; deflection computation and control; analysis and design of composite beams and continuous beams; Application of prestressed concrete in bridges. Lectures, hands-on experience with real-life model are the main teaching and learning aids of this course.

#### **CIVL 420 Construction project management**

Introducing management concepts and techniques used on construction projects is extremely critical for a civil engineer to understand the life cycle of a construction project from conception through completion and commissioning. Students shall have the skills and knowledge necessary to understand and select delivery and pricing systems, and prepare them to manage, coordinate, and supervise the construction project within the constraints of the project's defined scope, time schedule, budgeted costs, and intended design. The course covers overview of practice of construction management theory, project feasibility processes and real estate development, pre-construction, delivery methods and pricing systems, procurement, project administration, project closeout and commissioning. Lectures, analyzing numerical solutions and hands-on experience with real-life models are the main teaching and learning aids of this course. Primavera and MS project software will

be used as a tool in this course.

Pre-Requisite(s) - CIVL 230

**CIVL 430 GROUND IMPROVEMENT TECHNIQUES**

Knowledge of ground improvement techniques is necessary for Civil Engineers in situations where ground modifications are required to be carried out before construction of any Civil Engineering structure. Students study about various ground improvement techniques like mechanical modification methods, hydraulic modification methods, admixture stabilization, grouting, soil-reinforcement (ex: reinforced earth technology) techniques, soil confinement systems etc. In addition, students learn about how to conduct lab experiments and identify soil characteristics before and after modification. Lectures and hands on experience of testing soil samples in the laboratory are main teaching and learning aids of this course.

Pre-Requisite(s) – CIVL 305

**CIVL 435 Green Building concepts**

The emergence of Green Building is a response to the philosophy of sustainable development. It has been and will be an inevitable trend for building industry. Zero energy/positive energy buildings are the future of construction. Knowledge about the traditional techniques and current technologies used to develop a deep understanding and confidence around sustainable design practices and materials. Students will learn about building physics, utilizing costs/benefits analysis, life cycle costs, embodied energy evaluation, and overall sustainability of various materials and methods of green building design, documentation and certification. Knowledge about various building design concepts based on sustainability, bioclimatic and green construction practices in addition with International green building codes widely used will be analyzed in the course. Lectures,

hands-on experience with real-life model, software lab tools are the main teaching and learning aids of this course. Several case studies will be presented to demonstrate how the various passive, low-energy, and energy-saving concepts have been applied to real-life buildings. The concepts of green buildings will be introduced and different rating systems for green buildings will be explained. Preparation of LEED Green Associate Exam will be covered in this course

**CIVL 440 Health, Safety and Environmental Engineering for Construction**

Knowledge of health, safety and environment (HSE) is required for every Civil Engineer to plan various construction activities at site keeping view the wellbeing of various site personnel and environment. Students learn about various hazards with their control systems, regulations and guidelines. Students will acquire knowledge on emergency preparedness like what to do, whom to notify when something happens at the site considering various hazards associated with construction activities. Lectures and site visits to construction sites are the main teaching and learning aids of this course.

**CSCI 200 Introduction to Computers and Programming**

Computers are the main part of information technologies. It is required to develop programs. Students will learn the history of computer, hardware, software, number system, c programming concepts like operators, expressions, arrays, loops, control structures, and file handling. Lectures, Laboratory sessions, assignment and project will be used to deliver the course.

**CSCI 205 Object Oriented Programming using JAVA**

Industry uses the Object-oriented programming (OOP) model to organize software design around data or objects rather than functions and logic. The student will learn about Object- Oriented Programming, Decisions, Control statements and Loops, Arrays, Class and objects, Inheritance and Interfaces, Exception Handling, Object-Oriented Design, Recursion, Databases, Connectivity and GUI in the Java programming environment. Lectures, practical lab sessions, and assignments will be used to deliver the course.

**CSCI 210 Database Management Systems-Syllabus**

Database Management System (DBMS) serves the foundation needs with a career in database development or data warehousing for business intelligence specialization. Students will learn to create relational databases, write Structured Query Language (SQL) statements to extract information to satisfy business reporting requests, create entity relationship diagrams (ERDs) to design databases, and analyze table designs for excessive redundancy. The course will be delivered in both theory and hands-on practical approach to work on rigorous database querying, optimization techniques, database tuning, normalization techniques, transaction processing, concurrency control and recovery and new application developments.

**CSCI 215 Data Structures and Algorithms**

Computer scientists use the data structures for efficient data persistence. Students learn the concepts and applications of linear and nonlinear data structure like arrays, stack queue, linked list, trees, graphs, sorting and searching techniques and the use of basic algorithm analysis including both theoretical and empirical methods. Hands-on sessions focusing on basic data structure algorithmic concepts, project, assignments and lab sessions are used to deliver the course.

*Pre-Requisite(s) - CSCI 200 or ITEC 105*

**CSCI 220 Computer Applications II**

Building Information Modeling (BIM) is the foundation for digital transformation in the built environment sector. Students are enabled to explore tools and techniques with the BIM software to create drawings and 3D models and set them up as design/ working drawings to communicate the design ideas, details and generate a workflow. The course lay emphasis on design detailing with material and finishes, area calculations, visualization, walkthroughs and detailed schedules.

*Pre-Requisite(s) - CSCI 220*

**CSCI 225 Computer Applications III**

Visualization in design aids in the communication at an advance level using computer aided design (CAD) for parametric base design modeling. It improves the capacity of designer to collaborate and share information. Students are exposed to a state-of-the-art 3D modelling, design development, iterations, detailing, simulations, rendering, and modeling software package for creating visually stunning presentations of their designs with interactive 3D models and rendered views. The tools enable define elements, blend complex and variety

of design ideas, interdependent and adopted solutions. They apply what they have learned to create projects and the results of design analysis that will improve their visualization abilities and understanding of generative CAD concepts. The course covers use of software tools like Rhino, Grasshopper, 3D Studio Max, Maya and other compatible software for specific design 3d modeling, apply material, add lights and cameras, render still images

and animate architectural or interior spaces and explore the process for design working.

*Pre-Requisite(s) - CSCI 220*

**CSCI 300 Operating System**

Operating systems are main components of recent computer technology. It is software that bridges users and hardware. It manages memory, processes, processor, software, and hardware. The primary purpose of this course is to understand processes under the operating systems and improve students' skills to develop applications on the subsystems of operating systems. Lecture, Laboratory sessions, Assignment, case discussion and presentations are used to deliver the course.

**CSCI 305 Computer Architecture and Organization**

Computer architecture and organization is the study of internal working, structuring, and implementation of a computer system. Student will learn internal hardware connections, structures and behavior of the computer system. This course covers the concepts of computer organization and design, micro-programmed control, central processing unit (CPU), memory organization and multiprocessor. Lectures, practical and theoretical assignments will be used to deliver the course.

*Pre-Requisite(s) - EEEN 215*

**CSCI 310 Principles of Programming Language**

Programming languages are an essential part of computer science. Various languages have their own structures. The purpose of this course is to facilitate the adaption of an individual to new languages by presenting basic programming after examining the basic and common methods of programming languages. The students will learn Programming Languages evaluation Criteria, Functional, Logic, Object-oriented, and Parallel Programming concepts. The course will also cover syntax, basic semantics, and data types. Lectures focusing on principles of programming languages, project, and assignments are used to deliver the course.

*Pre-Requisite(s) – CSCI 205*

**CSCI 315 Theory of Computation**

Computer scientists and mathematicians use theory of computation to simplify the logic of computation using computational models and to address the issues of which problems can be solved by computational means. Students learn the general theory of automata, regular and context free languages, pushdown automata, Turing machines, linear bounded automata, computability and complexity theories. Lectures focusing on applying theory of automata concepts, assignments and computational models case studies are used to deliver the course.

**CSCI 320 Analysis and Design of Algorithms**

Computer scientists use advanced algorithmic concepts to solve complex real-world problems. Students learn advanced data structure, elements of dynamic programming, greedy algorithms, graph algorithms and methods for designing and analyzing efficient algorithms and their implementation. Lectures focusing on applying advanced algorithmic concepts, project, assignments, and Lab sessions are used to deliver the course.

*Pre-Requisite(s) - CSCI 215*

**CSCI 330 Computer Networks**

Industry uses a computer network to interconnected computing devices that can exchange data and share resources. The student will learn about computer networks, their components, and network reference models. The course covers the concepts of routing algorithms, addressing, and network security. Lectures, Practical lab sessions, simulations, case studies and assignments will be used to deliver the course.

**CSCI 335 Software Engineering**

Software Engineering is used for a systematic, disciplined and quantifiable approach for the development, operation, and maintenance of software. Students learn how robust software systems are built most economically to assure best quality and maintenance techniques in the software industry through lifecycle models, software reengineering techniques, test methods and UML (Unified Modelling Language) diagrams. The course will be delivered using lectures and lab sessions, projects and case studies.

*Pre-Requisite(s): CSCI 205*

**CSCI 340 Computer Security and the Internet**

Awareness of computer security is becoming important for internet users in the digital world. The student will learn about security concepts and principles, user authentication, and operating system security. Students will also learn about keys, digital signatures, hash function, software security, malicious software, certificates, web security, firewalls, tunnels,

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intrusion detection, Wireless Local Area Network security, Bitcoins and block chains. Lectures, assignments and case studies are used to deliver the course.

*Pre-Requisite(s): CSCI 330*

#### **CSCI 400 Artificial Intelligence**

Artificial Intelligence aims to mimic the cognitive efforts of humans to equip machines with automated problem-solving capabilities. Students will learn concepts and strategies that form the core of artificial intelligence (AI), including fundamental concepts like AI-based problem solving, knowledge representation, understanding of natural language, expert systems, and learning. Lectures focusing on AI fundamentals, Lab sessions, project, and assignments are used to deliver the course.

#### **CSCI 405 Parallel and Distributed Computing**

Current computing problems require solutions that can provide a parallelizable and distributable application. Developing these solutions requires concepts that can provide a bedrock for scalable platforms and architecture. The students will learn the foundations for designing distributed applications with a parallelizable set of operations. This course covers necessary foundations, including parallel computing platforms, design of parallel algorithms, programming using message passing and shared address space, distributed computing paradigm, Graphical processing units (GPUs), Compute Unified Device Architecture (CUDA), and the design of a fault-tolerant system. This course includes alternative parallel computation methods with their advantages and drawbacks. Lectures focusing on parallel and distributed computing principles, project, and assignments are used to deliver the course.

*Pre-Requisite(s) - CSCI 300*

#### **CSCI 410 Digital Image Processing and Computer Vision**

Digital Image processing and Computer Vision are core domain applications of Artificial Intelligence used to solve complex real-world problems in various industries. The students will learn to apply multiple techniques, such as Image Enhancement and Segmentation, Color Image Processing, Morphological Image Processing, and Object Representation, which will help them design efficient algorithms for real-world applications. Lectures focusing on Digital Image processing and Computer Vision fundamentals, projects, and assignments are used to deliver the course.

*Pre-Requisite(s) – MATH 200*

**CSCI 415 AI for Data Analytics**

Data analytics helps analyze raw data and detect the hidden patterns, which is then needed to develop logic for better decision making. The students will learn the foundations required for the transformation process from information to knowledge to understand the hidden models inside the humongous data, which plays a vital role in developing efficient AI-based systems. It includes topics such as introduction to analytics and artificial intelligence, predictive analytics and machine learning, prescriptive analytics and big data, robotics, social networks, AI and IoT, and caveats of analytics and AI. Lectures focusing on AI and Data Analytics fundamentals, project, and assignments are used to deliver the course.

**CSCI 420 Natural Language Processing**

Natural Language Processing (NLP), a subdomain of Artificial Intelligence (AI), provides a mechanism for computers to understand and respond to humans in different spoken and written languages. The students will learn how NLP helps in providing solutions to performing language-related tasks of humans by a computer. It covers the concepts required for analyzing a language. It gives an overview of language modeling and will include topics such as word level and syntactic analysis, semantic analysis and discourse processing, natural language generation and machine translation, information retrieval, and lexical resources. Lectures focusing on Natural Language Processing fundamentals, project, and assignments are used to deliver the course.

**CSCI 425 Cognitive Robotics**

Cognitive robotics, one of the subdomains of Artificial Intelligence (AI), aims to understand robotic cognition and perception, which will help the designer perform tasks to improve the depth of the generated knowledge. The students will learn the underlying concepts of cognition to feed as knowledge to robots, which in the future will play a major role in automated and knowledge-based decision control systems. It covers core topics such as robot cognition and perception, Designing Modular AI Robots, reactive and deliberative functionalities, and Ethics of Building Intelligent Robots. Lectures focusing on Cognitive robotics fundamentals, projects, and assignments are used to deliver the course.

**CSCI 430 Machine Learning**

Machine learning algorithms aim to solve major cognitive and computational problems for multiple industries. The course aims to introduce the concepts, theories, and state-of-the-art algorithms for machine learning. Students will learn theories and practical aspects of machine learning techniques, consisting of regression, clustering, and classification. Lectures focusing on machine learning fundamentals, project and assignments are used to deliver the course.

Pre-Requisite(s) - CSCI 215

**CSCI 435 Neural Networks**

Artificial Neural Networks are one of the core domains of Artificial Intelligence that mimic the human brain behavior through some complex mathematical models to solve computational and cognitive real-world problems. The students will learn the application of this method in various domain applications. It covers the foundations required for the understanding and the utility of Neural Networks, and includes topics such as Convolutional Neural Networks (CNN), Sequence Modeling (RNN and LSTM), Autoencoders and Deep Generative models. Hands-on sessions focusing on machine learning fundamentals, project and assignments are used to deliver the course.

Pre-Requisite(s) - CSCI 215

**CSCI 440 Advanced Computer Networks**

Computer network refers to interconnected computing devices that can exchange data and share resources with each other. Student will learn about, computer and information network, Domain Name System (DNS), network and cybersecurity, wireless mobile network, socket programming, and network access control. Lectures, simulation exercises, case studies and assignments, will be used to deliver the course.

Pre-Requisite(s) - CSCI 330

**CSCI 445 Applied Cryptography**

Cryptographic mechanisms are used in digital world for a wide array of communication and data protections. Students learn to the areas of cryptography and cryptanalysis. This course develops a basic understanding of the algorithms used to protect users online and to understand some of the design choices behind these algorithms as well as secure key management. Lecture sessions focusing on applied cryptography concepts, assignments and case studies are used to deliver the course.

Pre-Requisite(s) – MATH 200

**CSCI 450 Network Security**

Network Security is being used to protect the network infrastructure from various types of attacks. This course provides conceptual understanding of network security issues, challenges, and mechanisms. Students learn the cloud security, web security, wireless security, and IP security issues and how to protect the network infrastructures using the security tools and to implement the required algorithms. Lectures focusing on network security concepts, assignments, and case studies are used to deliver the course.

**CSCI 455 Digital Forensics**

Digital forensic principles are applied in the industry primarily for digital investigations. Students will learn about the definitions and working of cyber-forensics, cyber laws, and regulations. The course also gives students the knowledge related to Digital-Forensics, Cyber Law, and Social media forensics. Lectures, theoretical assignments, and case studies based on crime scenes will be used to deliver the course.

**CSCI 460 Security Policy, Laws, and Governance**

To ensure compliance and its efficacy in technology infrastructure, cybersecurity policy, governance structures for policy creation, selection, and implementation of policy, along with audit and control functions, are important. Students will learn about the national and international policy and legal considerations related to cybersecurity and cyberspace, such as privacy issues, intellectual property, cybercrime, homeland security and cyber warfare, and the regulatory bodies involved in formulating such policies. Lectures, theoretical assignments, and case studies based on security, law and governance will be used to deliver the course.

**CSCI 465 Information Security Management**

Information security management plays important role to ensure the security of network infrastructure. This course provides the managerial approach to information security and a thorough treatment of the secure administration of information assets. Students learn how to manage the use of information assets securely and support the goals and objectives of their organizations through effective information security governance, risk management, and regulatory compliance. Lectures focusing on network security concepts, assignments, and case studies are used to deliver the course.

**EEEN 200 Basic Electrical and Electronics Engineering**

Knowledge of DC & AC circuits, different testing parameters of transformer is paramount importance in electrical engineering. This course provides an introduction of electrical circuits, fundamental law's, network theorems and analysis of AC & DC Circuits and also working principles of transformers and semiconductor devices. Hands on sessions, Assignment, quiz will be used to deliver the course.

Pre-Requisite(s): MATH100

**EEEN 205 Circuit & Systems**

The Understanding and knowledge of this course is essential to use in advanced level course of electrical engineering for analyzing & design circuits. Students understand analyzing concepts relating to network analysis in time & frequency

domain using Laplace transformation & other method to make them proficient in analyzing circuits, construct and interpret circuits diagrams and network synthesis. Topic includes networks analysis for dc & ac circuits, network equations & functions, two port Parameters. Hands on sessions, Hand on sessions, Assignment, reading material will be used to deliver the course.

*Pre-Requisite(s): EEEN 200, MATH 220*

### **EEEN 210 Signals and Systems**

Signals and systems is used in wide range of engineering system like voice processing, image processing data processing, cellular networks which is integral part of analog and digital communications. This course covers the application of mathematical tools like Laplace transform for analyzing in the frequency domain of various electrical circuits. It also covers the Continuous time Fourier transform, Discrete Time Fourier Transform, Z

Transform for analyzing the digital systems and Linear Time Invariant (LTI) systems. It also covers the properties of Laplace and Z transform. Lectures, theoretical assignments, exams, quizzes are used in this course.

