

# Undergraduate Programs 2018 2019

## College of Business and Economics

### Department of Statistics

#### Bachelor of Statistics

##### Description

The undergraduate program in Statistics at UAE introduces the fundamentals of probability and statistical inference (estimation & hypothesis testing) which cover design of experiments, sampling techniques and regression & time series analysis. Two distinctive features of the program are: the emphasis of business applications (e.g., forecasting financial & economic indicators, marketing surveys, audit sampling, decision making, quality control, etc.), and the reinforcement of lecture materials by closely integrated computer packages using real (local, where available) databases.

##### Program Objectives

1. Effective communication skills.
2. Critical thinking skills to the analysis and solution of statistics problems.
3. Positive contribution to teams, as members and leaders.
4. Ethical and social awareness at the local and global level.
5. In-depth knowledge in Statistics.

##### Program Learning Outcomes

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

1. Communicate effectively orally statistical results and their interpretation to non-specialized audiences.
2. Communicate in writing statistical results and their interpretation clearly and concisely using different formats and media.
3. Integrate statistical and computing skills to develop comprehensive solutions to problems in their field of work.
4. Research, critically evaluate and interpret information in identifying and formulating problems that can be solved using statistical techniques.
5. Demonstrate autonomy and responsibility in their work.
6. Apply teamwork skills and creativity in leadership and direction, appropriate to the context and level at which they are operating.
7. Demonstrate ethical reasoning in relation to statistical issues.
8. Develop an awareness of the civic responsibilities of the statistics discipline.
9. Demonstrate a comprehensive knowledge of key concepts and methodologies in statistics.

10. Identify the limitation and assumptions underlying statistical techniques and critically assess the validity of reported results.

11. Demonstrate an understanding of allied knowledge and theories in related fields of work or disciplines.

**Degree Requirements:**

Total Credit Hours: 120

Course Credits

**General Education (req. CH:39)**

Cluster 1: Values to Live By - Islam

(Required Credit Hours:3)

ISLM	100	Islamic Culture	3
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Cluster 1: Values to Live By - Ehtics

(Required Credit Hours:3)

PHIL	120	Principles of Professional Ethics	3
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Cluster 2: Skills for Life - English Communication Skills

(Required Credit Hours:3)

ESPU	104	Introduction to Academic English For Business	3
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Cluster 2: Skills for Life - Information Literacy

(Required Credit Hours:3)

GEIL	101	Information Literacy	3
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Cluster 2: Skills for Life - Thinking Skills

(Required Credit Hours:3)

HSS	110	Scientific Research Skills	3
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CSBP	119	Algorithms and Problem Solving	3
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PSY	105	Creative & Innovative Thinking Skills	3
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PHI	180	Critical Thinking	3
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GEHP	111	Happiness and Wellbeing	3
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IBLC - Inquiry based learning courses must be taken within first 30 credit hours

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Cluster 3: The Human Community - Emirates Society

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(Required Credit Hours:3)

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HSS	105	Emirates Studies	3
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Cluster 3: The Human Community - Humanities/Fine Arts

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(Required Credit Hours:3)

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ARCH	340	History and Theory of Architecture	3
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HIS	133	Introduction to Art History	3
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HSR	120	Introduction to Heritage & Culture	3
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HSR	130	Introduction to Language & Communication	3
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LIT	150	Introduction to Literature	3
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LNG	100	Introduction to Linguistics	3
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LNG	110	Language, Society & Culture	3
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MSC	200	Introduction to Mass Media	3
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MSC	240	World and Arab Media	3
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PHI	101	Introduction to Philosophy	3
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PHI	270	Philosophy of Education	3
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PHI	271	History and Philosophy of Science	3
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TRS	200	Introduction to Translation	3
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Cluster 3: The Human Community - Social and Behavioral Sciences

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(Required Credit Hours:3)

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ECON	105 *	Principles of Microeconomics	3
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\* Also counts towards the Major

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Cluster 3: The Human Community - The Global Experience

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(Required Credit Hours:3)			
AGRB	360	Global Agri-food Trade	3
ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3
GEO	200	World Regional Geography	3
HIS	120	Arab & Islamic Civilization	3
HIS	121	World History: Origins to 1500	3
HIS	125	Contemporary Civilization	3
PSG	250	Principles of International Relations	3

#### Cluster 4: The Natural World - Mathematics

(Required Credit Hours:3)			
MATH	115 *	Calculus for Business & Economics	3
* Also counts towards the Major			

#### Cluster 4: The Natural World - Natural Sciences

(Required Credit Hours:6)			
ARAG	205	Introduction to Fish & Animal Science	3
ARAG	220	Natural Resources	3
BION	100	Biology and its Modern Application	3
CHEM	181	Chemistry in the Modern World	3
FDSC	250	Contemporary Food Science & Nutrition	3
GEOL	110	Planet Earth	3
PHED	201	Physical Fitness and Wellness	3
PHYS	100	Astronomy	3
PHYS	101	Conceptual Physics	3

#### Cluster 5: Capstone Experience

			(Required Credit Hours:3)
MGMT	415 *	Strategic Management	3
* Also counts towards the Major			

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Course Credits

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**College of Business**

Required Courses

			(Required Credit Hours:45)
ACCT	100	Principles of Financial Accounting	3
ACCT	225	Fundamental of Cost & Management Accounting	3
ECON	125	Principles of Macroeconomics	3
ESPU	240	Business Writing in English	3
FINC	240	Principles of Financial Management	3
GBUS	460 *	Internship	12
MGMT	200	Fundamentals of Management	3
MIST	200	Foundation of MIS & Technologies	3
MKTG	200	Principles of Marketing	3
PRVT	2652	Business Law (E)	3
SCML	200	Supply Chain Management & Operations	3
STAT	130	Statistics for Business	3

\* The internship is conducted over 12 Weeks in the last semester (after a four week preparation session). No courses are allowed to be registered during the internship

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Course Credits

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**Statistics Major**

Required Courses

			(Required Credit Hours:18)
STAT	230	Principles of Probability	3

STAT	331	Design Of Experiments	3
STAT	338	Regression Analysis	3
STAT	422	Sampling Techniques	3
STAT	433	Time Series Analysis	3
STAT	480	Seminar in Applied Statistics (E)	3

Course Credits

**Statistics Track**

Required Courses

(Required Credit Hours:6)

STAT	340	Mathematical Statistics	3
STAT	462	Categorical Data Analysis	3

Elective Courses

(Required Credit Hours:6)

STAT	242	Non-Parametric Statistics	3
STAT	369	Demographic Analysis	3
STAT	461	Applied Multivariate Analysis	3
STAT	469	Statistical Quality Control	3
STAT	472	Statistical Computing	3

Course Credits

**Information System Track**

Required Courses

(Required Credit Hours:6)

MIST	220	MIS Analysis & Logical Design	3
MIST	320	Data & Information Management	3

Elective Courses

(Required Credit Hours:6)			
MIST	205	Introduction to Programming & Web B D	3
MIST	215	Computer Application in Business	3
MIST	280	E-Business Strategy, Architecture & Design	3

Course Credits

**Information Technology (IT) Track**

**Required Courses**

(Required Credit Hours:6)			
CSBP	119	Algorithms and Problem Solving	3
CSBP	219	Object Oriented Programming	3

**Elective Courses**

(Required Credit Hours:6)			
CENG	205	Digital Design & Computer Organization	3
CENG	210	Communication & Networks Fundamentals	3
CSBP	316	Human Computer Interaction	3
CSBP	315	Operating Systems Fundamentals	3

Course Credits

**Finance and Banking Track**

**Required Courses**

(Required Credit Hours:6)			
ECON	215	Money and Banking	3
FINC	261	Financial Institutions & Risk Management	3

**Elective Courses**

(Required Credit Hours:6)			
ECON	231	Econometrics	3

FINC	341	Corporate Finance	3
FINC	344	Islamic Finance and Banking	3
FINC	377	Investment	3
FINC	472	Portfolio Management	3

Free Electives

(Required Credit Hours:6)



# Department of Accounting

## Bachelor of Accounting

### Description

The department offers one Bachelor's degree in Accounting. The program is designed to provide comprehensive accounting education for students interested in learning about preparation of businesses financial statements and how these are audited; use of accounting information for managerial decisions; use of advanced management accounting techniques for strategy implementation and performance management; and advanced accounting issues. The Accounting program is AACSB-Accounting Accredited, being the first in the GCC and MENA region and the 10th worldwide outside North America. The degree is also accredited by the ACCA which is one of the largest international professional accounting organizations that qualify professional accountants. This accreditation means our graduates are exempted from up to 50% of the examination papers that one has to take to become an ACCA certified accountant. Also, the Accounting program graduates can follow the postgraduate path through the Department's AACSB-Accounting Accredited Master of Professional Accounting (MPA).

### Program Objectives

1. Effective communication skills.
2. Critical thinking skills to the analysis and solution of Accounting problems.
3. Positive contribution to teams, as members and leaders.
4. Ethical and social awareness at the local and global level.
5. In-depth knowledge in the field of accounting.

### Program Learning Outcomes

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

1. Communicate effectively orally, using technologies to support the oral presentation of information where appropriate.
2. Communicate effectively in writing, select and use information technology where appropriate.
3. Apply appropriate technologies and techniques to the collection and analysis of information and derive appropriate conclusions for accounting problems.
4. Research, critically evaluate and interpret accounting information to accurately identify business problems and suggest solutions.
5. Demonstrate autonomy and responsibility in their work.

6. Apply teamwork skill and creativity in leadership and direction, appropriate to the context and level at which they are operating.
7. Demonstrate ethical reasoning in relation to accounting issues.
8. Develop an awareness of the civic responsibilities of the accounting discipline.
9. Demonstrate a comprehensive knowledge of key concepts across the breadth of accounting topics.
10. Utilize appropriate frameworks and theories from accounting to research and assess contemporary issues in the field and relate to allied (professional) fields where appropriate.

**Degree Requirements:** Total Credit Hours: 120

				Course Credits
<b>General Education (Req. CH:39)</b>				
<b>Cluster 1: Values to Live By - Islam</b>				
				(Required Credit Hours:3)
ISLM	100	Islamic Culture		3
<b>Cluster 1: Values to Live By - Ethics</b>				
				(Required Credit Hours:3)
PHIL	120	Principles of Professional Ethics		3
<b>Cluster 2: Skills for Life - English Communication Skills</b>				
				(Required Credit Hours:3)
ESPU	104	Introduction to Academic English For Business		3
<b>Cluster 2: Skills for Life - Information Literacy</b>				
				(Required Credit Hours:3)
GEIL	101	Information Literacy		3
<b>Cluster 2: Skills for Life - Thinking Skills</b>				
				(Required Credit Hours:3)
HSS	110	Scientific Research Skills		3
CSBP	119	Algorithms and Problem Solving		3
PSY	105	Creative & Innovative Thinking Skills		3

PHI	180	Critical Thinking	3
GEHP	111	Happiness and Wellbeing	3
IBLC - Inquiry based learning courses must be taken within first 30 credit hours			
<b>Cluster 3: The Human Community - Emirates Society</b>			
(Required Credit Hours:3)			
HSS	105	Emirates Studies	3
<b>Cluster 3: The Human Community - Humanities/Fine Arts</b>			
(Required Credit Hours:3)			
ARCH	340	History and Theory of Architecture	3
HIS	133	Introduction to Art History	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
LIT	150	Introduction to Literature	3
LNG	100	Introduction to Linguistics	3
LNG	110	Language, Society & Culture	3
MSC	200	Introduction to Mass Media	3
MSC	240	World and Arab Media	3
PHI	101	Introduction to Philosophy	3
PHI	270	Philosophy of Education	3
PHI	271	History and Philosophy of Science	3
TRS	200	Introduction to Translation	3
<b>Cluster 3: The Human Community - Social and Behavioral Sciences</b>			
(Required Credit Hours:3)			
ECON	105 *	Principles of Microeconomics	3
* Also counts towards the Major			

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**Cluster 3: The Human Community - The Global Experience****(Required Credit Hours:3)**

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AGRB	360	Global Agri-food Trade	3
ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3
GEO	200	World Regional Geography	3
HIS	120	Arab & Islamic Civilization	3
HIS	121	World History: Origins to 1500	3
HIS	125	Contemporary Civilization	3
PSG	250	Principles of International Relations	3

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**Cluster 4: The Natural World - Mathematics****(Required Credit Hours:3)**

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MATH	115 *	Calculus for Business & Economics	3
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\* Also counts towards the Major

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**Cluster 4: The Natural World - Natural Sciences****(Required Credit Hours:6)**

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ARAG	205	Introduction to Fish & Animal Science	3
ARAG	220	Natural Resources	3
BION	100	Biology and its Modern Application	3
CHEM	181	Chemistry in the Modern World	3
FDSC	250	Contemporary Food Science & Nutrition	3
GEOL	110	Planet Earth	3
PHED	201	Physical Fitness and Wellness	3
PHYS	101	Conceptual Physics	3
PHYS	100	Astronomy	3

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**Cluster 5: Capstone Experience**

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(Required Credit Hours:3)

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MGMT	415 *	Strategic Management	3
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\* Also counts towards the Major

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Course Credits

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**College of Business**

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**Required Courses**

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(Required Credit Hours:45)

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ACCT	100	Principles of Financial Accounting	3
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ACCT	225	Fundamental of Cost & Management Accounting	3
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ECON	125	Principles of Macroeconomics	3
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ESPU	240	Business Writing in English	3
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FINC	240	Principles of Financial Management	3
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GBUS	460 *	Internship	12
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MGMT	200	Fundamentals of Management	3
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MIST	200	Foundation of MIS & Technologies	3
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MKTG	200	Principles of Marketing	3
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PRVT	2652	Business Law (E)	3
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SCML	200	Supply Chain Management & Operations	3
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STAT	130	Statistics for Business	3
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\* The internship is conducted over 12 Weeks in the last semester (after a four week preparation session). No courses are allowed to be registered during the internship

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Course Credits

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**Accounting**

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**Major Requirements**

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(Required Credit Hours:21)

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ACCT	311	Islamic Accounting	3
ACCT	235	Intermediate Accounting I	3
ACCT	245	Intermediate Accounting II	3
ACCT	315	Principles of Auditing	3
ACCT	351	Cost and Managerial Accounting	3
ACCT	422	Accounting Information Systems	3
ACCT	455	Comprehensive Accounting Seminar	3

Financial Accounting Stream  
(Must take at least 2 from the following group + 1 from this group or the other two groups)

(Required Credit Hours:9)

ACCT	324	International Accounting	3
ACCT	413	Advanced Auditing	3
ACCT	451	Advanced Accounting	3

Managerial Accounting Stream  
(Must take at least 2 from the following group + 1 from this group or the other two groups)

(Required Credit Hours:9)

ACCT	353	Internal Auditing	3
ACCT	423	Advanced Accounting Information Systems	3
ACCT	452	Advanced Managerial Accounting	3

General Stream  
(May choose from any three courses of the nine stream courses)

(Required Credit Hours:9)

ACCT	334	Governmental Accounting	3
ACCT	352	Oil and Gas Accounting	3
ACCT	453	Accounting Theory	3

# Department of Economics and Finance

## Bachelor of Economics

### Description

The Bachelor of Economics offered by the department of Economics and Finance aims to provide students with a solid understanding of economic theories, applied economics and statistical techniques. Driven by the need for Economics graduates with a good understanding of the contemporary economic challenges that the UAE is facing, such as the transition from an oil-based economy towards a knowledge-based economy, the Economics curriculum has been updated and enhanced to provide the graduates with a competitive edge, allowing them to fit into the current dynamics of the job market. Topics covered in the new curriculum include among others: Public Economics, Applied Economics of the Middle East, Environmental and Energy Economics, and Labor and HR Economics. Overall, the program prepares students to effectively use the acquired skills, which are important in many businesses and government agencies and engages them in exciting analyses of real-world economic issues.

### Program Objectives

1. Effective communication skills.
2. Critical thinking skills to the analysis and solution of Economics problems .
3. Positive contribution to teams, as members and leaders.
4. Ethical and social awareness at the local and global level .
5. In-depth knowledge in a specialist field of business.

### Program Learning Outcomes

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

1. Communicate effectively orally, using technologies to support the oral presentation of information where appropriate.
2. Communicate effectively in writing, select and use information technology where appropriate.
3. Apply appropriate technologies and techniques to the collection and analysis of information and derive appropriate conclusions for economic problems.
4. Research, critically evaluate and interpret information to accurately identify economic problems and suggest solutions.
5. Demonstrate autonomy and responsibility in their work.
6. Apply teamwork skills and creativity in leadership and direction, appropriate to the context and level at which they are operating.
7. Demonstrate ethical reasoning in relation to Economic issues.

8. Develop an awareness of the civic responsibilities of the Economics discipline.
9. Demonstrate a comprehensive knowledge of key concepts across the breadth of Economic topics.
10. Demonstrate a good knowledge of the functioning of economic markets and institutions from both a global and local perspective and be able to apply economic tools and concepts to real world problems.
11. Utilize appropriate economic frameworks and theories to research and assess contemporary issues in the field and related allied fields where appropriate.

**Degree Requirements:**

Total Credit Hours: 120

Course Credits

**General Education (Req. CH:39)**

Cluster 1: Values to Live By - Islam

(Required Credit Hours:3)

ISLM	100	Islamic Culture	3
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Cluster 1: Values to Live By - Ethics

(Required Credit Hours:3)

PHIL	120	Principles of Professional Ethics	3
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Cluster 2: Skills for Life - English Communication Skills

(Required Credit Hours:3)

ESPU	104	Introduction to Academic English For Business	3
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Cluster 2: Skills for Life - Information Literacy

(Required Credit Hours:3)

GEIL	101	Information Literacy	3
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Cluster 2: Skills for Life - Thinking Skills

(Required Credit Hours:3)

HSS	110	Scientific Research Skills	3
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PSY	105	Creative & Innovative Thinking Skills	3
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CSBP	119	Algorithms and Problem Solving	3
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GEHP	111	Happiness and Wellbeing	3
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IBLC - Inquiry based learning courses must be taken within first 30 credit hours

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Cluster 3: The Human Community - Emirates Society

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(Required Credit Hours:3)

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HSS	105	Emirates Studies	3
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Cluster 3: The Human Community - Humanities/Fine Arts

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(Required Credit Hours:3)

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ARCH	340	History and Theory of Architecture	3
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HIS	133	Introduction to Art History	3
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HSR	120	Introduction to Heritage & Culture	3
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HSR	130	Introduction to Language & Communication	3
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LIT	150	Introduction to Literature	3
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LNG	100	Introduction to Linguistics	3
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LNG	110	Language, Society & Culture	3
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MSC	200	Introduction to Mass Media	3
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MSC	240	World and Arab Media	3
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PHI	101	Introduction to Philosophy	3
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PHI	270	Philosophy of Education	3
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PHI	271	History and Philosophy of Science	3
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TRS	200	Introduction to Translation	3
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Cluster 3: The Human Community - Social and Behavioral Sciences

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(Required Credit Hours:3)

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ECON	105 *	Principles of Microeconomics	3
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\* Also counts towards the Major

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Cluster 3: The Human Community - The Global Experience

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(Required Credit Hours:3)			
ACCT	100	Principles of Financial Accounting	3
ECON	105	Principles of Microeconomics	3
ARCH	346	Contemporary World Architecture	3
AGRB	360	Global Agri-food Trade	3
BIOE	240	Principles of Environmental Science	3
GEO	200	World Regional Geography	3
HIS	120	Arab & Islamic Civilization	3
HIS	121	World History: Origins to 1500	3
HIS	125	Contemporary Civilization	3
PSG	250	Principles of International Relations	3

#### Cluster 4: The Natural Sciences - Mathematics

(Required Credit Hours:3)			
MATH	115 *	Calculus for Business & Economics	3
* Also counts towards the Major			

#### Cluster 4: The Natural World - Natural Sciences

(Required Credit Hours:6)			
ARAG	205	Introduction to Fish & Animal Science	3
ARAG	220	Natural Resources	3
BION	100	Biology and its Modern Application	3
CHEM	181	Chemistry in the Modern World	3
FDSC	250	Contemporary Food Science & Nutrition	3
GEOL	110	Planet Earth	3
PHED	201	Physical Fitness and Wellness	3
PHYS	100	Astronomy	3
PHYS	101	Conceptual Physics	3

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**Cluster 5: Capstone Experience**

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(Required Credit Hours:3)

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MGMT	415 *	Strategic Management	3
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\* Also counts towards the Major

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Course Credits

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**Colleges of Business****Required Courses**

(Required Credit Hours:45)

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ACCT	100	Principles of Financial Accounting	3
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ACCT	225	Fundamental of Cost & Management Accounting	3
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ECON	125	Principles of Macroeconomics	3
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ESPU	240	Business Writing in English	3
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FINC	240	Principles of Financial Management	3
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GBUS	460 *	Internship	12
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MGMT	200	Fundamentals of Management	3
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MIST	200	Foundation of MIS & Technologies	3
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MKTG	200	Principles of Marketing	3
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PRVT	2652	Business Law (E)	3
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SCML	200	Supply Chain Management & Operations	3
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STAT	130	Statistics for Business	3
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\* The internship is conducted over 12 Weeks in the last semester (after a four week preparation session). No courses are allowed to be registered during the internship

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Course Credits

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**Economics Program Requirements****Required Courses**

(Required Credit Hours:18)

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ECON	211	Theory of Microeconomics	3
ECON	212	Theory of Macroeconomics	3
ECON	215	Money and Banking	3
ECON	231	Econometrics	3
ECON	344	Public Economics	3
ECON	433	Applied Economics of the Middle East	3

### Elective Courses

(Required Credit Hours:12)

ECON	236	Project Economics	3
ECON	237	Environmental and Energy Economics	3
ECON	239	Competition and Business Strategy	3
ECON	333	Economic Development and Institutions	3
ECON	338	International Economics and Globalization	3
FINC	344	Islamic Finance and Banking	3
ECON	432	Research Methods in Economics	3
ECON	441	Labor and HR Economics	3
ECON	455	Selected Topics In Economics	3

### Free Electives

(Required Credit Hours:6)

## Bachelor of Finance and Banking

### Description

The Bachelor of Finance and Banking offered by the Department of Economics and Finance prepares students for a challenging and rewarding career in an evolving business environment, where the know-how of all finance tools and techniques is a must. The finance major includes topics such as: Principles of Finance, Investment Analysis, Portfolio Management, Financial Derivatives, Corporate Finance, Islamic

Finance and Banking, and much more, with emphasis placed on practical applications and real-life problem solving. Our program of study prepares graduates for decision-making positions in corporations and financial services firms such as banks, brokerage firms, investment companies and financial advisory houses.

### Program Objectives

1. Effective communication skills.
2. Critical thinking skills to the analysis and solution of Economics problems.
3. Positive contribution to teams, as members and leaders.
4. Ethical and social awareness.
5. In-depth knowledge in a specialist field of business

### Program Learning Outcomes

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

1. Communicate effectively orally, using technologies to support the oral presentation of information where appropriate.
2. Communicate effectively in writing, select and use information technology where appropriate.
3. Apply appropriate technologies and techniques to the collection and analysis of information and derive appropriate conclusions for finance problems.
4. Research, critically evaluate and interpret information to accurately identify finance problems and suggest solutions.
5. Demonstrate autonomy and responsibility in their work.
6. Apply teamwork skills and creativity in leadership and direction, appropriate to the context and level at which they are operating.
7. Demonstrate ethical reasoning in relation to Finance issues.
8. Develop an awareness of the civic responsibilities of the Finance discipline.
9. Demonstrate a comprehensive knowledge of key concepts across the breadth of Finance topics.
10. Demonstrate a good knowledge of financial markets and institutions from both a global and local perspective and be able to apply finance tools and concepts to real world problems.
11. Utilize appropriate finance frameworks and theories to research and assess contemporary issues in the field and related allied fields where appropriate.

### Degree Requirements:

Total Credit Hours: 120

Course Credits

#### General Education (Req. CH:39)

#### Cluster 1: Values to Live By - Islam

(Required Credit Hours:3)

ISLM	100	Islamic Culture	3
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#### Cluster 1: Values to Live By - Ethics

			(Required Credit Hours:3)
PHIL	120	Principles of Professional Ethics	3

#### Cluster 2: Skills for Life - English Communication Skills

			(Required Credit Hours:3)
ESPU	104	Introduction to Academic English For Business	3

#### Cluster 2: Skills for Life - Information Literacy

			(Required Credit Hours:3)
GEIL	101	Information Literacy	3

#### Cluster 2: Skills for Life - Thinking Skills

			(Required Credit Hours:3)
HSS	110	Scientific Research Skills	3
CSBP	119	Algorithms and Problem Solving	3
PSY	105	Creative & Innovative Thinking Skills	3
PHI	180	Critical Thinking	3
GEHP	111	Happiness and Wellbeing	3

IBLC - Inquiry based learning courses must be taken within first 30 credit hours

#### Cluster 3: The Human Community - Emirates Society

			(Required Credit Hours:3)
HSS	105	Emirates Studies	3

#### Cluster 3: The Human Community - Humanities/Fine Arts

			(Required Credit Hours:3)
ARCH	340	History and Theory of Architecture	3
HIS	133	Introduction to Art History	3
HSR	120	Introduction to Heritage & Culture	3

HSR	130	Introduction to Language & Communication	3
LIT	150	Introduction to Literature	3
LNG	100	Introduction to Linguistics	3
LNG	110	Language, Society & Culture	3
MSC	200	Introduction to Mass Media	3
MSC	240	World and Arab Media	3
PHI	101	Introduction to Philosophy	3
PHI	270	Philosophy of Education	3
PHI	271	History and Philosophy of Science	3
TRS	200	Introduction to Translation	3

#### Cluster 3: The Human Community - Social and Behavioral Sciences

(Required Credit Hours:3)

ECON	105 *	Principles of Microeconomics	3
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\* Also counts towards the Major

#### Cluster 3: The Human Community - The Global Experience

(Required Credit Hours:3)

AGRB	360	Global Agri-food Trade	3
ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3
GEO	200	World Regional Geography	3
HIS	120	Arab & Islamic Civilization	3
HIS	121	World History: Origins to 1500	3
HIS	125	Contemporary Civilization	3
PSG	250	Principles of International Relations	3

#### Cluster 4: The Natural World - Mathematics

(Required Credit Hours:3)			
MATH	115 *	Calculus for Business & Economics	3
* Also counts towards the Major			

Cluster 4: The Natural World - Natural Sciences			
(Required Credit Hours:6)			
ARAG	205	Introduction to Fish & Animal Science	3
ARAG	220	Natural Resources	3
BION	100	Biology and its Modern Application	3
CHEM	181	Chemistry in the Modern World	3
FDSC	250	Contemporary Food Science & Nutrition	3
GEOL	110	Planet Earth	3
PHED	201	Physical Fitness and Wellness	3
PHYS	100	Astronomy	3
PHYS	101	Conceptual Physics	3

Cluster 5: Capstone Experience			
(Required Credit Hours:3)			
MGMT	415 *	Strategic Management	3
* Also counts towards the Major			

Course Credits
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<b>College of Business</b>			
Required Courses			
(Required Credit Hours:45)			
ACCT	100	Principles of Financial Accounting	3
ACCT	225	Fundamental of Cost & Management Accounting	3
ECON	125	Principles of Macroeconomics	3
ESPU	240	Business Writing in English	3



FINC	240	Principles of Financial Management	3
GBUS	460 *	Internship	12
MGMT	200	Fundamentals of Management	3
MIST	200	Foundation of MIS & Technologies	3
MKTG	200	Principles of Marketing	3
PRVT	2652	Business Law (E)	3
SCML	200	Supply Chain Management & Operations	3
STAT	130	Statistics for Business	3
* The internship is conducted over 12 Weeks in the last semester (after a four week preparation session). No courses are allowed to be registered during the internship			

Course Credits

#### Finance and Banking Program Requirements

##### Required Courses

(Required Credit Hours:21)

ECON	215	Money and Banking	3
FINC	261	Financial Institutions & Risk Management	3
FINC	341	Corporate Finance	3
FINC	377	Investment	3
FINC	434	Financial Statement Analysis and Business Valuation	3
FINC	348	International Finance	3
FINC	475	Derivatives Securities	3

##### Elective Courses

(Required Credit Hours:9)

ECON	212	Theory of Macroeconomics	3
ECON	231	Econometrics	3
FINC	344	Islamic Finance and Banking	3

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FINC	472	Portfolio Management	3
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FINC	463	Case Studies in Finance	3
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FINC	474	Selected Topics in Finance	3
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Free Electives

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(Required Credit Hours:6)

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# Department of Business Administration

## Bachelor of Business Administration

### Description

The Bachelor of Business Administration degree enables students to pursue a broad range of careers in business and government sectors with four specialty tracks: Entrepreneurship, Human Resources Management, Marketing, and Supply Chain Management. Driven by students' need to compete in a global job market, the Business Administration program is internationally accredited providing students with worldwide recognition of their prestigious academic degrees. The program is designed to help meet the growing and changing labor market needs of the UAE economy. The Business Administration curriculum equips students with core business skills including finance, accounting, and economics, and knowledge in all business functions. Students obtain a solid foundation in managerial and analytical skills in theory and in real-world business practice with an internship program. The program prepares students not only for careers in government and industry but also for graduate studies.

### Program Objectives

1. Effective communication skills.
2. Critical thinking skills to the analysis and solution of business problems.
3. Positive contribution to teams, as members and leaders.
4. Ethical and social awareness at the local and global level.
5. In-depth knowledge in the specialist field of business.

### Program Learning Outcomes

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

1. Communicate effectively orally, using technologies to support the oral presentation of information where appropriate.
2. Communicate effectively in writing, select and use information technology where appropriate.
3. Apply appropriate technologies and techniques to the collection and analysis of information and derive appropriate conclusions for business problems.
4. Research, critically evaluate and interpret information to accurately identify business problems and suggest solutions.
5. Demonstrate autonomy and responsibility in their work.
6. Apply teamwork skills and creativity in leadership and direction, appropriate to the context and level at which they are operating.
7. Demonstrate ethical reasoning in relation to business issues.
8. Develop an awareness of the civic responsibilities of business.
9. Demonstrate a comprehensive knowledge of key concepts across the breadth of business administration topics.

10. Utilize appropriate frameworks and theories from business administration to research and assess contemporary issues in the field and relate to allied (professional) fields when appropriate.