*Pre-Requisite(s): MATH 220*

### **EEEN 215 Digital Design**

Digital design is used in digital electronics circuits, computers architecture and combine digital components to create circuits that perform fundamental computing tasks such as arithmetic and logical functions. Topics covered include Boolean algebra and binary arithmetic, combinational and sequential logic circuits. Students extend their knowledge to practice by way of hands-on laboratory exercises where various hardware tools are used to design and test solutions for real-world applications, students understand the design of digital computing systems at their most fundamental level. Design problems, assignments will be used in delivering the course.

*Pre-Requisite(s): CSCI 200*

### **EEEN 220 Microprocessors, Microcontrollers & Interfacing**

Microprocessors and Microcontrollers are used extensively in the design of any computing facility and forms the basis of complex computer architecture and embedded systems. The course covers the architecture of 8085, 8051 microcontroller, instruction sets & assembly language programming, simple programs in 8085 to solve problems like arithmetic and logical operations, Interfacing of Microcontroller with motors, sensors, ADC, and DAC, and programming using C programming. In addition, Timers, counters, serial interface, hardware and software interrupts, and, the application of timers and counters in programming are given. The material is delivered through lectures, slides, labs, assignments, and project presentations.

*Pre-Requisite(s): EEEN 215, CSCI 200*

### **EEEN 225 Electrical Machines**

The course is a pre-requisite to a series of machines, power, control, and drives-related courses and laboratories. The course covers magnetic circuits, autotransformers, and 3-phase transformers; fundamentals of DC & AC machines, synchronous & Induction motors construction, equivalent circuits, testing and characteristics and efficiency expressions. Lab experiments cover open circuit, short circuit, load, and polarity test of transformers; speed control, load characteristics, and efficiency of shunt, series, and compound DC machines. This course provides Lectures, assignments and hands-on training in the laboratory.

*Pre-Requisite(s): EEEN 200*

### **EEEN 300 Linear Integrated Circuits**

Linear Integrated circuits forms the basics of working and manufacturing of all analog IC in the industry. It covers the equivalent circuit pin configuration, and application of operational amplifiers like summing amplifier, subtractor, differentiator, integrator, log and antilog amplifiers. This course also covers the aspects of wave form generations like square wave form generation, triangular wave form generation, 555 timers and its applications, design of ADC and DAC using operational amplifier. Lectures, theoretical assignments, exams, quizzes are used in this course.

*Pre-Requisite(s): EEEN 200*

**EEEN 310 Control Systems**

Every sector of the industry is linked with the control system in some or the other way and is one of the integral part in space technology, power system, transportation system, and robotics and hence control systems is important in designing electrical and mechanical systems. This course covers the mathematical modelling of first order and second order mechanical systems, electrical systems and determines the transfer function of the system, reducing the transfer function by block diagram reduction technique and signal flow graph. It also covers the transient analysis, steady state error, time domain analysis of the system using root locus, stability analysis using Routh Hurwitz technique, Frequency domain analysis like bode plot, Nyquist plot and compensation techniques to improve the stability. Lectures, assignments, exams, quizzes are used in this course. Lectures, theoretical assignments, exams, quizzes are used in this course.

*Pre-Requisite(s): EEEN 210*

**EEEN 315 Electronics Measurement and Instrumentation**

All the process industries are equipped with variety of measuring instruments to measure the physical parameters and is monitored using digital display devices. The concept behind the measurement system is the sensing element, data manipulation, data transmission and data display element. This course covers the various types of bridges like AC and DC bridges and its application. It also covers some of the transducer used for the temperature measurement like RTD, thermocouple, thermistors, displacement measurement, and strain measurement using strain gauges. It also covers the working of pressure, flow and level measurement. It also covers the computer input output interface using PLC and digital computation. Lectures, theoretical assignments, exams, quizzes are used in this course.

*Pre-Requisite(s): EEEN210, EEEN215*

**EEEN 320 Electromagnetic Field Theory**

Electromagnetic field theory emphasize on the use of electromagnetics and its practical applications in power system & electrical engineering. It deals with the study of static electric fields in vacuum and dielectrics, conductors, capacitance, electrostatic energy and forces, static magnetic fields, Biot-Savart law, Ampere's law, Maxwell's equations for time varying fields, Faraday's law, and plane wave propagation, propagation in lossless media, and wave reflection and transmission at normal incidence. The bridge between electric circuits and electromagnetic is done through the study of transmission lines and their lumped-element model, transmission line input impedance, and power flow on lossless transmission lines. The course is delivered through lectures, presentations, and assignments.

*Pre-Requisite(s): PHYS 105 , MATH 220*

**EEEN 325 Analog and Digital Communications**

The student will learn the basic principles and techniques used in analog and digital communications with detailed focus on different modulation techniques. It covers analog and digital modulation techniques, receiver and transmitter, baseband and band pass communication techniques, and noise analysis in various transmission environments. It is delivered through lectures, presentations, assignments, labs.

*Pre-Requisite(s): EEEN 210 , MATH 120*

**EEEN 330 Power System**

The Power Systems course provide students with the necessary information, understanding, and abilities to operate in the electric power sector at a competitive level, including generating electricity, transmitting, distributing, and using it. This is used in diverse spectrum of power industries includes coal, oil and gas-fired power plants, hydroelectric, atomic, and renewable energy power plants. Students uses concepts of Power systems including drawing of single line diagrams build knowledge of synchronous machines & transformers in order to enable students to determine the parameters of transmission lines and gain an insight into the mechanical design of overhead transmission lines and the aspect of neutral grounding, types of insulator cables, construction and losses related to insulating cables rate with an emphasis on developing a conceptual understanding of the Power system as a complex interconnected system. Assignments, design problem, PPT will be used to deliver the course. *Pre-Requisite(s): EEEN 305, EEEN 225*

**EEEN 335 Analog and Digital VLSI Design**

VLSI benefit the designers to model the digital circuits in a flexible way and forms the basics of creating the microelectronic chip by combining millions of transistors. The objective of this course is to facilitate the understanding the basic concepts of CMOS circuits and its characteristics, design and realization of combinational & sequential digital circuits. Architectural choices and performance tradeoffs involved in designing and realizing the circuits in CMOS technology are discussed and the different FPGA architectures and testability of VLSI circuits are covered Lectures, theoretical assignments, exams, presentations are used in this course.

*Pre-Requisite(s): EEEN 215*

**EEEN 340 Power Electronics**

Power electronics is an enabling technology, used in industrial automation, energy generation & conservation and indirectly for environmental pollution control. It covers the working of single phase and three phase inverters, Step up and step down chopper circuits, gate circuit, cyclo-converters, matrix converters, Pulse Converters, gate circuit schemes for phase control and PWM techniques. The course also involves experiment-based learning for the students to understand the concept and its application in industry. Lecture, ppt are also used to deliver lecture.

*Pre-Requisite(s) - EEEN 205*

**EEEN 400 Data Communication Networks**

Communication engineers acquire fundamental computer and data Networks skill sets. The topics covered include signal characteristic and data communication; signal encoding techniques; bandwidth utilization, transmission media, switching system and communication networks; flow control technologies wireless WAN, short-and-long range wireless technologies and data link. By course completion students should be able to demonstrate an understanding of the fundamentals of data communication, types of transmission mediums and interfacing standards along with current edge of the data compression techniques. This course provides Lectures, theoretical assignments, and demonstrations.

*Pre-Requisite(s) - EEEN 325*

**EEEN 405 Flexible AC Transmission System**

A new technology based on power electronics and offers an opportunity to enhance controllability, stability, and power transfer capability of AC transmission systems. The students will familiarize with the principles of this advanced system which can give them a better understanding of its working in the power industry. This will also enhance expertise in equipment specifications and engineering design, offering an informed view of the future of power electronics in AC transmission. This course explains power semiconductor devices, voltage-sourced and current-sourced converters, specific FACTS controllers including SVC, STATCOM, TCSC, SSSC, UPFC, IPFC plus voltage regulators. Assignment, reading material will be used to deliver the course.

*Pre-Requisite(s) - EEEN 330*

**EEEN 410 Power System Protection and Switch Gear**

The functioning of a power system depends significantly on efficient and reliable protection schemes and learning the principles of electric fault detection is necessary to minimize damage, repair costs, and human casualties. This course examines the protection of power system scenarios with various protection relays and studies the various types of circuit breakers, the arc quenching phenomena, and the protection overvoltage. This course provides Lectures, theoretical assignments.

*Pre-Requisite(s): EEEN 340*

**EEEN 415 Power Systems Analysis and Stability**

The stability of power systems ensures they can function normally upon being subject to different disturbances. The students will learn to apply techniques for power flow analysis and carry out short circuit studies on power systems. The course also enables the students to acquire knowledge of the dynamic behavior of the power system small and large disturbances, and

Learn techniques to enhance the stability of power system. This course provides Lectures, theoretical assignments, and demonstrations.

Pre-Requisite(s) - EEEN 330

### **EEEN 420 Industrial Automation and Control**

Industrial Automation is the use of machines, control systems, and information technologies to optimize productivity in the manufacturing processes with little human involvement. Industrial automation, which deals with the role of computers in measurement and instrumentation which deals with the data transfer techniques, communication protocol. It gives the students an understanding of the PLC, construction and working about interfacing with field devices and the communication protocol. The course also covers SCADA, DCS application in industry. Lectures, theoretical assignments, exams, quizzes are used in this course.

Pre-Requisite(s): EEEN 315

### **EEEN 425 Smart Grid Technologies**

The smart grid concept has experienced major hype in the past few years. The smart grid knowledge will provide invaluable data on the benefits and cost-effectiveness of the smart grid, including energy and cost savings. The objective of this course is to facilitate an understanding of the basic concepts of smart grid technologies. Integrates three areas of electrical engineering: power systems, power electronics, and electric energy conversion systems. The course will also look into the power quality management issues in smart grid and the high-performance computing for smart grid applications like cyber security. Assignment, reading material will be used to deliver the course.

Pre-Requisite(s): EEEN 340

### **EEEN 430 Power Plant Instrumentation**

The course will give an overview of the various methods of power generation, various measurements required for the power generation which will help students to get the concepts in power industry. The students will be able to understand the different types of instruments used for analysis in power plants. It also covers the monitoring parameters like speed vibration, turbines, and the different types of control and the control loops. It will include the instrumentation used in modern power plant, the various measurement in finding the impurity of waters, PH, and the pollution control. Lectures, theoretical assignments, exams, quizzes are used in this course.

Pre-Requisite(s): EEEN 330

### **EEEN 435 Solar Cell Engineering**

Solar cells are the most prominent renewable energy generation devices and proper grasp on its fundamentals is required to design an effective system. The course comprises of basics of solar cell, parameters for characterization, production process and types of solar cells. Also, latest technologies in the field of solar cells are presented. Lectures, assignments and demonstrations are used to deliver the course.

Pre-Requisite(s) – EEEN200

### **EEEN 440 Design and Simulation of Solar Cells**

Solar energy is widely used form of renewable energy and its efficient utilization requires the knowledge of its design and simulation techniques. The course comprises of introduction to various design techniques for increasing the efficiency of solar cells. Also, information modelling and simulation of solar cells and modules with the help of various photovoltaic software is provided. Lectures, assignments and demonstrations are used to deliver the course.

Pre-Requisite(s): EEEN 200

### **EEEN 445 Wind Power Technology**

Wind power is a historically used renewable source of energy and is still very relevant in current scenario. Therefore, its proper application requires knowledge of its concepts. The course covers aspects such as the history of wind turbine

development and the characteristics of the wind. Also, the impact of site selection, design, manufacture, and operation of modern wind turbines is discussed. Overview on different types of horizontal and vertical axis wind turbine is provided. Lectures, assignments and demonstrations are used to deliver the course.

Pre-Requisite(s): EEEN 200

#### **EEEN 450 Thin Film Photovoltaics**

Thin film photovoltaics is emerging as a useful renewable concept as it reduces the material costs and provide many advantages hence its proper knowledge is needed for successful application. The course comprises of introduction to thin film photovoltaics, their material selection and equivalent electrical models for those. Also, their degradation characteristics are discussed. Lectures, assignments and demonstrations are used to deliver the course.

Pre-Requisite(s): EEEN 200

#### **EEEN 455 Energy Management**

Energy management is very crucial in today's scenario when global energy demand is surging and the supply to meet these demands are limited. This course comprises of energy management techniques, systems, auditing and analysis. Also, information on energy conservations, tools for energy management and monitoring systems is provided. Lectures, assignments and demonstrations are used to deliver the course.

Pre-Requisite(s): EEEN 330

#### **EEEN 460 Energy Storage**

Renewable energy sources are known by their variation in time or available power related to meteorology conditions. Therefore development and the realization of energy storage systems are needed. The course comprises of introduction to energy storage, types of energy storage systems and their arrangement and applications. Lectures, assignments and demonstrations are used to deliver the course.

Pre-Requisite(s): CHEM 100, EEEN 200

#### **EEEN 465 Building Integrated Photovoltaics**

Buildings are the major consumer of energy in an urban environment hence the knowledge to satisfy these energy requirement through photovoltaics. Students learn about the building integrated photovoltaics (BIPV), basics of design and sizing, and monitoring system. This course also discusses BIPV performance, economic analysis and reduction of emissions by using BIPV. Lectures, assignments and demonstrations are used to deliver the course.

Pre-Requisite(s): EEEN 200

**EEEN 470 Organic Photovoltaics**

Due to the high cost of inorganic photovoltaics, there is a momentum in the field of organic photovoltaics which offers low cost and tuning ability of these devices. This course presents introduction to organic solar cells, their optical and electronic properties, and materials used for electron and hole transport. It also covers bulk heterojunction and hybrid solar cells, electrode materials and roll-to-roll manufacturing technique. Lectures, assignments and demonstrations are used to deliver the course.

Pre-Requisite(s): EEEN 200, CHEM 100

**EEEN 475 Digital Signal Processing**

This course introduces the concepts of digital signals, representing the signals in the form of equations. It covers finding the Discrete Fourier transform, Fast Fourier transform and Z transform for discrete signals. This course also discuss the impulse response of digital signals using these transform. The designing of digital low pass, high pass, band pass and band reject filters using Z transform is also discussed in this course. It covers various methods of infinite impulse response (IIR) filter design, including the bilinear transformation design, impulse-invariant design, and pole-zero placement design. It also deals with various methods of finite impulse response (FIR) filter design, including the Fourier transform method for calculating FIR filter coefficients, window method, frequency sampling design, and optimal design. It also the cover the sampling and under sampling in multi rate digital signal processing.

Pre-Requisite(s): EEEN 210

**EEEN 480 Embedded Systems**

The objective of this course is to give students a comprehensive knowledge of embedded systems design. This course also includes the system requirements, specifications and system architecture, real-time applications, embedded system types, microcontroller architecture, programming, I/O interfaces, task scheduling, interrupt management, and other related topics. The material is delivered through lectures, slides and assignments.

Pre-Requisite(s): EEEN 315

**ARTS 100 Art & Graphics**

Art studies are critical in developing individual's opportunity in expressing thoughts, self-exploration and expressions. It broadens the thinking process with improved ability for problem solving and opens mind to new ideas. The course aims to develop visual thinking and perception on the fundamentals of arts, design and creative thinking respecting context and culture. It provides an introduction to art and its appreciation with the help of design translations in a graphical and artistic manner. Focus made on skill enhancement developing representation techniques via various methods & mediums. The studio course has engagements with lectures, art studies analysis and documentation, museum visit, concept mapping, skill development in creating art presentations, design discussions, consultation, review and critique.

**IDES 105 Interior Graphics**

Interior graphics and drawings are essential for communicating ideas for design and construction details in the interior design industry. The course aims to familiarize students with the drawing tools and accessories used in drafting and lettering techniques to prepare interior design drawings. It develops students' basic understanding of measurements, scale, plane geometry, solid geometry, and projections. The course focuses on two-dimensional and three-dimensional drafting with graphical representations in interior drawings. The course consists of lectures, discussions, workshops, and studio works to develop the fundamentals of drafting and drawing skills. Competencies are used to develop in translating interior design ideas to drawings with appropriate details.

**IDES 110 Materials in Interiors**

The selection of right materials and its finishes is crucial in making up of an interior design project with unique aesthetics, styling, durability, efficiency and being sustainable. The course aims to focus on knowledge of materials used for interior

applications. Detailed study on properties, variety of finishes, cost aspects and application techniques for construction and surface finishes. Emphasis laid on material classification, emerging technologies, application, trends and practices in interior design projects. The course delivery includes lectures, case studies, market survey, group discussions, interior design project visits, industry visits, studio working with preparation of material boards for varied interior design project typologies.

*Pre-Requisite(s): None*

### **IDES 115 Colors in Interiors**

Color facilitates the communication of design at a visual and psychological level creating the different moods in space with cozy and comfortable environments. The course aims at understanding color, its concepts in relation to Interior Design. Study on the physics of color, color theories, design vocabulary, digital color & the aided systems. Study the theory and practical implementation of color application and its material types applicable to interior projects. Color psychology explored and its effects analyzed for varied interior design typology like residence, commercial, retail, office, institutional, interiors elements, art and furniture's. The studio course has engagements with Lectures, case discussions, site and industry visits along with hands on working on studio task with color and its application as individual and groups assignments to experience its play in interiors.

### **IDES 120 Fundamentals of Interior Design**

Fundamental rules and its application are crucial in creating an effective interior design. Maintaining the balance of the elements, principles and use of design process with sustainable concepts, design solutions is key to an aesthetically pleasing and functional interiors. The course introduces the basic design elements, principles, organization of forms, spaces and its order. The visual perception, ordering principles, circulation, proportion & scale with reference to interior design worked on with studio projects. The design process explored for a single user residential design typology with guiding parameters of design from concept level to design scheme considering anthropometric, ergonomic data and space planning. The studio course has engagements with lectures, site studies, analysis, demonstration for skill development and creative working, documentation, interior project visits, concept mapping, case studies, presentations, design discussions, consultation, review and critique.

*Pre-Requisite(s) - IDES 105*

### **IDES 200 History of Interior Design**

History of Interior Design uses information of global historical styles pertaining to Interior Design. The course focusses enhancing the students' knowledge of styles, movements, civilizations and factors influencing interior design and furniture of nineteenth and twentieth century. The course enables interior studies based on the influence of art & culture. Lectures, analytical exercises, comparative sketches and hands-on workshops are used to deliver the course.

**IDES 210 Interior Design Studio I**

Residential interior design enhances the experiences in space with an identity and creates effectiveness and optimization using the design process for Pre-design/programming, Schematic Design, and Design Development of the available space. The designed projects get the best use for living and working spaces with unique character, easy function low maintenance, and consider the health, safety, and wellness of the inhabitants. The course aims at providing basic information on parameters related to the interior design of spaces for residences. Residence interior design developed with analysis, and design iterations based on the client brief. The objective is to create interior spaces which are customized, creative, and applicable to variable or specified sites. The studio will be based on a case-based teaching methodology, emphasizing innovation and unique concepts. The studio course has engagements with lectures, site studies analysis and documentation, interior project visits, case studies, presentations, concept mapping, sketches and schematics, design discussions, consultation, review, and critique.

*Pre-Requisite(s): IDES 120*

**IDES 215 Textile in Interiors**

Interior designers use textiles as an important element of soft furnishing in planning and designing a space. The course focuses on various facets of textiles: types of fibers, qualities, properties, trends, safety and durability. The course will introduce to yarns, weaving methods and their incorporation into the output and performance of textiles. Further, the course emphasizes key topics of relevance such as sustainability of materials, durability, effects on the environment and upcoming production technologies. Workshops, hands-on sessions, market surveys, assignments & projects on the applications of textiles in interiors are used to deliver the course.

*Pre-Requisite(s): None*

**IDES 220 Interior Services**

Interior Services are essential for operation, utilization, functionality and maintenance to provide comfort, health, safety and security. Students will be able to incorporate these services in various interior typology according to clients' needs, capacity and emerging technologies. The study of interior services will cover water supply & sanitation, Electrical, HVAC, fire services and intelligent systems. Students will also learn the theory and principles of Lighting & Acoustics for specific interior applications. Services application in projects will cover preparing technical drawings using specifications, local and international codes & standards and selecting appropriate fixtures & accessories. Lectures, studio sessions, site visits for services integration in interior projects, market surveys and case studies are used to deliver the course.

*Pre-Requisite(s): None*

**IDES 225 Interior Design Studio II (Restaurants)**

The design of restaurant interiors strengthens visual impact based on the theme and context. Exploring and understating this typology is important as the décor caters comfort, functional needs with variety of dining experiences achieved through the design process. The studio includes theory, case study, drawing methodology to analyze, experiment, design and create a restaurant interior based on a theme with a project brief and specific to a live or hypothetical site. The design covers concept development, space planning with reference to human factor, materials study, and client profiling as per the site and context. Additional factors such as sustainability, technological advancements, business practices and inter-disciplinary ideas incorporated in the design process. The studio course has engagements with lectures, site studies analysis and documentation, interior project visits, concept mapping, case studies, presentations, design discussions, consultation, review and critique.

*Pre-Requisite(s)- IDES 210*

**IDES 230 Materials & Construction Techniques I**

Design detailing with the application of materials, construction techniques and technology knowledge is important in arriving at design solutions from an aesthetic and utilitarian perspective. The course aims at providing information on elements of buildings, its parts with function and terminologies. The study focuses on wood, wooden products, finishes &

joinery details. Enables application of the material and construction techniques for design of interior elements like doors, windows, staircase using varied joinery techniques and material finishes. It also includes study of technology for vertical transportation in interiors with market survey, assemblies & construction techniques. The course delivery includes lectures, case studies, market survey, group discussions, interior design project visits, industry visits, studio working with drawings, physical and computer aided models for varied interior design project typologies.

*Pre-Requisite(s)- IDES 110*

### **IDES 235 Furniture Design & Detailing**

Furniture establish a sense of order with its two and three dimensional design using elements and principles of design. It is crucial to design and detail furniture's based on function, comfort, aesthetics, durability and cost. The course aims at developing an understanding of the nature of furniture design, its origins and evolution. Familiarize the design development from concept to design detailing to shop drawing using appropriate materials and presentation technique. It enables design development and communication using sketches and models. Design ideas explored considering cultural, social, and technological innovation to create an aesthetic, functional & ergonomic furniture designed in relation to the human dimension. The course delivery includes lectures, case studies, market survey, group discussions, Joinery workshops, factory/ industry visits, studio working with drawings, physical and computer aided models for furniture design and its detailing.

*Pre-Requisite(s)- IDES 120, IDES 230*

### **IDES 300 Interior Design Studio III (Retail outlet)**

Retails interiors creates an opportunity to allow brands attract customers with bold inviting interior spaces having stimulating experiences. It is important for the design interiors contributing to the fundamental functional objectives, minimized operational cost and maximized sales with customer satisfaction and comfort. This studio focusses on providing students with information and design methodologies required for retail interior spaces.

Focus laid on branding methods, visual merchandising, and layout strategies through design measures. The studio enables the students to design a retail interior project based on customer and industry demands in retail outlets with an interior site and context. The design to be communicated with drawings, design details, models and visual presentations. The studio course has engagements with lectures, site studies analysis and documentation, interior project visits, concept mapping, case studies, presentations, design discussions, consultation, review and critique.

*Pre-Requisite(s)- IDES 225*

### **IDES 305 Interior Estimation & Specifications**

Theory and practice of writing specification and estimation is essential part of quality & cost control of interior construction and contract administration. The course aims to introduce and familiarize students with procedure & practice of estimation and budgeting interior projects. It focuses on concepts, selection and application of construction processes, materials and finishes including introduction to codes & standards, basic building systems, working drawings and model building relevant to the field of residential and commercial interior design typology. Lectures, tutorials, site visit, guest lecture by industry expert and working on estimation of a small scaled interior project will be part of course delivery.

*Pre-Requisite(s) - IDES 110*

### **IDES 310 Professional Practice**

The interior design profession continues to be impacted by numerous challenges like managing time, cost, and maintaining client expectations. The challenges designers face require them to be creative problem-solvers and sound business managers. This course aims to acquaint students with the norms of professional practice in Interior Design. The course introduce business practices and principles, business types and formations, legal aspects of practice, and the professional role of interior designers. Students learn about ethics, contracts, and the legal environment of practice. They calculate building requirements, identify copyright issues, and explore project management enabling students in project management, calculating billing, copyrights, and the legal environment of Interior Design practice, types of business startups, business development procedures, contracts, and professional ethics in Interior Design. It focus on duties & responsibilities of an

interior designer towards clients, industries and teams associated with the projects. Students conducted on critical approaches to define an understanding of the interior design profession and practices. The course consists of lectures, conference and exhibition visits, case study discussions, and reviews of professional reports and expert lectures to understand the ethics and practices of the interior design industry.

### **IDES 315 Materials & Construction Techniques II**

Interior Design gets enhanced with the material choice, use of appropriate construction technology, and design details of the elements that creates the space with qualities. Application of this knowledge is crucial with consideration cost, durability, performance. The course introduces the construction techniques applicable to the interior elements: Partitions, False ceiling & Floors using a wide range of materials. The study covers the concept of modular design, material properties, specification, construction technology and assemblies for the fit-out elements. It further enhances knowledge of signage, Interior finishes, design & detailing to be applied based on context keeping sustainability, and human health & wellbeing in to consideration. The course delivery includes lectures, case studies, market survey, group discussions, interior design project visits, industry visits, studio working with drawings, physical and computer aided models for varied interior design project typologies. Pre-Requisite(s)- IDES 230

### **IDES 325 Interior Design Studio IV (Office)**

Office interior design is an important means to create a space that facilitates purposeful and productive work by aiming to produce the most efficient use of space while taking into account the requirements of professional working space, functionality, effectiveness, safety, health, and wellness. Through a systematic design process office design identify and solve problems concerning humans and their behaviors in a professional workspace.

Office space is developed with analysis and design iterations based on the client brief. The objective is to create professional interior spaces which are customized, creative, innovative, and applicable to specified sites.

The studio will be based on a case-based teaching methodology, emphasizing professional innovation and unique concepts. The studio course has engagements with lectures, site studies analysis and documentation, interior project visits, concept mapping, case studies, presentations, design discussions, consultation, review, and critique. The course enables the use of technical skills based on manual and digital computer-aided drawing methods.

Design details with the inclusion of joinery, material finishes, construction techniques, and MEP building services following international standards and codes.

*Pre-Requisite(s)- IDES 300*

**IDES 405 Major Project I**

Major Project I offers the opportunity to demonstrate knowledge and acquired skill sets to visualize, analyze, design, and represent complete design solutions of a multi-disciplinary interior typology. The course aims to provide design implementation of research (ARID 330) done in the previous semester by students choosing an individual interior design typology based on this research. Project typology other than residential and problem definition is developed by students focusing on design elements & principles, organization of forms & spaces, visual perception, ordering principles, measurements, circulation, proportion & scale. Design considerations also includes cultural influence & sustainability, building systems, smart applications, code compliance, and guidelines. Students develop schematic design portfolio of design concept, space planning, and 3D visualization adding further research in relevant project-specific sub-topics and conducted under the supervision of a faculty member.

Pre-Requisite(s) - ARID 330, INTE 300

**IDES 410 Major Project II**

Major project II offers students the opportunity to demonstrate knowledge and acquired skill sets to develop a schematic Interior design typology to a detailed design solution. Students work on their schematic design of Major Project I (IDES 405) completed in the previous semester to develop design detailing expertise using different technical skill sets and present a complete interior design solution including all contract documents of working drawings, specifications & budget. The design portfolio development will include technical construction drawings, furniture, fit-out & finishes, interior services & systems, safety & security and sustainable design requirements. Studio discussions, design critiques and reviews are conducted under the supervision of a faculty guide to deliver the course.

*Pre-Requisite(s): IDES 405*

**IDES 415 Universal Design & Ergonomics**

Universal design entails design principles that make buildings and environments accessible to all individuals. Accessibility and independence are provided by universal design for individuals with disabilities and injuries. The course introduces the concept of universal design in built environment with the focus on interior design with study on human factors, anthropometry, ergonomic, safety standards and comfort conditions for all age groups:

children, adults, elderly and physically challenged. The course covers theory and design methodology for sustainable practices in interior design. The course consists of lectures, conference and exhibition visits, case study discussions, and reviews of reports and expert lectures to understand the application of universal design in the interior design projects.

Pre-Requisite(s) – IDES 420

**IDES 420 Lighting design and technology**

Lighting Design has significant contributions towards visual comfort in interior spaces spreading into the realm of shadows, angles, colors and rhythm. The course focuses on analysis and synthesis of the methodological processes and techniques of the artificial lighting design, in relation to production and availability, technological innovation, visual comfort, sustainability and use of cultural aspects. Through this course students will explore lighting design beyond the need for basic visibility. Lectures, market surveys, site visits and project case studies for lighting integration in different types of buildings are used to deliver the course.

Pre-Requisite(s) – IDES 220

**IDES 425 Sustainable Interiors**

Sustainable interior design seeks to reduce negative impacts on the environment, and the health and comfort of building occupants, thereby improving building performance. The basic objectives of sustainability are to reduce consumption of non-renewable resources, minimize waste, and create healthy, productive environments. The course intends to introduce students to the concept of sustainability in built environment in relation to the interior design practice. It emphasizes on the theory and methodology for sustainable practices, the study on the materials used in interiors construction, energy conservation, thermal comfort, and indoor air quality. The course focuses on philosophy, principles and significance of sustainability that enables students to create a sustainable design solution in the interior design studio, design detailing, material application, and construction. Students will further be able to understand the impact of environmental concerns through the post construction evaluation of interior projects.. The course consists of lectures, conference and exhibition visits, case study discussions, and reviews of reports and expert lectures to understand the application of universal design in the interior design projects.

Pre-Requisite(s) - IDES 420

**IDES 430 Project Management for Interiors**

Project Management imparts basic knowledge and skills required by construction project manager, while developing management solutions in a variety of situations. This course enables to provide an overview of components of built environment in general & construction sector. It fosters the knowledge of appropriate theories, concepts, and principles of management used in construction projects. Further, it appraises the overall

process within which construction projects are conceived, designed, constructed and evaluate the problems that are encountered in each stage. It also helps students to develop understanding of operation management requirements of construction projects and organizations. The course consists of site visits, conference and exhibition visits, case study discussions, and review of project management reports, experts lectures to acquire skills to pursue a career in construction project management.

Pre-Requisite(s) - IDES 420

**IDES 435 Product Design and Branding**

Product design is crucial to marketing because it provides an overview of how the company intends to stimulate consumers' interest. Branding is an imperative aspect of interior business. Branded interior design is a crucial tool for reinforcing and strengthening the business, reinforcing the customer relationship, and enhancing the overall customer experience. The students learn the principles of product design with a specific focus on the diversity of materials and techniques applied in the industry. The course introduces the concepts and principles of branding in relation to interior design, considering aesthetic aspects, color psychology, forms and design composition. It explores the design process and methodology for generating product strategy with studies on industry trends and practices. The course consists of lectures, conference and exhibition visits, case study discussions, and reviews of reports and expert lectures to understand the application of product design and branding in interior design projects.

Pre-Requisite(s) - IDES 420

**IDES 440 Intelligent Interiors**

The interior technology is driven by the demand for greater energy efficiency, increased automation, and enhanced aesthetics. Designers and consumers are seeking technological solutions that are visually appealing as well as technically advanced. The course introduces relate latest technological advancements that help in tapping intelligent interiors. It enables students to analyze theory and practice, as well as expertise across functional areas in making effective decisions to create space equipped with intelligent technology for entertainment systems. The course consists of lectures, exhibition visits, case study discussions, and reviews of reports and expert lectures to understand the application of advance technology in projects to create intelligent interiors.

Pre-Requisite(s) - IDES 420

**INTE 200 Internship I**

This 8 week course is the first formal exposure for the student to a professional and workplace environment. Student understands the importance and relevance of organization structure and the different departments that are required and present at a workplace. Student also recognizes the importance of team work. Further, student is expected to apply prior and relevant knowledge to solving simple projects or problems that is assigned by the industry mentor at a workplace while acquiring new and applying knowledge to these contexts. Student also writes and communicates the solutions to an audience that contains workplace professionals and academics. Student recognizes and practices acceptable, professional behaviour and work ethics at a workplace.

### **INTE 300 Internship II**

Internship provides an opportunity to practice and/or apply knowledge and skills in professional environments and gain valuable work experience. The students will be exposed to the industry environment for 8 weeks duration to understand the operation of the industrial facility. Through course assignments and workplace projects, the student will apply, good judgment and sound decision-making while improving problem-solving, communication, human development, and relationship-building skills. Students select the internship field in consultation with an industry mentor and faculty guide in terms of the academic requirements. Internship evaluation can be based on the quality of projects completed as part of the internship activities.

Pre-Requisite(s) – INTE 400

### **ITEC 100 IT Fundamental PC Software**

Computers have become essential business tools. They are used in every aspect of a company's operations. The student will learn about computer basics, hardware, software, operating system, Microsoft Office, Maintenance and Management, Communication and E- Governance, Network and Internet Connectivity, privacy and security. Lectures, practical lab sessions and assignments will be used to deliver the course.

### **ITEC 105 Introduction to Programming**

Computer programming performs a particular computation by designing and building an executable computer program. The student will learn programming languages, organizing code, working with data, variables and strings, control constructs, functions, recursion, and arrays. The student will also learn about user-defined types, references, pointers and memory management, object-oriented programming characteristics, exception handling, and input/output streams. Lectures, practical lab sessions, quizzes and assignments will be used to deliver the course.

### **ITEC 200 Network Basics**

The industry needs professionals who understand the basics of networks, which is the backbone for the exchange of data and resources. The student will learn about Device Configuration, Protocols and Models, Layering concepts, and Security Fundamentals. Lectures, practical lab session, simulations, and assignments, will be used to deliver the course.

Pre-Requisite(s) – ITEC 100

**ITEC 205 System Analysis and Design**

Industry uses systems analysis and design concepts to ensure that a solution fulfils the user's requirements. Students will learn about the systems, roles, development methodologies, organization systems, project management, information gathering, agile modelling, prototyping, scrum, data flow diagrams, data dictionaries, process specifications, object-oriented systems analysis, designing input and output, designing databases, human-computer interaction and UX design. Lectures, assignments, seminars and case studies based on the Systems Analysis and Design will be used to deliver the course.

Pre-Requisite(s) – ITEC 105

**ITEC 220 Web Technologies and Applications**

The integration of Web technologies has an essential role in accomplishing companies' objectives to raise competitiveness on the market. The students will learn fundamental concepts of web technologies, develop basic skills in creating web pages, and explain the coding behind designing websites. The topics include Hyper Text Markup Language (HTML), Cascading Style Sheets (CSS), JavaScript, and XML. Lectures focusing on web

application development fundamentals, Lab sessions, projects, and assignments are used to deliver the course.

Pre-Requisite(s) – ITEC 105

**ITEC 225 Cyber and Information Security**

Awareness of cyber and information security is becoming important for internet users in the digital world. The student will learn about cyber-attacks, threats, and the various approaches used for information security. Students will also learn about security services, different cyber-attacks and threats, ethical issues in information security, and other cyber and information security approaches. Lectures focusing on cyber and information security concepts, assignments, case studies and industry lectures will be used to deliver the course.