**Degree Requirements:** Total Credit Hours: 120

			Course Credits
<b>General Education (Req. CH:39)</b>			
<b>Cluster 1: Values to Live By - Islam</b>			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3
<b>Cluster 1: Values to Live By - Ethics</b>			
			(Required Credit Hours:3)
PHIL	120	Principles of Professional Ethics	3
<b>Cluster 2: Skills for Life - English Communication Skills</b>			
			(Required Credit Hours:3)
ESPU	104	Introduction to Academic English For Business	3
<b>Cluster 2: Skills for Life - Information Literacy</b>			
			(Required Credit Hours:3)
GEIL	101	Information Literacy	3
<b>Cluster 2: Skills for Life - Thinking Skills</b>			
			(Required Credit Hours:3)
HSS	110	Scientific Research Skills	3
CSBP	119	Algorithms and Problem Solving	3
PSY	105	Creative & Innovative Thinking Skills	3
PHI	180	Critical Thinking	3
GEHP	111	Happiness and Wellbeing	3
IBLC - Inquiry based learning courses must be taken within first 30 credit hours			

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**Cluster 3: The Human Community - Emirates Society**

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(Required Credit Hours:3)

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HSS	105	Emirates Studies	3
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**Cluster 3: The Human Community - Humanities/Fine Arts**

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(Required Credit Hours:3)

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ARCH	340	History and Theory of Architecture	3
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HIS	133	Introduction to Art History	3
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HSR	120	Introduction to Heritage & Culture	3
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HSR	130	Introduction to Language & Communication	3
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LIT	150	Introduction to Literature	3
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LNG	100	Introduction to Linguistics	3
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LNG	110	Language, Society & Culture	3
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MSC	200	Introduction to Mass Media	3
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MSC	240	World and Arab Media	3
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PHI	101	Introduction to Philosophy	3
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PHI	270	Philosophy of Education	3
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PHI	271	History and Philosophy of Science	3
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TRS	200	Introduction to Translation	3
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**Cluster 3: The Human Community - Social and Behavioral Sciences**

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(Required Credit Hours:3)

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ECON	105 *	Principles of Microeconomics	3
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\* Also counts towards the Major

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**Cluster 3: The Human Community - The Global Experience**

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(Required Credit Hours:3)

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AGRB	360	Global Agri-food Trade	3
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ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3
GEO	200	World Regional Geography	3
HIS	120	Arab & Islamic Civilization	3
HIS	121	World History: Origins to 1500	3
HIS	125	Contemporary Civilization	3
PSG	250	Principles of International Relations	3

#### Cluster 4: The Natural World - Mathematics

(Required Credit Hours:3)

MATH	115 *	Calculus for Business & Economics	3
* Also counts towards the Major			

#### Cluster 4: The Natural World - Natural Sciences

(Required Credit Hours:6)

ARAG	205	Introduction to Fish & Animal Science	3
ARAG	220	Natural Resources	3
BION	100	Biology and its Modern Application	3
CHEM	181	Chemistry in the Modern World	3
FDSC	250	Contemporary Food Science & Nutrition	3
GEOL	110	Planet Earth	3
PHED	201	Physical Fitness and Wellness	3
PHYS	100	Astronomy	3
PHYS	101	Conceptual Physics	3

#### Cluster 5: Capstone Experience

(Required Credit Hours:3)

MGMT	415 *	Strategic Management	3
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\* Also counts towards the Major

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Course Credits

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**College of Business**

**Required Courses**

(Required Credit Hours:45)

ACCT	100	Principles of Financial Accounting	3
ACCT	225	Fundamental of Cost & Management Accounting	3
ECON	125	Principles of Macroeconomics	3
ESPU	240	Business Writing in English	3
FINC	240	Principles of Financial Management	3
GBUS	460 *	Internship	12
MGMT	200	Fundamentals of Management	3
MIST	200	Foundation of MIS & Technologies	3
MKTG	200	Principles of Marketing	3
PRVT	2652	Business Law (E)	3
SCML	200	Supply Chain Management & Operations	3
STAT	130	Statistics for Business	3

\* The internship is conducted over 12 Weeks in the last semester (after a four week preparation session). No courses are allowed to be registered during the internship

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Course Credits

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**Entrepreneurship Track**

**Required Courses**

(Required Credit Hours:15)

ENTR	310	Innovation and Creativity	3
ENTR	320	Entrepreneurship	3
ENTR	330	Social Entrepreneurship	3

ENTR	410	Managing Entrepreneurial Ventures	3
ENTR	460	International Entrepreneurship	3

Course Credits

**Human Resources Development and Management Track**

Required Courses

(Required Credit Hours:15)

HRMD	310	Organizational Behavior	3
HRMD	320	Human Resources Management	3
HRMD	330	Staffing Organizations	3
HRMD	410	Human Resources Performance Management	3
HRMD	420	Compensation & Benefits Management	3

Course Credits

**Marketing Track**

Required Courses

(Required Credit Hours:15)

MKTG	310	Marketing Research	3
MKTG	320	Consumer Behavior	3
MKTG	330	Services Marketing	3
MKTG	340	International Marketing	3
MKTG	420	Strategic Marketing Management	3

Course Credits

**Supply Chain Management and Logistics Track**

Required Courses

(Required Credit Hours:15)

SCML	310	Supply Chain & Logistics Modeling	3
SCML	320	Procurement & Supply Management	3



SCML	330	Logistics & Transportation Management	3
SCML	410	Global Supply Chain & Logistics	3
SCML	460	Supply Chain Applications Strategy	3
			Course Credits
<b>Elective Courses for All Tracks</b>			
Elective courses must come from tracks outside of the declared major.			
			(Required Credit Hours:15)
ENTR	310	Innovation and Creativity	3
ENTR	320	Entrepreneurship	3
HRMD	310	Organizational Behavior	3
MIST	215	Computer Application in Business	3
MIST	280	E-Business Strategy, Architecture & Design	3
MKTG	310	Marketing Research	3
MKTG	320	Consumer Behavior	3
SCML	310	Supply Chain & Logistics Modeling	3
SCML	320	Procurement & Supply Management	3
<b>Free Electives</b>			
			(Required Credit Hours:6)

## Bachelor of Management Information Systems

### Description

The Management Information Systems (MIS) program offered by the Business Administration Department prepares students for a successful career by equipping them with effective analytical and managerial skills. Information systems are integral parts of government and business organizations that drive change and innovation. With the advent of social media and mobile technologies, information systems play a key role in society. Building on the core business curriculum, the MIS program provides students valuable skills in using cutting-edge software tools used in modern

organizations and knowledge in the areas of analyzing business needs, designing new systems, project management, database management, and gaining actionable intelligence from business data. The program facilitates students to advance in both MIS and business skills with seven baskets: MIS, Human Resource Management and Development, Accounting, Finance, Entrepreneurship, Supply Chain Management and Logistics, and Marketing. Students can choose either a pure MIS or mixing the MIS with any one of the seven baskets.

### Program Objectives

1. Effective communication skills.
2. Critical thinking skills to the analysis and solution of MIS problems.
3. Positive contribution to teams, as members and leaders.
4. Ethical and social awareness at the local and global level.
5. In-depth knowledge in the specialist field of MIS.

### Program Learning Outcomes

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

1. Communicate effectively orally, using technologies to support the oral presentation of information where appropriate.
2. Communicate effectively in writing, select and use information technology where appropriate.
3. Apply appropriate technologies and techniques to the collection and analysis of information and derive appropriate conclusions for business problems.
4. Research, critically evaluate and interpret information to accurately identify business problems and suggest solutions.
5. Demonstrate autonomy and responsibility in their work.
6. Apply teamwork skills and creativity in leadership and direction, appropriate to the context and level at which they are operating.
7. Demonstrate ethical reasoning in relation to business issues.
8. Develop an awareness of the civic responsibilities of business.
9. Demonstrate comprehensive knowledge of key concepts across the breadth of effective application and use of MIS and innovative information technologies in organizations.
10. Apply MIS knowledge to facilitate the acquisition, development, deployment, and management of information systems.
11. Apply MIS knowledge to the exploitation of opportunities created by information technology innovations ensuring the alignment between MIS strategy and organizational strategy.
12. Utilize appropriate enterprise frameworks, theories from the MIS to research and assess contemporary issues in the field and related allied fields and disciplines.

**Degree Requirements:**

Total Credit Hours: 120

Course Credits

**General Education (Req. CH:39)**

Cluster 1: Values to Live By - Islam

			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

Cluster 1: Values to Live By - Ethics

			(Required Credit Hours:3)
PHIL	120	Principles of Professional Ethics	3

Cluster 2: Skills for Life - English Communication Skills

			(Required Credit Hours:3)
ESPU	104	Introduction to Academic English For Business	3

Cluster 2: Skills for Life - Information Literacy

			(Required Credit Hours:3)
GEIL	101	Information Literacy	3

Cluster 2: Skills for Life - Thinking Skills

			(Required Credit Hours:3)
HSS	110	Scientific Research Skills	3
CSBP	119	Algorithms and Problem Solving	3
PHI	180	Critical Thinking	3
PSY	105	Creative & Innovative Thinking Skills	3
GEHP	111	Happiness and Wellbeing	3

IBLC - Inquiry based learning courses must be taken within first 30 credit hours

Cluster 3: The Human Community - Emirates Society

			(Required Credit Hours:3)
HSS	105	Emirates Studies	3

Cluster 3: The Human Community - Humanities/Fine Arts

(Required Credit Hours:3)			
ARCH	340	History and Theory of Architecture	3
HIS	133	Introduction to Art History	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
LIT	150	Introduction to Literature	3
LNG	100	Introduction to Linguistics	3
LNG	110	Language, Society & Culture	3
MSC	200	Introduction to Mass Media	3
MSC	240	World and Arab Media	3
PHI	101	Introduction to Philosophy	3
PHI	270	Philosophy of Education	3
PHI	271	History and Philosophy of Science	3
TRS	200	Introduction to Translation	3
<b>Cluster 3: Social and Behavioral Sciences</b>			
(Required Credit Hours:3)			
ECON	105 *	Principles of Microeconomics	3
* Also counts towards the Major			
<b>Cluster 3: The Human Community - The Global Experience</b>			
(Required Credit Hours:3)			
AGRB	360	Global Agri-food Trade	3
ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3
GEO	200	World Regional Geography	3
HIS	120	Arab & Islamic Civilization	3
HIS	121	World History: Origins to 1500	3

HIS	125	Contemporary Civilization	3
PSG	250	Principles of International Relations	3

**Cluster 4: The Natural World - Mathematics**

(Required Credit Hours:3)

MATH	115 *	Calculus for Business & Economics	3
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\* Also counts towards the Major

**Cluster 4: The Natural World - Natural Sciences**

(Required Credit Hours:6)

ARAG	205	Introduction to Fish & Animal Science	3
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ARAG	220	Natural Resources	3
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BION	100	Biology and its Modern Application	3
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CHEM	181	Chemistry in the Modern World	3
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FDSC	250	Contemporary Food Science & Nutrition	3
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GEOL	110	Planet Earth	3
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PHED	201	Physical Fitness and Wellness	3
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PHYS	100	Astronomy	3
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PHYS	101	Conceptual Physics	3
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**Cluster 5: Capstone Experience**

(Required Credit Hours:3)

MGMT	415 *	Strategic Management	3
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\* Also counts towards the Major

Course Credits

**College of Business**

**Required Courses**

(Required Credit Hours:45)

ACCT	100	Principles of Financial Accounting	3
ACCT	225	Fundamental of Cost & Management Accounting	3
ECON	125	Principles of Macroeconomics	3
ESPU	240	Business Writing in English	3
FINC	240	Principles of Financial Management	3
GBUS	460 *	Internship	12
MGMT	200	Fundamentals of Management	3
MIST	200	Foundation of MIS & Technologies	3
MKTG	200	Principles of Marketing	3
PRVT	2652	Business Law (E)	3
SCML	200	Supply Chain Management & Operations	3
STAT	130	Statistics for Business	3

\* The internship is conducted over 12 Weeks in the last semester (after a four week preparation session). No courses are allowed to be registered during the internship

Course Credits

### Management Information Systems

#### Major Required Courses

(Required Credit Hours:18)

MIST	205	Introduction to Programming & Web B D	3
MIST	220	MIS Analysis & Logical Design	3
MIST	320	Data & Information Management	3
MIST	360	MIS Project Management & Practice	3
MIST	420	Business Intelligence & PM	3
MIST	460	Enterprise Systems & MIS Strategy	3

Course Credits

### Accounting Track

Elective Courses			
(Required Credit Hours:12)			
ACCT	235	Intermediate Accounting I	3
ACCT	315	Principles of Auditing	3
ACCT	351	Cost and Managerial Accounting	3
ACCT	422	Accounting Information Systems	3
ACCT	423	Advanced Accounting Information Systems	3
			Course Credits
<b>Finance Track</b>			
Elective Courses			
(Required Credit Hours:12)			
FINC	261	Financial Institutions & Risk Management	3
FINC	341	Corporate Finance	3
FINC	377	Investment	3
FINC	348	International Finance	3
FINC	475	Derivatives Securities	3
			Course Credits
<b>Entrepreneurship Track</b>			
Elective Courses			
(Required Credit Hours:12)			
ENTR	310	Innovation and Creativity	3
ENTR	320	Entrepreneurship	3
ENTR	330	Social Entrepreneurship	3
ENTR	410	Managing Entrepreneurial Ventures	3
ENTR	460	International Entrepreneurship	3
MIST	280	E-Business Strategy, Architecture & Design	3

			Course Credits
<b>Human Resource and Development Management Track</b>			
Elective Courses			
			(Required Credit Hours:12)
HRMD	310	Organizational Behavior	3
HRMD	320	Human Resources Management	3
HRMD	330	Staffing Organizations	3
HRMD	420	Compensation & Benefits Management	3
HRMD	410	Human Resources Performance Management	3

			Course Credits
<b>Management Information System Track</b>			
Elective Courses			
			(Required Credit Hours:12)
ENTR	320	Entrepreneurship	3
ENTR	310	Innovation and Creativity	3
HRMD	320	Human Resources Management	3
HRMD	310	Organizational Behavior	3
MIST	215	Computer Application in Business	3
MIST	280	E-Business Strategy, Architecture & Design	3
SCML	310	Supply Chain & Logistics Modeling	3
SCML	320	Procurement & Supply Management	3
MKTG	310	Marketing Research	3
MKTG	320	Consumer Behavior	3

			Course Credits
<b>Marketing Track</b>			
Elective Courses			
			(Required Credit Hours:12)



MIST	280	E-Business Strategy, Architecture & Design	3
MKTG	310	Marketing Research	3
MKTG	320	Consumer Behavior	3
MKTG	330	Services Marketing	3
MKTG	340	International Marketing	3
MKTG	420	Strategic Marketing Management	3
			Course Credits
<b>Supply Chain Management Track</b>			
<b>Elective Courses</b>			
			(Required Credit Hours:12)
SCML	310	Supply Chain & Logistics Modeling	3
SCML	320	Procurement & Supply Management	3
SCML	330	Logistics & Transportation Management	3
SCML	410	Global Supply Chain & Logistics	3
SCML	460	Supply Chain Applications Strategy	3
<b>Free Electives</b>			
			(Required Credit Hours:6)

## Minor in Entrepreneurship

### Description

An 18 credits minor program consists of six courses. The first three compulsory courses (Fundamentals of Management; Fundamentals of Innovation and Entrepreneurship; Financial Management for Entrepreneurs) will be offered in the first semester to build the foundations of non-business students. The remaining three courses – one compulsory course (New Venture Creation) and two out of four elective courses (Social Entrepreneurship; Family Business; Managing Entrepreneurial Ventures; Technology Entrepreneurship) will be offered in the second semester.

### Program Objectives

1. To educate non-business students about the potential of planning and starting businesses on their own or helping corporates to come up with innovative products/ services, processes and business models.
2. To enable the students to view their chosen profession from a different perspective which is in tune with national aspirations.
3. To provide the students with requisite tools to create a new business or add value to an existing organization.

**Program Learning Outcomes**

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

1. Demonstrate comprehensive knowledge of key concepts to launch a new venture.
2. Demonstrate the ability to recognize a business opportunity.
3. Analyze issues related to start-ups and make informed decisions to arrive at reasoned conclusions when appropriate.
4. Develop analytical thinking skills to generate innovative solutions for business problems.

**Degree Requirements:**

Total Credit Hours: 18

Course Credits

**Entrepreneurship Requirements**

Required Courses

(Required Credit Hours:12)

MGMT	200	Fundamentals of Management	3
ENTR	300	Fundamentals of Innovation and Entrepreneurship	3
ENTR	340	Financial Management for Entrepreneurs	3
ENTR	350	New Venture Creation	3

Electives Courses

(Required Credit Hours:6)

ENTR	330	Social Entrepreneurship	3
ENTR	400	Family Business	3
ENTR	410	Managing Entrepreneurial Ventures	3
ENTR	420	Technology Entrepreneurship	3

# College of Humanities and Social Sciences

## Department of Arabic Language and Literature

### Bachelor of Arts in Arabic Language and Literature

#### Description

The Arabic Department's mission aims at preserving and enriching Arabic Language as a written text and spoken discourse capable of reflecting the diversity and complexity of the Arabic/ Islamic culture and civilization. The Department is also determined to enhance and develop Arabic Language teaching and pedagogy in a sophisticated way in order to reinforce the Arabic / Islamic identity of the nation. Further, the Department aims to academically prepare a generation of graduates, holders of a college degree in Arabic Language and Literature, able to participate in the enrichment of the intellectual, cultural and educational institutions inside and outside UAE. As a center of cultural illumination and scholarship, the Arabic Department at UAEU supports multi-disciplinary activities promoting inter-civilizational dialogue and giving priority to genuine social values and moral traditions. In addition to a deep- rooted interest in Arabic literary heritage, the Department aims to build bridges with other cultures exploring new avenues of cultural diversity and integrating foreign language education in its curriculum.

#### Program Objectives

1. Developing students' knowledge of language and organizing modern linguistic theories that student studied them.
2. Developing students' knowledge of literature and criticism and deepening understanding of the heritage ,Literature and contemporary literary and critical theories.
3. Giving students the skills that would enable them to exercise good reading, comprehension and expression.
4. Developing methods of scientific research and critical thinking.
5. Developing love and faith to the homeland, nation, language and belief in the human values.

#### Program Learning Outcomes

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

1. Form the structure of the word according to dictionaries and Morphological rules.
2. Mention verbal changes, meters and meanings.

3. Control vocabulary use grammatically according to language standards.
4. Shape linguistic structures correctly according to grammatical rules.
5. Demonstrate knowledge of modern linguistic theories in the analysis of the structures and detecting their implications.
6. Explain literary text and revealing meaning, purpose and images.
7. Show the most important critical issues addressed by the old critics.
8. Demonstrate knowledge of modern theories of criticism.
9. Listen the most important sources of literary heritage, rhetoric, criticism and their authors.
10. know famous (the figures) poets, writers and their ages and literary production.
11. Read the text correctly without linguistic or stylistic errors.
12. Express orally an accurate expression of the meanings and purposes of the texts.
13. Criticize the text objectively.
14. Analyze text in literary and Scientific way.
15. Explain the literary image revealing the elements of its aesthetic values.
16. Specify the subject of the search to allow Innovation and creativity
17. Specify the method and the plan that suit search subject .
18. Use the Library and Network in obtaining sources and the preparation of the scientific subject
19. Discuss opinions and views rationally and scientifically.
20. Write search in a way that demonstrates scientific thinking and linguistic aesthetics.
21. Provide evidences of the impact of our Arabic creativity in human heritage
22. Express writings that shows the richness of language and its ability to deal with modern age.
23. Demonstrate pride of nation, faith, and richness of Arabic and Islamic culture and Heritage.
24. Collaborate with others to accomplish the scientific goals of team work research

**Degree Requirements:**

Total Credit Hours: 120

Course Credits

**General Education (Req CH:39)**

**Cluster 1: Values to Live By - Islam**

(Required Credit Hours:3)

ISLM	100	Islamic Culture	3
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**Cluster 1: Values to Live By - Ethics**

(Required Credit Hours:3)

FOED	102	Professional Ethics in Education	3
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PHI	121	Fundamentals of Environmental Ethics	3
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PHI	122	International Ethics	3
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PHI	226	Human Rights Theory	3
PHIL	120	Principles of Professional Ethics	3
<b>Cluster 2: Skills for Life - English Communication</b>			
(Required Credit Hours:3)			
ESPU	1014	Introduction to Academic English for Humanities and SS	3
<b>Cluster 2: Skills for Life - Information Literacy</b>			
(Required Credit Hours:3)			
GEIL	101	Information Literacy	3
<b>Cluster 2: Skills for Life - Thinking Skills</b>			
(Required Credit Hours:3)			
HSS	110	Scientific Research Skills	3
CSBP	119	Algorithms and Problem Solving	3
PSY	105	Creative & Innovative Thinking Skills	3
PHI	180	Critical Thinking	3
GEHP	111	Happiness and Wellbeing	3
IBLC - Inquiry based learning courses must be taken within first 30 credit hours			
<b>Cluster 3: The Human Community - Emirates Society</b>			
(Required Credit Hours:3)			
HSS	105	Emirates Studies	3
<b>Cluster 3: The Human Community - Humanities/Fine Arts</b>			
(Required Credit Hours:3)			
ARCH	340	History and Theory of Architecture	3
HIS	133	Introduction to Art History	3
HSR	120	Introduction to Heritage & Culture	3

HSR	130	Introduction to Language & Communication	3
LIT	150	Introduction to Literature	3
LNG	100	Introduction to Linguistics	3
LNG	110	Language, Society & Culture	3
MSC	200	Introduction to Mass Media	3
MSC	240	World and Arab Media	3
PHI	101	Introduction to Philosophy	3
PHI	270	Philosophy of Education	3
PHI	271	History and Philosophy of Science	3
TRS	200	Introduction to Translation	3

#### Cluster 3: The Human Community - Social and Behavioral Sciences

(Required Credit Hours:3)

AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
SOC	260	Folklore	3
SWK	200	Introduction to Social Welfare	3

#### Cluster 3: The Human Community - The Global Experience

(Required Credit Hours:3)

AGRB	360	Global Agri-food Trade	3
ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3
GEO	200	World Regional Geography	3
HIS	120	Arab & Islamic Civilization	3

HIS	121	World History: Origins to 1500	3
HIS	122	Modern World History	3
HIS	125	Contemporary Civilization	3
PSG	250	Principles of International Relations	3

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Cluster 4: The Natural World - Mathematics

(Required Credit Hours:3)

MATH	120	Contemporary Applications of Math	3
STAT	101	Statistics in the Modern World	3

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Cluster 4: The Natural World - Natural Sciences

(Required Credit Hours:6)

ARAG	205	Introduction to Fish & Animal Science	3
ARAG	220	Natural Resources	3
BION	100	Biology and its Modern Application	3
CHEM	181	Chemistry in the Modern World	3
FDSC	250	Contemporary Food Science & Nutrition	3
GEOL	110	Planet Earth	3
PHED	201	Physical Fitness and Wellness	3
PHYS	100	Astronomy	3
PHYS	101	Conceptual Physics	3

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Cluster 5: Capstone Experience

(Required Credit Hours:3)

HSR	400 *	Integrated Capstone	3
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\* Also counts towards the Major

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Course Credits

**Arabic Language and Literature Major (Req CH:42)**

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Required Courses			
			(Required Credit Hours:21)
ARB	100	Styles of Literary Expression	3
ARB	110	Introduction to Syntax & Morphology	3
ARB	120	Arabic Rhetoric I	3
ARB	130	Literary Texts Analysis	3
ARB	160	General Linguistics	3
ARB	406	Research Methods in Language & Literature	3
ARB	430	Modern Literature Criticism	3
			Course Credits
<b>Concentrations - Student must choose Language or Literature</b>			
Language Required Courses			
			(Required Credit Hours:12)
ARB	210	Phonetics	3
ARB	311	Syntax II	3
ARB	321	Semantics & Arabic Lexicology	3
ARB	413	Arabic Linguistics	3
Literature Required Courses			
			(Required Credit Hours:12)
ARB	250	Abbasid Literature I	3
ARB	343	Pre-Islamic & Islamic Literature	3
ARB	444	Modern Arabic Literature	3
ARB	450	Comparative Literature	3
Elective Courses for Both Concentrations			
			(Required Credit Hours:9)
ARB	220	Prosody	3



ARB	230	Traditional Literary Criticism	3
ARB	240	Arabic Rhetoric II	3
ARB	260	Emirati Literature	3
ARB	270	Modern Arabic Gulf Literature	3
ARB	301	Abbasid Literature II	3
ARB	381	Arabic Library / Heritage	3
ARB	401	Philology	3
ARB	416	Andalusian & Maghribi Literature	3
ARB	424	Late Medieval Literature	3
ARB	436	Ex. in Syntax & Morphology	3
ARB	440	Research in the Critical & Rhetorical H	3

Course Credits

**Minors (Req. CH:36)**

Minor (1)

(Required Credit Hours:18)

Minor (2)

(Students can either take Minor (2) or 18 credit hours from any free elective courses.)

(Required Credit Hours:18)

ARB	305	Professional Writing	3
ARB	105	Creative Writing	3
ARB	205	Writing and Technology	3
ARB	405	Training Practicum	3
MSC	235	Principles of the Writing for Media	3
TRS	200	Introduction to Translation	3

Course Credits

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Free Elective

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Free Elective

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(Required Credit Hours:3)

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## Minor in Writing (Interdisciplinary in Arabic)

### Description

This Minor helps graduates to work at media institutions, where they practice writing essays, reports and other types of writing to T.V., newspapers.. etc. This Minor also develop graduates skills and expertise, then prepare them to work in cultural associations and centers, where they put their theoretical experience in practice.

### Program Objectives

1. To help students to develop graduate skills in writing for T.V, newspapers..etc.
2. To put a theoretical experience in practice and prepare students to work in cultural associations and centers

### Program Learning Outcomes

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

1. Introduce an understanding of the different nature of, and skills required for professional and creative writing in Arabic.
2. Demonstrate greater skills in written communications in Arabic
3. Develop critical and creative language awareness.
4. Have an increased awareness of the place of creative and professional writing in Arabic within an increasingly globalized UAE society.
5. Improve aptitudes and skills necessary for further scholarship or employment in the domains in which Arabic writing is studied or practiced.

### Degree Requirements:

Total Credit Hours: 18

Course Credits

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### Students must take these courses

Required Courses

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(Required Credit Hours:18)

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ARB	105	Creative Writing	3
ARB	205	Writing and Technology	3
ARB	305	Professional Writing	3
ARB	405	Training Practicum	3
MSC	235 *	Principles of the Writing for Media	3
TRS	200 **	Introduction to Translation	3

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\* Mass Communication students take ARB 130

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\*\* Translation students take ARB 130

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## Minor in Women and Culture (Arabic)

### Description

The Minor in Cognitive Science is an interdisciplinary program that investigates issues concerning the brain and the mind from the perspective of philosophy, psychology, linguistics, biology and information technology. The issues investigated include mental functions such as memory, perception, decision-making, linguistic competences and motor control. Students in the Minor choose a primary specialization in one of the core disciplines of the program and a secondary specialization in one of other core disciplines.

### Program Objectives

1. Gain theoretical grounded in in women's studies.
2. Demonstrate an understanding of representative works of women's literature.
3. Improved critical and creative thinking applied to interdisciplinary perspectives on women.
4. Have an understanding of the relationships between contemporary cultural theses with local, regional and international patters

### Program Learning Outcomes

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

1. Use some tools from women's studies to analyze Arabic literary, cultural and critical discourses
2. Apply some tools from women's studies to analyze Arabic literary, cultural and critical.
3. Describe different critical perspectives on women's literary theory
4. Demonstrate an enhanced self awareness
5. Enhance a critical understanding of images of women in the media.
6. Demonstrate an understanding the rule and the image of women in spoken and written language through the history of writing and speaking.

### Degree Requirements:

Total Credit Hours: 18

Course Credits

#### Students must take these courses

##### Required Courses

(Required Credit Hours:18)

ARB	115	Womens Literary Theory	3
ARB	215	Womens Studies & Arabic Literature	3
ARB	315	Modern Women's Literature	3
ARB	415	Seminar & Research in Women Studies	3
LNG	465	Women and Language	3
MSC	487	Women and Media	3

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# Department of English Literature

## Bachelor of Arts in English Literature

### Description

English is one of the most widely spoken languages and is rapidly becoming the international language of the world. The English Literature Department integrates English language and literature to help second language learners expand the boundaries of their future careers. The students' ability to read, analyze and criticize different texts in English and their knowledge of Western culture prepare them to be engaged in a post-globalized work-market in a variety of areas. Moreover, an awareness of informal and analytical writing strategies in English can also provide students with a wide range of skills which can be used in future studies, work, industry and business. The Department of English offers a Major degree tailored to fulfill the needs of Arab learners pursuing work opportunities in public and private sectors. Besides mastering language skills, students become proficient in the historical, sociological, political, psychological and cultural contexts out of which English/American literature has grown. This comprehensive pedagogical approach is supplemented with Minors in writing skills, theatre studies, film / cinema studies, English language and Literacy and Fine Arts.

### Program Objectives

1. Read and discuss a substantial number of complex works of literature and criticism in English.
2. Write a substantial number of analytical as well as informal assignments in English.
3. Interrogate the relationships between literary works and their historical and cultural contexts.
4. Investigate the connections made by literature between individuals, across boundaries of time and space.

### Program Learning Outcomes

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

1. Use appropriate terminology to identify key features of literary texts, genres, periods, techniques or devices.
2. Critique literary texts with reference to formal or aesthetic properties as well as to socio-historical rootedness and function.
3. Communicate appropriately and successfully, orally and in writing, on specialist as well as non-specialist subject matter, in a variety of academic or non-academic contexts.
4. Demonstrate willingness and ability to undertake further studies in literature or related disciplines, or to assume positions of responsibility in the world of work or civic engagement.
5. Apply generic skills and competences developed in the course of the program, such as critical thinking, problem-solving or team-work, in the world of work or civic engagement.

6. Undertake research with competent and proper use of printed as well as electronic resources, and of quantitative as well as qualitative methods.

**Degree Requirements:** Total Credit Hours: 120

			Course Credits
<b>General Education (Req. CH:39)</b>			
<b>Cluster 1: Values to Live By - Islam</b>			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3
<b>Cluster 1: Values to Live By - Ethics</b>			
			(Required Credit Hours:3)
FOED	102	Professional Ethics in Education	3
PHI	121	Fundamentals of Environmental Ethics	3
PHI	122	International Ethics	3
PHI	226	Human Rights Theory	3
PHIL	120	Principles of Professional Ethics	3
<b>Cluster 2: Skills for Life - English Communication</b>			
			(Required Credit Hours:3)
ESPU	1014	Introduction to Academic English for Humanities and SS	3
<b>Cluster 2: Skills for Life - Information Literacy</b>			
			(Required Credit Hours:3)
GEIL	101	Information Literacy	3
<b>Cluster 2: Skills for Life - Thinking Skills</b>			
			(Required Credit Hours:3)
HSS	110	Scientific Research Skills	3
CSBP	119	Algorithms and Problem Solving	3
PSY	105	Creative & Innovative Thinking Skills	3

PHI	180	Critical Thinking	3
GEHP	111	Happiness and Wellbeing	3
IBLC - Inquiry based learning courses must be taken within first 30 credit hours			
Cluster 3: The Human Community - Emirates Society			
(Required Credit Hours:3)			
HSS	105	Emirates Studies	3
Cluster 3: The Human Community - Humanities/Fine Arts			
(Required Credit Hours:3)			
ARCH	340	History and Theory of Architecture	3
HIS	133	Introduction to Art History	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
LNG	100	Introduction to Linguistics	3
LNG	110	Language, Society & Culture	3
MSC	200	Introduction to Mass Media	3
MSC	240	World and Arab Media	3
PHI	101	Introduction to Philosophy	3
PHI	270	Philosophy of Education	3
PHI	271	History and Philosophy of Science	3
TRS	200	Introduction to Translation	3
Cluster 3: The Human Community - Social and Behavioral Sciences			
(Required Credit Hours:3)			
AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3

HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
SOC	260	Folklore	3
SWK	200	Introduction to Social Welfare	3

### Cluster 3: The Human Community - The Global Experience

(Required Credit Hours:3)

AGRB	360	Global Agri-food Trade	3
ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3
GEO	200	World Regional Geography	3
HIS	120	Arab & Islamic Civilization	3
HIS	121	World History: Origins to 1500	3
HIS	122	Modern World History	3
HIS	125	Contemporary Civilization	3
PSG	250	Principles of International Relations	3
PSG	270	Comparative Political Systems	3
SOC	201	Social & Cultural Change	3

### Cluster 4: The Natural World - Mathematics

(Required Credit Hours:3)

MATH	120	Contemporary Applications of Math	3
STAT	101	Statistics in the Modern World	3

### Cluster 4: The Natural World - Natural Sciences

(Required Credit Hours:6)

ARAG	205	Introduction to Fish & Animal Science	3
ARAG	220	Natural Resources	3

BION	100	Biology and its Modern Application	3
CHEM	181	Chemistry in the Modern World	3
FDSC	250	Contemporary Food Science & Nutrition	3
GEOL	110	Planet Earth	3
PHED	201	Physical Fitness and Wellness	3
PHYS	100	Astronomy	3
PHYS	101	Conceptual Physics	3

#### Cluster 5: Capstone Experience

(Required Credit Hours:3)

HSR	400	Integrated Capstone	3
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Course Credits

#### English Literature Major (Req. CH:39)

##### Required Courses

(Required Credit Hours:27)

ENG	310	Writing for Research	3
ENG	250	English Grammar & Usage	3
LIT	150	Introduction to Literature	3
LIT	220	Survey of British Literature	3
LIT	320	Elizabethan & 17th Century Literature	3
LIT	240	Survey of American Literature	3
LIT	300	Methods of Research in Literary Study	3
LIT	410	Criticism and Theory	3
LIT	420	Senior Seminar Major writer	3

##### Elective Courses

(Required Credit Hours:12)



LIT	330	Romantic & Victorian Literature	3
LIT	335	20th Century British Literature	3
LIT	340	19th Century American Literature	3
LIT	345	20th Century American Literature	3
LIT	365	Modern World Literature	3
LIT	370	Anglophone Literature Outside UK & US	3
LIT	385	Children's Literature	3

Course Credits

#### Minors (Req. CH:36)

Minor (1)

(Required Credit Hours:18)

Minor (2)

(Students can either take Minor (2) or 18 credit hours from any free elective courses.)

(Required Credit Hours:18)

Course Credits

#### Free Electives (Req. CH:6)

Free Electives

(Required Credit Hours:6)

## Minor in Drama

### Description

Students taking the Drama Minor learn to analyze drama and produce short plays. There are six courses in the program, three of which focus on analyzing drama, one focuses on playwriting, and two on production. All courses involve the production of drama events. This program increases the employability of graduates and complements other majors by teaching extensive project and event management skills, idea development, behavioral analysis, metacognitive thinking, and verbal and textual communication.

### Program Objectives

1. Situate key dramatic works and perspectives across a range of styles and periods.
2. Explore ways to interpret human behavior and communicate across obstacles using dramatic texts as case studies and drama project management as practical experience.
3. Create and manage short and complex dramatic projects in stages.
4. Collaborate and coordinate on different levels, combining performance and technical jobs into a single project, combining projects into an event, combining events into a festival.
5. Manage elaborate events.

### Program Learning Outcomes

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

1. Analyze a wide variety of plays critically.
2. Perform a range of jobs necessary to produce a short play.
3. Interpret and produce a short play.
4. Manage a live performance event.
5. Apply generic skills such as metacognitive thinking, problem-solving and team work.

### Degree Requirements:

Total Credit Hours: 18

Course Credits

#### Drama

#### Required Courses

(Required Credit Hours:18)

DRA	260	Practical Introduction to Theatre TA	3
DRA	265	Approaches to Drama TA	3
DRA	365	Drama in Education TA	3
DRA	370	Playwriting & Performance in Arabic	3
DRA	360	Fundamentals of Stage Prod TA	3
DRA	460	Practicum Drama TA	3

## Minor in Film Studies

### Description

The Minor in Film Studies trains students to apply film criticism as well as to participate in the production of short films. The program includes six core courses, three of which focus on film analysis. The developing ideas and applying them to script formats leads to the acquisition of technical skills required for filmmaking. Two electives are devoted to Arab Cinema on one hand and to the genre of animation film on the other.