Pre-Requisite(s) – ITEC 200

**ITEC 300 Computer Communications and Networking**

Network and communication are essential requirements in the current digital world. Students learn about data communication concepts, reference models, transmission media, multiplexing, analogue and digital transmissions, error detection and correction, Network Servers and Software, Network Architecture components, Network Security Risks and Technologies. Students will also learn about Backbone Networks, Wide Area Networks, Virtual Private Networks, Enterprise-Grade WAN Services, Network Design and Management. Lectures on data computer communication and networking concepts, assignments, and case studies will be used to deliver the course.

Pre-Requisite(s) – ITEC 200

**ITEC 310 Internet of Thing**

The Internet of Things (IoT), refers to the billions of physical devices around the world that are now connected to the Internet. Students will learn about the definitions and working of IoT Network Architecture, Smart Objects, Connecting Smart Objects, IoT Access Technologies, Layering concept in IOT, Application Protocols for IoT, Data and Analytics for IoT, Securing IoT, Cloud and Fog Computing for the IoT, and IoT applications and uses in Industry. Lectures, assignments, lab sessions and project based on Internet of Things will be used to deliver the course.

Pre-Requisite(s) – ITEC 200

**ITEC 315 Open Source Technologies with PHP and MySQL**

Open source technology is being used widely in multiple enterprises. Students will learn how robust software can be developed using open-source technologies by using PHP, MySQL. Student will learn Programming in PHP, Reusing Code and Writing Functions, Object-Oriented PHP, Error and Exception Handling, Web Database Architecture, Privilege System, Querying a Database from the PHP Script, Web Application Security, Building a Secure Web Application, and Web Server Configuration. Lectures on PHP and MySQL, lab session, and assignments will be used to deliver the course.

Pre-Requisite(s) - ITEC 220 and CSCI 210

### **ITEC 320 Python Programming**

Python being a general-purpose language, the Industry use of python programming is for developing websites, software, task and it isn't specialized for any specific problem. Students will learn python programming techniques from using basic operators and expressions, functions, object-oriented programming techniques to modules and packages. The course will be delivered using lectures, lab sessions, projects and assignments.

Pre-Requisite(s) - CSCI 205

### **ITEC 330 IT Project Management**

In the IT industry, all projects move through a specific process of managing the plan, organization, and accountability to achieve information technology goals. Students will learn about project management principles, methodologies, tools, and techniques used in developing IT-based projects. Student will also learn about concepts of resource management, communications management, project risk management, and procurement management. Lectures, assignments, projects and case studies based on IT Project Management will be used to deliver the course.

Pre-Requisite(s) - CSCI 335

### **ITEC 400 Data Warehousing and Mining**

Data warehousing organizes and compiles data into one database, whereas data mining deals with fetching important data from databases. Students will learn about the definitions and applications of Data mining and its tools, Classification, Cluster analysis, Association mining, Web mining and search engine. The student will also learn about Data warehouse, Design and Implement a Data Warehouse, Extract, Transforming, and Load Data, Online analytical processing, and the involvement of Big data, cloud computing and NoSQL with data warehouse and data mining. Lectures, assignments, and case studies based on data mining and warehousing will be used to deliver the course.

Pre-Requisite(s) - CSCI 335

### **ITEC 410 Human Computer Interface**

Industry uses Human-computer interaction (HCI) for the design, which focuses on the interfaces between people and computers. Students will learn about Interaction Design, Social Interaction, Interfaces, Data Gathering, Social media data analysis, Data Analysis, Interpretation, and Presentation, and Data Visualization. Lectures, Lab session, and assignments, on HCI will be used to deliver the course.

Pre-Requisite(s) – ITEC 205

**ITEC 415 Cloud Computing**

Cloud computing is an emerging field which is used in the computing field to reduce the cost of developing and installing software to improve business operations. Cloud computing provides reliability, flexibility, high utilization, elasticity, and pay-as-you-go- model while removing the overhead of maintaining a system-specific, fixed-sized cluster of under-utilized machines. Students learn the cloud concepts like SaaS, PaaS, IaaS and IDaaS, data storage using the cloud, Securing, Managing, and Migrating, governing the cloud, cloud architecture and designing the cloud-based solution. Lectures on cloud computing concepts, assignments, case studies and industry lectures are used to deliver the course.

*Pre-Requisite(s) - ITEC 220*

**ITEC 420 Digital Marketing**

Industry applications of digital marketing are to advertise and promote through digital channels and to connect potential customers using the internet and other forms of digital communication such as search engines, websites, and social media. Students will learn about Digital marketing fundamentals, understanding customer journey, Digital marketing strategy development, selecting the Right Marketing Campaign, Content Marketing, to build High-Converting Landing Pages, Capturing Traffic with Search Marketing, Social Web, Email Marketing, Tools for Digital Marketing such as Google Analytics, and Campaign planning for digital media. Lectures, lab sessions, assignments, projects and case studies based on digital marketing will be used to deliver the course.

*Pre-Requisite(s) - ITEC 220*

**ITEC 430 Data Science**

Industry uses data science methods, tools, processes, algorithms and systems to extract knowledge and insights from various types of data and apply knowledge from data across a broad range of application domains. Students will learn about the business side of data science, cleaning data, data visualization, machine learning and data science, statistical inference and version control. Students will also learn to apply the tools related to data science, such as GitHub, Spark, Map-Reduce, and Hadoop. Tensorflow will be used to implement data science concepts related to deep learning and artificial intelligence. Lectures, assignments, projects and lab sessions based on Data Science will be used to deliver the course.

*Pre-Requisite(s) - ITEC 400*

**ITEC 435 Blockchain Technologies**

As an emerging distributed architecture and computing paradigm, Blockchain technologies have accelerated the development/application of Artificial Intelligence, cyber-physical systems, social networking, and crowdsourcing for trust management. Students learn blockchain technologies and their security with smart contracts to understand their legal ends. Lectures, assignments, and case studies based on Blockchain technologies will be used to deliver the course.

*Pre-Requisite(s) - ITEC 225*

**ITEC 440 Mobile Development**

The number of users of mobile devices (smartphones, smartwatches, and tablets) is exponentially increasing, which has fostered the market demand for mobile application development. The students will learn the key concepts of android, 2-D graphics and multimedia in Android, mobile embedded system architecture, data storage and SQLite operations, mobile applications optimization, mobile cloud computing, and best practices in mobile development. Lectures focusing on mobile application development, Lab sessions, project, and assignments are used to deliver the course.

*Pre-Requisite(s) - CSCI 205*

**MATH 100 Mathematics I**

An introductory level Mathematics course that is essential for the Engineering programs as it provides students quantitative and analytic skills in a science and engineering context. This course introduces to the theory and techniques of single and multiple variable differential calculus. The emphasis is on problem solving in a science and engineering context. Topics

include functions and their limits, continuity, derivative of algebraic, trigonometric, logarithmic and exponential functions. Applications of the derivative to optimization of problems.

Applications of derivatives including maxima and minima of single and double variables, related rates and infinite sequence and series. Lectures, theoretical assignments, are used to deliver the course.

### **MATH 105 - Mathematics II**

An introductory level Mathematics course that is essential for the Engineering programs as it provides students quantitative and analytic skills in a science and engineering context. This course introduces techniques of integration, indefinite and definite integrals, parametric equation, polar coordinates, application of integration, integration in polar coordinates, complex numbers, multivariable integration and an introduction to vectors calculus and vector-valued functions. Lectures, theoretical assignments, are used to deliver the course.

### **MATH 110 Mathematics for Technology**

Five important themes, mathematical reasoning, combinatorial analysis, discrete structures, algorithmic thinking and modeling are needed. Students learn the fundamentals of logic, Fundamental principles of counting, set theory, relations and functions, graphs, trees and sorting, shortest path and minimal spanning trees algorithms. Lectures, theoretical assignments, in-class discussions, seminars, used to deliver the course.

### **MATH 115 Applied Mathematics**

An introductory level Mathematics course that is essential for the relevant program as it provides students quantitative and analytic skills in a science, technology and architectural context. This course covers the fundamentals of design in mathematics, Matrices, the functions and their limits, continuity, differential and Integral calculus. The course also focuses on Descriptive Statistics, Correlation and Regression and probability concept used for Architecture and relevant discipline. Lectures, theoretical assignments, are used to deliver the course.

### **MATH 120 Probability and Statistics**

Knowledge of statistics is essential for all engineers and technologists in order to draw conclusions while dealing with large data like results obtained from testing various samples, information obtained after conducting large scale surveys etc. Students study about basic concepts of statistics, probability, probability distribution, curve fitting, measures of dispersion, theory of sampling, testing of hypothesis etc. Lectures and solving multiple numerical practical problems are key learning aids of this course.

### **MATH 125 Mathematics for Biotechnology**

~~An introductory level Mathematics course that is essential for the relevant program as it provides students quantitative and analytic skills in a science and technology. This course covers the fundamentals of Set Theory, Matrices, the functions and their limits, continuity, differential and Integral calculus. The course also focuses on Ordinary differential equations. Lectures, theoretical assignments are used to deliver the course.~~

### **MATH 130 Computational Statistics**

Computational statistics is used jointly with other disciplines such as computer science to solve complex realworld problems. This course covers topics required to develop a comprehensive working knowledge of current computational statistics. Students will learn how and why existing methods work, enabling the effective use of contemporary statistical methods. Accomplishing these objectives requires familiarity with various statistical computing, computational statistics, computer science, and numerical analysis topics. The course will be delivered through lectures, theoretical assignments, and demonstrations.

### **MATH 200 Linear Algebra**

The aim is to teach the fundamentals of linear algebra in a way that illustrates their relevance to engineering applications. This course is an introduction to Linear Algebra, System of linear equations, Algebra of matrices, and some of its applications. An Introduction to Matrices and Systems of Linear Equations are given with other topics such as;

Determinants, Linear Transformations, vector spaces, inner product spaces Eigenvectors and Eigenvalues and Diagonalizing Matrices, special matrices and applications. Lectures, theoretical assignments, are used to deliver the course.

*Pre-Requisite(s) - MATH 105*

### **MATH 205 Computer Oriented Numerical Methods**

The primary objective of the course is to develop the basic understanding of numerical algorithms and skills to implement algorithms to solve mathematical problems. This will enable the students to acquaint skills on the key aspects of object-oriented principles and systems modeling techniques. This course covers important topics, such as the iteration methods, interpolation methods, numerical analysis methods for integration and differentiation. Lectures, Programmed based assignments focusing on various engineering problems will be used to deliver the course.

*Pre-Requisite(s) - ITEC 105 or CSCI 200*

### **MATH 210 Numerical Methods and Optimization**

This course focuses on numerical approaches for engineering process and system analysis. This course is essential as it helps students to estimate and optimize engineering problems related to various fields and design parameters. This course covers the topics such as the iteration methods, interpolation methods, numerical integration and differentiation, formulation of Linear Programming Problems (LPP), numerical optimization and an introduction to the numerical solution of ordinary differential equations: Initial value problems. Lectures, Theoretical assignments focusing on various engineering problems will be used to deliver the course.

*Pre-Requisite(s) - MATH 105*

### **MATH 220 Differential Equations**

A fundamental course in mathematics that develops students' quantitative and analytical abilities in the context of science and engineering. The course covers formulation of ordinary differential equations, methods of solution and applications of first order and higher order differential equations and their applications. This course also introduces the formulations and effective mathematical tools for solutions of partial differential equations of physical problems and Properties of Laplace transform and solutions by Laplace transforms. Solution techniques are applied to engineering and science problems. Lectures, theoretical assignments, are used to deliver the course. *Pre-Requisite(s) - MATH 105*

**MECH 200 Engineering Mechanics**

Understanding the effect of different kinds of forces on rigid bodies is important from an engineer's perspective in laying a foundation in structural and mechanical design. Statics dealing with bodies at rest or moving with constant velocity while dynamics, referring to accelerated motion of bodies will both be examined using the concept of free body diagrams. Lectures and numerical assignments will be utilized to deliver the course. Lab sessions will also be held in parallel to provide practical know-how which will supplement the theoretical contents.

**MECH 205 Engineering Graphics and Workshop Practices**

The perfect graphic communication of the geometry of engineering devices as well as the basic hands-on experience of effective fabrication techniques from raw materials is necessary for any engineer. The basic rules in engineering drawing which includes lines, lettering, geometrical constructions, principles of tangency, orthographic projections, different views, and dimensioning will be discussed. Also, the different aspects of cutting and shaping processes which form the basics manufacturing processes will be covered. Hand-drawings & AUTOCAD, lectures and hands on experiments will be the mode to deliver the course.

**MECH 210 Engineering Materials**

Detailed knowledge on different materials can be useful in various industrial applications to quantify mechanical integrity and failure in materials. Students learn the fundamentals of crystal structure, crystallography techniques and mechanism of plastic Deformation, mechanical properties and testing, phase diagram, energy band concept of conductor, insulator and semi-conductor, properties of ceramics, polymers and plastics. Lectures, assignments, in-class discussions, will be used to deliver the course.

Pre-Requisite(s) - PHYS 100, MECH 200

**MECH 215 Machine drawing with CAD lab**

Machine drawing is used to communicate the necessary technical information required for the manufacture and assembly of machine components. Students learn Industrial drafting practices, various limits, fits, tolerances, assembly, production, and part drawings related to machine components. The course will be delivered through demonstrations and hands-on practice with Modelling software (AutoCAD and Solidworks).

Pre-Requisite(s) - MECH 205

**MECH 300 - Engineering Thermodynamics**

Knowledge of thermodynamics is essential for thermal analysis of systems and also for most of design and manufacturing processes. The course discuss the conservation of energy and entropy balance; thermo-physical properties, equations of state, the processes, cycles for reversible and irreversible thermodynamic systems; principles applied to modern engineering systems. It also comprises of properties of steam, graphical representation of thermodynamic processes on P-T, P-V, T-S and H-S diagrams, Steam table and Mollier chart. Lectures, assignments and demonstrations are used to deliver the course.

Pre-Requisite(s) – MATH 105

**MECH 305 Manufacturing Technology**

Manufacturing techniques are used for the fabrication of components/products from raw materials through one or several processing operations. Students learn about different manufacturing processes such as casting, metal joining, sheet metal, metal cutting, bulk deformation processes, additive manufacturing etc. Also, they will learn how to select appropriate processes based on the interrelated criteria of design parameters, material selection, and process economies. Students also learn about measurement aspects in manufacturing operations. Lectures, theoretical assignments, and demonstrations will be used to deliver the course. Lab sessions will also be held in parallel to provide practical know-how which will supplement the theoretical contents.

Pre-Requisite(s) – MECH 210

**MECH 310 Strength of Materials**

An understanding on the compromise approach between the basic idealized theoretical laws and practical problems related to deformable bodies, is essential from an engineer's perspective. The importance of stress-strain relationship, distribution of shear stress and bending moment in beams, deflection of beams, twisting action of beams, and analysis of columns and struts will be discussed. Lectures, numerical assignments and demonstrations will be utilized to deliver the course. Lab session will also be held parallel for providing hands on experience relevant to behavior of deformable bodies upon the action of various kinds of forces.

*Pre-Requisite(s) - MECH 200 or CIVL 200*

**MECH 315 Engineering Fluid Mechanics**

An understanding of the compromise approach between the basic idealized theoretical laws and practical problems related to gases and liquids, both stationary and moving, is essential from an engineer's perspective in understanding fluid flows in real life. The basic concepts relevant to fluids - the types of flows, the laws pertaining to fluids flows (both kinetics and dynamics) after considering the necessary assumptions as well as the standard flow cases will be discussed. Towards this direction, the concepts will be extended in understanding flow past solid objects and predicting the behavior of actual fluid flow across real life prototypes. Lectures, numerical assignments, and demonstrations will be utilized to deliver the course. Lab sessions will also be held parallel for providing hands on experience in analyzing the behavior of fluid flows under different circumstances.

*Pre-Requisite(s) - MECH 200 or CIVL 200*

**MECH 320 Fundamentals of Heat and Mass Transfer**

Knowledge on the fundamental principles and laws of heat transfer explore the implications of these principles for various thermal systems behavior. Students learn the modes and mechanisms of conduction, convection, thermal Radiation heat transfer, heat exchangers, boiling and condensation, mass transfer concepts. Lectures, assignments, in-class discussions, will be used to deliver the course.

*Pre-Requisite(s) - MECH 300 , MECH 315*

**MECH 325 Machine Design I**

Machine Design I provides knowledge about design of machine parts and the required skills to develop products using methodical design approaches. Students learn failure theories, and fundamental principles for the design of machine elements with the considerations for economical, societal, safety, and manufacturing aspects. Lectures, theoretical assignments, presentations, and demonstrations will be used to deliver this course.

*Pre-Requisite(s) - MECH 310*

**MECH 330 - Theory of Machines**

An understanding of the motion and energy transmission in different types of mechanical systems to perform a particular type of work is essential from a mechanical engineer's perspective. The basic concepts of machines, degrees of freedom, working of a cam-follower arrangement, utility of different types of gear systems in daily lives, need for balancing in automobiles, methods to reduce different kinds of vibrations and the general working principles of gyroscopes, governors and brakes will be discussed. Lectures, numerical assignments and demonstrations will be utilized to deliver the course. Lab sessions will also be held in parallel to provide hands-on experience relevant to the working of different machines.

*Pre-Requisite(s) - MECH 200*

**MECH 335 Metrology and Quality Control**

Measurement and inspections are very important in maintaining the desired quality level of the product during production. It helps to control the quality of products by fixing the sources of defects immediately after they are detected. The first half of the course deals with the measurement of different parameters of machine components, the use, and handling of different measuring instruments, Procedure of comparing instruments with standards. Selection of appropriate instruments on the criterion for specific measurement. The second half of the course will focus on different quality control tools and techniques, ISO certification procedure, sampling inspection procedure, and the economics of quality. Lectures, Engineering Case-Based" Problem-Centered" teaching method will be used to deliver this course.

*Pre-Requisite(s) - MECH 305*

### **MECH 340 - Internal Combustion Engines**

The motion of machines in most of the system is powered by internal combustions engines hence rasp on their working principle is needed for their adequate study. This course comprises of fundamentals of design and operation of internal combustion engines. It discusses the effect on their performance, efficiency, fuel requirements, and environmental impact due to various factors. Different types of internal combustion engines are presented such as spark-ignition, diesel, stratified-charge, and mixed-cycle engines. Lectures, assignments and demonstrations are used to deliver the course. Lab sessions will also be held in parallel to provide practical know-how which will supplement the theoretical contents.

*Pre-Requisite(s) - MECH 300*

### **MECH 345 - Thermal and fluid machinery**

Detailed understanding of the functioning of thermal systems (which utilize heat energy to transform into other useful forms of energy) and hydraulic machinery (which utilize fluid power to perform work) are important from an engineer's perspective. The basic knowledge on thermodynamics will be extended to study the functioning of engineering systems like boilers, steam engines and compressors that find importance in industrial applications.

Towards the end, the basic concepts learned in fluid mechanics will be utilized in designing different types of hydraulic turbines and hydraulic pumps that have abundant applications in daily lives. Lectures and numerical assignments will be utilized to deliver the course. Lab sessions will also be held parallel for providing hands-on experience relevant thermal engineering and hydraulic machines.

*Pre-Requisite(s) - MECH 300 , MECH 315*

### **MECH 400 Machine Design II**

Machine Design - II is used to identify quantify and selection of machine elements in the design of integrated mechanical systems. Students learn the design of different types of motion transmission elements such as gears, belts, roller chains, clutches, and their selection under safety, ethical, and societal constraints. Lectures, theoretical assignments, case studies, and demonstrations are used to deliver the course.

*Pre-Requisite(s) - MECH 325*

**MECH 405 Operations Research**

Operations research helps in solving problems in different environments that needs decisions. Students learn the concepts of linear programming, Transportation models and CPM/PERT techniques. To deliver the course, lectures, analytic techniques and computer packages will be used to solve problems facing business managers in decision environments.

*Pre-Requisite(s) - MATH 200, CSCI 200*

**MECH 410 Computer Aided Design**

Computer-aided design (CAD) enables the development, modification, and optimization of the design process. Students learn hardware used for CAD, algorithms to draw different attributes of modal, transformation and projections of modal, surface and solid modeling techniques, fundamentals of computer graphics, and management of design database system. It also embraces CAD software to create engineering components and assemblies in laboratories. Lectures, assignments, case studies, and demonstrations will be used to deliver this course.

*Pre-Requisite(s) - CSCI 200, MECH 205*

**MECH 415 Finite Element Methods Final**

Finite element method provides a general and powerful framework for solving ordinary and partial differential equations and imparts knowledge on how to design and analyze structural components of machine systems. The first half of the course deals with the stiffness approach to develop the finite element equations as applied to bars and beams. The second half of the course will focus on developing the finite element method as one that is applicable as a general numerical method for solving ordinary and partial differential equations that arise in solid mechanics. Lab sessions will focus on applying the commercial code Ansys to various problems in solid mechanics.

*Pre-Requisite(s) - MECH 200, MATH 210, MATH 220*

**MECH 420 Computer Aided Manufacturing**

Computer aided Manufacturing helps to manufacture the parts/components with lesser time, high quality, and improved efficiency. Students learn about CNC Machine Tools, computer numerical control machines programming, CAD-CAM integration, Rapid Prototyping, and Computer-aided Materials Management. It also embraces CAM software to create engineering components and assemblies in laboratories. Lectures, theoretical assignments, demonstrations, and factory visits will be used to deliver the course.

*Pre-Requisite(s) - MECH 215, MECH 305*

**MECH 425 Automobile Engineering**

Ever since motor vehicles came to be, automobile, also known as automotive or vehicle engineering has gained importance. Students learn the study of automobile engine systems, electronics and control systems, fluid mechanics, thermodynamics and aerodynamics accepts, mechanism of vehicle chassis, internal combustion Engines used, electrical systems, testing, repairing, control, and management of automobiles. Lectures, assignments, and in-class discussions will be used to deliver the course. Lab sessions will also be held in parallel to provide practical know-how which will supplement the theoretical contents.

*Pre-Requisite(s) - MECH 300 , MECH 340*

**MECH 430 Introduction to Robotics**

Robotics deals with the design, construction, operation, control, and application of robots. Therefore, it fascinates many of us. Students learn the concepts of industrial automation, Spatial Transformations, Kinematics, Dynamics, Trajectory Planning, Design, Control, and Simulation of Robotics. Lectures, assignments, and in-class discussions, will be used to deliver the course.

*Pre-Requisite(s) - MECH 330, EEN345*

**MECH 435 HVAC Design Engineering**

In order to properly size the heating, ventilation, and air conditioning (HVAC) systems of a building, it is important to determine the heating and cooling loads and understand the occupants comfort. Students learn the Heating design load calculation and Energy Balance of a Building, HVAC Piping, and Distribution Design, and HVAC Systems. Lectures, assignments, in-class discussions, will be used to deliver the course. Lab sessions will also be held in parallel to provide practical know-how which will supplement the theoretical contents.

*Pre-Requisite(s) - MECH 320*

**MECH 440 - Wind Energy Engineering**

Wind energy is one of the most promising sources of renewable energy and its proper harnessing requires knowledge of its concepts. The course covers aspects such as the history of wind turbine development and the characteristics of the wind. Also, the impact of site selection, design, manufacture, and operation of modern wind turbines is discussed. An overview of different types of horizontal and vertical axis wind turbines will be discussed. Lectures, presentations, and demonstrations are used to deliver the course.

*Pre-Requisite(s) – EEEN 200, MECH 315*

**MECH 445 - Biomass and Fuel Cell**

The proper knowledge of analysis and characterization of fuel cells is required for their appropriate implementation. The course comprises of introduction to fuel cells, types of fuel cells, their characterization techniques, and modelling. Also, it contains discussions on thermal system management for fuel cells and their life cycle assessment and environmental impact. Lectures, assignments, and demonstrations will be used to deliver the course.

*Pre-Requisite(s): CHEM 100, EEEN 200, MECH 300*

**MECH 450 - Solar Photovoltaic Systems**

Solar energy is the most prominent form of renewable energy and its proper harnessing requires knowledge of photovoltaic systems. This course comprises of structures of a photovoltaic module and components of a photovoltaic system. Also, the design methodology for various types of photovoltaic systems will be discussed. Lectures, assignments, and demonstrations will be used to deliver the course. Lab sessions will also be held parallelly for providing hands-on experience for designing various types of PV Systems.

*Pre-Requisite(s) - EEEN 200*

**MECH 455 Hydrogen as Future Energy Source**

As the world is shifting towards harnessing alternate sources of energy, hydrogen is gaining prominence as it is renewable and has high energy content. The course comprises of introduction to hydrogen and methods of its production, storage, and transport. Also, the cost estimation and life cycle assessment of hydrogen infrastructure will be discussed. Lectures, assignments, and demonstrations are used to deliver the course.

*Pre-Requisite(s) - MECH 300, ECON 370*

**MECH 460 Energy, Ecology and Environment**

For maintaining ecological balance and sustainable environment, the knowledge of various energy resources is imperative. Students learn about the world energy scenario, types of energy, renewable energy sources, ecological standards, lifecycle

assessment of products, environmental ethics, types of pollutants and their impacts, global warming, legal aspects, and role of non-governmental organizations in protecting earth's ecosystem. Lectures, assignments and demonstrations are used to deliver the course.

*Pre-Requisite(s)*- MECH 300

### **MECH 465 Solar Thermal Engineering Process**

Knowledge of solar thermal energy systems and solving solar thermal energy design problems makes to understand how to conduct solar collector efficiency tests for a practice engineer. Students learn the fundamentals of solar thermal energy and their applications, environmental characteristics and solar radiation, classification and thermal analysis of solar energy collectors, solar thermal energy storage potential, and hybrid solar plants. Lectures, assignments, and in-class discussions will be used to deliver the course.

*Pre-Requisite(s)* - MECH 300, ECON 370

### **MECH 470 Mechanical Vibrations**

The course introduces the fundamentals of vibration induced due to the motion of parts of mechanism/machine. Vibration phenomenon, study of types of vibration and its effects; and analytical methods to avoid damage in moving machinery parts due to vibrations will lead to evaluation of the practical engineering problems. The student will be able to make design modifications to reduce the vibration and noise levels to improve the life of the machine components. Lectures and numerical assignments will be utilized to deliver the course.

*Pre-Requisite(s)* - MECH 330

### **MECH 475 Biomass**

The knowledge of proper harnessing of biomass is necessary as it is a non-conventional source of energy that is in global abundance. The course comprises of introduction to types of biomass, biomass to energy conversion, their gasification process, and design of biomass gasifiers. Also, it contains descriptions of hydrothermal conversion of biomass, biomass combustion, biomass co-firing, biomass handling and analytical techniques for biomass. Lectures, assignments, and demonstrations will be used to deliver the course.

*Pre-Requisite(s)* - CHEM 100, MECH 300

### **PHYS 100 Mechanics and Wave Optics**

An introductory level Physics course that is essential for all Engineering programs as it provides students a quantitative and analytic of skills for solving problems and analyzing data in all technical areas. This course covers the fundamental principles, laws and concepts of mechanics. It also covers Wave and Oscillations, an introduction to special theory of relativity and optics. The laboratory work consists of experiments illustrating the principles, laws and concepts discussed in the course. Lectures, theoretical assignments, hands on experience in laboratories are used to deliver the course.

*Pre-Requisite(s)*- MATH 100, *Co-Requisite (s)* - MATH 105

### **PHYS 105 Electromagnetics and Modern Physics**

An introductory level Physics course that is essential for all Engineering programs as it provides students a quantitative and analytic of skills for solving problems and analyzing data in all technical areas. This course uses basic vector calculus and techniques of integration to determine the spatial and temporal distribution of charges, currents and electromagnetic fields, Maxwell's Equations and EM Wave Propagation in Free Space and dielectric media. This course also covers few Modern Physics topics such as Photo electric effect, Wave Mechanics, Introduction to wave function, X-ray spectra, Lasers and basic elements of Semiconductor Physics are also introduced. Lectures, theoretical assignments, hands on experience in laboratories are used to deliver the course.

*Pre-Requisite(s)*- PHYS 100

### **PROE 400 Project**

The project is intended to be a design project experience, allowing students to work intensively on a substantial engineering problem approximating an industrial setting to demonstrate their creativity and originality. Additionally, they will apply knowledge, skills, and methodologies they have learned throughout the degree program when appropriate. Students learn about the research and development (R&D) cycle as well as technical methods for synthesizing, designing, developing, evaluating and testing integrated systems. Software, Simulation tools, hardware, manufacturing machines, site visits, a hands-on and team-oriented approach, and faculty support are used to complete the project. Emphasis is placed on developing good oral, written and interpersonal communication skills. Students evaluate, select and use appropriate engineering/scientific design methodology, engineering/scientific codes/standards, design alternatives, selection methods, and solve problems with multiple realistic constraints. The student works independently under the mentorship of a faculty with regular/weekly interactions to establish status, progress and future plans.

*Pre-Requisite(s): INTE 300*

### **ANIM101 Drawing and Form**

Drawing is a means of expressing the perception of visual art objects and their environment. This course teaches fundamental drawing techniques such as perspective, still life drawing, and textures and patterns. Using video presentations, classroom demonstrations, and hands-on practice, students will create drawings while enhancing their visual perception and comprehension of drawing.

### **ANIM301 Principles of 2D Animation**

2D animation is a tool for bringing creative ideas to life, both for entertainment and commercial purposes. This course is designed to teach the 12 traditional principles of animation, including squash, stretch, timing, and spacing, which are essential for creating lifelike and character-driven animations. Students will have the opportunity to use both traditional and digital tools to explore the unique storytelling possibilities offered by animation. Through practical assignments, problem-solving exercises, tutorials, and in-class demonstrations, students will acquire the skills necessary to create naturalistic 2D animated short films.

### **ANIM308 3D Modeling and Techniques**

3D modeling can create highly realistic representations of objects, environments, and characters, which can be used in movies, video games, and other forms of media. This course aims to explore the process of creating detailed virtual models using 3D modeling techniques and integrating them seamlessly into live footage. Through practical assignments, problem-solving, and tutorials, students will gain a comprehensive understanding of the nuances of digital modeling and compositing.

### **ANIM310 Lighting and Rendering**

The global animation and visual effects industry has transformed into unconventional forms in both traditional and virtual lighting. A lighting artist plays a vital role in a production unit within this industry. This course covers a range of lighting techniques, including ambient occlusion, shadows, and feathering. Through a combination of lectures, advanced tutorials, and demonstrations, students learn the art of lighting.

### **ANIM318 ARVR Technologies**

Creating immersive content for emerging technologies such as augmented and virtual reality is a crucial skill for aspiring artists. This introductory course provides students with the knowledge and skills needed to develop immersive reality experiences that can inform, educate, or entertain audiences. Through a combination of classroom instruction, workshops, field trips, and guest lectures from industry professionals, students learn about immersive storytelling structures and content development.

### **ANIM402 Digital Modeling of Props and Environment**

Mastering the art of three-dimensional modeling is crucial for the animation and film industry's production pipeline. This course focuses on teaching students the necessary techniques to create high-quality 3D models that match the art direction

of an animated movie. Students learn about 3D environments and prop modeling, with a particular emphasis on hard-surface modeling techniques. Through multiple practical assignments, problem-solving activities, and tutorials, they will gain a thorough understanding of the intricacies involved in digital modeling. *Pre-Requisite – ANIM 308*

### **ANIM403 Organic Surface Modeling**

The 3D modeling process involves creating a digital object that can be fully animated to bring a character to life. In this course, students learn the techniques of building well-designed 3D models, including polygonal modeling and texturing techniques. Through practical assignments, problem-solving, and tutorials, students will acquire the skills needed to create realistic characters.

### **ANIM404 3D Animation**

The art of 3D animation brings sketched characters to life, and mastering movement and walk cycle functionalities is essential for achieving this. This course offers a comprehensive understanding of the principles of 3D animation, humanoid body mechanics, and how to apply these foundational principles to character designs and basic rigs. Students engage in practical assignments, problem-solving, advanced tutorials, and in-class demonstrations to learn how to create realistic animations.

### **ANIM405 Animation Look Development**

The global animation and visual effects industry has evolved to include unconventional forms of texturing and look development. This course exposes students to look development and original aesthetics in animation, covering various texturing techniques such as UV unwrapping, mapping, and texel density. Lectures, practical work, and demonstrations are among the pedagogical methods utilized in the course.

### **ANIM401 Industry Practices & Digital Portfolio**

Career readiness provides opportunities for students to find, maintain, and grow within a work placement. This course aims to familiarize students with industry standards for establishing a career path and creating a digital portfolio. Through lectures, assignments, and discussions with experienced professionals, students will learn how to develop their own personal brand, craft effective resumes and cover letters, and create portfolios that showcase their skills and accomplishments.

### **ANIM305 Motion Graphics Design**

Motion graphics design is a form of audio-visual content that aids in maximising audience engagement. Students use motion design to simplify visually complex information for different types of media like user interfaces, infographics and title sequences. Through practical projects, screenings, discussions and lectures on the concepts and techniques of motion design, students plan, develop and produce their own creative projects. *Pre-Requisite- ANIM 201*

### **ANIM201 Visual Design for Film and Animation**

Visual design elements are crucial for capturing the audience's attention and enhancing their comprehension of the content. This course covers the creation and placement of visual elements to effectively communicate ideas, achieve unique visual styles, and convey stories visually. Students learn about design elements such as images, graphics, and typography to convey story ideas and meanings. Through lectures on design, film screenings, and practical tutorials on industry-standard software, students will create design projects that can convey moods and emotions.

### **ACCT 110 Financial Accounting I**

Financial accounting knowledge is essential for preparing and communicating financial information to external users of accounts. This introductory course examines the accounting cycle and introduces the techniques of recording business transactions and preparing basic financial statements. Through group activities, problem solving, and practical assignments, students learn the fundamental concepts of accounting and how financial statements are created.

### **ANIM302 Graphic Design**

Visual content creation is becoming increasingly popular, and graphic design is a widely-used craft for creating visual content that effectively communicates messages. This course provides students with hands-on experience in developing creative skills to produce professional illustrations, visuals, and layouts using specialized software. Through creative problem-solving, advanced tutorials, and demonstrations of multiple techniques and tools, students learn the nuances of graphic design and build their visual literacy.

#### **BDMC 401 Communication for Development**

Media professionals must become the voice of the voiceless, as significant role of media is to work for the larger good of the society. This course enables the students to understand the processes and approaches to contemporary development communication. Students learn the key concepts and approaches in C4D (Communication for Development), and learn best practices in planning, implementing, and evaluating participatory and evidence-based Communication for Development (C4D) interventions. The course is delivered through lectures, case studies analysis, group discussions, and field visits.

#### **BDMC 405 Emerging Media Platforms and Audiences**

The media industry's shift from conventional practices and platforms to new internet-mediated technology-based platforms has created new dynamics in the media market. The course offers a clear understanding of this shift and combines strong conceptual and theoretical media studies training with hands-on learning opportunities. The course is delivered through lectures, case studies, class discussions, and industry visits.