### Program Objectives

1. Improve the ability of students to view films critically.
2. Create an awareness of international film industries and their significance for the development of film history.
3. Illustrate the individual steps in the film production process.

4. Engender participation in original film production.
5. Situate local productions within the larger context of world cinema.

### Program Learning Outcomes

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

1. Analyze a wide variety of films critically
2. Demonstrate knowledge of key developments in film history
3. Generate ideas for original film production
4. Contribute to the creation of short films.
5. Apply generic skills such as critical thinking, problem-solving and team work

### Degree Requirements:

Total Credit Hours: 18

Course Credits

#### Core Courses: Students must take these courses

##### Required Courses

(Required Credit Hours:15)

FIL	240	Introduction to Film & Visual Studies TA	3
FIL	245	Film & Culture World Cinema TA	3
FIL	340	Developing Ideas for Film	3
FIL	345	Principles of Screenwriting TA	3
MSC	485	Practicum in Digital Production	3

##### Elective Courses

(Required Credit Hours:3)

FIL	350	Cinema in the Arab World TA	3
MSC	487	Women and Media	3
FIL	312	Animation Filmmaking	3

## Minor in Fine Arts

### Description

The Fine Art Minor includes six courses. These courses introduce students to both the theory and practice of visual art. The sequence mixes studio and study classes, so that students gain an understanding and appreciation of history and appreciation of the context, background, situation and frontiers of visual communication. The courses provide exposure to the great traditions of Islamic and Arabic art, Eastern, African, and Western art, as well as cross-cultural ideas and values. Students also gain hands-on experience in

the production of artifacts. Employment opportunities include graphic design, web design, industrial design, museum administration, and arts management.

### Program Learning Outcomes

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

1. Demonstrate an awareness of the history of visual communication.
2. Identify various theories of and practices of visual communication.
3. Evaluate various theories and practices with regards to cultural and historical contexts.
4. Apply theoretical knowledge to the production of original art works.
5. Demonstrate critical awareness of visual communication and its uses in various cultural contexts.

### Degree Requirements:

Total Credit Hours: 18

Course Credits

#### Fine Arts

##### Required Courses

(Required Credit Hours:15)

ART	201	Drawing I	3
ART	301	Painting I	3
ART	302	3-D Design	3
ART	303	Digital Photography	3
MSC	462	Designing Media Messages	3

##### Elective Courses

(Students must take one of the following courses:)

(Required Credit Hours:3)

ART	101	Arts and Society I	3
ART	102	Arts and Society II	3
ART	382	Introduction to Art Criticism	3

## Minor in English Language and Literacy

### Description

Completion of the English Language and Literacy Minor will increase the employability of graduates by supporting their language learning and advancing their acquisition of verbal (speaking and listening) and textual (reading and writing) literacy in English in ways that complement any major degree. The Minor will provide a rigorous, university-level forum for students who wish to develop higher-level English skills for personal or employment purposes, but who do not wish to follow specialized courses in English Literature,

Translation or Linguistics. However, the Minor will complement and enhance those and other majors in its emphasis on facility in language in preparation for professional life.

### Program Objectives

1. Increase communicative proficiency and accuracy.
2. Present, orally and in writing, referenced works of scholarly/professional merit.
3. Develop textual and cultural literacy.
4. Apply language corrective/maintenance strategies to address limits of knowledge.

### Program Learning Outcomes

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

1. Demonstrate comprehension and appropriate use of core university-level vocabulary
2. Demonstrate comprehension of written/spoken texts addressed to a college-level audience.
3. Produce written and oral presentations consistent with fluency and coherence expectations found at the college/professional level.
4. Demonstrate the ability to work collaboratively and individually to learn, create and exhibit knowledge.
5. Address impediments to effective communication

### Degree Requirements:

Total Credit Hours: 18

			Course Credits
<b>English Language and Literacy Minor</b>			
Required Courses			
			(Required Credit Hours:18)
ENG	210	College Reading and Writing	3
ENG	250	English Grammar & Usage	3
ENG	300	Critical Reading in the Disciplines	3
ENG	310	Writing for Research	3
ENG	312	Cultural Literacy: English in the World	3
ENG	450 *	Public Speaking and Debate	3
ENG	454 *	Practicum: Writing for the Workplace	3
* Students must take one only			

## Minor in Creative and Professional Writing in English

### Description

Technical and Professional Writing is part of our effort to collapse the better and more relevant aspects of the Writing Minor into the Language Minor (see proposed amendments to the Minor below). The idea is to help springboard students into professional life in ways that enhance verbal and text-based literacies and prepare

them for the kinds of discursive and communicative acts they will likely encounter in their professions. The requirement of two 400-level courses in a Minor was, we felt, off-putting to potential Minors. 450 and 452 will stand as options to each other in the Minor—while both include elements of both textual and verbal literacy, each has its own focus, which allows students to choose this vital 400-level requirement according to their interests or strengths.

### Program Objectives

1. Develop fiction/non-fiction writing and publication skills.
2. Develop language editing skills to a professional standard.
3. Apply electronic publishing skills.
4. Apply effective group management skills.

### Program Learning Outcomes

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

1. Produce English texts consistent with professional requirements.
2. Edit English texts to conform to professional requirements.
3. Demonstrate knowledge of electronic publishing techniques.
4. Collaborate with others to produce electronic publications.

### Degree Requirements:

			Course Credits
<b>Creative and Professional Writing in English</b>			
Required Courses			
			(Required Credit Hours:18)
EWR	215	Advanced Composition TA	3
EWR	390	Creative Writing Fiction	3
EWR	395	Tech & Prof Writing TA	3
EWR	480	Practicum Writing	3
DRA	370 *	Playwriting & Performance in Arabic	3
MSC	235 *	Principles of the Writing for Media	3
EWR	380 **	Creative Writing Non-fiction	3
* Take only one			
** Take only one			

# Department of History and Archaeology

## Bachelor of Arts in History

### Description

The History major provides students with a broad background in the historical trends which have shaped the modern world and led to the development of a contemporary society, culture and politics in the Islamic world and the United Arab Emirates. The aim of the History major is transmit knowledge and understanding of history and to promote awareness of the past and to open minds to the possibilities of the future. Students who are studying history are expected to learn not only basic facts of history, but also the contemporary methodologies that historians use to reconstruct and interpret the past, in order to better understand the present and the future.

### Program Objectives

1. Understanding of both the scientific methods and literary values of history.
2. Knowledge of the historical forces shaping the past, present and future world.
3. Capacity to analyze historical sources and arguments.
4. Ability to express ideas and judgment independently in intellectually coherent and elegant writing.

### Program Learning Outcomes

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

1. Define historical methodologies.
2. Use historical knowledge to demonstrate an understanding of his/her own social system and those of others.
3. Explain the historical forces shaping the current Arab world and particularly the Gulf region.
4. Demonstrate ethical reasoning in relation to historical issues.
5. Explain, using examples, the importance of change and continuity over time.
6. Analyze the causes of the rise and fall of a particular culture.
7. Examine the content of a particular document or historical text and present objectively an independent analysis of its background and effect.
8. Communicate effectively in both oral and written form to various audience.

**Degree Requirements:**

Total Credit Hours: 120

Course Credits

**General Education (Req CH:39)**

Cluster 1: Values to Live By - Islam

(Required Credit Hours:3)

ISLM	100	Islamic Culture	3
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Cluster 1: Values to Live By - Ethics

(Required Credit Hours:3)

FOED	102	Professional Ethics in Education	3
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PHI	121	Fundamentals of Environmental Ethics	3
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PHI	122	International Ethics	3
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PHI	226	Human Rights Theory	3
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PHIL	120	Principles of Professional Ethics	3
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Cluster 2: Skills for Life - English Communication Skills

(Required Credit Hours:3)

ESPU	1014	Introduction to Academic English for Humanities and SS	3
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Cluster 2: Skills for Life - Information Literacy

(Required Credit Hours:3)

GEIL	101	Information Literacy	3
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Cluster 2: Skills for Life - Thinking Skills

(Required Credit Hours:3)

HSS	110	Scientific Research Skills	3
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CSBP	119	Algorithms and Problem Solving	3
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PHI	180	Critical Thinking	3
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PSY	105	Creative & Innovative Thinking Skills	3
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GEHP	111	Happiness and Wellbeing	3
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IBLC - Inquiry based learning courses must be taken within first 30 credit hours

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Cluster 3: The Human Community - Emirates Society

(Required Credit Hours:3)



HSS	105	Emirates Studies	3
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**Cluster 3: The Human Community - Humanities/Fine Arts**

(Required Credit Hours:3)

ARCH	340	History and Theory of Architecture	3
HIS	133 *	Introduction to Art History	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
LIT	150	Introduction to Literature	3
LNG	100	Introduction to Linguistics	3
LNG	110	Language, Society & Culture	3
MSC	200	Introduction to Mass Media	3
MSC	240	World and Arab Media	3
PHI	101	Introduction to Philosophy	3
PHI	270	Philosophy of Education	3
PHI	271	History and Philosophy of Science	3
TRS	200	Introduction to Translation	3

\* The Archaeology concentration Students must not take this course in this area

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**Cluster 3: The Human Community - Social and Behavioral Sciences**

(Required Credit Hours:3)

AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
SOC	260	Folklore	3

SWK	200	Introduction to Social Welfare	3
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Cluster 3: The Human Community - The Global Experience

(Required Credit Hours:3)

HIS	122 *	Modern World History	3
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\* Also counts towards the Major

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Cluster 4: The Natural World - Mathematics

(Required Credit Hours:3)

MATH	120	Contemporary Applications of Math	3
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STAT	101	Statistics in the Modern World	3
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Cluster 4: The Natural World - Natural Sciences

(Required Credit Hours:6)

ARAG	205	Introduction to Fish & Animal Science	3
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ARAG	220	Natural Resources	3
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BION	100	Biology and its Modern Application	3
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CHEM	181	Chemistry in the Modern World	3
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FDSC	250	Contemporary Food Science & Nutrition	3
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GEOL	110	Planet Earth	3
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PHED	201	Physical Fitness and Wellness	3
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PHYS	100	Astronomy	3
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PHYS	101	Conceptual Physics	3
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Cluster 5: Capstone Experience

(Required Credit Hours:3)

HSR	400 *	Integrated Capstone	3
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\* Also counts towards the Major

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			Course Credits
<b>History Major</b>			
Required Courses for both concentrations			
			(Required Credit Hours:12)
HIS	121	World History: Origins to 1500	3
HIS	142	History of Islamic World: Origins 1500	3
HIS	212	History of the UAE	3
HIS	373	Hist. of Arab World from 1500	3
			Course Credits
<b>History Concentration (Req CH:27)</b>			
Required Courses			
			(Required Credit Hours:15)
HIS	200	Methodology & Historiography	3
HIS	318	History of the Arabian Gulf	3
HIS	376	Special Topics I	3
HIS	377	Special Topics II	3
HIS	301	Research Project	3
			Course Credits
<b>Islam and the Arab World</b>			
			(Required Credit Hours:6)
HIS	124	Rise of Islam & Omayyed state	3
HIS	245	Relationship between East & West in Middle Ages	3
HIS	251	History of the Islamic West	3
HIS	332	Ancient History & Archaeology Arabian of the Peninsula	3
HIS	352	History of the Abbasid State	3
HIS	378	History of Trade in the Indian ocean till 1500	3
			Course Credits
<b>The Modern and Contemporary World</b>			

(Required Credit Hours:6)			
HIS	123	American History	3
HIS	213	Medieval West: 600-1500	3
HIS	239	History of Africa:1800-present	3
HIS	241	Modern History of Europe	3
HIS	243	History of East Asia	3
HIS	374	Public History	3
HIS	375	Hist. of Islam World from 1500	3

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Course Credits

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**Archaeology Concentration (Req. CH:24)**

Required Courses

(Required Credit Hours:21)			
HIS	217	Material Culture of Islamic World	3
HIS	133	Introduction to Art History	3
HIS	215	Ancient History & Archaeology of Near East	3
HIS	310	Introduction to Archaeology & Museum Studies	3
HIS	311	Archaeology Field Methods	3
HIS	372	Arch. of UAE & A. Gulf States	3
HIS	301 *	Research Project	3

or

HIS	401	Internship in Museum Studies	3
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\* Student must take either HIS 301 or HIS 401

Elective

(Required Credit Hours:3)			
HIS	379 *	Maritime Archaeology	3

\* Or can select a course from any History offering

Course Credits
<b>Minors (Req. CH:36)</b>
Minor (1)
(Required Credit Hours:18)
Minor (2) (Students can either take this minor (2) or 18 credit hours from any free elective courses.)
(Required Credit Hours:18)

Course Credits
<b>Free Electives (Req. CH: 6 or CH: 9)</b>
Free Electives for History
(Required Credit Hours:6)
Free Electives for Archaeology
(Required Credit Hours:9)

## Minor in Cultural Resource Management

### Description

This minor provides students with the tools to work in the public or private sectors in the UAE as well as other countries. Within the UAE, there is a growing awareness of the nation’s rich cultural resources and a movement toward their preservation. Before preservation can occur, however, expertise is required in archaeology, historical preservation, and the place of Emirati and Arab culture in the world — the minor in Cultural Resource Management offers this much-needed knowledge.

### Program Objectives

1. Preparing students for advancement in the field of Cultural Resource Management.
2. Introducing students to various concepts, methods, and techniques commonly used in CRM.
3. Promoting effective management of cultural resources.

### Program Learning Outcomes

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

1. Recognize and explain patterns of change through the study of material culture and documents.
2. Develop familiarity with the special art, culture and history of the UAE and Arab Gulf region.
3. Identify methods of protecting and preserving architectural, artistic and cultural heritage.

- Evaluate and appreciate the significance of heritage preservation in UAE and international contexts.

**Degree Requirements:**

Total Credit Hours: 18

			Course Credits
<b>Cultural Resource Management</b>			
Required Courses			
			(Required Credit Hours:15)
HIS	132	Fundamentals of Archeology	3
HIS	312	Historical Preservation	3
HIS	318	History of the Arabian Gulf	3
HIS	372	Arch. of UAE & A. Gulf States	3
HIS	381	UAE Architectural Heritage	3
Elective Courses			
			(Required Credit Hours:3)
HIS	217	Material Culture of Islamic World	3
HIS	440	Oral History	3
MGMT	200	Fundamentals of Management	3
MSC	235	Principles of the Writing for Media	3

## Bachelor of Arts in Tourism Studies

### Description

The mission of the Tourism Studies program is to provide a nationally and internationally recognized program of excellence in teaching, research, and service in leisure, specifically in the areas of tourism, heritage, cultural tourism and tourism planning and management. This program aims to educate, train and assist students, individuals, businesses, and other stakeholders to take full use of the opportunities available through the use of responsible tourism development. This program philosophy is driven by the belief that tourism can be a powerful driver for economic development in many emerging and transitioning economies, and can also fulfill a significant role in a community social-cultural development, congruent with the cultural norms and values of the multicultural populations of the UAE.

### Program Objectives

- Basic knowledge of different components and sectors in the tourism industry.
- Competence to address and provide critical insights of the interrelationship between stakeholders, components and sectors in the tourism industry.

3. Solid knowledge about planning, managing, operating and promoting cultural, heritage, environmental and leisure tourism resources and products.
4. Practical knowledge of planning, developing, managing, operating and promoting sustainable destinations.
5. Ability to conduct research with the focus on the relationships between tourism, culture, heritage and sustainable development.
6. Communication skills, managerial skills and analytical skills, to enter the junior management level of different sectors in the tourism industry.

### Program Learning Outcomes

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

1. Identify the facilities, resources, products, stakeholders and operational organizations in different sectors of the tourism industry as well as describe their structures and characteristics.
2. Demonstrate ethical reasoning in relation to tourism issues.
3. Identify the necessary resources of developing tourism products and analyze the factors affecting the successfulness of tourism products.
4. Analyze the current and upcoming trends of the tourism product development in the local, regional and international level.
5. Identify the influence of tourists and the tourism industry on cultural and heritage assets, societies and environments.
6. Synthesize the cultural, heritage, environmental and leisure tourism resources and facilities for sustainable development of a destination.
7. Examine materials, reports and statistics related to tourism, cultural and heritage study and sustainable development.
8. Communicate effectively in both oral and written form to various audience.

### Degree Requirements:

Total Credit Hours: 120

				Course Credits
<b>General Education (Req CH:39)</b>				
<b>Cluster 1: Values to Live By - Islam</b>				
				(Required Credit Hours:3)
ISLM	100	Islamic Culture		3
<b>Cluster 1: Values to Live By - Ethics</b>				
				(Required Credit Hours:3)
PHI	121	Fundamentals of Environmental Ethics		3
PHI	122	International Ethics		3
PHI	226	Human Rights Theory		3

PHIL	120	Principles of Professional Ethics	3
FOED	102	Professional Ethics in Education	3
<b>Cluster 2: Skills for Life - English Communication</b>			
(Required Credit Hours:3)			
ESPU	1014	Introduction to Academic English for Humanities and SS	3
<b>Cluster 2: Skills for Life - Information Literacy</b>			
(Required Credit Hours:3)			
GEIL	101	Information Literacy	3
<b>Cluster 2: Skills for Life - Thinking Skills</b>			
(Required Credit Hours:3)			
HSS	110	Scientific Research Skills	3
CSBP	119	Algorithms and Problem Solving	3
PHI	180	Critical Thinking	3
PSY	105	Creative & Innovative Thinking Skills	3
GEHP	111	Happiness and Wellbeing	3
IBLC - Inquiry based learning courses must be taken within first 30 credit hours			
<b>Cluster 3: The Human Community - Emirates Society</b>			
(Required Credit Hours:3)			
HSS	105	Emirates Studies	3
<b>Cluster 3: The Human Community - Humanities/Fine Arts</b>			
(Required Credit Hours:3)			
ARCH	340	History and Theory of Architecture	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3



LIT	150	Introduction to Literature	3
LNG	100	Introduction to Linguistics	3
LNG	110	Language, Society & Culture	3
MSC	200	Introduction to Mass Media	3
MSC	240	World and Arab Media	3
PHI	101	Introduction to Philosophy	3
PHI	270	Philosophy of Education	3
PHI	271	History and Philosophy of Science	3
TRS	200	Introduction to Translation	3

### Cluster 3: The Human Community - Social and Behavioral Sciences

(Required Credit Hours:3)

AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
SOC	260	Folklore	3
SWK	200	Introduction to Social Welfare	3

### Cluster 3: The Human Community - The Global Experience

(Required Credit Hours:3)

AGRB	360	Global Agri-food Trade	3
ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3
GEO	200	World Regional Geography	3
HIS	120	Arab & Islamic Civilization	3
HIS	121	World History: Origins to 1500	3

HIS	125	Contemporary Civilization	3
PSG	250	Principles of International Relations	3

**Cluster 4: The Natural World - Mathematics**

(Required Credit Hours:3)

MATH	120	Contemporary Applications of Math	3
STAT	101	Statistics in the Modern World	3

**Cluster 4: The Natural World - Natural Sciences**

(Required Credit Hours:6)

ARAG	205	Introduction to Fish & Animal Science	3
ARAG	220	Natural Resources	3
BION	100	Biology and its Modern Application	3
CHEM	181	Chemistry in the Modern World	3
FDSC	250	Contemporary Food Science & Nutrition	3
GEOL	110	Planet Earth	3
PHED	201	Physical Fitness and Wellness	3
PHYS	100	Astronomy	3
PHYS	101	Conceptual Physics	3

**Cluster 5: Capstone Experience**

(Required Credit Hours:3)

HSR	400 *	Integrated Capstone	3
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\* Also counts towards the Major

Course Credits

**Tourism Major (Req CH:39)**

**Required Courses**

(Required Credit Hours:21)

HIS	372	Arch. of UAE & A. Gulf States	3
TOR	101	Introduction to Tourism	3
TOR	202	Fundamentals of Heritage Management	3
TOR	205	Introduction to Cultural Tourism	3
TOR	222	Principles of Tour Guidance	3
TOR	421	Intensive Research in Tourism	3
TOR	440 *	Internship in Tourism & Architecture	3
* The internship is conducted over a complete semester. No courses are allowed to be registered during the internship			

Course Credits

**Elective Courses**

Cluster 1: Theoretical/Survey - Students must take two courses from this cluster, one of which must be at the 400 level

(Required Credit Hours:6)

GEO	432	Geography of the UAE	3
GEO	461	Geography of Tourism	3
PSG	120	Government & Politics of UAE	3
PSG	250	Principles of International Relations	3
TOR	263	Tourism Resources in the UAE	3
TOR	350	Tourism and the Environment	3
TOR	403	Tourism and Society	3
TOR	404	Sustainable Tourism Development & Planning	3

Cluster 2: Heritage - Students must take two courses from this cluster, one of which must be an art course

(Required Credit Hours:6)

HIS	121	World History: Origins to 1500	3
HIS	133	Introduction to Art History	3

HIS	215	Ancient History & Archaeology of Near East	3
HIS	217	Material Culture of Islamic World	3
HIS	310	Introduction to Archaeology & Museum Studies	3
HIS	381	UAE Architectural Heritage	3
HIS	471	Modern and Contemporary History of the Arab Gulf	3
TOR	322	Gulf art and design	3

Cluster 3: Tourism and Heritage Operation - Students must take two courses, one of which must be enterprise or management

(Required Credit Hours:6)

MGMT	200	Fundamentals of Management	3
MKTG	200	Principles of Marketing	3
MSC	243	Public Relations & Advertising Principles	3
TOR	140	Introduction to Museology	3
TOR	416	Travel Writing & New Technologies	3

Course Credits

**Minors Req. CH: 36)**

Minor (1)

(Required Credit Hours:18)

Minor (2)

(Students can either take Minor (2) or 18 credit hours from any free elective courses.)

(Required Credit Hours:18)

Course Credits

**Free Electives**

Free Electives

(Required Credit Hours:6)

# Minor in Tourism

## Description

The Minor in Tourism is an 18-credit hour program. It aims to prepare students for advancement in the field of tourism administration, heritage management, travel and tourism, and cultural heritage sectors. On successful completion of the Minor, students should be able to explain the key components and sectors of tourism system and their relationships, and to develop methods, practices and skills of protecting, preserving and displaying tangible and intangible tourism assets.

## Program Objectives

1. Preparing students for advancement in the field of tourism administration, heritage management, travel and tourism, and cultural heritage sectors.
2. Training students to appreciate and reinforce tourism business with emphasis on the sustainability and promotion of cultural and natural resources in line with the growing demand for the tourism industry.
3. Increasing the chances of student employability in tourism sectors.

## Program Learning Outcomes

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

1. Explain the key components and sectors of tourism system and their relationships.
2. Recognize the significance of history, archaeological findings, cultural and heritage assets in the tourism contexts.
3. Develop methods and skills of protecting, preserving and displaying tangible and intangible tourism assets of the UAE, Arab region and Near East.
4. Evaluate the contemporary issues and the impacts of tourism on the environment, society, economy and culture at national, regional and international levels.

## Degree Requirements:

Total Credit Hours: 18

			Course Credits
<b>Tourism</b>			
Core Courses (Students must take these courses)			
			(Required Credit Hours:12)
TOR	101	Introduction to Tourism	3
TOR	263	Tourism Resources in the UAE	3
TOR	403	Tourism and Society	3
HIS	381	UAE Architectural Heritage	3
Elective Courses (Choose two of the following courses one of which must be at the 300 level or above)			
			(Required Credit Hours:6)

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HIS	215	Ancient History & Archaeology of Near East	3
HIS	217	Material Culture of Islamic World	3
HIS	310	Introduction to Archaeology & Museum Studies	3
TOR	350	Tourism and the Environment	3
GEO	461	Geography of Tourism	3
MSC	452	Public Relations & Advertising Campaigns	3

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# Department of Linguistics

## Bachelor of Arts in Linguistics

### Description

The BA in Linguistics aims to develop an understanding of the way human languages are structured and educates students in the basic skills that are essential for the analysis of language. This includes knowledge of language structure, sound systems and processes, word and sentence meaning, and contextual interpretation. In addition, given the interdisciplinary nature of linguistics, students may also study language and social communication, the historical development of languages, and how language is processed in the brain. The program curriculum, in addition to the offered minors in Aphasia and Computational Linguistics, is designed to provide training for students interested in working as assistants in communication disorder institutes, government positions, or prepare for graduate study in relevant fields.

### Program Objectives

1. To graduate language practitioners with the prerequisite knowledge, values and skills to practice within the multicultural populations of the UAE, the GCC and the global community.
2. To equip students with the necessary professional infrastructure to conduct research, disseminate findings, and undertake community service.
3. To enhance traditional values of volunteerism, social solidarity, cooperation and mutual aid through real world humanitarian experiences
4. To prepare future leaders and entrepreneurs for professional practice and service in a global context.

### Program Learning Outcomes

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

1. Define the fields of phonetics, phonology, morphology, syntax, and semantics.
2. Discuss raw linguistic data from a variety of naturalistic and experimental sources.
3. Interpret linguistic data in the context of existing models of language.
4. Analyze language change, especially as it applies to the origin and nature of dialects.
5. Categorize complex relationships between language varieties and socio-cultural characteristics such as socioeconomic status, ethnicity, and gender.
6. Assess the major phases in the historical and biological development of languages.
7. Develop organizational, team work, and leadership skills.
8. Demonstrate professional skills and thoughts of ethical, social, integrity and respect for diversity.
9. Demonstrate effective communicate skills in written and oral format.
10. Develop basic information literacy in general linguistics and allied disciplines.

**Degree Requirements:**

Total Credit Hours: 120

Course Credits

**General Education (Req. CH:39)**

## Cluster 1: Values to Live By - Islam

(Required Credit Hours:3)

ISLM	100	Islamic Culture	3
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## Cluster 1: Values to Live By - Ethics

(Required Credit Hours:3)

FOED	102	Professional Ethics in Education	3
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PHI	121	Fundamentals of Environmental Ethics	3
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PHI	122	International Ethics	3
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PHI	226	Human Rights Theory	3
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PHIL	120	Principles of Professional Ethics	3
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## Cluster 2: Skills for Life - English Communication Skills

(Required Credit Hours:3)

ESPU	1014	Introduction to Academic English for Humanities and SS	3
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## Cluster 2: Skills for Life - Information Literacy

(Required Credit Hours:3)

GEIL	101	Information Literacy	3
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## Cluster 2: Skills for Life - Thinking Skills

(Required Credit Hours:3)

HSS	110	Scientific Research Skills	3
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CSBP	119	Algorithms and Problem Solving	3
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PHI	180	Critical Thinking	3
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PSY	105	Creative & Innovative Thinking Skills	3
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GEHP	111	Happiness and Wellbeing	3
IBLC - Inquiry based learning courses must be taken within first 30 credit hours			
Cluster 3: The Human Community - Emirates Society			
(Required Credit Hours:3)			
HSS	105	Emirates Studies	3
Cluster 3: The Human Community - Humanities/Fine Arts			
(Required Credit Hours:3)			
ARCH	340	History and Theory of Architecture	3
HIS	133	Introduction to Art History	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
LIT	150	Introduction to Literature	3
LNG	110	Language, Society & Culture	3
MSC	200	Introduction to Mass Media	3
MSC	240	World and Arab Media	3
PHI	101	Introduction to Philosophy	3
PHI	270	Philosophy of Education	3
PHI	271	History and Philosophy of Science	3
TRS	200	Introduction to Translation	3
Cluster 3: The Human Community - Social and Behavioral Sciences			
(Required Credit Hours:3)			
AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3

PSY	100	Introduction to Psychology	3
SOC	260	Folklore	3
SWK	200	Introduction to Social Welfare	3

#### Cluster 3: The Human Community - The Global Experience

(Required Credit Hours:3)

AGRB	360	Global Agri-food Trade	3
ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3
GEO	200	World Regional Geography	3
HIS	120	Arab & Islamic Civilization	3
HIS	121	World History: Origins to 1500	3
HIS	125	Contemporary Civilization	3
PSG	250	Principles of International Relations	3

#### Cluster 4: The Natural World - Mathematics

(Required Credit Hours:3)

MATH	120	Contemporary Applications of Math	3
STAT	101	Statistics in the Modern World	3

#### Cluster 4: The Natural World - Natural Sciences

(Required Credit Hours:6)

ARAG	205	Introduction to Fish & Animal Science	3
ARAG	220	Natural Resources	3
BION	100	Biology and its Modern Application	3
CHEM	181	Chemistry in the Modern World	3
FDSC	250	Contemporary Food Science & Nutrition	3
GEOL	110	Planet Earth	3

PHED	201	Physical Fitness and Wellness	3
PHYS	100	Astronomy	3
PHYS	101	Conceptual Physics	3

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**Cluster 5: Capstone Experience**

(Required Credit Hours:3)

HSR	400 *	Integrated Capstone	3
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\* Also counts towards the Major

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Course Credits

**Linguistics Major (Req. CH:39)**

**Required Courses**

(Required Credit Hours:30)

LNG	100	Introduction to Linguistics	3
LNG	220	Phonetics	3
LNG	231	Phonology I	3
LNG	241	Syntax I	3
LNG	250	Morphology	3
LNG	331	Phonology II	3
LNG	341	Syntax II	3
LNG	342	Semantics	3
LNG	480	Field Methods in Linguistics	3
LNG	490	Senior Capstone	3

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Course Credits

**Elective Courses (Req. CH:9)**

**Students should take one course from each of the following three groups:-**

**Variation and Change**

(Required Credit Hours:3)

LNG	362	Contrastive Linguistics	3
LNG	370	Historical Linguistics	3
LNG	410	Sociolinguistics	3
LNG	415	Current Topics in Language Variation & Change	3

#### Representation, Meaning & Mind

(Required Credit Hours:3)

LNG	321	Language & Computer Technology	3
LNG	420	Computational Linguistics	3
LNG	450	Psycholinguistics	3
LNG	475	Current Topics in Language Rept Meaning & Mind	3
PHI	333	Philosophy of Language	3

#### Arabic linguistics

(Required Credit Hours:3)

LNG	290	Linguistic Structure of Arabic	3
LNG	390	Arabic Syntax	3
LNG	470	Current Topics in Arabic Linguistics	3
LNG	485	Neuroscience of Arabic	3

Course Credits

#### Minors (Req. CH: 36)

##### Minor (1)

(Required Credit Hours:18)

##### Minor (2)

(Students can either take Minor (2) or 18 credit hours from any free elective courses.)

(Required Credit Hours:18)

Course Credits
<b>Free Electives (Req. CH: 6)</b>
Free Electives
(Required Credit Hours:6)

# Minor in Aphasia

## Description

The Minor in Aphasia is an 18-credit hour program. Its objective is to introduce students to the study of language breakdown in adult speakers, its assessment, and the basic concepts in language disorder treatment. The courses cover elementary brain structures and functions, general notions in communication disorders, and language representation and processing. The Practicum exposes the students to basic skills in clinical settings.

## Program Objectives

1. Explain the causes of aphasia.
2. Recognize the importance of communication to well-being.
3. Examine the role that positive family and supporter involvement plays in recovery.
4. Develop a variety of techniques that enhance communication with those who are living with aphasia.

## Program Learning Outcomes

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

1. Describe speech motor control and the effects of brain damage in a variety of neurological disorders focusing on aphasia.
2. Explain the communicative features of aphasia within the broader context of neurological disorders and diseases.
3. Develop the ability to identify these features.
4. Devise data collection and evaluation procedures in aphasia.
5. Summarize a range of intervention processes and management approaches in aphasia.
6. Apply basic problem solving skills in the clinical treatment of people with aphasia.

## Degree Requirements:

Total Credit Hours: 18

			Course Credits
<b>Aphasia</b>			
Required Courses			
			(Required Credit Hours:18)
BIOL	222	Introduction to Cognitive Neuroscience	3
LNG	450	Psycholinguistics	3
LNG	460	Linguistic Theory and Aphasia	3

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LNG	455	Practicum-TA-	3
PSY	314	Sensation and Perception	3
SPED	222	Language & Communication Disorders	3

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# Department of Translation Studies

## Bachelor of Arts in Translation Studies

### Description

The program responds to a growing demand for professional translators well-equipped with linguistic and cultural knowledge to meet the needs of the multinational society of the UAE. The program is designed to provide theoretical and practical training for students to become professional translators, and to introduce them to the requirements of specialized translation. The curriculum ensures students will have the required linguistic fluency and familiarizes them with problems they may face in English-into-Arabic and Arabic-into-English translation. It also introduces them to different ways of solving those problems in light of textual and extra-textual factors that may affect their choices. The curriculum includes various specialized courses such as legal, scientific, media, and business translation, as well as community interpreting. It also offers internship opportunities for students to train in different institutions around the UAE.

### Program Objectives

1. Develop students' translation-oriented written and oral proficiency in Arabic and English.
2. Familiarize students with the theoretical aspects of translation and interpreting.
3. Develop students' skills in translating and interpreting texts of different types from English into Arabic and vice versa.
4. Produce translators with market-oriented skills and ethics.

### Program Learning Outcomes

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

1. Demonstrate translation-related reading and writing skills in English and Arabic.
2. Analyze the contrastive differences between English and Arabic at linguistic and cultural levels.
3. Explain theoretical concepts of translation.
4. Perform translation-oriented text analysis.
5. Produce acceptable translations of different text types using different translation techniques.
6. Revise translations as per quality parameters, i.e. accuracy of meaning, clarity of language and effectiveness of message.
7. Conduct basic interpreting and sight translation tasks between English and Arabic in different job contexts, such as interpreting in courts, hospitals, police stations and schools.
8. Demonstrate ethical reasoning in relation to translation issues.
9. Work effectively both independently and within a translation team.
10. Demonstrate preparedness for continued reflective practice of translation and lifelong learning.