#### **BDMC 308 Media and Society**

Media is a subset of society and feeds on its systems for information dissemination. The relationship between media and society is organic and one which sets the foundation for societal discourse. In this course, students understand the relationship between media and society and how it shapes and influences each other through articulation, persuasion, and hegemony. The course is delivered through lectures, case studies, and observational studies of media's influence off cultural expressions..

#### **BDMC 415 Multimedia Campaigns**

Media campaigns strengthen positive brand perception and are a key component of advertising and PR industry. This course is designed to teach students brand storytelling techniques, principles of design, strategic messaging, and behavioural change techniques. It is through discussions, hands-on creation of content and lectures that the course will be delivered to students. Furthermore, students will create a live project in collaboration with an external agency.

#### **BDMC 421 News Anchoring and Packaging**

The media and entertainment industry requires reporters, correspondents, and broadcast news correspondents. This course focuses on presentation styles, anchoring skills, interviewing techniques, and voice narration. The course is delivered through lectures, vocal exercises, case reviews, and studio and location visits.

#### **BDMC 425 News Gathering and Media Technologies**

With the advent of extensive streaming services, news gathering using media technologies is a growing field in journalism. The competitive and time-constrained world of TV news broadcasting is introduced in this course. The students are exposed to the process of creating information, the art of shooting visuals to execute compelling and thought-provoking news stories. Lectures, demonstrations, hands-on learning, and field reporting are some techniques used to equip students to create various live as well as recorded projects.

#### **BDMC 429 Non Fiction Documentary Film making**

Non-fiction category holds great significance in human interest-based stories and concerns. This course builds students' skills in research, story development, production, cinematography, editing, and post-production. The course is delivered through hands-on training on live projects, lectures, and brainstorming sessions.

#### **BDMC 418 Principles of Convergent Journalism**

The media industry has changed over the past few years due to technological interventions and other external factors making convergence journalism more compulsory than a choice-based career option. The course offers training in digital photography and forms of media content creation techniques to tell a more effective story. Lectures, case studies, class discussions are some of the methods used in the delivery of the course.

### **BDMC 304 Public Relations and Corporate Communications**

Corporate communication lies at the heart of effective strategic management. In the contemporary media landscape, it is important for media students to learn public relations tools and corporate communication strategies. The course prepares media students to understand corporate communication areas such as internal communication, advertising, and public relations. The course is delivered through lectures, case studies, class discussions, writing assignments and conference events visits.

### **BDMC 301 Radio Programming and Production**

Radio still plays a vital role in today's media landscape and remains a powerful source of information for the digitally divided world. The course in radio programming and production enhances students' knowledge about timeslots, live shows, and other characteristics of radio. It equips them with the skills and competencies necessary for working in today's competitive broadcast industry. Students learn different radio genres and writing styles and editing skills for producing engaging audio content through lectures, hands-on training, and project creation.

### **BDMC 312 Social Media and Content Creation**

Industries now have their presence on online platforms, it has therefore opened doors to colossal opportunities for social media content creators and strategists. This course offers an understanding of social media platforms' potential, new media technologies, content creation, and strategies. Students build their learning through lectures, case discussions, projects, and hands-on activities.

### **BDMC 101 Understanding Media**

Understanding of existing and emergent media platforms is broadens the horizon for media students. The course will enable students to acquire knowledge of the way the media industry works and contributes to socio-cultural, political, and economic spheres of life. Students will learn about media attributes, media platforms, media audiences and the media's impact on society. Lectures, case studies, and audio-visual content-based discussions are some of the methods used to deploy the course.

### **BDMC 410 Urban Radio and Podcasting**

Over the last few years, the use of podcasts as a media tool has grown exponentially. Most industries are using podcasts as a marketing tool, which expands the scope of jobs in the podcast industry. The course is designed to help students explore the art and craft of audio production, and train them in manipulating sound, music, and speech signals, recording, and producing. The course emphasises project-based learning, hands-on training, and tutorial sessions.

### **BDMC 201 Writing For Print**

Print media holds a significant value even in a changing media industry in the digital world. Writing for print media course develops students' skills in news gathering, reporting, and editing. Students learn to tackle the objective and subjective aspects of news writing, structuring of news, interviewing, and editorial skills. Through lectures, case studies, discussions and field visits students are taught to create stories with news value.

### **BDMC316 Global Media and Culture**

Understanding global media communication in a socially and culturally contextualized way is the need of the hour. This course covers global media's sociocultural, political, historical, and economic aspects and how it influences the world. In addition, the course will explore topics such as globalization, transnational media networks, the local-global-glocal debate, and global and its impact on national media policies through theoretical deliberations, research projects, and multimedia presentations.

**BDMC 426 Lifestyle Journalism**

Lifestyle journalism is a significant and substantial field of journalism. The scope of lifestyle journalism is greater in vibrant economies like the UAE. The course focuses on contemporary lifestyle reporting trends and prepares students to pursue different aspects of lifestyle journalism, including painting, music, photography, literature, cinema, travel, and entertainment. Students will acquire multimedia storytelling skills to produce lifestyle content for diverse news media platforms besides studying best practices and standards of lifestyle journalism through lectures, supervised writing sessions, and case studies..

**BIOL 102 Introduction to Forensic Biology Serology**

Basic knowledge of different biological sciences are critical for forensic investigations. Students need to be aware of the general concepts and principles of molecular biology and biochemistry of cells for the identification, classification, and individualization of biological evidence in the field and laboratory. Classroom lectures and discussions introduce students to various biological concepts and theories critical to forensic biology.

**BIOL 306 Introduction to Forensic Medicine**

Knowledge of injuries related to human body and understanding of manner and cause of death is paramount in crime scene investigations. Students will learn the medicolegal cases encountered in the field of forensic medicine and will cover the history of the discipline, study post-mortem changes, evaluate trauma injuries, and learn the process of individual identification. Lectures and case study discussions will cover basic understanding of the course..

**BIOL 312 Wildlife Forensics**

Forensic science principles and their application are crucial to wildlife law enforcement. This course provides an overview of procedures and protocols that are used in the process of investigating wildlife crime scenes and analyzing various types of evidence in wildlife forensic science laboratories. Through lectures and discussions, students will learn how to conduct field searches and analyze evidence using various field and laboratory techniques.

**BIOL 402 DNA Fingerprinting**

Forensic human identification relies on the knowledge of genetics and molecular biology using various types of DNA testing methods. The DNA profiling course introduces forensic human identification techniques, theories, and principles based on genetics and molecular biology. The fundamentals, procedures, and methods of forensic human identification are taught through classroom lectures, discussions, and practical exercises.

**CHEM 102 Introduction to Forensic Chemistry**

Criminal investigations apply basic chemistry principles of analytical chemistry to screen and analyze forensic evidence samples. Students will learn the screening, identification, classification, and analysis of chemical and toxicological evidence samples. Active-learning mode of featuring lectures, practicals, presentations and group discussions facilitates selection and application of the suitable forensic chemical tests for forensic evidence.

**CHEM 302 Forensic Toxicology – I**

Identification of toxins and drugs is critical for regulatory and law-enforcement agencies in detection and prevention of drug and poisoning related crimes. This course focuses on the major tenets in forensic toxicology, pharmacokinetics, pharmacodynamics, drug regulation and fundamentals of forensic toxicology analysis. Lectures, case studies and group discussions are the tools used for teaching toxicological practices.

**CHEM 402 Forensic Toxicology – II**

Knowledge of analytical forensic toxicology is essential for poison and/or drug examination and interpretation. This course provides an understanding about the diverse types of poison and drugs encountered in an investigation for court room testimony. The focus is on the various techniques by which these toxic substances can be identified within a quality-

controlled environment. Students will be equipped to analyze and interpret various drugs/poisons through lectures, case studies and laboratory experiments.

### **CHEM 408 Forensic Instrumentation**

Sample preparations and analytical procedures are required to classify and identify unknown forensic biological, chemical, and physical evidence samples. Forensic laboratory analysis is contingent on the understanding of the principles and methodologies of different analytical instrumentation techniques. Interactive lectures will provide the students with an understanding of instrumentation principles and techniques of instrumentation for qualitative and quantitative analysis of forensic evidence samples.

### **CHEM 416 Arson and Explosive Investigation**

Understanding of complex application, interpretation, and determination of fire and explosive investigation is crucial in criminal and civil judicial cases. The student will acquire knowledge of arson, components of explosives, fire investigation, residue examination, preservation of evidence, photography, diagrams and report writing. Through lectures, multimedia, demonstrations, projects, and presentations students will be able to learn the basic principles of arson and explosive investigation. - *Pre-Requisite – CHEM 102*

### **CSCI 455 Digital Forensics**

Digital forensic principles are applied in the industry primarily for digital investigations. Students will learn about the definitions and working of cyber-forensics, cyber laws, and regulations. The course also gives students the knowledge related to Digital-Forensics, Cyber Law, and Social media forensics. Lectures, theoretical assignments, and case studies based on crime scenes will be used to deliver the course.

### **CSIM 102 Fundamentals of Crime Scene Investigation**

Mastering the skills of recognizing, detecting, recovering, preserving, and recording evidence forms a critical function within forensic science. Students learn about crime scene search and processing techniques including crime scene search protocols, photography, description, recognition, collection and preservation of physical evidence. Students study this course through laboratory practices, case studies and classroom lectures.

### **CSIM 302 Physical Evidence and Expert Witness Testimony**

Physical evidence plays a pivotal role in modern criminal investigation proceedings, yet such evidence possesses intense practical and theoretical challenges. This course provides comprehensive knowledge about the crime scene to court evidence management principles, procedures, and presentation. Lectures, group discussions and documentaries are few tools used to familiarize students with professional practices of expert testimony. *Pre-Requisite – CSIM 102*

### **CSIM 402 Forensic Photography**

Forensic photographic evidence documentation is critical in successful criminal investigation and prosecution. Students learn digital photography principles and techniques as applied to crime scenes and forensic evidence. The course further places emphasis on indoor and outdoor crime scene photography shooting under diverse types of lighting and UV/IR photographic techniques to record the trace evidence. Case studies, documentaries, demonstrations, hands-on and lectures will equip the students with crime scene photography skills. - *Pre-Requisite – CSIM 102*

### **CSIM 408 Forensic Evidence Management**

Evidence collection, documentation, and preservation at a crime scene are crucial for ensuring its integrity and admissibility in a court of law. This course includes educating students about crime scene evidence integrity and the principles of collection, packaging, transportation, storage, and maintenance of chain of custody from crime scene to court submission. Forensic science evidence management course will be taught through interactive learning and discussions. - *Pre-Requisite – CSIM 102*

**CSIM 416 Advanced Crime Scene Investigation**

Successful criminal investigation utilizes a step-by-step process and is fundamental to the discovery, preservation, and collection of physical evidence. This course is designed for students who have a basic understanding of the crime scene investigation process. Students will learn about various types of crime scenes, physical evidence, and investigative and interrogative techniques. Lectures, demonstrations, practicals and case studies will facilitate an understanding of crime scene processing and management. - *Pre-Requisite – CSIM 102*

**CSIM 422 Incident management**

Mastering the skills of disaster management is indispensable in forensic investigations. Students will learn the core principles behind the management and investigation processes of incident management. This also provides insight into the various disciplines of emergency management. Lectures, role-play, and documentaries are various tools students will be exposed to familiarize them with professional practices in incident management. - *Pre-Requisite – CSIM 102*

**ECON 110 Mathematics for Economics**

Determinants of mathematical skills and techniques are essential to understand and solve economic problems, develop economic models, and analyze economic data. Students learn linear algebra, calculus, optimization, differential equations, and probability theory, and their applications in economics. As well as gains hands-on experience through practical exercises and problem-solving tasks that simulate real-world economic scenarios. Case studies and quizzes are used to test the relevance, validity and projection of these economic issues.

Prerequisite NA

**ECON 115 Statistics for Economics**

Studying market structures, understanding various economic problems, formulating effective economic policies to solve these issues, and analyzing different economic theories, determining cause and effect relationships between different data sets to present accurate economic facts. Students learn fundamental knowledge in descriptive statistics, official statistics as data sources, probability theory, random variables and their distributions, statistical inferences such as point and interval estimation, hypothesis testing, various survey types, sampling methods, data collection methods, questionnaire construction, different types of errors and quality reports, correlation measures, simple and multiple regression analysis, and time series analysis with forecasting. Case studies and quizzes are employed to assess the relevance, validity, and projection of these economic issues.

Prerequisite NA

**ECON 200 Fundamentals of Microeconomic**

Determinants of demand and supply and their influence on consumer behaviour are essential to understand various forms of markets and make prudent economic decisions. The students learn determinants of demand and supply, consumer behavior, producer's equilibrium, profit maximization, and pricing of commodities and factors of production. By using case studies and numerical examples, students will gain practical insights into decision-making, which are relevant to both consumers and businesses.

Prerequisite NA

**ECON 205 Fundamentals of Macroeconomic**

A fair understanding of the fundamental principles, focusing on the key principles and concepts that underlie the functioning of modern economies. Students learn topics such as measuring domestic output and national income, economic growth, consumption, saving and investment, business cycles, unemployment, inflation, fiscal policy, money and banking, international trade, and the balance of payments. Through a combination of theoretical analysis and real-world examples, such as case study, students will develop a solid understanding of macroeconomic theory and its practical implications..

Prerequisite ECON 200

**ECON 215 History of Economic Thought**

Understanding the process of development of economic thoughts are essential to distinguish between the main schools and trends in the history of economic thought. The students learn about the emergence of various schools of economic thought such as classical schools, mercantilism, physiocrats, Keynes and the neoclassical schools. The case study approach is used in the class to examine the interrelationship between the theory and real world today..

Prerequisite NA

**ECON 220 Intermediate Microeconomics**

Economic models are developed using standard mathematical tools and /or game theory to study the behavior pattern of individuals and firms. Interpretations derived therefrom are essential for rational decision-making, determining market predictions and outcomes. The students study consumer choice theory, supply & demand, budget constraint, uncertainty and the theory of the firm. Real business examples, case studies and quizzes are used to test the relevance, validity and projection of these economic theories. .

Prerequisite ECON 200

**ECON 225 Intermediate Microeconomics**

Understanding the dynamics of various forms of modern macroeconomic models is essential to analyze the classical, neo classical, Keynesian, and the monetarist views. The students learn about long-run economic growth and its determinants, theories of macroeconomic fluctuations, stabilization policies, and business cycle theories. Through the application of case studies and numerical examples, students will gain insight into the impact of macroeconomic variables, such as GDP, on economic growth and development..

Prerequisite ECON 205

**ECON 230 Economics of Growth and Development- I**

The growth of a country's economy is at the root of its regional development and global placement. This course offers students a comprehensive understanding of the theories, concepts, and empirical analysis related to economic growth and development in both developed and developing countries. The course explores the theories of economic growth, including the classical, neoclassical, and contemporary growth models. Students will analyze various determinants of economic growth, such as population, migration, urbanization and economic transformation through agriculture. By using case studies and class discussion, exercises, and guest speaker's insights are the main teaching and learning strategies in the course

Prerequisite ECON 205

**ECON 235 Economics of Growth and Development- II**

The course focuses on the factors that drive economic growth, the challenges of promoting inclusive development, and the role of policies and institutions in fostering sustainable economic progress. The course will focus on development policies. Students will study various policy approaches, including trade policies, Development Policymaking, roles of Market, state and civil society. Student will be equipped to analyze development challenges and policies, and contribute to informed discussions on promoting inclusive and sustainable economic progress in both domestic and global contexts. By using case studies and class discussion, and guest speaker's insights are the main teaching and learning strategies in the course

Prerequisite ECO 230

**ECON 240 Economics of Middle East**

Gaining a deep understanding of the region's economic landscape, explore the economic growth and social outcomes of the contemporary Middle East and to provide insights into the factors that have contributed to the region's development. Students learns a range of topics, including development and production patterns, human capital, labor market conditions,

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migration, and trade, the regional similarities and differences, the roles of oil and the state in shaping the economic dynamics of the Middle East. By using case studies and numerical examples, the students understand the influence of GDP on the growth of an economy.

Prerequisite ECON 205

### **ECON 245 Energy Economics**

Exploring the current trends in global energy markets and their impact at both the national and global levels. Students learn topics that are relevant to the Energy-Economy-Environment nexus, Energy Indicators for Sustainable Development, the economics of renewable and non-renewable energy sources, the role of markets and international policies in the global energy transition, oil and natural gas markets and pricing, unconventional sources like shale gas, and the impact of globalization on energy performance and productivity. Case studies and quizzes are used to test the relevance, validity and projection of these economic issues..

Prerequisite ECON 225

### **ECON 250 Economics of Education**

Exploring the intricate relationship between human capital formation and its implications for economic development is an essential component for understanding the relationship between education and labour market, education and employment and social mobility. Students will learn topics such as the formation of human capital, the economic benefits of education, and the various mechanisms for financing education, making it relevant to students interested in education policy, economics, and social sciences. Project, home assignment and quizzes are used to test the relevance, validity and projection of today's rapidly evolving education landscape

Prerequisite ECON 205

### **ECON 300 International Political Economy**

The field of International Political Economy is an interdisciplinary area of study which incorporates elements from international economics, politics, history and international relations. This course intends to acquaint students with the theories and interconnected relationships between markets, states, institutions, and civil society on both regional and global scales. It encompasses key theories, concepts, and topics of International Political Economy such as international institutions, international trade, international finance, international development, as well as the effects and debates surrounding globalization. By using case studies and class discussion, and guest speaker's insights are the main teaching and learning strategies in the course

Prerequisite ECON 225

### **ECON 305 Money and Banking**

This course provides students with an in-depth understanding of how the financial system operates and its influence on the economy. By studying concepts such as money, interest rates, financial structure, banking, financial crises, central banks, and monetary policy, students will develop the necessary analytical skills to analyze how monetary policy is transmitted through the economy. Through a combination of theoretical frameworks, real-world examples, and critical analysis, students will be able to evaluate the effectiveness of various policy approaches. This course will establish a strong foundation in navigating the complexities of the financial world, enabling students to actively contribute to well-informed discussions on monetary policy and its impact on economic outcomes.

Prerequisite ECON 205

### **ECON 315 Basics of Health Economics**

Theories of microeconomics determine the applicability of policies and function to healthcare systems. The students learn about the specific institutional details and policies relevant to health care markets. This course includes implications for production, consumption and distribution of health care services. Teaching and learning strategies used are case studies, active class discussion and field observations.

Prerequisite ECON 200

### **ECON 320 Fundamentals of Public Finance**

Government revenue and expenditure are the two fundamental factors driving public finance policies and laws. The students learn about the principles of public finance, role and function of the government, budget laws, fiscal institutions, and rules. Additionally, this course provides a comprehensive understanding of public goods, including their unique characteristics and the challenges associated with their provision. Students will explore concepts such as free rider problems, rival vs. nonrival consumption, and the comparison between public goods and externalities. The main teaching and learning strategies in the course include case studies, active class discussion, and class-based exercises.

Prerequisite ECON 205

### **ECON 325 Labour Economics**

Supply and demand for labor, labor force participation and minimum wage law are essential to analyze the mechanism with which the labor market works and deal with. The students learn about labor force participation, the income and substitution effect of labor supply, bargaining theories of wages, labor unions and labor migration. By using case studies and class discussion, exercises, and guest speaker's insights are the main teaching and learning strategies in the course

Prerequisite ECON 225

### **ECON 335 International Economics**

Trade involves the transfer of goods and services from one person or entity to another, often in exchange for money. It is essential to understand the main concept of international economics. The students learn about world trade, labour productivity and comparative advantage theory, trade and resources, international trade policy, instruments of trade policy, and International monetary systems. Using the case study and solving numerical problems, students will get to know how to transfer theoretical knowledge obtained in the class into practical solutions.

Prerequisite ECON 225

### **ECON 340 Special Topics in Economics**

Introduce students to the skills and arts of applying different economic theories and concepts to specific topics in economics. The students may choose a topic depending on the faculty approval. the course may cover a wide range of special topics in economics such as topics that belong to public economics or sustainable development, energy economy or any related topics that taking place at present or happening like (COVID 19) with a special emphasize on the GCC in general or UAE in specifics.

Prerequisite ECON 235

### **ECON 345 Islamic Economics**

Studying Islamic economy is of great importance as it provides a unique perspective on the principles of economics, which are rooted in Islamic beliefs and values. Students gains a comprehensive understanding of the positive and normative principles of Islamic economics, able to draw upon both historical and contemporary thought perspectives, role of the state in economic activity and comparing the Islamic economic system with contemporary systems such as capitalism and Marxism. Provides students with a nuanced understanding of the strengths and limitations of various economic systems.

And develop critical thinking skills and an appreciation for the diversity of economic thought, as well as the ability to propose solutions to contemporary economic challenges faced by Muslim societies. Case studies and quizzes are used to test the relevance, validity and projection of these economic issues..

Prerequisite ECON 205

#### **ECON 400 Environmental Economics**

Planning and policy formulation, coping with rapid changes and markets externalities are essential to improve performance, and enables firms to identify opportunities and analysis for sound environmental decision-making. The students learn about cost-benefit analysis, market-based solutions to environmental management issues such as air/water quality, global climate change and sustainable development. By using case studies and class discussion, exercises, and guest speaker's insights are the main teaching and learning strategies in the course

Prerequisite ECON 235

#### **ECON 405 Regional Economics**

Planning and development give a framework for concepts theories and models related to regional development. The students learn about location patterns dominated by dispersive forces, land use, the spatial structure of urban areas, how regions develop, and regional objectives and policies. Using the case studies, exercises, and guest speaker's insights are the main teaching and learning strategies in the course.

Prerequisite ECON 235

#### **ECON 410 Industrial Economics**

Understanding of the complex relationships between economics and global business practices. Enabling to learn about the company, take an in-depth look at its structure, markets, competitors and external economic environment. The students learn about the internal structure of firms, analysis of various aspects of strategic interaction between firms, the determinants of industrial structure, the role of policy in the context of competition and industrial policies and regulation. Using case study with empirical evidence of public policy helps the students to learn how theoretical tools can be used to analyse real world issues.

Prerequisite ECON 235

#### **ECON 415 Econometrics**

Understanding the basic econometrics techniques by emphasizing numerical estimation of economic relationships as applied to practical economic and managerial problems helps to estimate the different types of economic business models. Students learn the basic econometric techniques relating to the estimation of parameters, estimation process, and evaluation of parameters and understanding of scientific decision-making process. Students use the problem-solving examples, which help in boosting the empirical knowledge skills and improve the analytical thinking of the students.

Prerequisite ECON 105, ECON 110

#### **ECON 420 Knowledge Economics**

Knowledge has become a vital commodity to countries, businesses and individuals strengthen the economic and social development and improve their competitiveness and welfare. Topics exposing students to the fundamentals of the knowledge intensive activities that bring about scientific innovation. As well as to identify best practices and be able to interpret key factors for intellectual capital management. Through using a variety of modes –Lectures supported by examples

from real world so that students can understand the real-world relevance and application of theoretical concepts, interactive sessions, group work project analysis

Prerequisite ECON 235

### **ECON 425 Behavioural Economics**

Providing fundamental insights into the way people think—and change the decision-making context effecting their choices, as well as to improve student's analytical and decision-making skills. Topics such as choice and behaviour, behavioural economics of risk, uncertainty, and ambiguity, and behavioural macroeconomic are main part of the course. Through case studies, and guest speaker's insights are the main teaching and learning strategies in the course.

Prerequisite ECON 400

### **ECON 450 Global Economy**

The changes in global economy have significant impact on the everyday life, which affect practically everyone. The students examine the increasing economic interdependence of the nations against a globalized backdrop and learn the significance of trade and capital flows, exchange rates, challenges of balance of payment, factors hindering growth of international trade and the way out. Through case studies, group activities and project-based approaches, the students gain an insight into the forces promoting and impeding global economic development and the required framework within which a sustained growth and development of the global economy may be achieved.

Prerequisite ECON 205, ECON 210, ECON 335

### **FILM 325 Cinematic Color Grading**

Color choices can significantly impact a piece's style, mood, emotion, and expression. Color grading techniques can further enhance these elements in an artistic manner. This course focuses on visual storytelling, covering topics such as gradation, noise, and animation. Additionally, it equips students with the skills needed to produce content for film, television, and the web. The course includes lectures, demonstrations, hands-on learning, discussions, and project work.

### **FILM 402 Cinematography**

Camera techniques, creative lighting, and visual direction are essential for film and television production. In this course, students learn the craft of filmmaking by operating cameras, manipulating lighting, and utilizing other equipment. The course is delivered through a combination of lectures, demonstrations, and hands-on practice. – Pre-Requisite - MDIA102

### **FILM 404 Directing for Mise-en-scene**

The concept of mise-en-scène, also known as the "illusion of reality," plays a crucial role in achieving a realistic portrayal on set. This course explores various components such as camera blocking, visualization, continuity, semiotics, and social codes, which are instrumental in developing abilities and skills for managing the set. Through a combination of lectures, demonstrations, and hands-on location training, students will gain insight into the effective organization and execution of film productions. – Pre-Requisite - MDIA101

### **FILM 405 Creative Video Production**

The popularity of audio-visual content has increased due to the horizontal growth in media platforms and their viewership. This course focuses on critical and creative thinking, storytelling methods, filming techniques, and direction. The course will be delivered through lectures, demonstrations, readings, and projects. – *Pre-Requisite – FILM 320.*

### **FILM 406 Fiction Production**

Films are a significant aspect of the global entertainment industry, providing opportunities for creative expression and employment. This course enhances students' skills and abilities in various aspects of filmmaking, such as budget creation,

script analysis, comprehension of film set protocols, and leadership in production. Through lectures, demonstrations, screenings, and practical on-set learning, students will gain insight into the process of completing a fiction production. Pre-Requisite – FILM 315

### **FILM 315 Film Production Theory and Practices**

Compositing allows to seamlessly integrate different elements, such as live-action footage, 3D models, and special effects, into a single shot. This course encompasses topics such as photorealistic materials, HDR image capture, and multi-pass rendering techniques. Through problem-solving, advanced tutorials, and demonstrations of various editing techniques, students can gain proficiency in the art of digital compositing. *Pre-Requisite - ANIM 305*

### **FILM320 VFX and Digital Composition**

Compositing is the key to the sequentially integrating and editing visual components to create a final footage. It covers topics such as photorealistic materials, HDR image capture, and multi-pass rendering techniques. Through problem-solving, advanced tutorials and demonstrations of multiple editing techniques, students learn the art of digital compositing. Pre-Requisite - ANIM 305

### **FILM 328 Set Designing Traditional and Virtual**

Set design is a crucial aspect of media production, and with the rise of new media technologies, augmented reality has become an integral part of it. This course focuses on the art of both traditional and virtual set design, with a particular focus on design, composition, and creating virtual set designs. In this course, students construct physical and virtual sets for a range of scenarios, including live-events and computer-generated worlds. Practical projects, live projects, and lectures are used in the course delivery.

### **FILM210 PHOTOGRAPHY THEORY AND PRACTICES**

Photography plays an integral role in creating both traditional and new media content. The ability to capture impactful images is crucial for telling compelling stories. In this course, students acquire scientific, theoretical, creative, and technical skills necessary for creating powerful visuals. They also gain knowledge about various types of digital cameras, lenses, and accessories, as well as the basic principles of exposure, composition, and lighting required for effective image creation. Hands-on practice with camera handling and other equipment will also be provided.

### **FILM 317 Sound Design for Film & Animation**

Sound plays a crucial role in the process of film production. This course teaches students the fundamental principles, aesthetics, and techniques required to effectively incorporate music, sound effects, dialogue, and voiceovers into a scene. The course is delivered through lectures, audio-visual case studies with demonstrations, and hands-on practice for creating soundtracks.

### **FILM 403 Television Production Process**

The television production process has become significant for new media platforms Over the Top (OTT) platforms, social media, generated user- generated programming. The course equips students with the necessary skills to produce audio visual content, and abilities to operate camera, lighting, sound, and production control room equipment. and hands-on learning with cameras and other production tools, students will learn how to effectively organise and shoot television programs.

### **FILM 301 History of Motion Pictures**

Exploring the evolution of motion pictures enables students to develop a deeper understanding of the historical context in which cinematic works were created and how they have evolved over time. This course examines the history of cinema through a combination of cultural, historical, technological, and aesthetic lenses. Through film screenings, class discussions, and lectures, students will acquire a comprehensive grasp of the importance of motion pictures and develop skills to analyze film and animation works from different perspectives.

**FASH 435 Digital Marketing**

The rising demand for establishing online business presence has opened doors to colossal opportunities for digital marketing specialists. To succeed in competitive digital environment, students need to possess a comprehensive knowledge of digital marketing strategies and planning. Students develop understanding of digital channels and knowledge of integrating variety of digital media to create effective marketing strategies. This will be done through case discussions, projects, and hands-on activities..

**FILM 202 Digital Photography**

Quality visuals are an integral part of media. Photography skills are essential to creating media content. Students will learn about the different types of digital cameras, lenses, and accessories and the basic principles of exposure, composition, and lighting required in creating images. Hands-on practice in handling a camera and other equipment are some of the strategies used for this course.

**Film 407 Advertising and Corporate Film Production**

The video content market has grown multi-fold with the emergence of digital platforms. Organisations rely on video communication content to present themselves as a brand to the external publics. This course helps enhance students' skills to create business goals-oriented video content. The course will be delivered through live project creation and step-by-step discussion of the concept created..

**FINE 330 Commercial Banking**

Banks are major growth partners in any economic system. The unavoidable dependence of individuals and institutions on banks makes the understanding of commercial banking essential for a student of finance for transacting with banks and also for seeking a rewarding career in banking. Students are acquainted with the role and major functions of commercial banks, their expertise in working capital finance and various other products and services they offer to their clientele in general. Through case studies, group activities and simulation exercises, the students learn the nuances of commercial banking.

Prerequisite ACCT 110

**FRSC 102 Elements of Criminology and Police Administration**

Understanding and application of criminal law and administration of justice is fundamental to forensic investigation. This course enables students to learn about the various aspects of criminal justice system, scientific analogy for criminal propensity, criminal behaviour, victims, crime prevention, and security management. Through lectures, case law discussions and group activities students learn techniques to seek solutions to problems that emerge from the subfields and interdisciplinary subfields relating to criminology.

**FRSC 204 Trace Evidence Analysis**

Understanding the characteristics and properties of different trace evidence, like glass, soil, paint, hair and fibre are crucial to crime scene investigation. The student will acquire the knowledge of the basics of microscopy and analytical tools and techniques used for trace forensic exhibits. Through lectures, demonstrations, projects, and presentations students will be able to learn the basic principles of trace evidence analysis.

**FRSC 302 Introduction to Forensic Psychology**

Applying psychological knowledge to civil and criminal cases addresses various questions arising in the field of forensic science. Students are introduced to representative areas of forensic psychology to study the behaviour of criminals and the role of psychological professionals in the field of forensics by using appropriate investigation methods. Lectures, group discussions and documentaries are few tools that students are exposed to familiarize them with the professional practices of forensic psychology.

**FRSC 406 Forensic Ballistics**

Fundamental knowledge of forensic ballistics and firearm science is necessary for the forensic examination of firearms in gun crime investigations. The content of a firearm examination and ballistics course constitutes physical and chemical identification, classification and comparison of firearms, and ammunition. Students will gain a general understanding of ballistic evidence examination and crime scene reconstruction through case studies and lectures.

**FRSC 412 Forensic Engineering**

The application of engineering and physical sciences is salient for solving forensic failure analysis. Students will develop an understanding of wind damage to residential structures, lightning damage, building collapse, electrical shorting, vehicular falls and skids, vehicle performance, forensic engineering investigations, vehicle collisions, and the basic principles of failure analysis. Through lectures, project assignments and case studies students will learn to apply the principles of failure analysis to solving mechanical forensic issues.

**FRSC 416 Quality management system and accreditation**

Accreditation and quality management system is a pre-requisite for forensic science laboratories and crime scene investigations to demonstrate their competence. This course investigates the challenges of forensic science and the benefits of accreditation in preventing wrongful convictions. Students will explore components of quality management and accreditation process through class lectures and case studies.

**FBSP 102 Food Safety and Hygiene**

Safeguarding the health and wellbeing of consumers to ensure their protection is the primary requirement for food industry professionals. This course examines the best practices in implementation and monitoring an efficient system for food safety at work within the framework of food safety management system. Students learn these fundamental concepts through theoretical inputs, group activities, problem solving, and industry interaction.

**FBSP 104 Professional Food Preparation**

Culinary Arts is a core area within the food service operation. This course sits at the crossroads of conveying food as both science and art. This is an introductory course which familiarizes students with the prerequisites and best practices of a professional kitchen along with strong work ethics. It is facilitated through theoretical inputs, hands-on practical sessions in the lab and visit to the industry.

**FBSP 203 Food and Beverage Service**

Food and Beverage service is the major revenue generating department for a hotel; hence this course would focus student's attention on the management aspects of a food and beverage operations by developing basic concepts of planning, organising, and controlling a food service operation profitably. Theory session focus on the business of running a successful food and beverage outlet while lab practical's and hotel visits would enhance hands on skills actual interaction with hotel guests.

**FBSP 407 Advance Food Preparation**

Advanced Food Preparation equips students with specialized skills, fosters creativity, and prepares them for leadership roles within the culinary industry, ensuring that they remain competitive and adaptive in a dynamic and evolving field. This course is designed to focus students' to excel in kitchen management roles, create innovative menus, and contribute to sustainable culinary practices within the food industry. Throughout the course, students will engage in practical exercises and real-world scenarios, allowing them to apply theoretical knowledge to real culinary situations.

**FBSP 408 Restaurant Concept and Design**

A conceptual design framework is essential in developing a commercially viable restaurant. Students gain insights to plan a restaurant concept by understanding and utilizing tools to develop the business with emphasis on a solid marketing plan

and strong financial backing. Knowledge is enhanced through theoretical inputs, case studies and interaction with industry experts.

### **F BSP 410 Food and Beverage Cost Control**

A control system is essential to guide and regulate best practices and maintain financial rigour in food and beverage operations. This course is designed to enable students to develop an understanding of forecasting, budgeting and cost controls in the domain of food and beverage, while contributing to the overall profit margin of the business. Theoretical classes with real time case studies and industry inputs by experts would be the bases for effective course delivery.

### **HAAS 102 Media Literacy**

Proficiency in comprehending the function and intersections of media is fundamental to shaping the social, political, and cultural perspectives of societies. This course includes a study of media techniques and technology, media messaging and media representation of society. Media industry in the UAE gains focus in this course including the interplay of indigenous culture and diverse communities. The course is delivered through lecture, assignments, demonstrations, and field visits.