11. Conduct translation-related research projects using appropriate research methods and ethical procedures.

**Degree Requirements:** Total Credit Hours: 120

			Course Credits
<b>General Education (Req. CH:39)</b>			
<b>Cluster 1: Values to Live By - Islam</b>			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3
<b>Cluster 1: Values to Live By - Ethics</b>			
			(Required Credit Hours:3)
FOED	102	Professional Ethics in Education	3
PHI	121	Fundamentals of Environmental Ethics	3
PHI	122	International Ethics	3
PHI	226	Human Rights Theory	3
PHIL	120	Principles of Professional Ethics	3
<b>Cluster 2: Skills for Life - English Communication</b>			
			(Required Credit Hours:3)
ESPU	1014	Introduction to Academic English for Humanities and SS	3
<b>Cluster 2: Skills for Life - Information Literacy</b>			
			(Required Credit Hours:3)
GEIL	101	Information Literacy	3
<b>Cluster 2: Skills for Life - Thinking Skills</b>			
			(Required Credit Hours:3)
HSS	110	Scientific Research Skills	3
CSBP	119	Algorithms and Problem Solving	3
PHI	180	Critical Thinking	3



PSY	105	Creative & Innovative Thinking Skills	3
GEHP	111	Happiness and Wellbeing	3
IBLC - Inquiry based learning courses must be taken within first 30 credit hours			
Cluster 3: The Human Community - Emirates Society			
(Required Credit Hours:3)			
HSS	105	Emirates Studies	3
Cluster 3: The Human Community - Humanities/Fine Arts			
(Required Credit Hours:3)			
ARCH	340	History and Theory of Architecture	3
HIS	133	Introduction to Art History	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
LIT	150	Introduction to Literature	3
LNG	100	Introduction to Linguistics	3
LNG	110	Language, Society & Culture	3
MSC	200	Introduction to Mass Media	3
MSC	240	World and Arab Media	3
PHI	101	Introduction to Philosophy	3
PHI	270	Philosophy of Education	3
PHI	271	History and Philosophy of Science	3
Cluster 3: The Human Community - Social and Behavioral Sciences			
(Required Credit Hours:3)			
AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3

HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
SOC	260	Folklore	3
SWK	200	Introduction to Social Welfare	3

#### Cluster 3: The Human Community - The Global Experience

(Required Credit Hours:3)

AGRB	360	Global Agri-food Trade	3
ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3
GEO	200	World Regional Geography	3
HIS	120	Arab & Islamic Civilization	3
HIS	121	World History: Origins to 1500	3
HIS	125	Contemporary Civilization	3
PSG	250	Principles of International Relations	3

#### Cluster 4: The Natural World - Mathematics

(Required Credit Hours:3)

MATH	120	Contemporary Applications of Math	3
STAT	101	Statistics in the Modern World	3

#### Cluster 4: The Natural World - Natural Sciences

(Required Credit Hours:6)

ARAG	205	Introduction to Fish & Animal Science	3
ARAG	220	Natural Resources	3
BION	100	Biology and its Modern Application	3
CHEM	181	Chemistry in the Modern World	3
FDSC	250	Contemporary Food Science & Nutrition	3

GEOL	110	Planet Earth	3
PHED	201	Physical Fitness and Wellness	3
PHYS	100	Astronomy	3
PHYS	101	Conceptual Physics	3

#### Cluster 5: Capstone Experience

(Required Credit Hours:3)

HSR	400 *	Integrated Capstone	3
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\* Also counts towards the Major

Course Credits

#### Translation Studies Major (Req. CH:39)

##### Required Courses

(Required Credit Hours:30)

ENG	250	English Grammar & Usage	3
ENG	310	Writing for Research	3
ENG	450	Public Speaking and Debate	3
TRS	200	Introduction to Translation	3
TRS	350	Translation of English Texts	3
TRS	360	Translation of Arabic texts	3
TRS	340	Translating Literary Texts	3
TRS	430	Advanced Written Translation	3
TRS	452 *	Practicum / Oral	3
ENG	300	Critical Reading in the Disciplines	3

\* The internship is conducted over a complete semester. No courses are allowed to be registered during the internship

##### Elective Courses

(Required Credit Hours:9)

ARB	110	Introduction to Syntax & Morphology	3
ENG	312	Cultural Literacy: English in the World	3
LIT	200	Writing About literature	3
TRS	310	Contrastive Analysis of Arabic/English	3
TRS	312	Community Interpreting	3
TRS	370	Modern Media Translation	3
TRS	412	Translation of Scientific/Legal Text	3
TRS	433	Translation of Business Correspondence & Promotional Materials	3

Course Credits

**Minors (Req. CH:36)**

Minor (1)

(Required Credit Hours:18)

Minor (2)

(Students can either take Minor (2) or 18 credit hours from any free elective courses.)

(Required Credit Hours:18)

Course Credits

**Free Electives (Req. CH:6)**

Free Electives

(Required Credit Hours:6)

## Minor in German Language

### Description

The Minor in German Language is an 18-credit hour program. It aims to equip students with basic written and oral skills in German language in a range of contexts. Students will have the ability to analyze and translate short texts from English and Arabic into German and vice versa. By the end of the courses, students should have acquired the skills necessary to take the relevant language exam at the Goethe institute.

### Program Objectives

1. Enable students to achieve language proficiency up to A2-level according to the European Frame of Reference for language learning (CEFR), which allows communicating appropriately in a variety of situations.
2. Familiarize students with the history and culture of German-speaking countries.

### Program Learning Outcomes

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

1. Demonstrate an understanding of written and spoken German on familiar topics as used by native speakers
2. Produce simple spoken and written German, intelligible to native speakers unaccustomed to contact with foreigners.
3. Employ communicative strategies for interacting on unfamiliar topics.
4. Identify culturally appropriate behavior in a variety of social contexts.
5. Recognize cultural references such as landmarks, historical events and figures, music, traditions and customs.

### Degree Requirements:

Total Credit Hours: 18

Course Credits

#### German Language

##### Required Courses

(Required Credit Hours:12)

GER	100	German I for Beginners	3
GER	102	German II for Beginners	3
GER	202	Intermediate German	3
GER	301	Advanced German	3

##### Elective Courses

(Required Credit Hours:6)

GER	302	German Language and Culture	3
GER	401	Reading and Writing (GER)	3
GER	411	Intro to Translation (GER)	3
GER	416	Trans of Texts from & in GER	3

## Minor in French Language

### Description

The Minor in French Language is an 18-credit hour program. It aims to equip students with basic written and oral skills in the French language in a range of contexts. Students will have the ability to analyze and translate

short texts from English and Arabic into French and vice versa. By the end of the courses, students should have acquired the skills necessary to take an exam set by the Chamber of Commerce & Industry of Paris to gain the Diplôme de Français Professional B1.

### Program Objectives

1. To enable students to listen to, speak, read and write French at beginner and advanced levels (A1 and A2 of the CECR).
2. To familiarize students with the French culture and the francophone world.

### Program Learning Outcomes

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

1. Demonstrate an understanding of simple and familiar conversations.
2. Produce simple spoken French based on familiar everyday topics.
3. Answer simple and complex questions on familiar topics presented in different writing forms.
4. Demonstrate a basic understanding of French spelling and pronunciation.
5. Use simple grammatical structures and vocabulary in context.
6. Produce written texts about everyday situations using simple and complex sentences on familiar topics or topics of personal interest.
7. Identify aspects of French culture and the francophone world (French speaking countries).

### Degree Requirements:

Total Credit Hours: 18

				Course Credits
<b>French Language</b>				
Required Courses				
				(Required Credit Hours:12)
FCH	260	Listening & Speaking		3
FCH	270	French Language & Culture I		3
FCH	272	French Language & Culture II		3
FCH	321	Reading & Writing I		3
				Course Credits
<b>Elective Clusters: Student must choose a cluster and complete both courses</b>				
Cluster One				
				(Required Credit Hours:6)
FCH	303	Advanced Listening & Speaking		3
FCH	401	Advanced Reading & Writing		3
Cluster Two				
				(Required Credit Hours:6)

FCH	411	Introduction to Translation FR	3
FCH	442	Translation of Texts from & to French	3

## Minor in Business Translation

### Description

The Minor in Business Translation is an 18-credit hour program. It aims to introduce students to the various types of business letters and documents. Students will learn how to effectively write and translate different business texts in both languages.

### Program Objectives

1. Introduce students to basic concepts in translation and business.
2. Develop students' skills in writing and translating between English and Arabic.
3. Develop students' skills in translating business correspondence and promotional materials in English and Arabic.

### Program Learning Outcomes

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

1. Explain basic concepts in translation and business.
2. Contrast English and Arabic constructions on the semantic, syntactic and pragmatic levels for the purpose of translation.
3. Identify various types of business correspondence and promotional texts.
4. Write standard business letters in English and Arabic.
5. Translate business letters between English and Arabic.
6. Write different genres of promotional texts used in the media.
7. Translate promotional texts between English and Arabic.

### Degree Requirements:

Total Credit Hours: 18

			Course Credits
<b>Business Translation</b>			
Required Courses			
			(Required Credit Hours:18)
MSC	270	Writing for the Media	3
PRVT	2652	Business Law (E)	3
TRS	310	Contrastive Analysis of Arabic/English	3
TRS	331	Basic Issues in Translation-TA	3
TRS	433	Translation of Business Correspondence & Promotional Materials	3
TRS	480	Practicum-TA-	3

# Minor in Korean Language

## Description

The Minor in Korean Language is an 18-credit hour program. It aims to equip students with basic written and oral skills in Korean language in a range of contexts. Students will have the ability to analyze and translate very short texts from English and Arabic into Korean and vice versa. By the end of the courses, students should have acquired the skills necessary to take an exam set by the Korean Embassy, entitling them to a certificate issued by the embassy.

## Program Objectives

1. To enable students to listen to, speak, read and write Korean at beginner and advanced levels (Level 1 to Level 3 of the TOPIK (Test of Proficiency In Korean)).
2. To familiarize students with the Korean culture.

## Program Learning Outcomes

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

1. Produce basic conversations related to daily surviving skills.
2. Demonstrate understanding of the contents related to personal and familiar topics.
3. Write simple and useful sentences related to everyday life.
4. Use formal and informal expressions according to the situation.
5. Use basic language structures necessary to maintain social relationship.
6. Identify aspects of Korean culture.

## Degree Requirements:

Total Credit Hours: 18

Course Credits

### Korean Language

#### Core Courses

(Required Credit Hours:12)

KOR	100	Korean I for Beginners	3
KOR	102	Korean II for Beginners	3
KOR	202	Intermediate Korean	3
KOR	301	Advanced Korean	3

#### Elective Courses

(Required Credit Hours:6)

KOR	302	Korean Language and Culture	3
KOR	401	Reading and Writing (Korean)	3
KOR	411	Introduction to Translation (Korean)	3
KOR	416	Transation of Short Texts into Korean	3



# Department of Mass Communication

## Bachelor of Arts in Mass Communication

### Description

The Department of Mass Communication at UAEU is one of the largest academic units within the Faculty of Humanities and Social Sciences in terms of enrollments. The department offers a professionally-oriented program that is committed to producing highly competent graduates who possess the requisite skills to become successful professionals in an increasingly complex media industry, and who are steeped in a broad-based knowledge of society that is acquired through a rich and diverse liberal arts education. The department is further committed to challenging students to become socially responsible citizens whose professional careers are defined by observation of personal and professional ethics derived from society's ideal moral order. The approximately 240 majors in the department pursue courses of study in three of the most common tracks within mass communication programs anywhere - journalism, television broadcasting , and public relations. Students in the program use modern facilities including a state-of-the-art TV studio and two high-tech media creativity labs to enhance their professional skills in broadcasting, video production, and digital editing and layout design. In 2010, the Department developed three proposals for academic minors that were approved at the end of spring 2010 by the university-wide curriculum committee. The three minors are in Leadership & Communication, Journalism, and TV Studies. The minors are available to students in any other discipline at UAEU except mass communication.

### Program Objectives

1. To produce graduates who are highly competent professionals and who will be competitive in a technology-driven job market.
2. To produce graduates who are capable of independently exploring theories and concepts, understand the history, structure, and economics of media institutions, and appreciate the role of media in shaping culture.
3. To produce graduates who understand and appreciate the role of ethical conduct for media professionals and the concomitant respect for societal norms and values in the UAE and the Arab World.

### Program Learning Outcomes

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

1. Apply professional writing requirements for print, broadcast, public relations, and online media. They will also develop competence in the production and operation of convergent media.
2. Demonstrate critical thinking abilities as applied to academic as well as professional arenas.
3. Acquire independent learning experiences by drawing on a rich and broadly based liberal arts education through research and analysis of social issues and prescribing appropriate solutions to problems.

4. Discuss the principles of professional and mass communication ethics and how they inform the work of the media professional in the Arab and Islamic contexts.
5. Explain the importance of diverse perspectives in solving societal problems.
6. Develop organizational, team work, and leadership skills.
7. Communicate effectively in both oral and written forms with various audiences.

**Degree Requirements:**

Total Credit Hours: 120

Course Credits

**General Education (Req CH:39)**

**Cluster 1: Values to Live By - Islam**

(Required Credit Hours:3)

ISLM	100	Islamic Culture	3
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**Cluster 1: Values to Live By - Ethics**

(Required Credit Hours:3)

PUBL	421 *	Press Law and Ethics	3
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\* Also counts towards the Major

**Cluster 2: Skills for Life - English Communication**

(Required Credit Hours:3)

ESPU	1014	Introduction to Academic English for Humanities and SS	3
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**Cluster 2: Skills for Life - Information Literacy**

(Required Credit Hours:3)

GEIL	101	Information Literacy	3
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**Cluster 2: Skills for Life - Thinking Skills**

(Required Credit Hours:3)

HSS	110	Scientific Research Skills	3
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CSBP	119	Algorithms and Problem Solving	3
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PSY	105	Creative & Innovative Thinking Skills	3
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PHI	180	Critical Thinking	3
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GEHP	111	Happiness and Wellbeing	3
IBLC - Inquiry based learning courses must be taken within first 30 credit hours			
Cluster 3: The Human Community - Emirates Society			
(Required Credit Hours:3)			
HSS	105	Emirates Studies	3
Cluster 3: The Human Community - Humanities/Fine Arts			
(Required Credit Hours:3)			
ARCH	340	History and Theory of Architecture	3
HIS	133	Introduction to Art History	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
LIT	150	Introduction to Literature	3
LNG	100	Introduction to Linguistics	3
LNG	110	Language, Society & Culture	3
PHI	101	Introduction to Philosophy	3
PHI	270	Philosophy of Education	3
PHI	271	History and Philosophy of Science	3
TRS	200	Introduction to Translation	3
Cluster 3: The Human Community - Social and Behavioral Sciences			
(Required Credit Hours:3)			
AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3

SOC	260	Folklore	3
SWK	200	Introduction to Social Welfare	3
<b>Cluster 3: The Human Community - The Global Experience</b>			
(Required Credit Hours:3)			
AGRB	360	Global Agri-food Trade	3
ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3
GEO	200	World Regional Geography	3
HIS	120	Arab & Islamic Civilization	3
HIS	121	World History: Origins to 1500	3
HIS	125	Contemporary Civilization	3
PSG	250	Principles of International Relations	3
<b>Cluster 4: The Natural World - Mathematics</b>			
(Required Credit Hours:3)			
MATH	120	Contemporary Applications of Math	3
STAT	101	Statistics in the Modern World	3
<b>Cluster 4: The Natural World - Natural Sciences</b>			
(Required Credit Hours:6)			
ARAG	205	Introduction to Fish & Animal Science	3
ARAG	220	Natural Resources	3
BION	100	Biology and its Modern Application	3
CHEM	181	Chemistry in the Modern World	3
FDSC	250	Contemporary Food Science & Nutrition	3
GEOL	110	Planet Earth	3
PHED	201	Physical Fitness and Wellness	3

PHYS	100	Astronomy	3
PHYS	101	Conceptual Physics	3

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**Cluster 5: Capstone Experience**

(Required Credit Hours:3)

HSR	400 *	Integrated Capstone	3
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\* Also counts towards the Major

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Course Credits

**Mass Communication Major (Req CH:39)**

**Required Courses**

(Required Credit Hours:21)

MSC	203	Principles of Visual Communication	3
MSC	211	Principles of Oral Communication	3
MSC	235	Principles of the Writing for Media	3
MSC	370	Communication Theories	3
MSC	480	Contemporary Issues in Mass Communications	3
MSC	490 *	Practicum	6

\* The internship is conducted over a complete semester. No courses are allowed to be registered during the internship

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Course Credits

**Concentration Requirements (Req CH:18)**

Students should take one of the following Concentration:

(Required Credit Hours:18)

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Course Credits

**1: Journalism Concentration (Req. CH:18)**

**Required Courses**

(Required Credit Hours:18)

MSC	264	News Writing	3
MSC	356	News Reporting	3
MSC	390	News Editing (lab)	3
MSC	396	Communication Research Methods	3
MSC	401	Computer Assisted Reporting	3
MSC	450	Newspaper& Magazine Production	3

Course Credits

## 2: Public Relations and Advertising Concentration

### Required Courses

(Required Credit Hours:15)

MSC	243	Public Relations & Advertising Principles	3
MSC	342	Writing for Public Relations	3
MSC	396	Communication Research Methods	3
MSC	452	Public Relations & Advertising Campaigns	3
MSC	462	Designing Media Messages	3

Course Credits

## 3: Radio Broadcasting Concentration

### Required Courses

(Required Credit Hours:15)

MSC	316	Broadcast Management	3
MSC	352	Writing for Broadcast	3
MSC	396	Communication Research Methods	3
MSC	420	Radio Production I	3
MSC	460	Radio Production II	3

Course Credits

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**4: Television Broadcasting Concentration**

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**Required Courses**

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(Required Credit Hours:15)

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MSC	257	Television Production I	3
MSC	316	Broadcast Management	3
MSC	352	Writing for Broadcast	3
MSC	355	Television Production II	3
MSC	396	Communication Research Methods	3

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Course Credits

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**Elective Courses**

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**Elective Courses for Public Relations and Advertising, Radio Broadcasting and Television Broadcasting Concentrations**

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(Required Credit Hours:3)

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MSC	200	Introduction to Mass Media	3
MSC	240	World and Arab Media	3
MSC	250	Photojournalism	3
MSC	381	Translation for Communication	3
MSC	391	Communication in Modern Societies	3
MSC	411	Case Studies in Public Relations	3
MSC	412	Public Opinion	3
MSC	422	Organizational Communication	3

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Course Credits

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**Minors (Req. CH:36)**

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**Minor (1)**

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(Required Credit Hours:18)

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Minor (2) (Students can either take Minor (2) or 18 credit hours from any free elective courses.)
(Required Credit Hours:18)
Course Credits
Free Electives (Req. CH:6)
Free Electives
(Required Credit Hours:6)

## Minor in Leadership and Communication

### Description

The ability to communicate effectively is a critical asset for leaders in today's competitive and well-connected world. The minor in leadership and communication is an interdisciplinary program that covers a wide range of courses including communication, marketing, management, public administration and social psychology. It provides students communication skills, marketing and managing strategies, leadership concepts and competency that are needed to prepare future leaders and decision makers in the UAE society and beyond.

### Program Objectives

1. Demonstrate the ability to effectively apply communication skills and techniques in various communication settings and collaborative teamwork.
2. Demonstrate competency in research, writing, presentation and management skills that are required in the various components of leadership and society.
3. Demonstrate competency in criticizing societal issues and propose effective solutions using psychological principles and management and communication skills.
4. Provide students with strategies to handle the challenges associated with new and increasingly more complex leadership roles.

### Program Learning Outcomes

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

1. Describe basic concepts and theories related to the study of communication, management and leadership.
2. Analyze the complex inter-relationship among the various components of leadership and society and key concepts associated with each.
3. Use the language and vocabulary of marketing to create a simple marketing plan and apply marketing concepts to the successful running of an enterprise.
4. Apply the basics of effective communication and have ample opportunity to practice and improve students' communication skills.
5. Demonstrate competency in research, writing, presentation and Management skills.
6. Criticize UAE societal issues and propose effective solutions using psychological principles and management and communication skills.
7. Apply some leadership's theories in practice within the UAE society.



8. Apply decision making skills to issues related to UAE society.

**Degree Requirements:**

Total Credit Hours: 18

			Course Credits
<b>Leadership and Communication</b>			
Required Courses			
			(Required Credit Hours:12)
PSG	130	Introduction to Public Administration	3
PSY	205	Social Psychology	3
MKTG	200	Principles of Marketing	3
MSC	211	Principles of Oral Communication	3
Elective Option One			
Students must choose one of these two courses:			
			(Required Credit Hours:3)
MSC	316	Broadcast Management	3
MSC	422	Organizational Communication	3
Elective Option Two			
Students must choose one of these two courses:			
			(Required Credit Hours:3)
MSC	270	Writing for the Media	3
MSC	435	Intensive Research/Writing	3

## Minor in Journalism

### Description

The minor in journalism prepares students basic journalism skills in producing and presenting news projects, e.g. writing news stories, producing print, digital, and online journalistic works. It is an 18-credit hours program that cover core courses in news writing, news editing, news reporting as well as elective course to prepare the proficiency in information and data gathering, media law and ethics, audience effects research, media literacy and media critics. Its main objectives are to equip students with competency for successful careers in journalism, public relations and related areas.

## Program Objectives

1. To provide students basic insight and understanding of principles and procedures in gathering, reporting and writing news and feature articles.
2. To develop proficiency and skill in the areas of content production for diverse and converged news media platforms.
3. To develop students' competence and ability in news judgment as well as awareness of the legal and ethical issues confronting the working journalist of today.

## Program Learning Outcomes

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

1. Demonstrate competency in journalistic writing and proficiency in various news writing styles.
2. Demonstrate basic skill in the craft of non-fiction writing.
3. Know interviewing skills and other information gathering skills as well as integration of source information, data and spread sheets into news stories.
4. Demonstrate understanding of basic audience effects theories and be media literate.
5. Apply the journalism skills to the production and presentation of journalistic projects. (producing newsletters, news stories, Web or print magazine pieces or other journalistic works).
6. Demonstrate basic skills in media analysis, including being able to critique a mass media product by using knowledge from border disciplines.

## Degree Requirements:

Total Credit Hours: 18

				Course Credits
<b>Journalism</b>				
Required Courses				
				(Required Credit Hours:12)
MSC	235	Principles of the Writing for Media		3
MSC	264	News Writing		3
MSC	356	News Reporting		3
MSC	390	News Editing (lab)		3
Elective Courses:				
Students must chose two of these courses:				
				(Required Credit Hours:6)
MSC	342	Writing for Public Relations		3
MSC	396	Communication Research Methods		3
MSC	401	Computer Assisted Reporting		3
MSC	450	Newspaper& Magazine Production		3
PUBL	421	Press Law and Ethics		3

# Minor in Television Studies

## Description

The TV minor program that focused on TV studies and digital production is designed to prepare students the fundamentals in researching, writing, directing, producing, and managing broadcast media programs. The successful graduate will demonstrate a basic knowledge of historical, legal and ethical issues, competency in TV research, proficiency in writing a variety of TV programs and the effective use of equipment and technologies for entering the industry.

## Program Objectives

1. Acquire a theoretical, historical, conceptual and critical understanding of TV industry.
2. Demonstrate effective use of equipment and technologies appropriate to the entry level of professional practice.
3. Demonstrate writing proficiency appropriate to the entry level of professional practice.
4. Apply critical thinking, research, management and analysis in TV programs and production as well as accomplish professional goals.

## Program Learning Outcomes

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

1. Demonstrate a basic knowledge of historical, legal, and ethical issues.
2. Demonstrate competency in TV research and management skills.
3. Apply effectively appropriate concepts and theories of the electronic media.
4. Apply critical thinking, research, and analysis to accomplish professional and personal goals.
5. Demonstrate skills and knowledge for entry into professional practice.
6. Demonstrate writing proficiency appropriate to the entry level of professional practice.
7. Demonstrate effective use of equipment and technologies appropriate to the entry level of professional practice.

## Degree Requirements:

Total Credit Hours: 18

			Course Credits
<b>Television Studies</b>			
Required Courses			
			(Required Credit Hours:12)
MSC	203 *	Principles of Visual Communication	3
MSC	257	Television Production I	3
MSC	352	Writing for Broadcast	3
MSC	485	Practicum in Digital Production	3
* Students on the PR or Journalism Studies tracks of the Mass Communication Program take MSC 200 instead			

## Elective Courses

(Required Credit Hours:6)			
MSC	250	Photojournalism	3
MSC	316 *	Broadcast Management	3
MSC	355 *	Television Production II	3
MSC	396 **	Communication Research Methods	3
MSC	462	Designing Media Messages	3
* Students in PR Track of Mass Communication should take these two courses only			
** Not for students of Mass Communication			

# Department of Philosophy

## Minor in Citizenship

### Description

The Minor in Citizenship critically evaluates historical and contemporary theories and applications of citizenship. It critically evaluates significant political theories, the role of government and the rights and duties of citizens. It investigates the roles of technology, culture and education in shaping the lives of citizens. It investigates the government structures and the role of the citizen locally and internationally.

### Program Objectives

1. To understanding citizenship, government and political thought.
2. To provide students with skills in conceptual analysis, logical argumentation and written and verbal communication.

### Program Learning Outcomes

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

1. Critically evaluate historical and contemporary theories and applications of citizenship.
2. Critically evaluate central political theories defining the role of government and the rights and duties of citizens.
3. Critically understand how technology, culture, information and education shape their lives as citizens.
4. Demonstrate an understanding of their own governmental structures and how the concept of citizenship is applied in the UAE.
5. Demonstrate an understanding of how citizenship is understood internationally and gain a critical awareness of how citizenship is understood and applied in other cultures

### Degree Requirements:

Total Credit Hours: 18

			Course Credits
<b>Citizenship</b>			
Required Courses			(Required Credit Hours:9)
PHI	225	Citizenship & Civil Society	3
PHI	226	Human Rights Theory	3
PSG	120	Government & Politics of UAE	3
<b>Elective Option One</b>			
			(Required Credit Hours:3)
PHI	314	Contemporary Islamic Political Philosophy	3
PSG	261	Political Thought	3

Elective Option Two			
			(Required Credit Hours:6)
PHI	314	Contemporary Islamic Political Philosophy	3
PHI	315	Technology and Culture	3
PHI	320	Ethics in Business Governance	3
PHI	270	Philosophy of Education	3
SOC	314	Political Sociology	3

## Minor in Cognitive Science

### Description

The Minor in Cognitive Science is an interdisciplinary investigation of mental functions and intelligent systems through the intersecting disciplines of philosophy, psychology, linguistics, biology, and Information Technology. It offers a primary specialization in one of the component disciplines and a secondary specialization in another one of the composite disciplines. It investigates key concepts and models regarding memory, decision-making, perception, action control, emotion and other mental functions and provides methods for studying both natural and artificial intelligence systems.

### Program Objectives

1. To provide students with knowledge of mental functions and intelligent systems, through the intersecting disciplines of philosophy, psychology, linguistics, biology, and Information Technology.
2. To provide students with skills in conceptual analysis, logical argumentation, and written and verbal communication.

### Program Learning Outcomes

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

1. Demonstrate knowledge of some foundational concepts, theories, and methods necessary to the study of both natural and artificial intelligent systems.
2. Apply key concepts and models to philosophical and scientific issues regarding the systems underlying learning, memory, decision-making, perception, action control, emotion, and other mental functions.
3. Construct rational arguments to support conclusions regarding explanatory models about mental functions and intelligent systems.
4. Critically appraise various conflicting perspectives and compare classical and current theories within and across the various disciplines that comprise cognitive science.

5. Critically assess both quantitative and qualitative methodologies for acquiring data and developing models in the cognitive sciences.

**Degree Requirements:**

Total Credit Hours: 18

				Course Credits
<b>Cognitive Science: Primary Specializations</b>				
Required Courses for non Psychology Majors				
				(Required Credit Hours:12)
PSY	202	Biopsychology		3
PSY	305	Cognitive Psychology		3
PSY	417	Neuropsychology		3
PHI	440	Cognitive Science		3
Required Courses for non Philosophy Majors				
				(Required Credit Hours:12)
PHI	200	Logic		3
PHI	322	Epistemology		3
PHI	323	Philosophy of Mind		3
PHI	440	Cognitive Science		3
Required Courses for non Linguistics Majors				
				(Required Credit Hours:12)
LNG	241	Syntax I		3
LNG	450	Psycholinguistics		3
LNG	460	Linguistic Theory and Aphasia		3
PHI	440	Cognitive Science		3
Required Courses for non IT Majors				
				(Required Credit Hours:12)
CSBP	119	Algorithms and Problem Solving		3

CSBP	219	Object Oriented Programming	3
CSBP	316	Human Computer Interaction	3
PHI	440	Cognitive Science	3

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**Required Courses for non Biology Majors**

(Required Credit Hours:12)

BIOC	100	Basic Biology I	3
BIOL	222	Introduction to Cognitive Neuroscience	3
BIOE	457	Animal Behavior	3
PHI	440	Cognitive Science	3

Course Credits

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**Secondary Specialization Courses**

Students must select two courses from a different specialization stream used as the Primary Specialiation

(Required Credit Hours:6)

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# Department of Geography & Urban Planning

## Bachelor of Arts in Geography

### Description

The Geography Department was established in 1977, and it continually changes its curriculum to meet the ever-changing market demands. Its foci of research activities include, but are not exclusive to the geography of UAE and the Arab world, urbanization and transportation, population growth, globalization, global climate change, resource management, water resources, agricultural and manufacturing activities, the geography of crime and health services, spatial and analytical techniques necessary to understand them and using the new tools of geography, Remote Sensing and Geographical Information Systems. The Department in cooperation with other Departments within the University had started in 2005 the Master Program of Remote Sensing and GIS. The growing significance of Geography in the UAE was recognized on January 4, 2010, with the formation of the UAE Geographical Society. As the only tertiary institution in the UAE offering geography degrees, our Department has taken a leading role in promoting the discipline, with several faculty elected to offices in the society.

### Program Objectives

1. To provide students with the theoretical and practical foundation (knowledge) in physical and human geography, geospatial science (Cartography, GIS, Remote Sensing), and urban planning.
2. To equip students with critical thinking and geospatial technical skills.
3. To prepare students for conducting quantitative and qualitative researches and embedding ethics in social and environmental problems.
4. To produce multidisciplinary graduates who can contribute to the development of UAE in particular and the world in general.

### Program Learning Outcomes

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

1. Discuss physical Geography and human aspects and the interaction between them.
2. Use Geoinformatics related software effectively.
3. Evaluate human impact on the natural environment.
4. Effectively communicate geographical ideas orally and in writing.
5. Conduct research addressing local urban planning and global environmental issues.
6. Demonstrate ethical reasoning in relation to Geography and Urban Planning issues.
7. Develop organizational, team work and leadership skills.

**Degree Requirements:**

Total Credit Hours: 120

			Course Credits
<b>General Education (Req. CH:39)</b>			
<b>Cluster 1: Values to Live By - Islam</b>			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3
<b>Cluster 1: Values to Live By - Ethics</b>			
			(Required Credit Hours:3)
PHI	121	Fundamentals of Environmental Ethics	3
PHI	122	International Ethics	3
PHI	226	Human Rights Theory	3
PHIL	120	Principles of Professional Ethics	3
FOED	102	Professional Ethics in Education	3
<b>Cluster 2: Skills for Life - English Communication</b>			
			(Required Credit Hours:3)
ESPU	1014	Introduction to Academic English for Humanities and SS	3
<b>Cluster 2: Skills for Life - Information Literacy</b>			
			(Required Credit Hours:3)
GEIL	101	Information Literacy	3
<b>Cluster 2: Skills for Life - Thinking Skills</b>			
			(Required Credit Hours:3)
HSS	110	Scientific Research Skills	3
CSBP	119	Algorithms and Problem Solving	3
PHI	180	Critical Thinking	3
PSY	105	Creative & Innovative Thinking Skills	3
GEHP	111	Happiness and Wellbeing	3

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IBLC - Inquiry based learning courses must be taken within first 30 credit hours

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Cluster 3: The Human Community - Emirates Society

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(Required Credit Hours:3)

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HSS	105	Emirates Studies	3
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Cluster 3: The Human Community - Humanities/Fine Arts

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(Required Credit Hours:3)

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ARCH	340	History and Theory of Architecture	3
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HIS	133	Introduction to Art History	3
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HSR	120	Introduction to Heritage & Culture	3
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HSR	130	Introduction to Language & Communication	3
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LIT	150	Introduction to Literature	3
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LNG	100	Introduction to Linguistics	3
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LNG	110	Language, Society & Culture	3
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MSC	200	Introduction to Mass Media	3
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MSC	240	World and Arab Media	3
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PHI	101	Introduction to Philosophy	3
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PHI	270	Philosophy of Education	3
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PHI	271	History and Philosophy of Science	3
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TRS	200	Introduction to Translation	3
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Cluster 3: The Human Community - Social and Behavioral Sciences

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(Required Credit Hours:3)

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AGRB	210	Introduction to Agribusiness	3
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ECON	110	Principles of Economics	3
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HSR	140	Introduction to Society & Behavior	3
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HSR	150	Introduction to Government Policy & Urban Structures	3
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PSY	100	Introduction to Psychology	3
SOC	260	Folklore	3
SWK	200	Introduction to Social Welfare	3

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Cluster 3: The Human Community - The Global Experience

(Required Credit Hours:3)

GEO	200 *	World Regional Geography	3
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\* Also counts towards the Major

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Cluster 4: The Natural World - Mathematics

(Required Credit Hours:3)

MATH	120	Contemporary Applications of Math	3
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STAT	101	Statistics in the Modern World	3
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Cluster 4: The Natural World - Natural Sciences

(Required Credit Hours:3)

GEO	201 *	Physical Geography	3
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\* Also counts towards the Major

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Cluster 4: The Natural World - Natural Sciences --  
Student should take one of the following courses:

(Required Credit Hours:3)

PHYS	100	Astronomy	3
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PHYS	101	Conceptual Physics	3
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FDSC	250	Contemporary Food Science & Nutrition	3
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GEOL	110	Planet Earth	3
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ARAG	205	Introduction to Fish & Animal Science	3
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ARAG	220	Natural Resources	3
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BION	100	Biology and its Modern Application	3
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PHED	201	Physical Fitness and Wellness	3
CHEM	181	Chemistry in the Modern World	3

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**Cluster 5: Capstone Experience**

(Required Credit Hours:3)

HSR	400 *	Integrated Capstone	3
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\* Also counts towards the Major

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Course Credits

**Geography Major (Req. CH:33)**

**Required Courses**

(Required Credit Hours:9)

GEO	210	Human Geography	3
GEO	220	Principles of Cartography	3
GEO	221	Geographic Information Systems I	3

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Course Credits

**Students should take one of the following Tracks: (Req. CH:24)**

**1: Environmental Geography Track**

**Required Courses**

(Required Credit Hours:15)

GEO	211	Remote Sensing	3
GEO	413	Geomorphology	3
GEO	452	Climatology	3
GEO	462	Current Environmental Issues	3
GEO	400 *	Practicum	3

or

GEO	410 **	Research Seminar in Geography	3
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\* Student can either take this course over a complete semester.  
No courses are allowed to be registered when taking this course.

\*\* OR student can take this course over a complete semester.  
Other courses can be registered with this course

Elective Courses			
(Required Credit Hours:9)			
GEO	231	Economic Geography	3
GEO	341	Geography of Population	3
GEO	402	Land Use	3
GEO	411	Oceanography	3
GEO	412	Geography of Arid Lands	3
GEO	431	Natural Hazards	3
GEO	443	Geography of Transportation	3

Course Credits

**2: Geoinformatics Track**

Required Courses			
(Required Credit Hours:15)			
GEO	211	Remote Sensing	3
GEO	334	Spatial Analysis	3
GEO	420	Cartography II	3
GEO	422	Geographic Information Systems II	3
GEO	400 *	Practicum	3
or			
GEO	410 **	Research Seminar in Geography	3

\* Student can either take this course over a complete semester.  
No courses are allowed to be registered when taking this course.

\*\* OR student can take this course over a complete semester.  
Other courses can be registered with this course

Elective Courses			
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(Required Credit Hours:9)			
GEO	351	Computer Maps	3
GEO	382	Geography of Industry	3
GEO	402	Land Use	3
GEO	432	Geography of the UAE	3
GEO	443	Geography of Transportation	3
GEO	451	Digital Imaging Analysis	3
GEO	452	Climatology	3

Course Credits			
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### 3: Urban Planning Track

#### Required Courses

(Required Credit Hours:15)			
GEO	334	Spatial Analysis	3
GEO	372	Planning Theory and Practice	3
GEO	402	Land Use	3
GEO	438	Regional & Urban Planning	3
GEO	481 *	Urban Planning Internship	3

\* The internship is conducted over a complete semester. No courses are allowed to be registered during the internship

#### Elective Courses

(Required Credit Hours:9)			
GEO	232	Urban Economics	3
GEO	345	Urban Demography	3
GEO	370	Transit Oriented Development (TOD)	3
GEO	440	GIS for Urban & Regional Planning	3
GEO	463	Tourism Policy and Planning	3
GEO	472	Politics and Planning	3

Course Credits	
<b>Minors (Req. CH: 36)</b>	
Minor (1)	(Required Credit Hours:18)
Minor (2) (Students can either take Minor (2) or 18 credit hours from any free elective courses.)	(Required Credit Hours:18)
Course Credits	
<b>Free Electives (Req. CH: 12)</b>	
Free Electives	(Required Credit Hours:12)

## Minor in Geoinformatics

### Description

The department of Geography and Urban Planning at UAEU offers a minor in Geo-informatics (GIS). The minor is open to all university students but is primarily geared to serve interested students from geography, geology, and engineering departments. Students should have the department approval to enroll. The minor completion requires students to take a total of 18 credit hours spread in 6 courses. Upon successful completion of the minor program the students should have gained knowledge and developed skills on how GIS and spatial data analysis can be used in various fields such as transportation, urban planning, petroleum, coastal management, environment, and GIS project management.

### Program Objectives

1. Provide an introduction to the concepts, principles, and theories of Geographic Information Systems (GIS).
2. Expose students to the GIS geographic data sources and constraints.
3. Develop practical hands-on experience using GIS software.
4. Train students on conducting GIS projects.

### Program Learning Outcomes

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

1. Demonstrate understanding of vector and raster models, database development, management techniques, and spatial analysis.
2. Evaluate the quality and suitability of GIS data for diverse applications.



3. Illustrate proficiency in the use of GIS software to build database, perform spatial analysis, prepare maps, reports, and charts for presentation of results.
4. Apply GIS analysis techniques in various fields such as transportation, urban planning, petroleum, coastal management, environment, and GIS project management.

**Degree Requirements:**

Total Credit Hours: 18

Course Credits

**Geoinformatics**

Required Courses

(Required Credit Hours:6)

GEO	220	Principles of Cartography	3
GEO	221	Geographic Information Systems I	3

Elective Courses

(Required Credit Hours:12)

GEO	430	GIS for Transportation	3
GEO	440	GIS for Urban & Regional Planning	3
GEO	450	GIS for Coastal Management	3
GEO	460	GIS for Petroleum	3
GEO	470	GIS for Environment	3
GEO	480	GIS for Project Management	3

# Department of Political Science

## Bachelor of Arts in Political Science

### Description

The Department of Political Science offers B.A. in political science. Students can choose to concentrate their studies in international politics and political systems or in public policy and administration. The structure of the Political Science curriculum provides students with the theory and practice that enables them to explore the subdivisions of the discipline: political thought, comparative politics, international relations, and public policy. The department offers students quality education that provides them with the required knowledge and skills to lead them to exciting careers in federal and local governments, research centers, international organizations, and media. The faculty in the department are active in scholarly research and publications, and are also dedicated to teaching.

### Program Objectives

1. Provide students with essential concepts and principles in the various subfields of Political Science.
2. Introduce students to various theories and approaches to the study of politics.
3. Provide students with solid knowledge about factors that influence international relations and public policy.
4. Examine the nature and implications of the interactive relationships between domestic and international factors shaping political phenomena.
5. Equip students with competencies necessary for successful careers in politics and related areas.
6. Foster responsible citizenship.

### Program Learning Outcomes

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

1. Define basic political science concepts.
2. Explicate major theories of various subfields of political science.
3. Identify essential political processes, institutions, actors, behaviors, and ideas that shape national and international contexts.
4. Demonstrate ethical reasoning in relation to political science issues
5. Employ qualitative and quantitative research methods in political science analysis.
6. Analyze public policy issues both independently and in a team
7. Communicate descriptive and analytical knowledge effectively in written and oral format to various audiences
8. Discuss the political and administrative systems of the UAE, as well as its developmental achievements
9. Demonstrate preparedness for continued reflective practice and lifelong learning.

**Degree Requirements:**

Total Credit Hours: 120

			Course Credits
<b>General Education (Req. CH:39)</b>			
<b>Cluster 1: Values to Live By - Islam</b>			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3
<b>Cluster 1: Values to Live By - Ethics</b>			
			(Required Credit Hours:3)
FOED	102	Professional Ethics in Education	3
PHI	121	Fundamentals of Environmental Ethics	3
PHI	122	International Ethics	3
PHI	226	Human Rights Theory	3
PHIL	120	Principles of Professional Ethics	3
<b>Cluster 2: Skills for Life - English Communication</b>			
			(Required Credit Hours:3)
ESPU	1014	Introduction to Academic English for Humanities and SS	3
<b>Cluster 2: Skills for Life - Information Literacy</b>			
			(Required Credit Hours:3)
GEIL	101	Information Literacy	3
<b>Cluster 2: Skills for Life - Thinking Skills</b>			
			(Required Credit Hours:3)
HSS	110	Scientific Research Skills	3
CSBP	119	Algorithms and Problem Solving	3
PHI	180	Critical Thinking	3
PSY	105	Creative & Innovative Thinking Skills	3
GEHP	111	Happiness and Wellbeing	3

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IBLC - Inquiry based learning courses must be taken within first 30 credit hours

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Cluster 3: The Human Community - Emirates Society

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(Required Credit Hours:3)

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HSS	105	Emirates Studies	3
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Cluster 3: The Human Community - Humanities/Fine Arts

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(Required Credit Hours:3)

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ARCH	340	History and Theory of Architecture	3
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HIS	133	Introduction to Art History	3
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HSR	120	Introduction to Heritage & Culture	3
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HSR	130	Introduction to Language & Communication	3
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LIT	150	Introduction to Literature	3
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LNG	100	Introduction to Linguistics	3
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LNG	110	Language, Society & Culture	3
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MSC	200	Introduction to Mass Media	3
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MSC	240	World and Arab Media	3
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PHI	101	Introduction to Philosophy	3
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PHI	270	Philosophy of Education	3
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PHI	271	History and Philosophy of Science	3
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TRS	200	Introduction to Translation	3
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Cluster 3: The Human Community - Social and Behavioral Sciences

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(Required Credit Hours:3)

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AGRB	210	Introduction to Agribusiness	3
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ECON	110	Principles of Economics	3
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HSR	140	Introduction to Society & Behavior	3
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HSR	150	Introduction to Government Policy & Urban Structures	3
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PSY	100	Introduction to Psychology	3
SOC	260	Folklore	3
SWK	200	Introduction to Social Welfare	3

#### Cluster 3: The Human Community - The Global Experience

(Required Credit Hours:3)

PSG	270 *	Comparative Political Systems	3
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\* Also counts towards the Major

#### Cluster 4: The Natural World - Mathematics

(Required Credit Hours:3)

MATH	120	Contemporary Applications of Math	3
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STAT	101	Statistics in the Modern World	3
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#### Cluster 4: The Natural World - Natural Sciences

(Required Credit Hours:6)

ARAG	205	Introduction to Fish & Animal Science	3
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ARAG	220	Natural Resources	3
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BION	100	Biology and its Modern Application	3
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CHEM	181	Chemistry in the Modern World	3
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FDSC	250	Contemporary Food Science & Nutrition	3
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GEOL	110	Planet Earth	3
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PHED	201	Physical Fitness and Wellness	3
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PHYS	100	Astronomy	3
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PHYS	101	Conceptual Physics	3
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#### Cluster 5: Capstone Experience

(Required Credit Hours:3)

HSR	400 *	Integrated Capstone	3
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\* Also counts towards the Major

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Course Credits

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**Political Science Major (Req. CH:39)**

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Required Courses

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(Required Credit Hours:21)

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PSG	110	Fundamentals of Political Science	3
PSG	120	Government & Politics of UAE	3
PSG	242	Methods of Research in PSG	3
PSG	250	Principles of International Relations	3
PSG	261	Political Thought	3
PSG	430	Special Topics	3
PSG	440 *	Internship	3

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\* The internship is conducted over a complete semester. No courses are allowed to be registered during the internship

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Course Credits

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**Concentration Requirements (Req CH:18)**

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Students should take one of the following concentrations:

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(Required Credit Hours:18)

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Course Credits

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**1: International Politics and Political Systems Concentration (Req. CH:18)**

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Required Courses

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(Required Credit Hours:12)

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ECON	105	Principles of Microeconomics	3
PSG	301	International Organizations	3
PSG	315	International Political Economy	3
PSG	422	Foreign Policy of Great Powers	3

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Elective Courses			
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(Required Credit Hours:6)

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PSG	302	Diplomatic Systems	3
PSG	312	Foreign Policy of Arab States	3
PSG	321	Gulf & Arabic Peninsula Affairs	3
PSG	332	Europe & The United States	3
PUBL	207	Public International Law	3

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Course Credits

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**2: Government, Policy and Administration Concentration (Req. CH:18)**

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Required Courses			
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(Required Credit Hours:12)

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ECON	105	Principles of Microeconomics	3
PSG	130	Introduction to Public Administration	3
PSG	331	Local Governments & Local Administrations	3
PSG	425	Public Policy	3

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Elective			
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(Required Credit Hours:6)

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HRMD	320	Human Resources Management	3
MSC	412	Public Opinion	3
PSG	352	Governmental Budgeting	3
PUBL	206	Administrative Law	3
SOC	314	Political Sociology	3

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Course Credits

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**Minors (Req. CH: 36)**

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Minor (1)			
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(Required Credit Hours:18)

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Minor (2)  
(Students can either take Minor (2) or 18 credit hours from any free elective courses.)

(Required Credit Hours:18)

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Course Credits

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Free Electives (Req. CH: 6)

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Free Electives

(Required Credit Hours:6)

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## Minor in Political Science

### Description

The Minor in Political Science is an eighteen credit-hour academic program. It includes the core courses in Political Science. Its main objectives are to provide students with the essential concepts, principles, and theories in the various subfields of Political Science, and to equip them with some skills and competencies necessary for successful careers in politics and related areas.

### Program Objectives

1. Provide students with essential concepts and principles in the various subfields of political science.
2. Introduce students to various theories and approaches to the study of politics.
3. Provide students with solid knowledge about factors that influence international relations and public policy.
4. Equip students with competencies necessary for successful careers in politics and related areas.

### Program Learning Outcomes

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

1. Define the main concepts of political science.
2. Identify essential political processes, institutions, actors, behaviors, and ideas that shape national and international contexts.
3. Explicate major theories of various subfields of political science.
4. Apply theories to analyze political phenomena
5. Demonstrate an understanding of the political and administrative systems of the UAE.

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**Degree Requirements:**

Total Credit Hours: 18

Course Credits

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**Political Science**

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Required Courses

(Required Credit Hours:9)



PSG	110	Fundamentals of Political Science	3
PSG	120	Government & Politics of UAE	3
PSG	130	Introduction to Public Administration	3

#### Elective Courses

Students must choose three of these courses:

(Required Credit Hours:9)

PSG	250	Principles of International Relations	3
PSG	270	Comparative Political Systems	3
PSG	315	International Political Economy	3
PSG	321	Gulf & Arabic Peninsula Affairs	3
PSG	415	Public Governance	3
PSG	425	Public Policy	3

# Department of Psychology

## Bachelor of Arts in Psychology

### Description

The Department of psychology & Counseling offers a BA in Psychology which provides students with the knowledge base in psychology, trains them on scientific inquiry and critical thinking skills, prepares them to consider the ethical and social responsibility in a diverse world, develops their communication skills, and provide them with adequate professional development so they are able to apply psychological knowledge and skills in a variety of settings. The program does not include tracks, as its focus is general enough to enable students to pursue various possible psychology graduate programs. The program covers the foundation courses in psychology; namely: Introduction to Psychology, Statistics, Research Methods, Developmental, Social, Cognitive, Experimental, Biopsychology, Psychological Measurements, Abnormal, and Clinical Psychology. The program also offers courses that focus on the psychological applications in the fields of education, industry, and health.

### Program Objectives

1. To provide students with knowledge of basic concepts, theoretical perspectives, and current and historical trends psychology.
2. To train students to apply critical/creative thinking as well as scientific research skills.
3. To train students to provide basic psychological services under supervision.
4. To prepare students to apply ethical and social responsibilities in their work as well as research.
5. To provide students with necessary skills to communicate effectively with diverse individuals/ groups and situations.

### Program Learning Outcomes

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

1. Describe key concepts, principles, and main themes in psychology.
2. Apply scientific reasoning to interpret psychological phenomena.
3. Conduct basic psychological research individually and in teams.
4. Apply updated ethical standards to evaluate psychological science and practice.
5. Demonstrate effective writing and presenting skills for different purposes.
6. Analyze psychological information and data using variety of sources and statistical software.
7. Communicate efficiently psychological reports and information to concerned parties.

**Degree Requirements:**

Total Credit Hours: 120

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Course Credits

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<b>General Education (Req. CH:39)</b>			
<b>Cluster 1: Values to Live By - Islam</b>			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3
<b>Cluster 1: Values to Live By - Ethics</b>			
			(Required Credit Hours:3)
FOED	102	Professional Ethics in Education	3
PHI	121	Fundamentals of Environmental Ethics	3
PHI	122	International Ethics	3
PHI	226	Human Rights Theory	3
PHIL	120	Principles of Professional Ethics	3
<b>Cluster 2: Skills for Life - English Communication</b>			
			(Required Credit Hours:3)
ESPU	1014	Introduction to Academic English for Humanities and SS	3
<b>Cluster 2: Skills for Life - Information Literacy</b>			
			(Required Credit Hours:3)
GEIL	101	Information Literacy	3
<b>Cluster 2: Skills for Life - Thinking Skills</b>			
			(Required Credit Hours:3)
HSS	110	Scientific Research Skills	3
CSBP	119	Algorithms and Problem Solving	3
PHI	180	Critical Thinking	3
PSY	105	Creative & Innovative Thinking Skills	3
GEHP	111	Happiness and Wellbeing	3
IBLC - Inquiry based learning courses must be taken within first 30 credit hours			

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**Cluster 3: The Human Community - Emirates Society****(Required Credit Hours:3)**

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HSS	105	Emirates Studies	3
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**Cluster 3: The Human Community - Humanities/Fine Arts****(Required Credit Hours:3)**

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ARCH	340	History and Theory of Architecture	3
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HIS	133	Introduction to Art History	3
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HSR	120	Introduction to Heritage & Culture	3
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HSR	130	Introduction to Language & Communication	3
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LIT	150	Introduction to Literature	3
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LNG	100	Introduction to Linguistics	3
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LNG	110	Language, Society & Culture	3
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MSC	200	Introduction to Mass Media	3
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MSC	240	World and Arab Media	3
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PHI	101	Introduction to Philosophy	3
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PHI	270	Philosophy of Education	3
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PHI	271	History and Philosophy of Science	3
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TRS	200	Introduction to Translation	3
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**Cluster 3: The Human Community - Social and Behavioral Sciences****(Required Credit Hours:3)**

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AGRB	210	Introduction to Agribusiness	3
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ECON	110	Principles of Economics	3
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HSR	140	Introduction to Society & Behavior	3
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HSR	150	Introduction to Government Policy & Urban Structures	3
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SOC	260	Folklore	3
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SWK	200	Introduction to Social Welfare	3
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### Cluster 3: The Human Community - The Global Experience

(Required Credit Hours:3)

AGRB	360	Global Agri-food Trade	3
ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3
GEO	200	World Regional Geography	3
HIS	120	Arab & Islamic Civilization	3
HIS	121	World History: Origins to 1500	3
HIS	125	Contemporary Civilization	3
PSG	250	Principles of International Relations	3

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### Cluster 4: The Natural World - Mathematics

(Required Credit Hours:3)

STAT	180 *	Psychological Statistics I	3
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\* Also counts towards the Major

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### Cluster 4: The Natural World - Natural Sciences

(Required Credit Hours:6)

ARAG	205	Introduction to Fish & Animal Science	3
ARAG	220	Natural Resources	3
BION	100	Biology and its Modern Application	3
CHEM	181	Chemistry in the Modern World	3
FDSC	250	Contemporary Food Science & Nutrition	3
GEOL	110	Planet Earth	3
PHED	201	Physical Fitness and Wellness	3
PHYS	100	Astronomy	3

PHYS	101	Conceptual Physics	3
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Cluster 5: Capstone Experience

(Required Credit Hours:3)

HSR	400 *	Integrated Capstone	3
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\* Also counts towards the Major

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Course Credits

**Psychology Major (Req. CH:45)**

Required Courses

(Required Credit Hours:36)

PSY	100	Introduction to Psychology	3
PSY	201	Research Methods in Psychology	3
PSY	202	Biopsychology	3
PSY	205	Social Psychology	3
PSY	303	Psychological Tests & Measurements	3
PSY	304	Developmental Psychology	3
PSY	305	Cognitive Psychology	3
PSY	306	Abnormal Psychology	3
PSY	401	Clinical Psychology	3
PSY	403	Experimental Psychology	3
PSY	452 *	Practicum	6
or			
PSY	454 **	Research Project/Internship	6

\* Student can take this course over a complete semester. No courses are allowed to be registered when taking this course

\*\* OR student can take this course over a complete semester. A maximum of 6 Cr. Hrs. of courses can be registered in addition to the this course.

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**Elective Courses - At least two must be PSY 4XX level**

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(Required Credit Hours:9)

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PSY	312	Psychology of Learning	3
PSY	313	Educational Psychology	3
PSY	314	Sensation and Perception	3
PSY	315	Industrial Organizational Psychology	3
PSY	316	School Psychology	3
PSY	317	Psychology of Personality	3
PSY	413	Counseling Psychology	3
PSY	414	Introduction to Health Psychology	3
PSY	416	Differential Psychology	3
PSY	417	Neuropsychology	3
PSY	419	Seminar in Psychology	3
STAT	280	Psychological Statistics II	3

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Course Credits

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**Minors (Req. CH: 36)**

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**Minor (1)**

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(Required Credit Hours:18)

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**Minor (2)**

(Students can either take Minor (2) or 18 credit hours from any free elective courses.)

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(Required Credit Hours:18)

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# Department of Social Work

## Bachelor of Social Work

### Description

The Bachelor of Social Work (BSW) at The Department of Social Work is a professional degree in compliance with Global Standards of the international Association of Schools of Social Work (IASSW). The program aims to educate, train and prepare culturally competent generalist social work practitioners that promote social change and problem solving on the Micro, Mezzo, and Macro levels. The BSW program is conceptualized along Islamic principles of social solidarity, cooperation and mutual aid within an ecological/strengths perspective with a focus on the traditional Arab/Muslim family and the multicultural expatriate populations.

### Program Objectives

1. To graduate entry level BSW practitioners that have acquired the knowledge, values, skills to practice with the multicultural populations of the UAE, the GCC and the global community.
2. To prepare students for professional practice, to conduct research/dissemination of findings, and for community service.
3. To enhance traditional values of volunteerism, social solidarity, cooperation and mutual aid through real world humanitarian experiences.
4. To prepare today's leader for professional practice and service in furthering a worldwide humanitarian and social development agenda to improve individual, children, family, groups and community's quality of life.

### Program Learning Outcomes

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

1. Apply theoretical knowledge gained in human behavior & social environment, social work practice, social policy and research courses to generalist social work practice.
2. Present orally and in writing the results of using the problem solving method to case scenarios based on real life situations.
3. Conduct bio-psycho-social assessments, needs assessments, planning, and evaluation in relation to generalist social work practice.
4. Apply social work generalist practice theory and skills with individuals, families, groups, communities and organizational leadership in practice exercises and field practicum settings.
5. Apply critical thinking in their interventions with individuals, families, groups, organizations, and communities in their field practicum settings.
6. Communicate orally and in writing a research study including data analysis and the use of SPSS.
7. Apply a research-based case study on an issue and/or problem encountered in the field.



8. Model the professional and ethical behavior expected of entry-level social work professionals, including the use of supervision for accountability and improvement of practice.
9. Develop self-awareness and learning practice strategies through self-study via readings, practice experiences and reflection.

**Degree Requirements:**

Total Credit Hours: 120

Course Credits

**General Education (Req. CH:39)**

**Cluster 1: Values to Live By - Islam**

(Required Credit Hours:3)

ISLM	100	Islamic Culture	3
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**Cluster 1: Values to Live By - Ethics**

(Required Credit Hours:3)

FOED	102	Professional Ethics in Education	3
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PHI	121	Fundamentals of Environmental Ethics	3
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PHI	122	International Ethics	3
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PHI	226	Human Rights Theory	3
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PHIL	120	Principles of Professional Ethics	3
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**Cluster 2: Skills for Life - English Communication**

(Required Credit Hours:3)

ESPU	1014	Introduction to Academic English for Humanities and SS	3
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**Cluster 2: Skills for Life - Information Literacy**

(Required Credit Hours:3)

GEIL	101	Information Literacy	3
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**Cluster 2: Skills for Life - Thinking Skills**

(Required Credit Hours:3)

HSS	110	Scientific Research Skills	3
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CSBP	119	Algorithms and Problem Solving	3
PHI	180	Critical Thinking	3
PSY	105	Creative & Innovative Thinking Skills	3
GEHP	111	Happiness and Wellbeing	3
IBLC - Inquiry based learning courses must be taken within first 30 credit hours			

### Cluster 3: The Human Community - Emirates Society

(Required Credit Hours:3)

HSS	105	Emirates Studies	3
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### Cluster 3: The Human Community - Humanities/Fine Arts

(Required Credit Hours:3)

ARCH	340	History and Theory of Architecture	3
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HIS	133	Introduction to Art History	3
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HSR	120	Introduction to Heritage & Culture	3
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HSR	130	Introduction to Language & Communication	3
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LIT	150	Introduction to Literature	3
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LNG	100	Introduction to Linguistics	3
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LNG	110	Language, Society & Culture	3
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MSC	200	Introduction to Mass Media	3
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MSC	240	World and Arab Media	3
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PHI	101	Introduction to Philosophy	3
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PHI	270	Philosophy of Education	3
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PHI	271	History and Philosophy of Science	3
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TRS	200	Introduction to Translation	3
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### Cluster 3: The Human Community - Social and Behavioral Sciences

(Required Credit Hours:3)

AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
SOC	260	Folklore	3

### Cluster 3: The Human Community - The Global Experience

(Required Credit Hours:3)

AGRB	360	Global Agri-food Trade	3
ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3
GEO	200	World Regional Geography	3
HIS	120	Arab & Islamic Civilization	3
HIS	121	World History: Origins to 1500	3
HIS	125	Contemporary Civilization	3
PSG	250	Principles of International Relations	3

### Cluster 4: The Natural World - Mathematics

(Required Credit Hours:3)

STAT	101	Statistics in the Modern World	3
MATH	120	Contemporary Applications of Math	3

### Cluster 4: The Natural World - Natural Sciences

(Required Credit Hours:6)

ARAG	205	Introduction to Fish & Animal Science	3
ARAG	220	Natural Resources	3
BION	100	Biology and its Modern Application	3

CHEM	181	Chemistry in the Modern World	3
FDSC	250	Contemporary Food Science & Nutrition	3
GEOL	110	Planet Earth	3
PHED	201	Physical Fitness and Wellness	3
PHYS	100	Astronomy	3
PHYS	101	Conceptual Physics	3

#### Cluster 5: Capstone Experience

(Required Credit Hours:3)

HSR	400 *	Integrated Capstone	3
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\* Also counts towards the Major

Course Credits

#### Social Work Major

##### Required Courses

(Required Credit Hours:63)

SWK	200	Introduction to Social Welfare	3
SWK	210	Introduction to Humanitarian Social Work	3
SWK	220	Social Policy & Services	3
SWK	230	Human Behavior in Social Environments	3
SWK	240	Social Work Research Methods	4
SWK	250	Social Work Practice I: Individuals	3
SWK	251	Social Work Practice I: Skills	1
SWK	320	Social Policy Research	3
SWK	350	Social Work Practice II: Families	3
SWK	351	Social Work Practice II: Skills	1
SWK	355	Social Work Leadership	3
SWK	360	Social Work Practice III	3

SWK	361	Social Work Practice III: Skills	1
SWK	375	Social Work & Mental Health	3
SWK	376	Social Work and Special Populations	3
SWK	380	Social Work & Islam	3
SWK	385	Social Work & Substance Abuse	3
SWK	465 *	Social Work Practicum I	4
SWK	466	Field Seminar	3
SWK	470 **	Field Practicum II	4
SWK	499	Special Topics In Social Work	3
SWK	365	Social Work & Humanitarian Relief	3

\* The internship is conducted over 2 semesters. A maximum of 6 Cr. Hrs. of courses can be registered during each of the 2 semesters

\*\* The internship is conducted over 2 semesters. A maximum of 6 Cr. Hrs. of courses can be registered during each of the 2 semesters

Course Credits

**Minors (Req. CH: 18)**

Required Minor

(Required Credit Hours:18)

# Department of Sociology

## Bachelor of Arts in Sociology

### Description

The Department of Sociology offers B.A. degree in Sociology and a minor in Family Studies. Students require 120 credit hours to graduate. They can choose to concentrate their studies in one of three tracks: Development and Organizational Change, Applied Social Issues and Anthropology and Folklore. Sociology Department aims to prepare leading graduates in the field of sociology as well as to achieve academic excellence. It provides significant approaches through a spectrum of descriptive and analytical methods explicating global operations impacting localized realities represented in detailed case studies, narratives, life histories, discursive and non-discursive actions. These scholarly approaches help appreciate and understand the aspirations and challenges characterizing social life in the UAE.

### Program Objectives

1. To introduce students to sociological Knowledge, methods, concepts, issues and topics that are relevant to the society.
2. To provide students with skills and tools needed to engage fieldwork and scientific research in the U.A.E society.
3. To train students to think critically in understanding, analyzing, and solving the social issues and problems.
4. To enrich students' imagination to understand social behaviors, actions, interactions, problems and policies.
5. To equip students with tools and skills to serve in government, private, and nonprofit organizations and institutions.

### Program Learning Outcomes

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

1. Undertake a preliminary investigation of sociologically informed questions.
2. Summarize the findings of empirical sociological research including the ability to identify the methodological framework used.
3. Apply basic research tools in a preliminary way.
4. Recognize sociologically informed explanations.
5. Recognize the ethical dimensions of social research.
6. Identify and select from appropriate sociological sources and present the conclusion in an appropriate sociological format.
7. Identify and select sociological work relevant to given social, public and civic policies.

**Degree Requirements:**

Total Credit Hours: 120

Course Credits

**General Education (REQ. CH:39)**

Cluster 1: Values to Live By - Islam			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

Cluster 1: Values to Live By - Ethics			
			(Required Credit Hours:3)
FOED	102	Professional Ethics in Education	3
PHI	121	Fundamentals of Environmental Ethics	3
PHI	122	International Ethics	3
PHI	226	Human Rights Theory	3
PHIL	120	Principles of Professional Ethics	3

Cluster 2: Skills for Life - English Communication			
			(Required Credit Hours:3)
ESPU	1014	Introduction to Academic English for Humanities and SS	3

Cluster 2: Skills for Life - Information Literacy			
			(Required Credit Hours:3)
GEIL	101	Information Literacy	3

Cluster 2: Skills for Life - Thinking Skills			
			(Required Credit Hours:3)
HSS	110	Scientific Research Skills	3
CSBP	119	Algorithms and Problem Solving	3
PSY	105	Creative & Innovative Thinking Skills	3
PHI	180	Critical Thinking	3
GEHP	111	Happiness and Wellbeing	3

IBLC - Inquiry based learning courses must be taken within first 30 credit hours

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**Cluster 3: The Human Community - Emirates Society**

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(Required Credit Hours:3)

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HSS	105	Emirates Studies	3
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**Cluster 3: The Human Community - Humanities/Fine Arts**

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(Required Credit Hours:3)

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ARCH	340	History and Theory of Architecture	3
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HIS	133	Introduction to Art History	3
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HSR	120	Introduction to Heritage & Culture	3
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HSR	130	Introduction to Language & Communication	3
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LIT	150	Introduction to Literature	3
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LNG	100	Introduction to Linguistics	3
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LNG	110	Language, Society & Culture	3
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MSC	200	Introduction to Mass Media	3
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MSC	240	World and Arab Media	3
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PHI	101	Introduction to Philosophy	3
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PHI	270	Philosophy of Education	3
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PHI	271	History and Philosophy of Science	3
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TRS	200	Introduction to Translation	3
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**Cluster 3: The Human Community - Social and Behavioral Sciences**

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(Required Credit Hours:3)

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AGRB	210	Introduction to Agribusiness	3
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ECON	110	Principles of Economics	3
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HSR	140	Introduction to Society & Behavior	3
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HSR	150	Introduction to Government Policy & Urban Structures	3
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PSY	100	Introduction to Psychology	3
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SOC	260	Folklore	3
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SWK	200	Introduction to Social Welfare	3
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Cluster 3: The Human Community - The Global Experience

(Required Credit Hours:3)

SOC	201 *	Social & Cultural Change	3
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\* Also counts towards the Major

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Cluster 4: The Natural World - Mathematics

(Required Credit Hours:3)

MATH	120	Contemporary Applications of Math	3
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STAT	101	Statistics in the Modern World	3
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Cluster 4: The Natural World - Natural Sciences

(Required Credit Hours:6)

ARAG	205	Introduction to Fish & Animal Science	3
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ARAG	220	Natural Resources	3
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BION	100	Biology and its Modern Application	3
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CHEM	181	Chemistry in the Modern World	3
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FDSC	250	Contemporary Food Science & Nutrition	3
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GEOL	110	Planet Earth	3
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PHED	201	Physical Fitness and Wellness	3
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PHYS	100	Astronomy	3
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PHYS	101	Conceptual Physics	3
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Cluster 5: Capstone Experience

(Required Credit Hours:3)

HSR	400 *	Integrated Capstone	3
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\* Also counts towards the Major

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				Course Credits
<b>Sociology Major (Req. CH:33)</b>				
<b>Required Courses</b>				
				(Required Credit Hours:21)
SOC	101	Introduction to Sociology		3
SOC	102	Social Theories		3
SOC	200	Social Research Methods		3
SOC	202	Social Problems		3
SOC	324	Applied Sociology		3
SOC	403	Research Project		3
SOC	404 *	Internship		3
* The internship is conducted on 2 days/week during a complete semester. A maximum of 6 Cr. Hrs. of courses can be registered in the other days of the week				

				Course Credits
<b>Elective Concentrations (Req. CH:12)</b>				
<b>Student must choose CH:12 from one of the following concentration including at least one research method course (*)</b>				
<b>Development and Organizational Change</b>				
				(Required Credit Hours:12)
SOC	301	Sociology of Development		3
SOC	302	Urban Sociology		3
SOC	303	Bedouin & Rural Society		3
SOC	304	Demography		3
SOC	305	Industrial Sociology		3
SOC	306	Population & Environment		3
SOC	307	Human Development		3
SOC	308	Migration Studies		3
SOC	405 *	Assessment of Social Projects		3

Applied Social Issues			
(Required Credit Hours:12)			
SOC	306	Population & Environment	3
SOC	309	Sociology of Organizations	3
SOC	313	Sociology of Family	3
SOC	314	Political Sociology	3
SOC	315	Sociology of Education	3
SOC	318	Crime & Juvenile Delinquency	3
SOC	325	Sociology of Aging	3
STAT	2152	Social Statistics (1)	3
SOC	405 *	Assessment of Social Projects	3

Anthropology and Folklore			
(Required Credit Hours:12)			
SOC	260	Folklore	3
HIS	310	Introduction to Archaeology & Museum Studies	3
SOC	316	Folklore in UAE Society	3
SOC	317	Social & Cultural Anthropology	3
SOC	319	Anthropology	3
HIS	332	Ancient History & Archaeology Arabian of the Peninsula	3
HIS	372	Arch. of UAE & A. Gulf States	3
SOC	407 *	Research Methods in Anthropology & Folklore	3

Course Credits

**Minors (Req. CH: 36)**

Minor (1)			
(Required Credit Hours:18)			

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Minor (2)  
(Students can either take Minor (2) or 18 credit hours from any free elective courses.)