### **HAAS 202 Practicing Sustainability**

Sustainable practices are at the core of a subsistent future. The fundamental concepts of sustainability are underpinned through this course. It equips students with the competencies to pursue alternate ways and strategies to develop effective solutions and promote sustainable practices in the context of UAE. This interdisciplinary course enables students to identify, plan and execute various concepts and principles of sustainability in real life projects associated within their domains of inquiry. The projects will emerge from the social, human, economic and political issues dominating at the time of course delivery. Class discussions, simulations, case studies and practical work form the teaching pedagogy for the course.

### **HAAS 208 Life and Future Skills**

Learning real-life survival skills form the foundation for achieving long-term goals. This course provides students with appropriate and practical knowledge and attitudes required for various skills such as problem solving, creative thinking, informed decision making along with soft skills like managing relationships, coping with challenges and empathy towards others. Case studies, group discussions along with audio-visual media are used to crystalize life skill approaches.

### **HAAS 302 Research Methods and Data Analysis**

Empirical research is key to solving societal problems through the conceptualization and application of relevant social science methods. Students learn the basic principles of defining research problems, developing hypotheses and research questions, conducting analytical literature review, and gathering data for analysis and inference utilizing spreadsheets, and the Statistical Package for the Social Sciences (SPSS). Students analyse and interpret data derived from in-depth interviews, focus group discussions, and surveys, through project-based learning, case studies, and collaborative learning.

### **HAAS 340 Internship**

Industry exposure builds up career aspirations in students and drives them to attain professional goals. The students will be exposed to industry environment for a specific period of (16 weeks) to build corporate connections, apply theory into practice and understand the industry expectations to develop specialized and soft skills. Internship in a specific domain enhances technical and professional skills to succeed in a competitive environment. For internship, students select the domain in consultation with the industry and faculty guide in terms of the academic requirements and compile their internship experience in a report.

### **HAAS 450 Project**

Project is an individually performed research task on a topic that is grounded in theory. It is a scholarly research output that documents student's ability to ask meaningful research questions, consult and criticise related literature, collect and critically analyse data, as well as form and appropriately communicate findings. Students produce a crafted manuscript that they

should defend satisfactorily before the faculty prior to submission and acceptance. Promising theses with original contribution are submitted for publication in refereed conference proceedings and peerreviewed academic journals.

### **MDIA 203 Advertising**

The significance of advertising has increased in the modern era. Rising competition amongst companies and industries is pushing brands and commercial organizations to adapt to advertising as their business strategy. This course provides information about the history of advertising, strategies and practices used in the advertising industry, the structure of a typical advertising agency, advertisement campaign creation, and understanding of different media platforms. It is designed to provide theoretical deliberation as well as hands-on experience in creating advertising and media plans. Lectures, brainstorming sessions, screenings, and project creation will be used in the course delivery.

### **MDIA 102 Basics of Camera Techniques**

Camera operation is fundamental to moving images for effective storytelling. The course provides an insight into the appropriate lighting for shots composition and usage of various types of lenses. Students learn to use video cameras to produce cinematic movements in an aesthetical manner. Through a combination of lectures, demonstrations, and hands-on, students gain a comprehensive introduction to the fundamental principles of camera operation and techniques.

### **MDIA 207 Media Ethics, Laws and Regulations**

Understanding media ethics is crucial for best practices in the media industry and subsequently the society. With the emergence of new media technologies, and the scope it provides in tampering with media content, it is important that media laws and regulations are followed.

This course train media students to become responsible media professionals. Students will learn the concept of censorship, fairness in the news as well as regional and global media regulations. Lectures, case studies and class discussions will be used in the delivery of the course.

### **MDIA 101 Introduction to Storytelling**

Stories and storytelling are the foundation of any media content. The course offers tools and techniques like storyboarding and screenplay to create stories and convert them into different media productions. Through lectures, case studies, and practice sessions, students learn the craft of storytelling.

### **MDIA 201 Post-production for Moving Images**

Post-production is the re-directional timeline for visual storytelling and is crucial for media production. This course aims to build students' skills in assembling and rearranging visuals to create the desired output. Through hands-on applications demonstrations and case studies, students learn the nuances of post-production.

### **PSAP 307 Personality Psychology**

Understanding the role played by nature and nurture into personality formation is primordial to explain and predict human behaviour change over time and in different settings. The students will explore the biological, cognitive and psychoanalytic theories of personality, its assessments and the potential disorders as per the DSM 5. They will be also introduced to the impact of culture in behaviours patterns setting and personality expression through body language. *Pre-Requisite PSGP 101*

### **PSAP 309 Organizational Psychology**

Professional practice in organizations is fundamental to improve the quality of work, increase employee motivation and achieve greater performance. The students will learn the management of change in organizations, the elements of performance appraisal, the different theories of motivation, leadership and emotional governance and dimensions of organization culture. . *Pre-Requisite PSGP 101*

### **PSAP 311 Educational Psychology**

Understanding the different learning process among students is fundamental to improve teaching and learning strategies and ensure academic success. The students will learn about the nature, scope, and importance of educational psychology. The students will also broaden their understanding about the challenges faced in the school settings. *Pre-Requisite PSGP 203*

#### **PSAP 407 Health Psychology**

Increasing self-awareness about health behaviours and its psychological foundations is essential to allow individuals to have a better control over their physical and mental state and to give them the opportunity to make better life choices. The students will discover the Bio-Psycho-Social Model of health studying the impact of these factors on overall health and well-being. They will also explore stress reaction and its impact on immune system, resilience and pain management. *Pre-Requisite PSAP 307*

#### **PSAP 417 Social and Community Psychology**

Social interaction amongst humans and their environment forms the core of social and community psychology. It plays a pivotal role in shaping individuals who are socially conscious, culturally aware, and equipped to drive positive change in communities and society at large. Social beliefs, cultural inspirations, conformity, compliance, prosocial behaviour, transformative change, and community wellbeing are some themes covered through the course.

#### **PSAP 427 Psychology of creativity**

Creativity analysis is essential to understand the origins of divergent thinking, inventiveness, artistry and contribute to the development of societies. The students will explore the genesis of creativity, its cultural specificities, and its application in different life contexts. They will explore the relationships between creativity and mental disorders, leadership and academic failure.

#### **PSAP 431 Coaching Psychology**

Acquiring knowledge about coaching theories and practices is essential to reach better achievements and wellbeing in diverse life areas such as work, health, and community. The students will explore concepts of motivation, self-efficacy, enhancement of life experience, leadership, motivation, and factors of optimal functioning according to different psychological approaches. *Pre-Requisite PSGP 101*

#### **PSAP 435 Sports & Performance Psychology**

The study of sports is critical to synergize physical and mental well-being to enhance athletes' performance. The students will explore the psychological, behavioural, and emotional aspects of sports and related performance management such as intrinsic and extrinsic motivation, leadership, eating disorders, sports injury and rehabilitation, performance under pressure, coaching techniques, performance management, athlete Burnout and family influence on athlete's career.

#### **PSC0 419 Positive Psychology Interventions and Applications**

Positive psychology contributes to a balanced scientific understanding of human experiences and ways to foster thriving in individuals, communities, and societies. Students will be introduced to various concepts of positive psychology, cognitive and interpersonal approaches, and skills necessary for effective positive psychotherapy. .

#### **PSCL 201 Psychological Testing and Assessment**

Acquiring knowledge about the concepts and methodology of psychological testing is fundamental to understand its application in research work and human behaviour. This course explains the concepts of historical evolution and ethical consideration of construction, standardization, and administration of psychometric tests.

#### **PSCL 405 Psychopathology**

Mental illness analysis is fundamental to understand the emergence, development, and treatment of psychological disorders. The students will examine symptoms, etiology, assessments, and various therapeutic approaches to different disorders. The students will learn the psychopathological differences between neurosis and psychosis exploring mental health illnesses such as depression, anxiety, obsessive compulsive disorder, Post traumatic stress disorder, Schizophrenia, Paranoia.

**PSCL 411 Introduction to Psychotherapeutic Interventions**

Developing knowledge about psychotherapeutic interventions is fundamental to be able to address human uniqueness and complexity, to consolidate coping mechanisms and solve personal and group conflicts. The students will discover the different interviewing techniques, individual, family and group therapies such as Psychodynamic therapy, Cognitive behavioral therapy, Humanistic therapy, Integrative therapy and the professional ethics to abide by. *Pre-Requisite PSCL 405*

**PSCO 207 Ethics in Psychology ,Research and Practice**

The bedrock of ethical conduct rests within the regulations that oversee psychological engagements involving young individuals and vulnerable adults. Grasping and examining the tenets of ethical and secure practices is imperative for students pursuing studies in psychology. Within this course, various themes are explored, including authorship, data gathering, data handling, data analysis, report compilation, the prevention of plagiarism, the intricate pathways of publication, and the meticulous manuscript review process.

**PSCO 415 Counselling and interviewing skills**

Self-awareness and an understanding of culture, diversity, and worldview are critical prerequisite for effective helping and responding to clients. This course will introduce the basic theories, micro-skills approach for intentional counselling and skills necessary for effective interviewing and counselling and will introduce the students to counselling techniques according to different theoretical approaches (Psychodynamic, Cognitive behaviourist, Humanistic, Person Centred, Integrative.).

**PSCO 421 Psychology of Exceptional Children**

Understanding the different biological, cognitive, and emotional disabilities is fundamental in educational setting to set specific remedial learning strategies that would grant equal access to people of determination to knowledge and better career perspectives. The student will explore the different intellectual, neurological, physical, and emotional disabilities that a student may suffer from during his academic journey along with the different strategies and techniques implemented to address these challenges.

**PSGP 101 General psychology**

Exploring the main concepts and theories of psychology is fundamental in understanding human complexity. The students will explore the theoretical base in the field of psychology including but not limited to biological foundations of behaviour, memory, thinking, intelligence, personality, consciousness, and motivation. *Pre-Requisite ENGL 102*

**PSGP 103 Introduction to Behavioral Neuroscience**

The relationship between brain, behaviour and cognition is essential to understand the various aspects of human psyche. Students are taught biological bases of sensation and perception, neural development, and physiological approaches to understanding cognition, behaviour, and emotions. The student will explore the nervous system and its different components, the role of neurotransmitters and neuronal connexion. They will also discover the structures and functions of the sensory system, the cognitive functions and the neurological and neurodevelopmental disorders

**PSGP 105 Theoretical Paradigms in Psychology**

Exploring the historical and theoretical background about the rise of psychology is fundamental to understand the diversity of its origins and therapeutic approaches. The students will learn to identify the different perspectives in psychology and how that helps in understanding individual differences and predicting human behaviour. To facilitate that, the students will explore different currents in psychology such as psychoanalysis, behaviourism and cognitive approaches

**PSGP 203 Developmental psychology**

Acquiring knowledge about lifespan development is fundamental for understanding patterns of human learning, maturation, and adaptation to different life situations. The students will expand their knowledge of physical, emotional, cognitive, and social human growth. The students will explore the distinct aspects of prenatal development, growth during infancy, child development, adolescence, adulthood, and the unique characteristics of late age.

### **PSGP 205 Cognitive Psychology**

Understanding the mental processes behind memorization, motivation and learning is essential to optimize human competences and to spot early signs of developmental delays in individuals. The students will explore the relationship between attention, perception, memory, learning, language, and the brain structures. *Pre-Requisite PSGP 101*

### **PSGP 303 Applied Statistics**

Statistical analysis is the key to effectively organizing and understanding all the incoming information in a meaningful way. Students will explore descriptive, correlational, and inferential statistical methodology such as central tendency, variability, dispersion, confidence Intervals, parametric and non-parametric tests, analysis of variance, correlation and regression.

### **PSGP 305 Introduction to Child Psychology**

Studying children's milestones of development and the potential psychological disturbances is a fundamental need in addressing children's mental health. The students will explore the major theories and stages of child development, assessments, diagnosis, and treatment in child psychopathology. They will learn autism spectrum disorder, intellectual disability, learning disorder, conduct problem, hyperactivity disorder, depressive disorder.. *Pre-Requisite PSGP 203*

### **PSGP 413 Psychology of Motivation Leadership**

A comprehensive knowledge of work motivation and leadership is essential to understand employee dynamics and success at an organisation. Students are taught modern organisation structures, leadership styles, employee attitudes, emotions, and stress at work and various approaches to work motivation. The students will explore the relationship between job performance and work behaviour, motivation, stress and cultural diversity in organizational settings. *Pre-Requisite PSAP 309*

### **PSGP 429 Climate & Environmental Psychology**

The study of environment and climate is critical to understand how individuals react to environmental problems ranging from littering to pollution to climate change. Students are taught about history and scope of environmental psychology, human-nature interactions, impact of natural and built environments on mood, performance, and health.

### **QDFP 202 Introduction to Fingerprint Science**

Fingerprints have been utilized to tie suspects to crime scenes for over 100 years. This course covers the historical background of the science of fingerprints. Students learn pattern identification, crime scene preservation of prints and print development as well as understand the new automated fingerprint identification systems through lectures and laboratory practices.

### **QDFP 206 Introduction to Questioned Documents**

Mastering the skills to identify fraudulent documents is a key part in forensic evidence analysis. Students learn to make independent examinations, comparisons, analyses, and judgments in the challenges commonly encountered by document examiners. A combined practice of lectures, and laboratory experiments will equip the students to give detailed reports of questioned document evidence.

### **QDFP 302 Handwriting Analysis**

Knowledge of questioned documents is essential for handwritten and typewritten examinations. Students will develop an understanding of written and printed documents. Examination of signatures, handwriting, and tampered documents while using various instruments will be equipped through laboratory experiments and lectures.

**QDFP 402 Electronic Printers and Ink Analysis**

Mastering the skills to identify and analyze questioned documents is an indispensable tool in forensic science. Students develop an understanding and appreciation for the scope of typewritten, printed, and photocopied document examination. It also helps develop an understanding of typography, computer-generated documents and their characteristics through lectures, practical's, group discussions and case studies.

**QDFP 406 Documents and Security Features**

Proficiency in identifying questioned documents based on their security features is a key part of forensic evidence analysis. Students will learn about the different types of security documents, their salient features, independent examinations, comparisons, analyses, and judgments in the challenges commonly encountered by document examiners. A combined practice of lectures, and laboratory experiments will equip the students to give detailed reports of questioned document evidence.

**QDFP 412 Biometrics**

Personal identification through biometric recognition is primordial to the criminal justice system in the field of forensic science. Students will learn the primary modalities of biometric recognition: namely fingerprint, face, and iris. It further introduces other emerging technologies such as recognition of gait, hand and ear geometry through lectures, case studies and group discussions.

**QMET 110 Business Mathematics**

Numeracy is an essential skill for the market place. The students are introduced to essential mathematical methods needed to understand, analyze, and solve business problems related to business and economics. Topics related to matrix operations, simple and compound interest, and annuities are used to evaluate various financial decisions, while topics related to business calculus are used to determine marginal revenue and costs. Through problem-solving, group activities and assignments, numerical skills are introduced and emphasized.

*Pre-Requisite ENGL 101*

**QMET 210 Statistics for Business**

Quantitative tools and methods are necessary skills required in the contemporary world of business. The current business environment demands managers' ability to analyze and summarize data and use statistical tools for decision-making and problem solving. Students are acquainted with the topics related to data organization, visualization, hypotheses testing for parametric and nonparametric test. Through group activities, assignments and using Microsoft Excel students are prepared to deliver effective business presentations.

Pre-Requisite(s): QMET110

**QDFP 416 Dermatoglyphics and other impressions**

Mastering the skills of dermatoglyphics is vital in forensic investigation. Students will learn about the various types of impression evidence occurring at crime scenes. Pattern identification, crime scene preservation of prints, print development as well as their analysis are studied through lectures, practicals, demonstrations and documentaries.

**23 GLOSSARY OF TERMS**

**Academic standing:** The current academic performance based on SGPA and CGPA

**Academic break:** The duration when a student takes a break from an ongoing university session due to academic / personal reasons.

**Academic Warning:** Students who fail to maintain the required SGPA are given an academic warning.

**Academic Dismissal:** Dismissal from the University due on academic grounds.

**Academic Probation:** Students promoted with academic warning are considered to be on academic probation where they can take limited number of credits per semester.

**Academic Progression:** Semester on semester movement of the students after successful completion of required credits.

**Add and Drop:** The duration at start of the semester when students can add or drop a course without affecting their GPA.

**AUD:** Amity University Dubai

**Bachelors:** 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).

**Credit Hours:** 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. For theoretical courses, 1 semester credit equals approximately 1 hour of time in class per week over a semester of 15 weeks or longer. For laboratory/tutorial-based courses, 1 semester credit equals approximately 2 hour of time in class per week over a semester of 15 weeks or longer.

**Cumulative GPA:** Cumulative grade point average.

**Degree:** Award at the end of an academic study.

**GPA:** Grade Point Average

**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.

**Transfer:** Transfer of credits from other accredited university.

**SGPA:** Semester Grade Point Average

**Conditional Admission:** Conditional admission of a student to the university 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.

**Course:** 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

**Semester:** A *semester* is a period of time, typically a minimum of 15 weeks, during the university offers courses. Some courses may be offered in a time-shortened period, often called a *term*, such as a *summer term*.

**Major:** The *major* is the field of study in which a student specializes at the baccalaureate level.

**Elective:** 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.

**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 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.

**AMITY UNIVERSITY DUBAI**

P.O. Box 345019

Dubai International Academic City

HELPLINE: 800AMITY (26489)/ +971 4 4554 900 [www.amityuniversity.ae](http://www.amityuniversity.ae)

**Telephone:** +9714 4554 900

**Fax:** +9714 4356 810

**Mobile Helpline:** +971 55 2305 741, +971 55 215 4941

**Admissions:** [admissions@amityuniversity.ae](mailto:admissions@amityuniversity.ae)

**General:** [info@amityuniversity.ae](mailto:info@amityuniversity.ae)



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