(Required Credit Hours:18)

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Course Credits

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**Free Electives (Req. CH: 12)**

Free Electives

(Required Credit Hours:12)

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## Minor in Family Studies

### Description

Family is the most important social institution. Healthy and happy families tend to produce persons who are able to enjoy their own lives and to contribute meaningfully to society. In today's culture, however, families struggle to sustain life-long commitments. The main rationale of this minor is to provide students with knowledge and skills that produce social researchers and practitioners, who are prepared for a career working with people—young and old; men and women; children, teenagers and adults. A focus of this minor is on the development of the individual in a family context throughout the life cycle.

### Program Objectives

1. Explain important concepts, theories, and approaches related to the family studies.
2. Describe different settings of marriage, family patterns and family interactions.
3. Provide research methods skills used in the analysis of the family studies.
4. Evaluate various research efforts in the area of the family studies.
5. Apply family theories, perspectives, and approaches to everyday life experiences.

### Program Learning Outcomes

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

1. Understand the various concepts, theories and approaches related to family studies.
2. Identify the various contexts of marriage, family patterns and family interactions.
3. Demonstrate skills pertinent to conducting research in the field of family studies.
4. Evaluate research efforts in the area of family studies.
5. Apply family science knowledge to real-life issues that emerge in practice.

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**Degree Requirements:**

Total Credit Hours: 18

Course Credits

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### Family Studies

Required Courses

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(Required Credit Hours:12)			
SOC	101	Introduction to Sociology	3
SOC	202	Social Problems	3
SOC	313	Sociology of Family	3
CURR	314	Family, Community, Culture & ECE	3

Elective courses			
(Required Credit Hours:6)			
SOC	307	Human Development	3
SOC	315	Sociology of Education	3
SOC	318	Crime & Juvenile Delinquency	3
HSC	300	Introduction to Human Services & Counseling	3

# College of Information Technology

## Department of Computer and Network Engineering

### Bachelor of Science in Computer Engineering

#### Description

Computer Engineering (CE) is a field of study that encompasses the fundamental principles, methods, and modern tools for the design and implementation of computing systems. This field spans and bridges topics in both electrical engineering (EE) and computer science (CS). Advances in technology are yielding smaller and higher-performance computer systems permeating into a wide range of applications, from communication systems to consumer products and common household appliances. A Bachelor of Science (BSc) in CE program should provide a balanced perspective on both hardware and software elements of computing systems, and on their relative design trade-offs as well as applications.

#### Program Objectives

1. The program graduates should be able to practice computer engineering to serve UAE industries, government agencies, and international industries.
2. The program graduates should have the necessary background and technical skills to work professionally in one or more of the following areas: VLSI design, embedded systems, network engineering, and robotics.
3. Within several years from graduation our alumni should have established a successful career in a computer engineering related field, leading or participating effectively in interdisciplinary engineering projects, as well as continuously adapting to changing technologies.
4. The program graduates should be prepared for admission to top graduate programs, reaching advanced degrees in engineering and related disciplines.
5. The program graduates should be well prepared for personal and professional success with awareness and commitment to ethical and social responsibilities, both as individuals and in team environments

#### Program Learning Outcomes

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

1. Apply knowledge of mathematics, science, and computer engineering.
2. Design and conduct computer-engineering experiments, as well as to analyze and interpret data.
3. Design a computing system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
4. Function effectively individually and on multidisciplinary teams.
5. Identify, formulate, and solve computer-engineering problems.

6. Discuss professional, ethical, legal, computer engineering and social issues and responsibility.
7. Communicate effectively in writing and orally with a range of audiences.
8. Explain the impact of computer engineering solutions in a global, economic, environmental, and societal context.
9. recognize the need for, and an ability to engage in life-long learning
10. Discuss computer engineering contemporary issues.
11. Use techniques, skills, and modern tools necessary for computer engineering practice.

**Degree Requirements:**

Total Credit Hours: 144

Course Credits

**General Education (Req CH: 42)**

Cluster 1: Values to Live By - Islam

(Required Credit Hours:3)

ISLM	100	Islamic Culture	3
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Cluster 1: Values to Live By - Ethics

(Required Credit Hours:3)

ITBP	370	Professional Responsibility in Information Technology	3
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Cluster 2: Skills for Life - English Communication Skills

(Required Credit Hours:3)

ESPU	1081	Introduction to Academic English for Information Technology I	3
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Cluster 2: Skills for Life - Information Literacy

(Required Credit Hours:3)

GEIL	101	Information Literacy	3
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Cluster 2: Skills for Life - Thinking Skills

(Required Credit Hours:3)

CSBP	119 *	Algorithms and Problem Solving	3
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\* Also counts towards the Major

Cluster 3: The Human Community - Humanities and Fine Arts

(Required Credit Hours:3)			
ARCH	340	History and Theory of Architecture	3
HIS	133	Introduction to Art History	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
LIT	150	Introduction to Literature	3
MSC	200	Introduction to Mass Media	3
MSC	240	World and Arab Media	3
LNG	100	Introduction to Linguistics	3
LNG	110	Language, Society & Culture	3
PHI	101	Introduction to Philosophy	3
PHI	270	Philosophy of Education	3
PHI	271	History and Philosophy of Science	3
TRS	200	Introduction to Translation	3
<b>Cluster 3: The Human Community - Emirates Society</b>			
(Required Credit Hours:3)			
HSS	105	Emirates Studies	3
<b>Cluster 3: The Human Community - Social and Behavioral Sciences</b>			
(Required Credit Hours:3)			
AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
SOC	260	Folklore	3
SWK	200	Introduction to Social Welfare	3



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**Cluster 3: The Human Community - The Global Experience**

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(Required Credit Hours:3)

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AGRB	360	Global Agri-food Trade	3
ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3
GEO	200	World Regional Geography	3
HIS	120	Arab & Islamic Civilization	3
HIS	125	Contemporary Civilization	3
HIS	121	World History: Origins to 1500	3
PSG	250	Principles of International Relations	3

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**Cluster 4: The Natural World - Mathematics**

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(Required Credit Hours:3)

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MATH	105	Calculus I	3
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**Cluster 4: The Natural World - Natural Sciences**

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(Required Credit Hours:6)

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PHYS	105 *	General Physics I	3
CHEM	111	General Chemistry I	3
or			
BIOC	100 *	Basic Biology I	3

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\* Required

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\* Either CHEM 111 or BIOC 100 should be taken

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**Cluster 5: Capstone Experience**

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(Required Credit Hours:6)

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ITBP	480	Senior Graduation Project I	3
ITBP	481	Senior Graduation Project II	3

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Course Credits

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**College of Information Technology**

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**College Requirements**

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(Required Credit Hours:36)

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CENG	202	Discrete Mathematics	3
CENG	205	Digital Design & Computer Organization	3
CSBP	319	Data Structures	3
CSBP	219	Object Oriented Programming	3
ITBP	495 *	Internship	12
CSBP	315	Operating Systems Fundamentals	3
ITBP	103	Principles of Information Technology	3
MATH	110	Calculus II	3
STAT	210	Probability and Statistics	3

\* The internship is conducted in the last semester. No courses are allowed to be registered during the internship

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**Major Requirements**

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(Required Credit Hours:50)

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MATH	140	Linear Algebra I	3
MATH	275	Ordinary Differential Equations	3
CENG	221	Computer Architecture	3
CENG	329	Introduction to Embedded Systems Lab	1
CENG	201	Circuits Fundamentals	3
CENG	231	Circuits Lab	1
PHYS	231	Electronics Fundamentals	3
ITBP	301	Security Principles & Practice	3
ELEC	370	Electronic Circuits	3

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ELEC	375	Electronic Circuits Lab	1
CENG	325	Digital Design lab	1
CENG	320	Signals and Systems I	3
CENG	328	Introduction to Embedded Systems	3
CENG	210	Communication & Networks Fundamentals	3
CENG	326	Entrepreneurship for Computer Engineers	3
CENG	324	Digital System Design	3
SWEB	300	Software Engineering Fundamentals	3
CSBP	121	Programming Lab I	1
PHYS	135	General Physics Lab I	1
CSBP	221	Programming Lab II	1
PHYS	110	General Physics II	3
PHYS	140	General Physics Lab II	1

#### Major Electives

(Sixteen (16) semester credit hours of Major Technical Electives (five courses and one lab) are required.)

(Required Credit Hours:16)

CENG	518	VLSI Design	3
CENG	513	Hardware Testing and Fault Tolerance	3
CENG	521	Hardware/Software Integration	3
CENG	530	Computer Network Protocols	3
CENG	531	Wireless Communication and Sensor Networks	3
CENG	532	Network Security	3
CENG	533	Advanced Network Services	3
CENG	529	Networking Lab	1
CENG	580	Selected Topics in Computer Engineering	3

# Department of Computer Science and Software Engineering

## Bachelor of Science in Computer Science

### Description

Computer science (CS) is the fundamental scientific and practical approach to computation and its applications. A computer scientist concentrates on the theory of computation and the design of computational systems. The program objectives aim at producing graduates who are prepared for careers in CS profession and be able to receive an advanced degree in CS related areas. The graduates are prepared to work for industry or government agencies, or are in private practice, be able to demonstrate competence and are successfully contributing to the UAE computer science and information technology workforce.

### Program Objectives

1. Serve UAE government agencies and industry with a broad-based knowledge of computer science, related principles, theories, and applications.
2. Provide UAE government agencies and industry the capacity in designing, analyzing, testing, and implementing computer systems.
3. Meet workplace expectations with a set of professional skills including communication skills, identification of opportunity and risk, an ability to perform well in teams, and a commitment to life-long learning.
4. Be committed to the highest standards of ethical practice and to social and environmental issues relevant to the computer science profession.
5. Be aware of the tools and skills necessary for participating effectively in building a healthy, diverse and sustainable UAE economy.

### Program Learning Outcomes

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

1. Apply knowledge of science, computing and mathematics appropriate to Computer Science.
2. Analyze a problem, and identify and define the computing requirements appropriate to its solution.
3. Design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs.
4. Function effectively on teams to accomplish a common goal.
5. Discuss professional, ethical, legal, security and social issues and responsibilities.
6. Communicate effectively in written, oral, and graphical forms with a range of audiences.
7. Analyze the local and global impact of Computer Science on individuals, organizations, and society.
8. Recognize the need for and engage in continuing professional development.

9. Use current techniques, skills, and tools necessary for computer science practice.
10. Apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices.
11. Apply design and development principles in the construction of software systems of varying complexity.

**Degree Requirements:**

Total Credit Hours: 130

Course Credits

**General Education (Req CH:42)**

**Cluster 1: Values to Live By - Islam**

(Required Credit Hours:3)

ISLM	100	Islamic Culture	3
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**Cluster 1: Ethics**

(Required Credit Hours:3)

ITBP	370	Professional Responsibility in Information Technology	3
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**Cluster 2: Skills for Life - English Communication Skills**

(Required Credit Hours:3)

ESPU	1081	Introduction to Academic English for Information Technology I	3
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**Cluster 2: Skills for Life - Information Literacy**

(Required Credit Hours:3)

GEIL	101	Information Literacy	3
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**Cluster 2: Skills for Life - Thinking Skills**

(Required Credit Hours:3)

CSBP	119 *	Algorithms and Problem Solving	3
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\* Also counts towards the Major

**Cluster 3: The Human Community - Emirates Society**

(Required Credit Hours:3)			
HSS	105	Emirates Studies	3

### Cluster 3: The Human Community - Humanities and Fine Arts

(Required Credit Hours:3)			
ARCH	340	History and Theory of Architecture	3
HIS	133	Introduction to Art History	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
LIT	150	Introduction to Literature	3
MSC	200	Introduction to Mass Media	3
MSC	240	World and Arab Media	3
LNG	100	Introduction to Linguistics	3
LNG	110	Language, Society & Culture	3
PHI	101	Introduction to Philosophy	3
PHI	270	Philosophy of Education	3
PHI	271	History and Philosophy of Science	3
TRS	200	Introduction to Translation	3

### Cluster 3: The Human Community - Social and Behavioral Sciences

(Required Credit Hours:3)			
AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
SOC	260	Folklore	3
SWK	200	Introduction to Social Welfare	3

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**Cluster 3: The Human Community - The Global Experience**

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(Required Credit Hours:3)

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AGRB	360	Global Agri-food Trade	3
ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3
HIS	120	Arab & Islamic Civilization	3
HIS	125	Contemporary Civilization	3
HIS	121	World History: Origins to 1500	3
GEO	200	World Regional Geography	3
PSG	250	Principles of International Relations	3

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**Cluster 4: The Natural World - Mathematics**

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(Required Credit Hours:3)

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MATH	105	Calculus I	3
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**Cluster 4: The Natural World - Natural Sciences**

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(Required Credit Hours:6)

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PHYS	105 *	General Physics I	3
BIOC	100	Basic Biology I	3
or			
CHEM	111 **	General Chemistry I	3

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\* Required

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\*\* Either CHEM 111 or BIOC 100 should be taken

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**Cluster 5: Capstone Experience**

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(Required Credit Hours:6)

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ITBP	480	Senior Graduation Project I	3
ITBP	481	Senior Graduation Project II	3

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			Course Credits
<b>College of Information Technology</b>			
<b>College Requirements</b>			
			(Required Credit Hours:36)
CENG	202	Discrete Mathematics	3
CENG	205	Digital Design & Computer Organization	3
CSBP	319	Data Structures	3
CSBP	219	Object Oriented Programming	3
ITBP	495 *	Internship	12
CSBP	315	Operating Systems Fundamentals	3
ITBP	103	Principles of Information Technology	3
MATH	110	Calculus II	3
STAT	210	Probability and Statistics	3
* The internship conducted in the last semester. No courses are allowed to be registered during the internship			
<b>Major Requirements</b>			
			(Required Credit Hours:40)
CSBP	121	Programming Lab I	1
CENG	210	Communication & Networks Fundamentals	3
CSBP	221	Programming Lab II	1
ITBP	301	Security Principles & Practice	3
CSBP	316	Human Computer Interaction	3
ITBP	321	Web Application Development Lab	1
CSBP	340	Database Systems	3
CSBP	301	Artificial Intelligence	3
CSBP	400	Modeling & Simulation	3



CSBP	411	Machine Learning	3
CSBP	412	Introduction to Engineering and Design	3
CSBP	421	Smart Computer Graphics	3
CSBP	461	Internet Computing	3
CSBP	492	Computer Science Project Lab	1
SWEB	450	Analysis of Algorithms	3
SWEB	300	Software Engineering Fundamentals	3

### Major Electives

(Required Credit Hours:12)

CSBP	320	Data Mining	3
CSBP	431	Bioinformatics	3
CSBP	476	Robotics and Intelligent Systems	3
CSBP	483	Mobile Web Content and Development	3
CSBP	487	Computer Animation and Visualization	3
CSBP	491	Computational Intelligence for Data Management	3
CSBP	499	Special Topics in Computer Science	3
SWEB	451	Game Development	3

## Minor in Artificial Intelligence

### Description

Artificial intelligence (AI) refers to an artificial creation of human-like intelligence. It is a technology that is already impacting how users interact with, and are affected by the Internet. In the near future, its impact is likely to only continue to grow. This Artificial Intelligence Minor is proposed for undergraduate students who anticipate that Artificial Intelligence will have a prominent role to play in their academic and professional career. The students will learn how to improve the UAE government agencies and industry performance with these exponentially improving new technologies. The minor is designed for students from all majors other than Computer Science to supplement their primary studies.

### Program Objectives

1. The Artificial Intelligence Minor provides the students with the needed Artificial Intelligence knowledge and skills to serve the UAE in various disciplines. The objective of the program is to prepare graduates

who are capable of serving the UAE government agencies and industry with a broad-based knowledge of Artificial Intelligence and to boost government performance at all levels.

### Program Learning Outcomes

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

1. Apply knowledge of science, computing and statistics appropriate to Artificial Intelligence.
2. Use current techniques, skills, and tools necessary for Artificial Intelligence practice.
3. Design, implement, and evaluate AI based solutions, to meet desired needs.
4. Function effectively on teams to accomplish a common goal.

#### Degree Requirements:

Total Credit Hours: 18

#### Artificial Intelligence

Course Credits

##### Required Courses

(Required Credit Hours:9)

CSBP	301	Artificial Intelligence	3
CSBP	219	Object Oriented Programming	3
CSBP	319	Data Structures	3

#### Elective Courses

Course Credits

##### Choose three of the following courses

(Required Credit Hours:9)

CSBP	411	Machine Learning	3
CSBP	476	Robotics and Intelligent Systems	3
CSBP	441	Applied Computer Vision	3
CSBP	491	Computational Intelligence for Data Management	3
CSBP	499	Special Topics in Computer Science	3

# Department of Information Systems and Security

## Bachelor of Science in Information Technology

### Description

Information Technology (IT) is becoming the cornerstone to any economy in the world. Since the spread of the Internet and communication applications in their diversified forms, IT became an integrated part of everyone's life in modern society. In UAE, IT plays a major role in the development of the society. Therefore, it is only natural to have the United Arab Emirates University offer a degree program in Information Technology with a strong IT foundation in addition to covering current IT trends such as: Cloud Computing, The Internet of Things, Mobile/Web Development and Big Data/Data Analytics. The Bachelor of Science in Information Technology is accredited by the Computing Accreditation Commission (CAC) of ABET, <http://www.abet.org>. Enrollment and degree awarded for the past five years are as follows: Enrollment: 2015-2016: 587, 2014-2015: 557, 2013-2014: 514, 2012-2013:478, 2011-2012:481 Degree awarded: 2015-2016: 68, 2014-2015: 46, 2013-2014: 60, 2012-2013:107, 2011-2012:127

### Program Objectives

1. Attain leadership roles that promote the development of IT.
2. Demonstrate the highest standards of technical and ethical practice.
3. Apply skills and knowledge to contribute to the evolution of the IT sector to serve the community.
4. Acquire advanced competency levels in IT by engaging in continuous self-development, certification, and graduate studies.

### Program Learning Outcomes

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

1. Apply knowledge of computing and mathematics appropriate to the discipline.
2. Analyze a problem, and identify and define the computing requirements appropriate to its solution.
3. Design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs.
4. Function effectively on teams to accomplish a common goal.
5. Analyze, and act in accordance with, professional, ethical, legal, security, and social issues and responsibilities
6. Communicate effectively in written and oral forms with a range of audiences.
7. Analyze the local and global impact of IT on individuals, organizations and society.
8. Recognize the need for and engage in continuing professional development.
9. Use current techniques, skills, and tools necessary for computing practice.
10. Use and apply the current concepts and practices of the core information technologies.

11. Identify and analyze user needs and take them into account in the selection, creation, evaluation and administration of computer-based systems.
12. Integrate IT-based solutions into the user environment.
13. Discuss the best practices and standards and their application.
14. Create an effective project plan.

**Degree Requirements:**

Total Credit Hours: 130

Course Credits

**General Education (Req. CH:42)**

**Cluster 1: Values to Live By - Islam**

(Required Credit Hours:3)

ISLM	100	Islamic Culture	3
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**Cluster 1: Values to Live By - Ethics**

(Required Credit Hours:3)

ITBP	370 *	Professional Responsibility in Information Technology	3
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\* Also counts towards the Major

**Cluster 2: Skills for Life - English Communication Skills**

(Required Credit Hours:3)

ESPU	1081	Introduction to Academic English for Information Technology I	3
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**Cluster 2: Skills for Life - Information Literacy**

(Required Credit Hours:3)

GEIL	101	Information Literacy	3
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**Cluster 2: Skills for Life - Thinking Skills**

(Required Credit Hours:3)

CSBP	119	Algorithms and Problem Solving	3
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**Cluster 3: The Human Community - Emirates Society**

(Required Credit Hours:3)

HSS	105	Emirates Studies	3
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Cluster 3: The Human Community - Humanities and Fine Arts

(Required Credit Hours:3)

ARCH	340	History and Theory of Architecture	3
HIS	133	Introduction to Art History	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
LIT	150	Introduction to Literature	3
MSC	200	Introduction to Mass Media	3
MSC	240	World and Arab Media	3
LNG	100	Introduction to Linguistics	3
LNG	110	Language, Society & Culture	3
PHI	101	Introduction to Philosophy	3
PHI	270	Philosophy of Education	3
PHI	271	History and Philosophy of Science	3
TRS	200	Introduction to Translation	3

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Cluster 3: The Human Community - Social and Behavioral Sciences

(Required Credit Hours:3)

AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
SOC	260	Folklore	3
SWK	200	Introduction to Social Welfare	3

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**Cluster 3: The Human Community - The Global Experience**

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(Required Credit Hours:3)

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AGRB	360	Global Agri-food Trade	3
ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3
GEO	200	World Regional Geography	3
HIS	120	Arab & Islamic Civilization	3
HIS	125	Contemporary Civilization	3
HIS	121	World History: Origins to 1500	3
PSG	250	Principles of International Relations	3

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**Cluster 4: The Natural World - Mathematics**

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(Required Credit Hours:3)

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MATH	105 *	Calculus I	3
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\* Also counts towards the Major

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**Cluster 4: The Natural World - Natural Sciences**

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(Required Credit Hours:6)

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PHYS	105 *	General Physics I	3
BIOC	100	Basic Biology I	3
or			
CHEM	111 **	General Chemistry I	3

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\* Required

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\*\* Either CHEM 111 or BIOC 100 should be taken

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**Cluster 5: Capstone Experience**

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(Required Credit Hours:6)

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ITBP	480 *	Senior Graduation Project I	3
ITBP	481 *	Senior Graduation Project II	3

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\* Both ITBP 480 & ITBP 481 counts towards the Major

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Course Credits

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**College Requirements (Req. CH:36)**

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Required Courses

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(Required Credit Hours:36)

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CSBP	315	Operating Systems Fundamentals	3
STAT	210	Probability and Statistics	3
MATH	110	Calculus II	3
CENG	202	Discrete Mathematics	3
CENG	205	Digital Design & Computer Organization	3
CSBP	219	Object Oriented Programming	3
CSBP	319	Data Structures	3
ITBP	495 *	Internship	12
ITBP	103	Principles of Information Technology	3

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\* The internship is conducted in the last semester. No courses are allowed to be registered during the internship

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Course Credits

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**Major Requirement (40 Credit Hours)**

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Students must complete all 40 CHs

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(Required Credit Hours:40)

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CSBP	121	Programming Lab I	1
CSBP	221	Programming Lab II	1
CSBP	316	Human Computer Interaction	3
CSBP	340	Database Systems	3
CSBP	301	Artificial Intelligence	3
CSBP	320	Data Mining	3
CENG	210	Communication & Networks Fundamentals	3

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CENG	530	Computer Network Protocols	3
CENG	529	Networking Lab	1
ITBP	280	Information Technology Project Management Exhibition	3
ITBP	301	Security Principles & Practice	3
ITBP	321	Web Application Development Lab	1
ITBP	418	Entrepreneurship in Information Technology	3
ITBP	324	Cloud Computing Fundamentals	3
ITBP	323	Systems Integration and Administration	3
ITBP	322	Web and Mobile Systems	3

Course Credits

**Major Electives (9 Credit Hours)**

Students can choose three of the following courses based on what is being offered and demand.

(Required Credit Hours:9)

CSBP	483	Mobile Web Content and Development	3
ISEC	411	Privacy and Anonymity	3
ITBP	410	The Internet of Things	3
ITBP	420	Data Analytics	3
ITBP	421	Big Data Analytics	3
ITBP	430	Mobile Computing	3

**Free Elective**

(Required Credit Hours:3)



# Bachelor of Science in Information Security

## Description

The BS in Information Security degree program is designed to develop expertise in the area of information and network security. The program main objective is to provide the management skills and technical knowledge needed to plan, acquire, operate, manage and evaluate an organization's information security operations. Students enrolled in this program are expected to pursue a plan of study to assure professional competence and breadth of knowledge in the field of information and network security. The emphasis of this program is on applying proven and innovative practices for building industry-standard secure systems, applications and networks. The program will go a long way toward meeting the growing need for information technology specialists with competence in IT in a broad sense along with relevant expertise in information and network security.

## Program Objectives

1. Alumni will serve in UAE organizations of all sizes and employ their knowledge of information and network security, principles, theories, and applications in their job roles.
2. Alumni will be engaged in designing, analyzing, auditing, testing, implementing and acquiring information and network security solutions for their organizations.
3. Alumni will serve UAE society by being aware of the methodologies, techniques, tools and skills necessary for participating, competing and developing strong and cost effective information and network security solutions and products.
4. Alumni will be committed to the highest standards of ethical practice relevant to the information and network security profession.
5. Alumni will be able to encounter UAE market expectations with a set of professional skills including information and network security new technologies and tools, communication skills and team works.

## Program Learning Outcomes

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

1. Apply knowledge of mathematics and science in information security.
2. Design and conduct information security experiments, as well as to analyze and interpret data.
3. Design an information security system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
4. Function effectively individually and on multidisciplinary teams.
5. Identify, formulate and solve information security problems.
6. Analyze, and act in accordance with, professional, ethical, legal, security, and social issues and responsibilities
7. Communicate effectively in writing and orally with a range of audiences.
8. Describe and analyze the impact of information security solutions in a global, economic, environmental, and societal context.
9. Recognize the need for, and an ability to engage in life-long learning.

10. Discuss contemporary issues related to information security.
11. Use techniques, skills, and modern tools necessary for information security practices.
12. Apply solutions based on the information security life cycle of an organization, including policy, planning, acquisition, development and evolution of secure infrastructures.

**Degree Requirements:** Total Credit Hours: 130

Course Credits

**General Education (Req CH: 42)**

**Cluster 1: Values to Live By - Islam**

(Required Credit Hours:3)

ISLM	100	Islamic Culture	3
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**Cluster 1: Values to Live By - Ethics**

(Required Credit Hours:3)

ITBP	370	Professional Responsibility in Information Technology	3
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**Cluster 2: Skills for Life - English Communication Skills**

(Required Credit Hours:3)

ESPU	1081	Introduction to Academic English for Information Technology I	3
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**Cluster 2: Skills for Life - Information Literacy**

(Required Credit Hours:3)

GEIL	101	Information Literacy	3
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**Cluster 2: Skills for Life - Thinking Skills**

(Required Credit Hours:3)

CSBP	119 *	Algorithms and Problem Solving	3
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\* Also counts towards the Major

**Cluster 3: The Human Community - Emirates Society**

(Required Credit Hours:3)

HSS	105	Emirates Studies	3
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Cluster 3: The Human Community - Humanities and Fine Arts

(Required Credit Hours:3)

ARCH	340	History and Theory of Architecture	3
HIS	133	Introduction to Art History	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
LIT	150	Introduction to Literature	3
MSC	200	Introduction to Mass Media	3
MSC	240	World and Arab Media	3
LNG	100	Introduction to Linguistics	3
LNG	110	Language, Society & Culture	3
PHI	101	Introduction to Philosophy	3
PHI	270	Philosophy of Education	3
PHI	271	History and Philosophy of Science	3
TRS	200	Introduction to Translation	3

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Cluster 3: The Human Community - Social and Behavioral Sciences

(Required Credit Hours:3)

AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
SOC	260	Folklore	3
SWK	200	Introduction to Social Welfare	3

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**Cluster 3: The Human Community - The Global Experience**

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(Required Credit Hours:3)

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AGRB	360	Global Agri-food Trade	3
ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3
GEO	200	World Regional Geography	3
HIS	120	Arab & Islamic Civilization	3
HIS	125	Contemporary Civilization	3
HIS	121	World History: Origins to 1500	3
PSG	250	Principles of International Relations	3

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**Cluster 4: The Natural World - Mathematics**

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(Required Credit Hours:3)

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MATH	105	Calculus I	3
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**Cluster 4: The Natural World - Natural Sciences**

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(Required Credit Hours:6)

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PHYS	105 *	General Physics I	3
BIOC	100	Basic Biology I	3
CHEM	111	General Chemistry I	3

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\* Required

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**Cluster 5: Capstone Experience**

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(Required Credit Hours:6)

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ITBP	480	Senior Graduation Project I	3
ITBP	481	Senior Graduation Project II	3

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Course Credits

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**College of Information Technology**

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College Requirements			
(Required Credit Hours:36)			
CENG	202	Discrete Mathematics	3
CENG	205	Digital Design & Computer Organization	3
CSBP	319	Data Structures	3
CSBP	219	Object Oriented Programming	3
ITBP	495 *	Internship	12
CSBP	315	Operating Systems Fundamentals	3
MATH	110	Calculus II	3
ITBP	103	Principles of Information Technology	3
STAT	210	Probability and Statistics	3
* The internship is conducted in the last semester. No courses are allowed to be registered during the internship			

Major Requirements			
(Required Credit Hours:46)			
CSBP	320	Data Mining	3
CSBP	121	Programming Lab I	1
CENG	210	Communication & Networks Fundamentals	3
CSBP	221	Programming Lab II	1
ITBP	301	Security Principles & Practice	3
CSBP	340	Database Systems	3
ISEC	311	Network Security I	3
ISEC	312	Cryptography	3
ISEC	321	Network Security II	3
ISEC	322	Design and Analysis of Security Protocols	3
ISEC	323	Secure Software Design and Engineering	3
ISEC	324	Cryptography Lab	1

ISEC	411	Privacy and Anonymity	3
ISEC	412	Digital Forensics	3
ISEC	413	Security Architecture and Mechanisms	3
ISEC	414	Network Security Lab	1
ISEC	421	Risk Analysis and Management	2
ISEC	422	Security Policy, Laws, and Governance	3
ISEC	423	Systems Security Lab	1

### Major Electives

(Students should select two courses from the list below.)

(Required Credit Hours:6)

ISEC	416	Information Security Management	3
ISEC	417	Database Security	3
ISEC	424	Hardware-Oriented Security and Trust	3
ISEC	428	Special Topics in Information Security	3
ITBP	280	Information Technology Project Management Exhibition	3
ITBP	418	Entrepreneurship in Information Technology	3

# College of Engineering

## Department of Architectural Engineering

### Bachelor of Science in Architectural Engineering

#### Description

The architectural engineering program prepares students to be effective players in shaping a sustainable built environment in the UAE and beyond. Students specializing in Architectural Engineering will explore engineering design, building construction, structures, electrical and mechanical systems and construction management. This makes architectural engineering an ideal profession for individuals with strong math and science skills who are interested in the built environment in general and buildings in particular. The program and department activities reflect an outcomes-oriented approach, adopting hands-on active learning and emphasizing professional competency and skills building while introducing students to innovative approaches to knowledge delivery and use of computational design tools. Teamwork is also a key part of the study of architectural engineering as architectural engineers interact with the other design professionals in the execution of building projects. The Architectural Engineering undergraduate program in the College of Engineering at the United Arab Emirates University is accredited by the Engineering Accreditation Commission of ABET.

#### Program Objectives

1. Efficiently use relevant building engineering knowledge and skills in professional practice.
2. Effectively design and evaluate architectural engineering systems to satisfy client needs according to engineering specifications and interdisciplinary requirements.
3. Successfully manage real life engineering problems to achieve practical and optimal solutions.
4. Commit to social, economic, and environmental issues and practice high ethical standards in the profession.
5. Develop leadership, collaboration and technical communications skills; and update knowledge through lifelong learning.

#### Program Learning Outcomes

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

1. identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
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.
3. communicate effectively with a range of audiences.
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.

5. function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. acquire and apply new knowledge as needed, using appropriate learning strategies.

**Degree Requirements:**

Total Credit Hours: 147

Course Credits

**General Education (Req. CH:41)**

**Cluster 1: Values to Live By - Islam**

(Required Credit Hours:3)

ISLM	100	Islamic Culture	3
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**Cluster 1: Values to Live By - Ethics**

(Required Credit Hours:2)

GENG	215 *	Engineering Ethics	2
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\* Also counts towards the Major

**Cluster 2: Skills for Life - English Communication Skills**

(Required Credit Hours:3)

ESPU	107	Introduction to Academic English For Engineering	3
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**Cluster 2: Skills for Life - Information Literacy**

(Required Credit Hours:3)

GEIL	101	Information Literacy	3
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**Cluster 2: Skills for Life - Thinking Skills**

(Required Credit Hours:3)

HSS	110	Scientific Research Skills	3
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CSBP	119	Algorithms and Problem Solving	3
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PSY	105	Creative & Innovative Thinking Skills	3
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PHI	180 *	Critical Thinking	3
GEHP	111	Happiness and Wellbeing	3

\* IBLC - Inquiry based learning course must be taken within first 30 credit hours

Cluster 3: The Human Community - Emirates Society

(Required Credit Hours:3)

HSS	105	Emirates Studies	3
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Cluster 3: The Human Community - Humanities/Fine Arts

(Required Credit Hours:3)

ARCH	340 *	History and Theory of Architecture	3
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\* Also counts towards the Major

Cluster 3: The Human Community - Social and Behavioral Sciences

(Required Credit Hours:3)

GENG	315 *	Engineering Economics	3
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\* Also counts towards the Major

Cluster 3: The Human Community - The Global Experience

(Required Credit Hours:3)

ARCH	346 *	Contemporary World Architecture	3
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\* Also counts towards the Major

Cluster 4: The Natural World - Mathematics

(Required Credit Hours:3)

MATH	1110 *	Calculus I for Engineering	3
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\* Also counts towards the Major

Cluster 4: The Natural World - Natural Sciences

(Required Credit Hours:6)

CHEM	111 *	General Chemistry I	3
PHYS	105	General Physics I	3

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**Cluster 5: Capstone Experience**

(Required Credit Hours:6)

ARCH	585 *	Graduation Project I	3
ARCH	590 *	Graduation Project II	3

\* Also counts towards the Major

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Course Credits

**College of Engineering**

**Required Courses**

(Required Credit Hours:21)

CHEM	175	Chemistry Lab I for Engineering	1
GENG	220	Engineering Thermodynamics	3
MATH	1120	Calculus II for Engineering	3
MATH	2210	Differential Equations for Engineering	3
MATH	2220	Linear Algebra for Engineering	3
STAT	210	Probability and Statistics	3
PHYS	135	General Physics Lab I	1
PHYS	110	General Physics II	3
PHYS	140	General Physics Lab II	1

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Course Credits

**Architectural Engineering**

**Required Courses**

(Required Credit Hours:70)

ARCH	320	Introductory Building Design Studio	3
ARCH	335	Intermediate Building Design Studio	3

ARCH	341	Building Electrical Circuits	2
ARCH	342	Building Acoustics and Illumination	3
ARCH	345	Building Engineering Systems	3
ARCH	495 *	Professional Practical Training	15
ARCH	440	Construction Project Management	3
ARCH	430	Integrated Building Design Studio	3
CIVL	358	Surveying for Architectural Engineering	2
CIVL	240	Statics	3
MECH	305	Mechanics of Materials	3
ARCH	433	Environmental Systems & Control	3
ARCH	302	Introduction to Architectural Engineering	3
ARCH	450	Construction Project Planning and Control	3
ARCH	316	Building Construction Systems	3
ARCH	425	Advanced Building Construction Systems	3
ARCH	313	Analysis and Design Principles for Building Structures	3
ARCH	422	Structural Design for Buildings	3
ARCH	326	Building Construction Methods and Equipment	3
CIVL	345	Fluid Mechanics for Civil and Architectural Engineering	3
		* The internship is conducted over a full semester (before the last study year). No courses are allowed to be registered during the internship	

#### Architecture Elective Courses

(Required Credit Hours:9)

ARCH	501	Advanced Building Design Studio	3
ARCH	503	Building Construction Detailing	3
ARCH	509	Modeling and Simulation	3
ARCH	526	Specification and Quantity Surveying	3

ARCH	532	Sustainable Architecture & Urban Environments in Hot Climate	3
ARCH	530	Selected Topics In Architecture Engineering	3
ARCH	542	Housing and Urban Design	3
ARCH	551	Urban Planning & Infrastructure	3
ARCH	562	Construction Contracts	3

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### Math and Science Electives

(Required Credit Hours:6)

BIOC	100	Basic Biology I	3
BIOE	240	Principles of Environmental Science	3
GEOL	105	Physical Geology	3
MATH	205	Set Theory and Logic	3
MATH	260	Foundation of Geometry	3

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# Department of Chemical and Petroleum Engineering

## Bachelor of Science in Chemical Engineering

### Description

Chemical Engineering is concerned with the manufacturing of products from laboratory bench-scale testing to full production through deep knowledge of fluid mechanics, heat transfer, mass transfer, chemical reaction kinetics, equipment design, plant design, process dynamics and control as well as process safety, economics, and management. It has an impact on essentially everything on our daily life from food processing to producing pharmaceutical drugs, generating fuels and even the manufacturing of silicon chips and other microelectronics. At the Chemical and Petroleum Engineering Department, we strive to help students see how a Chemical Engineering degree can accomplish their dreams and we establish the means to make it happen. The Chemical Engineering undergraduate program in the College of Engineering at the United Arab Emirates University is accredited by the Engineering Accreditation Commission of ABET.

### Program Objectives

1. PEO-1: Have successful careers in various fields related to chemical engineering and have leadership roles in industry/organizations.
2. PEO-2: Demonstrate high level of professionalism, commitment to ethical and social responsibility, and desire for life-long learning.
3. PEO-3: Demonstrate innovative solutions for the industry through creative thinking.
4. PEO-4: Pursue advanced degrees and careers in engineering, academia, research and development, or business.

### Program Learning Outcomes

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

1. Identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
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.
3. Communicate effectively with a range of audiences.
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.
5. Function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. Develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.

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

**Degree Requirements:** Total Credit Hours: 147

Course Credits

**General Education (req. CH:41)**

Cluster 1: Values to Live By - Islam

(Required Credit Hours:3)

ISLM	100	Islamic Culture	3
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Cluster 1: Values to Live By - Ethics

(Required Credit Hours:2)

GENG	215 *	Engineering Ethics	2
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\* Also counts towards the Major

Cluster 2: Skills for Life - English Communication Skills

(Required Credit Hours:3)

ESPU	107	Introduction to Academic English For Engineering	3
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Cluster 2: Skills for Life - Information Literacy

(Required Credit Hours:3)

GEIL	101	Information Literacy	3
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Cluster 2: Skills for Life - Thinking Skills

(Required Credit Hours:3)

HSS	110	Scientific Research Skills	3
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CSBP	119	Algorithms and Problem Solving	3
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PSY	105	Creative & Innovative Thinking Skills	3
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PHI	180	Critical Thinking	3
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GEHP	111	Happiness and Wellbeing	3
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IBLC - Inquiry based learning courses must be taken within first 30 credit hours

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**Cluster 3: The Human Community - Emirates Society**

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(Required Credit Hours:3)

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HSS	105	Emirates Studies	3
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**Cluster 3: The Human Community - Humanities/Fine Arts**

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(Required Credit Hours:3)

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ARCH	340	History and Theory of Architecture	3
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HIS	133	Introduction to Art History	3
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HSR	120	Introduction to Heritage & Culture	3
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HSR	130	Introduction to Language & Communication	3
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LIT	150	Introduction to Literature	3
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LNG	100	Introduction to Linguistics	3
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LNG	110	Language, Society & Culture	3
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MSC	200	Introduction to Mass Media	3
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MSC	240	World and Arab Media	3
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PHI	101	Introduction to Philosophy	3
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PHI	270	Philosophy of Education	3
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PHI	271	History and Philosophy of Science	3
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TRS	200	Introduction to Translation	3
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**Cluster 3: The Human Community - Social and Behavioral Sciences**

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(Required Credit Hours:3)

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GENG	315 *	Engineering Economics	3
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\* Also counts towards the Major

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**Cluster 3: The Human Community - The Global Experience**

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(Required Credit Hours:3)

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AGRB	360	Global Agri-food Trade	3
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ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3
GEO	200	World Regional Geography	3
HIS	120	Arab & Islamic Civilization	3
HIS	121	World History: Origins to 1500	3
HIS	125	Contemporary Civilization	3
PSG	250	Principles of International Relations	3

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Cluster 4: The Natural World - Mathematics

(Required Credit Hours:3)

MATH	1110 *	Calculus I for Engineering	3
* Also counts towards the Major			

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Cluster 4: The Natural World - Natural Sciences

(Required Credit Hours:6)

CHEM	111 *	General Chemistry I	3
PHYS	105 *	General Physics I	3
* Also counts toward major			

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Cluster 5: Capstone Experience

(Required Credit Hours:6)

CHME	585 *	Graduation Project I	3
CHME	590 *	Graduation Project II	3
* Also counts towards the Major			

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Course Credits

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**College of Engineering**

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Required Courses

(Required Credit Hours:24)

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CHEM	175	Chemistry Lab I for Engineering	1
GENG	220	Engineering Thermodynamics	3
MATH	1120	Calculus II for Engineering	3
MATH	2210	Differential Equations for Engineering	3
MATH	2220	Linear Algebra for Engineering	3
STAT	210	Probability and Statistics	3
ELEC	230	Computer Programming	3
PHYS	135	General Physics Lab I	1
PHYS	110	General Physics II	3
PHYS	140	General Physics Lab II	1

Course Credits

### Chemical Engineering

#### Required Courses

(Required Credit Hours:70)

BIOC	100	Basic Biology I	3
CHEM	112	General Chemistry II	2
CHEM	251	Physical Chemistry I	3
CHEM	351	Physical Chemistry II	3
CHEM	282	Organic Chemistry for Non-Majors	3
CHEM	355	Physical Chemistry Lab I	1
CHME	300	Introduction to Chemical Engineering	3
CHME	310	Computer Applications in Chemical Engineering	1
CHME	322	Chemical Engineering Thermodynamics	3
CHME	330	Chemical Engineering Fluid Mechanics	3
CHEM	3707	Instrumental Analysis for Chemical Engineering	2
CHME	411	Reactor Design	3

CHME	413	Heat Transfer	3
CHME	418	Chemical Eng Laboratory I	2
CHME	421	Mass Transfer	3
CHME	495 *	Industrial Training	15
CHME	506	Process Modeling & Simulation	3
CHME	508	Process Control	3
CHME	510	Process and Plant Design	3
CHME	517	Mass Transfer Operations	3
CHME	519	Chemical Engineering Lab II	2
CHME	390	Engineering and Strength of Materials	3

\* The internship is conducted over a full semester (before the last study year). No courses are allowed to be registered during the internship

#### Elective Courses

(Required Credit Hours:12)

CHEM	283	Biochemistry for Non-Majors	3
PETE	424	Safety & Environment Impact	3
CHME	433	Water Desalination	3
CHME	441	Industrial & Wastewater Treatment	3
CHME	442	Corrosion	3
CHME	444	Renewable Energy Sources	3
CHME	452	Biochemical Treatment	3
CHME	453	Biofuels Technology	3
CHME	454	Biochemical Separation	3
CHME	457	Fundamentals of Biochemical Engineering	3
CHME	461	Natural Gas Processing	3
CHME	462	Petroleum Refining Engineering	3

CHME	463	Petrochemical Technology	3
CHME	464	Polymer Engineering	3
CHME	570	Special Topics in Chemical Engineering	3
CHME	575	Independent Studies in Chemical Engineering	3

## Bachelor of Science in Petroleum Engineering

### Description

Petroleum engineering refers to the subsurface engineering activities related to the production of hydrocarbons, which can be either crude oil or gas. Petroleum Engineering focuses on maximizing economic recovery of hydrocarbons from subsurface reservoirs and estimation of the recoverable volume of this resource using a detailed understanding of the physical behavior of Oil, water and gas within porous rock at very high pressure. Petroleum Engineering requires a good knowledge of many other related disciplines, such as Geology, Petrophysics, Geophysics, and Petroleum Geology. Improvements in computer modeling, materials and the application of statistics, probability analysis have drastically improved the toolbox of the petroleum engineer in recent decades. The Petroleum Engineering undergraduate program in the College of Engineering at the United Arab Emirates University is accredited by the Engineering Accreditation Commission of ABET.

### Program Objectives

1. Have successful careers in various fields related to petroleum engineering and have leadership roles in industry/organizations.
2. Demonstrate high level of professionalism, commitment to ethical and social responsibility, and desire for life-long learning.
3. Demonstrate innovative solutions for the petroleum industry through creative thinking.
4. Pursue advanced degrees and careers in engineering, academia, research and development, or business.

### Program Learning Outcomes

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

1. Identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
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.
3. Communicate effectively with a range of audiences

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.
5. Function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. Develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. Acquire and apply new knowledge as needed, using appropriate learning strategies

**Degree Requirements:**

Total Credit Hours: 147

Course Credits

**General Education (Req. CH:41)**

**Cluster 1: Values to Live By - Islam**

(Required Credit Hours:3)

ISLM	100	Islamic Culture	3
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**Cluster 1: Values to Live By - Ethics**

(Required Credit Hours:2)

GENG	215 *	Engineering Ethics	2
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\* Also counts towards the Major

**Cluster 2: Skills for Life - English Communication Skills**

(Required Credit Hours:3)

ESPU	107	Introduction to Academic English For Engineering	3
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**Cluster 2: Skills for Life - Information Literacy**

(Required Credit Hours:3)

GEIL	101	Information Literacy	3
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**Cluster 2: Skills for Life - Thinking Skills**

(Required Credit Hours:3)

HSS	110	Scientific Research Skills	3
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CSBP	119	Algorithms and Problem Solving	3
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PHI	180	Critical Thinking	3
PSY	105	Creative & Innovative Thinking Skills	3
GEHP	111	Happiness and Wellbeing	3
IBLC - Inquiry based learning courses must be taken within first 30 credit hours			

#### Cluster 3: The Human Community - Emirates Society

(Required Credit Hours:3)

HSS	105	Emirates Studies	3
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#### Cluster 3: The Human Community - Humanities/Fine Arts

(Required Credit Hours:3)

ARCH	340	History and Theory of Architecture	3
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HIS	133	Introduction to Art History	3
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HSR	120	Introduction to Heritage & Culture	3
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HSR	130	Introduction to Language & Communication	3
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LIT	150	Introduction to Literature	3
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LNG	100	Introduction to Linguistics	3
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LNG	110	Language, Society & Culture	3
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MSC	200	Introduction to Mass Media	3
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MSC	240	World and Arab Media	3
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PHI	101	Introduction to Philosophy	3
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PHI	270	Philosophy of Education	3
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PHI	271	History and Philosophy of Science	3
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TRS	200	Introduction to Translation	3
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#### Cluster 3: The Human Community - Social and Behavioral Sciences

(Required Credit Hours:3)

GENG	315 *	Engineering Economics	3
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\* Also counts towards the Major

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Cluster 3: The Human Community - The Global Experience

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(Required Credit Hours:3)

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AGRB	360	Global Agri-food Trade	3
ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3
GEO	200	World Regional Geography	3
HIS	120	Arab & Islamic Civilization	3
HIS	121	World History: Origins to 1500	3
HIS	125	Contemporary Civilization	3
PSG	250	Principles of International Relations	3

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Cluster 4: The Natural World - Mathematics

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(Required Credit Hours:3)

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MATH	1110 *	Calculus I for Engineering	3
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\* Also counts towards the Major

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Cluster 4: The Natural World - Natural Sciences

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(Required Credit Hours:6)

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CHEM	111 *	General Chemistry I	3
PHYS	105	General Physics I	3

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Cluster 5: Capstone Experience

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(Required Credit Hours:6)

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PETE	585 *	Graduation Project I	3
PETE	590 *	Graduation Project II	3

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\* Also counts towards the Major

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Course Credits

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**College of Engineering**

Required Courses

(Required Credit Hours:24)

CHEM	175	Chemistry Lab I for Engineering	1
GENG	220	Engineering Thermodynamics	3
MATH	1120	Calculus II for Engineering	3
MATH	2220	Linear Algebra for Engineering	3
MATH	2210	Differential Equations for Engineering	3
STAT	210	Probability and Statistics	3
ELEC	230	Computer Programming	3
PHYS	135	General Physics Lab I	1
PHYS	110	General Physics II	3
PHYS	140	General Physics Lab II	1

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Course Credits

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**Petroleum Engineering**

Required Courses

(Required Credit Hours:70)

GEOL	115	Physical Geology for Petroleum Engineering	3
CHEM	282	Organic Chemistry for Non-Majors	3
CHME	330	Chemical Engineering Fluid Mechanics	3
PETE	290	Introduction to Petroleum Engineering	1
PETE	305	Reservoir Rock & Fluid Properties	3
PETE	308	Drilling Engineering I	3
PETE	320	Reservoir Mechanics	3
PETE	362	Data Analysis in Petroleum Engineering	1
PETE	403	Well Logging	3

PETE	407	Drilling Engineering II	2
PETE	315	Reservoir Rock & Fluid Properties lab	2
PETE	409	Natural Gas Engineering	3
PETE	413	Applied Reservoir Geology	3
PETE	419	Well Performance	3
PETE	422	Reservoir Simulation	3
PETE	495 *	Industrial Training	15
PETE	507	Well Testing	3
PETE	512	Petroleum Production Operations	3
PETE	519	Secondary Recovery Methods	3
PETE	520	Fluid Flow in Porous Media Lab	1
PETE	542	Petroleum Property Evaluation	3
CHME	390	Engineering and Strength of Materials	3

\* The internship is conducted over a full semester (before the last study year). No courses are allowed to be registered during the internship

#### Elective Courses

(Required Credit Hours:12)

CHME	442	Corrosion	3
PETE	410	Independent Studies	3
PETE	424	Safety & Environment Impact	3
PETE	443	Transport & Storage of Petroleum	3
PETE	526	Separation & Treatment Petrol Fluid	3
PETE	547	Applied Reservoir Simulation	3
PETE	557	Enhanced Oil Recovery	3
PETE	570	Special Topics in Petroleum Engineering	3



# Department of Civil and Environmental Engineering

## Bachelor of Science in Civil Engineering

### Description

Civil and Environmental Engineering is a broad field of engineering that deals with planning, design, construction and maintenance of structures, bridges and public works as they relate to earth, water and air, or civilization and their processes. Civil Engineering profession dominates every aspect of our life in one way or the other. The current economic prosperity in the UAE is based, to a great extent, on the excellent infrastructure and civic works developed by Civil Engineers. Civil Engineering is the oldest engineering discipline after Military Engineering. It deals with structures, bridges, construction management, highways, traffic, geotechnical, water supply and distribution networks, sewer and disaster mitigation. Environmental Engineering focuses on the quality and sustainability of the three main environmental elements; soil, water and air. The Department is keen to always provide the highest possible quality of higher education, scientific research, and community service. The Civil Engineering undergraduate program in the College of Engineering at the United Arab Emirates University is accredited by the Engineering Accreditation Commission of ABET.

### Program Objectives

1. Be committed to ethical standards, workplace safety measures and develop high level of awareness of social, economic, and environmental issues relevant to the civil engineering profession.
2. Successfully deal with real life civil engineering problems and achieve practical, effective and optimum solutions based on sound science and engineering knowledge.
3. Efficiently design, manage, execute and/or evaluate a civil engineering system/component to satisfy client needs per design specifications and/or requirements.
4. Effectively use modern engineering tools and technical communication in different aspects of professional practices.
5. Develop their knowledge, creativity and leadership and skills to cope with the rapidly evolving technologies.

### Program Learning Outcomes

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

1. Identify, formulate, and solve complex civil engineering problems by applying principles of engineering, science, and mathematics.
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.
3. Communicate effectively with a range of audiences.
4. Recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of civil engineering solutions in global, economic, environmental, and societal contexts.
5. Function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.

6. Develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. Acquire and apply new knowledge as needed, using appropriate learning strategies.

**Degree Requirements:**

Total Credit Hours: 147

				Course Credits
<b>General Education (Req. CH:41)</b>				
<b>Cluster 1: Values to Live By - Islam</b>				
				(Required Credit Hours:3)
ISLM	100	Islamic Culture		3
<b>Cluster 1: Values to Live By - Ethics</b>				
				(Required Credit Hours:2)
GENG	215 *	Engineering Ethics		2
* Also counts towards the Major				
<b>Cluster 2: Skills for Life - English Communication Skills</b>				
				(Required Credit Hours:3)
ESPU	107	Introduction to Academic English For Engineering		3
<b>Cluster 2: Skills for Life - Information Literacy</b>				
				(Required Credit Hours:3)
GEIL	101	Information Literacy		3
<b>Cluster 2: Skills for Life - Thinking Skills</b>				
				(Required Credit Hours:3)
HSS	110	Scientific Research Skills		3
CSBP	119	Algorithms and Problem Solving		3
PSY	105	Creative & Innovative Thinking Skills		3
PHI	180 *	Critical Thinking		3
GEHP	111	Happiness and Wellbeing		3

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\* IBLC - Inquiry based learning courses must be taken within first 30 credit hours

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Cluster 3: The Human Community - Emirates Society

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(Required Credit Hours:3)

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HSS	105	Emirates Studies	3
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Cluster 3: The Human Community - Humanities/Fine Arts

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(Required Credit Hours:3)

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ARCH	340	History and Theory of Architecture	3
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HIS	133	Introduction to Art History	3
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HSR	120	Introduction to Heritage & Culture	3
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HSR	130	Introduction to Language & Communication	3
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LIT	150	Introduction to Literature	3
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LNG	100	Introduction to Linguistics	3
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LNG	110	Language, Society & Culture	3
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MSC	200	Introduction to Mass Media	3
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MSC	240	World and Arab Media	3
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PHI	101	Introduction to Philosophy	3
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PHI	270	Philosophy of Education	3
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PHI	271	History and Philosophy of Science	3
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TRS	200	Introduction to Translation	3
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Cluster 3: The Human Community - Social and Behavioral Sciences

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(Required Credit Hours:3)

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GENG	315 *	Engineering Economics	3
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\* Also counts towards the Major

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Cluster 3: The Human Community - The Global Experience

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(Required Credit Hours:3)

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AGRB	360	Global Agri-food Trade	3
ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3
GEO	200	World Regional Geography	3
HIS	120	Arab & Islamic Civilization	3
HIS	121	World History: Origins to 1500	3
HIS	125	Contemporary Civilization	3
PSG	250	Principles of International Relations	3

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#### Cluster 4: The Natural World - Mathematics

(Required Credit Hours:3)

MATH	1110 *	Calculus I for Engineering	3
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\* Also counts towards the Major

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#### Cluster 4: The Natural World - Natural Sciences

(Required Credit Hours:6)

CHEM	111 *	General Chemistry I	3
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PHYS	105 *	General Physics I	3
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\* Also counts towards the Major

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#### Cluster 5: Capstone Experience

(Required Credit Hours:6)

CIVL	585 *	Graduation Project I	3
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CIVL	590 *	Graduation Project II	3
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\* Also counts towards the Major

Course Credits

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### College of Engineering

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#### Required Courses

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(Required Credit Hours:27)			
CHEM	175	Chemistry Lab I for Engineering	1
GENG	220	Engineering Thermodynamics	3
MATH	1120	Calculus II for Engineering	3
MATH	2210	Differential Equations for Engineering	3
MATH	2220	Linear Algebra for Engineering	3
CHEM	2706	Materials Science	3
ELEC	230	Computer Programming	3
STAT	210	Probability and Statistics	3
PHYS	110	General Physics II	3
PHYS	135	General Physics Lab I	1
PHYS	140	General Physics Lab II	1

Course Credits

### Civil Engineering

#### Required Courses

(Required Credit Hours:70)			
BIOL	250	Basic Microbiology	3
CIVL	240	Statics	3
MECH	305	Mechanics of Materials	3
CIVL	270	Introduction to Environmental Engineering	2
CIVL	310	Structural Analysis	3
CIVL	220	Computer Aided Drawing (CIVL)	2
CIVL	330	Transportation Engineering	3
CIVL	335	Surveying	3
CIVL	340	Soil Mechanics	3
CIVL	345	Fluid Mechanics for Civil and Architectural Engineering	3
CIVL	360	Concrete Technology	3

CIVL	365	Reinforced Concrete Design I	3
CIVL	375	Water & Wastewater Technology	3
CIVL	400	Water Resources	3
CIVL	412	Reinforced Concrete Design II	3
CIVL	417	Structural Steel Design	3
CIVL	433	Highway Engineering	3
CIVL	442	Foundation Engineering	3
CIVL	445	Construction Management	3
CIVL	495 *	Industrial Training	15

\* The internship is conducted over a full semester (before the last study year). No courses are allowed to be registered during the internship

Course Credits

### Civil Engineering Specialization Tracks

A student must complete 9 credit hours (3 courses) from any of the following 4 tracks.

(Required Credit Hours:9)

#### Geotechnical and Construction Management

(Required Credit Hours:9)

CIVL	540	Special Topics in Construction Management	3
CIVL	541	Special Topics in Soil Mechanics & Foundation Engineering	3
CIVL	547	Advanced Construction Management	3
CIVL	548	Advanced Geotechnical Engineering	3

#### Structural Engineering

(Required Credit Hours:9)

CIVL	510	Special Topics in Structural Engineering	3
CIVL	515	Advanced Concrete Technology	3
CIVL	517	Matrix Structural Analysis	3

CIVL	552	Advanced Steel Design	3
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Surveying and Transportation Engineering			
(Required Credit Hours:9)			
CIVL	530	Special Topics in Transportation Engineering	3
CIVL	531	Topographic Surveying	3
CIVL	534	Computer Aided Mapping	3
CIVL	538	Advanced Highway Engineering	3
CIVL	539	Traffic Engineering	3
<hr/>			
Water Resources and Environmental Engineering			
(Required Credit Hours:9)			
CIVL	520	Special Topics in Water Resources & Environmental Engineering	3
CIVL	522	Advanced Environmental Engineering	3
CIVL	524	Geo-environmental Engineering	3
CIVL	525	Hydrology	3
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# Department of Electrical Engineering

## Bachelor of Science in Communication Engineering

### Description

The Communication Engineering program is dealing with the development and operation of communications technology including telecommunications. The Communication Engineering program is designed to provide students with a strong foundation in communication engineering through lectures and laboratory work. Graduates are prepared for responsible engineering positions in design, development, research, applications, and operation in the fields of communication and telecommunication. The curriculum is built around strong basic courses in mathematics, physics and engineering science. This is followed by a set of core courses covering the breadth of the program such as circuits, electronics, electromagnetics, digital logic, signals and systems, control, microprocessors, and fundamentals of communication systems. The Communication Engineering undergraduate program in the College of Engineering at the United Arab Emirates University is accredited by the Engineering Accreditation Commission of ABET.

### Program Objectives

1. PEO-1: Have distinguished careers in communication engineering and related fields and perform leadership roles to serve the industry and the community.
2. PEO-2: Achieve industry goals related to communication engineering by using innovative ideas and adopting emerging technologies.
3. PEO-3: Incorporate teamwork, communication, and interpersonal skills to be productive in multidisciplinary environments with awareness of ethical and social responsibilities.
4. PEO-4: Continue to develop their knowledge and skills through, graduate studies, continuing education, and training.

### Program Learning Outcomes

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

1. identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
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.
3. communicate effectively with a range of audiences.
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.
5. function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. acquire and apply new knowledge as needed, using appropriate learning strategies.

**Degree Requirements:**

Total Credit Hours: 147



**General Education (Req. CH:41)**

## Cluster 1: Values to Live By - Islam

(Required Credit Hours:3)

ISLM	100	Islamic Culture	3
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## Cluster 1: Values to Live By - Ethics

(Required Credit Hours:2)

GENG	215 *	Engineering Ethics	2
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\* Also counts towards the Major

## Cluster 2: Skills for Life - English Communication Skills

(Required Credit Hours:3)

ESPU	107	Introduction to Academic English For Engineering	3
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## Cluster 2: Skills for Life - Information Literacy

(Required Credit Hours:3)

GEIL	101	Information Literacy	3
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## Cluster 2: Skills for Life - Thinking Skills

(Required Credit Hours:3)

HSS	110	Scientific Research Skills	3
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CSBP	119	Algorithms and Problem Solving	3
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PSY	105	Creative & Innovative Thinking Skills	3
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PHI	180	Critical Thinking	3
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GEHP	111	Happiness and Wellbeing	3
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IBLC - Inquiry based learning courses must be taken within first 30 credit hours

## Cluster 3: The Human Community - Emirates Society

(Required Credit Hours:3)

HSS	105	Emirates Studies	3
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Cluster 3: The Human Community - Humanities/Fine Arts

(Required Credit Hours:3)

ARCH	340	History and Theory of Architecture	3
HIS	133	Introduction to Art History	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
LIT	150	Introduction to Literature	3
LNG	100	Introduction to Linguistics	3
LNG	110	Language, Society & Culture	3
MSC	200	Introduction to Mass Media	3
MSC	240	World and Arab Media	3
PHI	101	Introduction to Philosophy	3
PHI	270	Philosophy of Education	3
PHI	271	History and Philosophy of Science	3
TRS	200	Introduction to Translation	3

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Cluster 3: The Human Community - Social and Behavioral Sciences

(Required Credit Hours:3)

GENG	315 *	Engineering Economics	3
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\* Also counts towards the Major

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Cluster 3: The Human Community - The Global Experience

(Required Credit Hours:3)

AGRB	360	Global Agri-food Trade	3
ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3

GEO	200	World Regional Geography	3
HIS	120	Arab & Islamic Civilization	3
HIS	121	World History: Origins to 1500	3
HIS	125	Contemporary Civilization	3
PSG	250	Principles of International Relations	3

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Cluster 4: The Natural World - Mathematics

(Required Credit Hours:3)

MATH	1110 *	Calculus I for Engineering	3
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\* Also counts towards the Major

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Cluster 4: The Natural World - Natural Sciences

(Required Credit Hours:6)

CHEM	111	General Chemistry I	3
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PHYS	105	General Physics I	3
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Cluster 5: Capstone Experience

(Required Credit Hours:6)

ELEC	585 *	Graduation Project I	3
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ELEC	590 *	Graduation Project II	3
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\* Also counts towards the Major

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Course Credits

**College of Engineering**

Required Courses

(Required Credit Hours:24)

CHEM	175	Chemistry Lab I for Engineering	1
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GENG	220	Engineering Thermodynamics	3
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MATH	1120	Calculus II for Engineering	3
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MATH	2210	Differential Equations for Engineering	3
MATH	2220	Linear Algebra for Engineering	3
CHEM	2706	Materials Science	3
STAT	210	Probability and Statistics	3
PHYS	135	General Physics Lab I	1
PHYS	110	General Physics II	3
PHYS	140	General Physics Lab II	1

Course Credits

### Communication Engineering

#### Required Courses

(Required Credit Hours:70)

ECOM	320	Random Signals	3
ECOM	402	Communication Systems Lab	1
ECOM	360	Fundamentals of Communication Systems	3
ECOM	412	Electromagnetic Waves	3
ECOM	422	Digital Communication Systems	3
ECOM	432	Data Communications & Networks	3
ECOM	442	Data Communications & Networks Lab	1
ECOM	451	Digital Signal Processing	3
ECOM	461	Digital Signal Processing Lab	1
ELEC	305	Electric Circuits I	3
ELEC	310	Electric Circuits I lab	1
ELEC	315	Fundamentals of Microelec Devices	3
ELEC	325	Engineering Electromagnetics	3
ELEC	230	Computer Programming	3
ELEC	335	Digital Logic Design	3

ELEC	345	Digital Logic Design Lab	1
ELEC	360	Signals & Systems	3
ELEC	370	Electronic Circuits	3
ELEC	451	Microprocessors	3
ELEC	375	Electronic Circuits Lab	1
ELEC	461	Microprocessors Lab	1
ELEC	495 *	Industrial Training	15
ELEC	380	Analytical Methods for Electrical Engineering	3
ELEC	462	Computer Architecture & Organization	3

\* The internship is conducted over a full semester (before the last study year). No courses are allowed to be registered during the internship

#### Elective Courses

(Required Credit Hours:12)

ECOM	532	Antenna Engineering	3
ECOM	542	Wireless Communications	3
ECOM	561	Information Theory & Coding	3
ECOM	562	Satellite Communications Systems	3
ECOM	571	Communication Circuits	3
ECOM	580	Special Topics in Communications	3
ELEC	431	Control Systems	3

## Bachelor of Science in Electrical Engineering

### Description

The Electrical Engineering program is designed to provide students with a strong foundation in Electrical Engineering through lectures and laboratory work. Graduates are prepared for responsible engineering positions in design, development, research, applications, and operation in all fields related to Electrical Engineering. The curriculum is built around strong basic courses in mathematics, physics and engineering science. This is followed by a set of core courses covering the breadth of the program, such as circuits, electronics, electromagnetics, digital logic,

signals and systems, control, microprocessors, electric energy conversion, power systems, and computer programming. The Electrical Engineering undergraduate program in the College of Engineering at the United Arab Emirates University is accredited by the Engineering Accreditation Commission of ABET.

## Program Objectives

1. PEO-1: Have distinguished careers in electrical engineering and related fields and perform leadership roles to serve the industry and the community.
2. PEO-2: Achieve industry goals related to electrical engineering by using innovative ideas and adopting emerging technologies.
3. PEO-3: Incorporate teamwork, communication, and interpersonal skills to be productive in multidisciplinary environments with awareness of ethical and social responsibilities.
4. PEO-4: Continue to develop their knowledge and skills through, graduate studies, continuing education, and training.

## Program Learning Outcomes

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

1. identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
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.
3. communicate effectively with a range of audiences.
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.
5. function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. acquire and apply new knowledge as needed, using appropriate learning strategies.

### Degree Requirements:

Total Credit Hours: 147

Course Credits

#### General Education (Req. CH:41)

##### Cluster 1: Values to Live By - Islam

(Required Credit Hours:3)

ISLM	100	Islamic Culture	3
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##### Cluster 1: Values to Live By - Ethics

(Required Credit Hours:2)

GENG	215 *	Engineering Ethics	2
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\* Also counts towards the Major

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**Cluster 2: Skills for Life - English Communication Skills**

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(Required Credit Hours:3)

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ESPU	107	Introduction to Academic English For Engineering	3
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**Cluster 2: Skills for Life - Information Literacy**

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(Required Credit Hours:3)

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GEIL	101	Information Literacy	3
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**Cluster 2: Skills for Life - Thinking Skills**

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(Required Credit Hours:3)

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HSS	110	Scientific Research Skills	3
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PHI	180	Critical Thinking	3
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PSY	105	Creative & Innovative Thinking Skills	3
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CSBP	119	Algorithms and Problem Solving	3
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GEHP	111	Happiness and Wellbeing	3
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IBLC - Inquiry based learning courses must be taken within first 30 credit hours

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**Cluster 3: The Human Community - Emirates Society**

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(Required Credit Hours:3)

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HSS	105	Emirates Studies	3
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**Cluster 3: The Human Community - Humanities/Fine Arts**

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(Required Credit Hours:3)

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ARCH	346	Contemporary World Architecture	3
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HIS	133	Introduction to Art History	3
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HSR	120	Introduction to Heritage & Culture	3
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HSR	130	Introduction to Language & Communication	3
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LIT	150	Introduction to Literature	3
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LNG	100	Introduction to Linguistics	3
LNG	110	Language, Society & Culture	3
MSC	200	Introduction to Mass Media	3
MSC	240	World and Arab Media	3
PHI	101	Introduction to Philosophy	3
PHI	270	Philosophy of Education	3
PHI	271	History and Philosophy of Science	3
TRS	200	Introduction to Translation	3

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#### Cluster 3: The Human Community - Social and Behavioral Sciences

(Required Credit Hours:3)

GENG	315 *	Engineering Economics	3
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\* Also counts towards the Major

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#### Cluster 3: The Human Community - The Global Experience

(Required Credit Hours:3)

AGRB	360	Global Agri-food Trade	3
ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3
GEO	200	World Regional Geography	3
HIS	120	Arab & Islamic Civilization	3
HIS	121	World History: Origins to 1500	3
HIS	125	Contemporary Civilization	3
PSG	250	Principles of International Relations	3

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#### Cluster 4: The Natural World - Mathematics

(Required Credit Hours:3)

MATH	1110 *	Calculus I for Engineering	3
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\* Also counts towards the Major



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**Cluster 4: The Natural World - Natural Sciences**

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(Required Credit Hours:6)

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CHEM	111 *	General Chemistry I	3
PHYS	105	General Physics I	3

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**Cluster 5: Capstone Experience**

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(Required Credit Hours:6)

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ELEC	585 *	Graduation Project I	3
ELEC	590 *	Graduation Project II	3

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\* Also counts towards the Major

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Course Credits

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**College of Engineering**

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**Required Courses**

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(Required Credit Hours:24)

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CHEM	175	Chemistry Lab I for Engineering	1
GENG	220	Engineering Thermodynamics	3
MATH	1120	Calculus II for Engineering	3
MATH	2210	Differential Equations for Engineering	3
MATH	2220	Linear Algebra for Engineering	3
CHEM	2706	Materials Science	3
STAT	210	Probability and Statistics	3
PHYS	135	General Physics Lab I	1
PHYS	110	General Physics II	3
PHYS	140	General Physics Lab II	1

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Course Credits

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**Electrical Engineering**

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Required Courses			
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(Required Credit Hours:70)

ECOM	360	Fundamentals of Communication Systems	3
ECOM	432	Data Communications & Networks	3
ECOM	442	Data Communications & Networks Lab	1
ELEC	305	Electric Circuits I	3
ELEC	310	Electric Circuits I lab	1
ELEC	315	Fundamentals of Microelec Devices	3
ELEC	320	Electric Circuits II	3
ELEC	325	Engineering Electromagnetics	3
ELEC	230	Computer Programming	3
ELEC	335	Digital Logic Design	3
ELEC	345	Digital Logic Design Lab	1
ELEC	360	Signals & Systems	3
ELEC	370	Electronic Circuits	3
ELEC	375	Electronic Circuits Lab	1
ELEC	411	Electric Energy Conversion	3
ELEC	431	Control Systems	3
ELEC	433	Instrument & Control Lab	1
ELEC	451	Microprocessors	3
ELEC	461	Microprocessors Lab	1
ELEC	462	Computer Architecture & Organization	3
ELEC	472	Power Systems	3
ELEC	481	Electric Energy Conversion Lab	1
ELEC	495 *	Industrial Training	15
ELEC	380	Analytical Methods for Electrical Engineering	3

\* The internship is conducted over a full semester (before the last study year). No courses are allowed to be registered during the internship

Elective Courses			
(Required Credit Hours:12)			
ECOM	451	Digital Signal Processing	3
ELEC	512	Digital Electronics	3
ELEC	521	Advanced Control Systems	3
ELEC	522	Industrial Automation	3
ELEC	530	Special Topics in Power & Control Engineering	3
ELEC	531	Power Systems Analysis	3
ELEC	533	Very Large Scale Integrated Circuits (VLSI)	3
ELEC	534	Power System Distribution	3
ELEC	551	Digital Image Processing	3
ELEC	561	Java Programming Applications	3
ELEC	562	Embedded System Design	3
ELEC	570	Special Topics Computer Engineering	3
ELEC	580	Special Topics in Electronic Engineering	3
ELEC	582	Analog Integrated Circuit Design	3
ELEC	592	Power Electronics	3
ECOM	412	Electromagnetic Waves	3

## Department of Mechanical Engineering

### Bachelor of Science in Mechanical Engineering

#### Description

Mechanical engineering is one of the broadest and oldest branches of engineering and can require work that ranges from the design and manufacture of very fine and sensitive instruments with micro and nano scales, to the design and fabrication of huge power plants. The ME program emphasizes a fundamental approach to engineering in which the student learns to identify needs, define problems and apply basic principles and techniques to obtain a solution. This philosophy

is incorporated in the classroom lectures, laboratory activities, design projects and research. ME graduates are expected to deal with moving devices and complex systems. Students learn about materials, design, manufacturing, solid and fluid mechanics, thermodynamics, heat transfer, control, and instrumentation, to understand mechanical systems. Specialized ME subjects include energy conversion, energy management, air conditioning, turbomachinery, composite materials and materials processing, combustion, fracture mechanics, selected topics in mechatronics and vibration, control engineering, introduction to robotics, selected topics in manufacturing and design, maintenance engineering, biomechanics and selected topics in bioengineering. The Mechanical Engineering undergraduate program in the College of Engineering at the United Arab Emirates University is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

### Program Objectives

1. Our graduates will be be creative and self-motivated engineers, able to mentor others and to achieve advancements in their areas.
2. Our graduates will be qualified to achieve the goals of industry which will be recognized through the periodic promotions, leadership, reputation and additional responsibilities.
3. Our graduates will be expected to disseminate and implement codes of ethics and professional practice guidelines in resolving ethical dilemmas in their workplace.
4. Our graduates will possess the entrepreneurial abilities that qualify them to lead diverse and healthy economy and create a culture of innovation in their workplace.

### Program Learning Outcomes

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

1. identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
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.
3. communicate effectively with a range of audiences.
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.
5. function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. acquire and apply new knowledge as needed, using appropriate learning strategies.

### Degree Requirements:

Total Credit Hours: 147

			Course Credits
<b>General Education (Req. CH:41)</b>			
Cluster 1: Values to Live By - Islam			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

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Cluster 1: Values to Live By - Ethics

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(Required Credit Hours:2)

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GENG 215 \* Engineering Ethics 2

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\* Also counts towards the Major

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Cluster 2: Skills for Life - English Communication Skills

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(Required Credit Hours:3)

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ESPU 107 Introduction to Academic English For Engineering 3

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Cluster 2: Skills for Life - Information Literacy

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(Required Credit Hours:3)

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GEIL 101 Information Literacy 3

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Cluster 2: Skills for Life - Thinking Skills

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(Required Credit Hours:3)

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HSS 110 Scientific Research Skills 3

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CSBP 119 Algorithms and Problem Solving 3

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PHI 180 Critical Thinking 3

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PSY 105 Creative & Innovative Thinking Skills 3

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GEHP 111 Happiness and Wellbeing 3

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IBLC - Inquiry based learning courses must be taken within first 30 credit hours

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Cluster 3: The Human Community - Emirates Society

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(Required Credit Hours:3)

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HSS 105 Emirates Studies 3

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Cluster 3: The Human Community - Humanities/Fine Arts

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(Required Credit Hours:3)

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ARCH 340 History and Theory of Architecture 3

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HIS	133	Introduction to Art History	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
LIT	150	Introduction to Literature	3
LNG	100	Introduction to Linguistics	3
LNG	110	Language, Society & Culture	3
MSC	200	Introduction to Mass Media	3
MSC	240	World and Arab Media	3
PHI	101	Introduction to Philosophy	3
PHI	270	Philosophy of Education	3
PHI	271	History and Philosophy of Science	3
TRS	200	Introduction to Translation	3

### Cluster 3: The Human Community - Social and Behavioral Sciences

(Required Credit Hours:3)

GENG	315 *	Engineering Economics	3
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\* Also counts towards the Major

### Cluster 3: The Human Community - The Global Experience

(Required Credit Hours:3)

AGRB	360	Global Agri-food Trade	3
ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3
GEO	200	World Regional Geography	3
HIS	120	Arab & Islamic Civilization	3
HIS	121	World History: Origins to 1500	3
HIS	125	Contemporary Civilization	3
PSG	250	Principles of International Relations	3

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**Cluster 4: The Natural World - Mathematics**

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(Required Credit Hours:3)

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MATH	1110 *	Calculus I for Engineering	3
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\* Also counts towards the Major

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**Cluster 4: The Natural World - Natural Sciences**

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(Required Credit Hours:6)

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CHEM	111 *	General Chemistry I	3
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PHYS	105	General Physics I	3
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Also counts towards the Major

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**Cluster 5: Capstone Experience**

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(Required Credit Hours:6)

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MECH	585 *	Graduation Project I	3
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MECH	590 *	Graduation Project II	3
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\* Also counts towards the Major

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Course Credits

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**College of Engineering**

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**Required Courses**

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(Required Credit Hours:27)

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CHEM	175	Chemistry Lab I for Engineering	1
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GENG	220	Engineering Thermodynamics	3
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MATH	1120	Calculus II for Engineering	3
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MATH	2210	Differential Equations for Engineering	3
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MATH	2220	Linear Algebra for Engineering	3
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MECH	390	Engineering Materials	3
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ELEC	230	Computer Programming	3
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STAT	210	Probability and Statistics	3
PHYS	135	General Physics Lab I	1
PHYS	110	General Physics II	3
PHYS	140	General Physics Lab II	1

Course Credits

### Mechanical Engineering

#### Required Courses

(Required Credit Hours:67)

ELEC	372	Electro-Mechanical Devices	2
CIVL	240	Statics	3
MECH	305	Mechanics of Materials	3
MECH	306	Manufacturing Processes	3
MECH	310	Dynamics	3
MECH	311	Applied Thermodynamics	3
MECH	315	Geometric Modeling	2
MECH	340	Fluid Mechanics	3
MECH	348	Fluid Mechanics Lab	1
MECH	350	Introduction to Mechatronics	3
MECH	384	Mathematics for Mech. Eng.	3
MECH	433	Introduction to Computer Aided Manufacturing	2
MECH	407	Machine Design I	3
MECH	409	Dynamic Systems & Control	3
MECH	411	Heat Transfer	3
MECH	412	Machine Design II	3
MECH	417	Kinematics Design of Machinery	3
MECH	426	Thermofluid System Design & Analysis	3



MECH	430	Thermal Engineering Lab	1
MECH	440	Design and Manufacturing Lab	1
MECH	450	System Dynamics Lab	1
MECH	495 *	Industrial Training	15

\* The internship is conducted over a full semester (before the last study year). No courses are allowed to be registered during the internship

Course Credits

### Basic Sciences Electives

Student should take one course from this group

(Required Credit Hours:3)

PHYS	235	Waves and Optics	3
PHYS	250	Modern Physics	3
CHEM	282	Organic Chemistry for Non-Majors	3
BIOC	100	Basic Biology I	3

Course Credits

### Elective Mechanical Engineering Specialization Requirements

A student must successfully complete 9 credit hours (3 courses) from any of the following 4 groups.

(Required Credit Hours:9)

#### Bioengineering

(Required Credit Hours:9)

MECH	520	Selected Topics in Bioengineering	3
MECH	521	Biomechanics	3
MECH	522	Bioinstrumentation	3
MECH	525	Introduction to Bioengineering	3

#### Design and Manufacturing

(Required Credit Hours:9)			
MECH	540	Selected Topics in Design & Manufacturing	3
MECH	541	Non-conventional Manufacturing	3
MECH	545	Maintenance Engineering	3
MECH	547	Intermediate Mechanics of Material	3
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Thermo-Fluids			
(Required Credit Hours:9)			
MECH	510	Selected Topics in Thermal Sciences	3
MECH	513	Air Conditioning Systems	3
MECH	514	Heat Engines	3
MECH	516	Energy Management	3
MECH	517	Turbomachinery	3
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Mechatronics and Control			
(Required Credit Hours:9)			
MECH	530	Selected Topics in Mechatronics	3
MECH	531	Introduction to Robotics	3
MECH	532	Design of Mechatronics Systems	3
MECH	533	Mechanical Vibration	3
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Aerospace (Student not allowed to take more than two courses from this group)			
(Required Credit Hours:9)			
MECH	550	Introduction to Aerospace Engineering	3
MECH	551	Foundations of Aerodynamics	3
MECH	552	Aircraft Structures	3
MECH	553	Flight Dynamics, Stability and Control	3
MECH	554	Aerospace Propulsion	3

# Minor in Mechatronics Engineering

## Description

The objective of this minor is to provide the student an introduction to Mechatronics Engineering with emphasis on solutions to engineering problems. The minor provides a foundation in computer design, embedded systems, dynamics, control systems, vibrations, automation, and the design of Mechatronics systems.

## Program Objectives

1. Augment the Electrical/Mechanical engineering student's ability with in depth knowledge in Mechatronics
2. Contribute to the UAE regional economic development

## Program Learning Outcomes

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

1. Developed an understanding of the operation and design of Mechatronics systems
2. Gained skills in solving engineering kinematics, kinetics and vibration problems
3. Gained programming skills and an understanding of logic, electronics and automation

## Degree Requirements:

Total Credit Hours: 18

				Course Credits
<b>Minor in Mechatronics Engineering for Electrical Engineering (EE) Major (Req. CH:18)</b>				
Required courses for EE Major				
				(Required Credit Hours:6)
ELEC	431	Control Systems		3
MECH	310	Dynamics		3
Elective Courses for EE Major (Choose any two of the following EE Courses:)				
				(Required Credit Hours:6)
ELEC	521	Advanced Control Systems		3
ELEC	522	Industrial Automation		3
ELEC	562	Embedded System Design		3
Elective Courses for EE Major (Choose any two of the following ME Courses:)				
				(Required Credit Hours:6)
MECH	530	Selected Topics in Mechatronics		3
MECH	532	Design of Mechatronics Systems		3
MECH	533	Mechanical Vibration		3

			Course Credits
<b>Minor in Mechatronics Engineering for Mechanical Engineering (ME) Major (CH:18)</b>			
Required courses for ME Major			
			(Required Credit Hours:6)
MECH	350	Introduction to Mechatronics	3
ELEC	335	Digital Logic Design	3
Elective Courses for ME Major (Choose any two of the following ME courses:)			
			(Required Credit Hours:6)
MECH	530	Selected Topics in Mechatronics	3
MECH	531	Introduction to Robotics	3
MECH	532	Design of Mechatronics Systems	3
Elective Courses for ME Major (Choose any two of the following EE courses:)			
			(Required Credit Hours:6)
ELEC	370	Electronic Circuits	3
ELEC	522	Industrial Automation	3
ELEC	562	Embedded System Design	3

## Minor in Aerospace Engineering

### Description

Aerospace Engineering is considered to be a natural extension of Mechanical Engineering and pursuing the minor in this area will hence give the chance to ME students to have some good knowledge in this vital area that will enable them to effectively engage in Aerospace Engineering industry both in UAE and abroad. The Aerospace industry is booming in UAE in general and in Al Ain in specific. This is why it becomes necessary to have qualified national graduates in Mechanical Engineering who are equipped with good foundations in Aerospace Engineering. Evidence on this is the interest shown recently by one of the main industrial companies in the area of Aerospace Engineering in UAE, namely Mubadala/Strata, where they approached UAE University and showed interest and willingness to support a minor program in Aerospace Engineering at the Mechanical Engineering Department.

### Program Objectives

1. To develop engineers who are broad-based in aerospace technical knowledge and aerospace engineering applications.
2. To produce graduates who are able to solve problems and/or design products and services which are of importance to the aerospace industry in UAE.
3. To produce graduates who have specific technical skills and soft skills (communication skills, collaboration skills, problem solving skills, and work ethic) necessary to the aerospace industry.

## Program Learning Outcomes

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

1. To apply knowledge of mathematics, calculus based sciences and engineering to aerospace engineering.
2. To design aerospace engineering related thermal and mechanical systems, component or processes to meet desired needs.
3. To identify, formulate and solve aerospace engineering problems.
4. To use modern engineering techniques, skills and computing tools necessary for aerospace engineering practice.

### Degree Requirements:

Total Credit Hours: 18

Course Credits

#### Aerospace Engineering

##### Required Courses

(Required Credit Hours:15)

MECH	550	Introduction to Aerospace Engineering	3
MECH	551	Foundations of Aerodynamics	3
MECH	552	Aircraft Structures	3
MECH	553	Flight Dynamics, Stability and Control	3
MECH	554	Aerospace Propulsion	3

Course Credits

#### Elective Courses

(Student should select one course from the following groups)

##### Group-1

(Required Credit Hours:3)

MECH	540	Selected Topics in Design & Manufacturing	3
MECH	541	Non-conventional Manufacturing	3
MECH	542	Introduction to Composites Design & Manufacturing	3

MECH	543	Introduction to Rapid Tooling	3
MECH	545	Maintenance Engineering	3
MECH	547	Intermediate Mechanics of Material	3

#### Group-2

(Required Credit Hours:3)

MECH	510	Selected Topics in Thermal Sciences	3
MECH	512	Intermediate Heat Transfer	3
MECH	513	Air Conditioning Systems	3
MECH	516	Energy Management	3
MECH	517	Turbomachinery	3

#### Group-3

(Required Credit Hours:3)

MECH	506	Control Engineering	3
MECH	530	Selected Topics in Mechatronics	3
MECH	531	Introduction to Robotics	3
MECH	532	Design of Mechatronics Systems	3
MECH	533	Mechanical Vibration	3

# College of Education

## Department of Curriculum and Instruction

### Bachelor of Education in Elementary Education

#### Description

This program provides students with the knowledge, skills and dispositions to become highly qualified educators at the elementary school level. The study plan includes a combination of academic and professional coursework with field experience in the classroom that prepares graduates for teaching in the real world. The program gives the students the opportunity to select a concentration track within four areas of Elementary Education. These concentration tracks include English Language, Islamic Studies and Arabic, Mathematics and Science, and Social Studies and Civics.

#### Program Objectives

1. Understand the concepts, principles, theories, and research related to the development of children to construct learning opportunities that support individual students' development, acquisition of knowledge and language, and motivation.
2. Demonstrate knowledge of instructional strategies and media communication techniques based on knowledge of students, learning theory, subject matter, curricular goals, and community to assist students in developing critical thinking, problem solving, and performance skills.
3. Understand the formal and informal assessment strategies to plan, evaluate, and strengthen instruction that assist in promoting continuous intellectual, social, emotional, physical and health development of children in elementary schools.
4. Develop awareness of lifelong professional development, professional ethics and partnerships and collaboration with colleagues, stakeholders, parents and community at large.

#### Program Learning Outcomes

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

1. Describe major concepts, principles, theories, and research in specialized disciplines at the elementary education level.
2. Develop instructional strategies based on knowledge of students, learning theories, subject matters, curricular goals, social norms, and different standards developed by stakeholders and specialized international agencies for elementary education.
3. Employ formal and informal assessment strategies to plan, evaluate, and strengthen instruction in the elementary school.
4. Use recent media communication techniques to foster active collaboration, and supportive interaction in the elementary schools to conduct research projects using appropriate research methods.

5. Create learning opportunities that support individual students' development, acquisition of knowledge and motivation in the elementary school.
6. Plan for elementary school instruction based on knowledge of diverse students, learning theories, subject matters, curricular goals, institutional and ethical standards and community.
7. Use a variety of teaching and learning strategies and recent media communication techniques to encourage elementary school students' development of critical thinking, problem solving, research skills and performance skills.
8. Demonstrate willingness, competence and strategies to work independently and in a team to respond to different situations and problems.
9. Develop awareness, willingness and practices for lifelong career professional development.
10. Develop relationships and partnership with families, colleagues and stakeholders to enhance elementary school children's intellectual, social, emotional, and physical growth.

**Degree Requirements:**

Total Credit Hours: 126

Course Credits

**General Education (Req. CH:39)**

Cluster 1: Values to Live By - Islam

(Required Credit Hours:3)

ISLM	100	Islamic Culture	3
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Cluster 1: Values to Live By - Ethics

(Required Credit Hours:3)

FOED	102 *	Professional Ethics in Education	3
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\* Also counts towards the Major

Cluster 2: Skills for Life - English Communication Skills

(Required Credit Hours:3)

ESPU	103	Introduction to Academic English For Education	3
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Cluster 2: Skills for Life - Information Literacy

(Required Credit Hours:3)

GEIL	101	Information Literacy	3
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**Cluster 2: Skills for Life - Thinking Skills**

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(Required Credit Hours:3)

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PHI	180	Critical Thinking	3
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**Cluster 3: The Human Community - Emirates Society**

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(Required Credit Hours:3)

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HSS	105	Emirates Studies	3
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**Cluster 3: The Human Community - Humanities/Fine Arts**

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(Required Credit Hours:3)

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ARCH	340	History and Theory of Architecture	3
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HIS	133	Introduction to Art History	3
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HSR	120	Introduction to Heritage & Culture	3
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HSR	130	Introduction to Language & Communication	3
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LIT	150	Introduction to Literature	3
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LNG	100	Introduction to Linguistics	3
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LNG	110	Language, Society & Culture	3
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MSC	200	Introduction to Mass Media	3
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MSC	240	World and Arab Media	3
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PHI	101	Introduction to Philosophy	3
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PHI	270	Philosophy of Education	3
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PHI	271	History and Philosophy of Science	3
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TRS	200	Introduction to Translation	3
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**Cluster 3: The Human Community - Social and Behavioral Sciences**

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(Required Credit Hours:3)

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PSY	313 *	Educational Psychology	3
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\* Also counts towards the Major

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**Cluster 3: The Human Community - The Global Experience**

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(Required Credit Hours:3)

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AGRB	360	Global Agri-food Trade	3
ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3
GEO	200	World Regional Geography	3
HIS	120	Arab & Islamic Civilization	3
HIS	121	World History: Origins to 1500	3
HIS	125	Contemporary Civilization	3
PSG	250	Principles of International Relations	3

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**Cluster 4: The Natural World - Mathematics**

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(Required Credit Hours:3)

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MATH	120	Contemporary Applications of Math	3
STAT	101	Statistics in the Modern World	3

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**Cluster 4: The Natural World - Natural Sciences**

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(Required Credit Hours:6)

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ARAG	205	Introduction to Fish & Animal Science	3
ARAG	220	Natural Resources	3
BION	100	Biology and its Modern Application	3
CHEM	181	Chemistry in the Modern World	3
FDSC	250	Contemporary Food Science & Nutrition	3
GEOL	110	Planet Earth	3
PHYS	100	Astronomy	3
PHYS	101	Conceptual Physics	3

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**Cluster 5: Capstone Experience**

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(Required Credit Hours:3)			
CURR	421 *	Cap Exp in Elem/IsIm&Arab	3
or			
CURR	422 *	Cap Exp in ELEM/SS & CIVICS	3
or			
CURR	423 *	Cap Exp in ELEM/MATH & SC	3
or			
CURR	424 *	Cap Exp in ELEM/English	3
* Also counts towards the Major			
* Either of these courses should be taken based on student track. Also counts towards the Major			

Course Credits

**Elementary Education Major**

**Required Courses**

(Required Credit Hours:21)			
CURR	101	Educational Technology	3
CURR	102	Principles of Curriculum & Instruction	3
CURR	310	Classroom Assessment in Elementary Education	3
FOED	201	School and Family	3
FOED	350	Educational Research	3
SPED	101	Education of Exceptional Children	3
PHED	201	Physical Fitness and Wellness	3

**Supporting Elective Courses**

(Required Credit Hours:3)			
FOED	101	Learning Communities	3
FOED	321	School Management & Supervision	3
SPED	321	Gifted and Talented	3

PHED	311	Health & Movement	3
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Course Credits

### English Language Track

#### Track Required Courses

(Required Credit Hours:33)

ENG	250	English Grammar & Usage	3
ENG	300	Critical Reading in the Disciplines	3
ENG	310	Writing for Research	3
ENG	312	Cultural Literacy: English in the World	3
ENG	450	Public Speaking and Debate	3
HSR	100	Rhetoric and Composition 2A	3
LIT	150	Introduction to Literature	3
LIT	240	Survey of American Literature	3
LNG	100	Introduction to Linguistics	3
LNG	241	Syntax I	3
TSL	210	English Phonetics	3

#### Track Professional Education Courses

(Required Credit Hours:24)

CURR	201	Language Ed in Elem School	3
CURR	206	Plan & Implement of ENGL CURR	3
CURR	316	Teaching Methods of English for Young Learners	3
CURR	358	Content and Pedagogy Development of ENGL-EL	3
CURR	368	Teachings Methods of ENGL in ELEM	3
CURR	464 *	Student Teaching in ELEM / ENGL	9

\* The internship is conducted in the last semester. Capstone Course CURR 424 (3 Cr. Hrs.) should be taken during the internship semester Co-Requisite:

Track Elective Courses			
(Required Credit Hours:6)			
LIT	200	Writing About literature	3
LIT	220	Survey of British Literature	3
LNG	341	Syntax II	3
LNG	362	Contrastive Linguistics	3
TRS	200	Introduction to Translation	3

Course Credits

### Islamic Studies and Arabic Language Track

Track Required Courses			
(Required Credit Hours:33)			
ARB	110	Introduction to Syntax & Morphology	3
ARB	120	Arabic Rhetoric I	3
ARB	210	Phonetics	3
ARB	270	Modern Arabic Gulf Literature	3
ARB	311	Syntax II	3
ISLM	110	Hadith Studies	3
ISLM	201	Fiqh of Worship	3
ISLM	202	Islamic Doctrine	3
ISLM	111	Qur'Anic Studies	3
ISLM	114	Recitation & Cantillation	3
ISLM	112	Fiqh Of Sira	3

### Track Professional Education Courses

(Required Credit Hours:24)			
CURR	200	Planning & Implement ISAR CURR	3

CURR	351	Content and Pedagogy Development of ISLM-EL	3
CURR	352	Content and Pedagogy Development of ARAB-EL	3
CURR	361	Teach Islamic Education in Elementary	3
CURR	362	Teaching Arabic in Elem School	3
CURR	461 *	Student Teaching in ELEM / ISLM ED & AR	9

\* The internship is conducted in the last semester. Capstone Course CURR 421 (3 Cr. Hrs.) should be taken during the internship semester Co-Requisite:

#### Track Elective Courses (Islamic)

(Required Credit Hours:3)

ISLM	203	Analytical Interpretation	3
SHAR	208	Family Regulations in Islam	3
SHAR	402	Principles of Islamic Jurisprudence (Fiqh) 2	3

#### Track Elective Courses (Arabic)

(Required Credit Hours:3)

ARB	100	Styles of Literary Expression	3
ARB	130	Literary Texts Analysis	3
ARB	160	General Linguistics	3

Course Credits

#### Mathematics and Science Track

##### Required Courses

(Required Credit Hours:33)

BIOC	100	Basic Biology I	3
BIOC	270	General Genetics	3
BIOC	275	Genetics Laboratory	1
CHEM	111	General Chemistry I	3

CHEM	115	General Chemistry Lab	1
GEOL	105	Physical Geology	3
MATH	105	Calculus I	3
MATH	140	Linear Algebra I	3
MATH	260	Foundation of Geometry	3
MATH	305	Mathematics For Teachers I	3
MATH	335	Mathematics for Teachers II	3
PHYS	105	General Physics I	3
PHYS	135	General Physics Lab I	1

#### Track Professional Education Courses

(Required Credit Hours:24)

CURR	204	Plan & Implement of SCMA CURR	3
CURR	356	Content and Pedagogy Development of MATH-ED	3
CURR	357	Content and Pedagogy Development of SCIE_EL	3
CURR	366	Teachings Methods of Math in ELEM	3
CURR	367	Teaching Methods of SC in ELEM	3
CURR	463 *	Student Teaching in ELEM / MATH & SC	9

\* The internship is conducted in the last semester. Capstone Course CURR 423 (3 Cr. Hrs.) should be taken during the internship semester Co-Requisite:

#### Track Elective Courses (Mathematics)

(Required Credit Hours:3)

MATH	320	Numerical Analysis I	3
STAT	101	Statistics in the Modern World	3
STAT	245	Probability and Statistics for Education	3

#### Track Elective Courses (Science)

(Required Credit Hours:3)			
BIOC	250	Basic Ecology	3
CHEM	281	Analytical Chemistry for Non-Majors	3
PHYS	110	General Physics II	3

Course Credits

**Social Studies and Civics Track**

Track Required Courses

(Required Credit Hours:33)			
ECON	110	Principles of Economics	3
GEO	201	Physical Geography	3
GEO	210	Human Geography	3
GEO	220	Principles of Cartography	3
GEO	432	Geography of the UAE	3
HIS	142	History of Islamic World: Origins 1500	3
HIS	318	History of the Arabian Gulf	3
HIS	373	Hist. of Arab World from 1500	3
PSG	120	Government & Politics of UAE	3
SOC	101	Introduction to Sociology	3
SOC	313	Sociology of Family	3

Track Required Professional Education Courses

(Required Credit Hours:24)			
CURR	202	Plan & Implement of SOCV CURR	3
CURR	353	Content and Pedagogy Development of SOCI-EL	3
CURR	354	Content and Pedagogy Development of CIVIC-EL	3
CURR	363	Teaching Methods of SS in ELEM	3
CURR	364	Teaching Methods of CIVICS in ELEM	3



CURR	462 *	Student Teaching in ELEM / SS & CIVICS	9
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\* The internship is conducted in the last semester. Capstone Course CURR 422 (3 Cr. Hrs.) should be taken during the internship semester Co-Requisite:

#### Track Elective Courses (Civics)

(Required Credit Hours:3)

PSG	110	Fundamentals of Political Science	3
PSY	205	Social Psychology	3
SOC	309	Sociology of Organizations	3

#### Track Elective Courses (Geography)

(Required Credit Hours:3)

GEO	221	Geographic Information Systems I	3
GEO	332	Geography of the Arab World	3
GEO	462	Current Environmental Issues	3

## Bachelor of Education in Early Childhood Education

### Description

This program provides students with the knowledge, skills and dispositions to become highly qualified educators who at the early child hood educational level. The study plan includes a combination of academic and professional coursework with field experience in the classroom that prepares graduates for teaching in the real world.

### Program Objectives

1. Understand the child development and learning and provide all children with learning environments that are healthy, respectful, supportive, and challenging.
2. Demonstrate an understanding of the value of diverse characteristics of families and communities and create respectful relationships with them in shaping children's development and learning.
3. Apply effective assessment strategies and tools in partnership with families and other professionals to positively influence children's development and learning.

4. Use a wide array of developmentally appropriate approaches, instructional strategies, and tools to connect with children and families and positively influence each child's development and learning.
5. Integrate multiple areas of knowledge in planning, implementing and evaluating individually, culturally, and developmentally appropriate, meaningful and inclusive early childhood curriculum.
6. Use reflection to make decisions and take actions based on professional and ethical standards related to early childhood practice and collaboratively participate in ongoing learning to inform their practice.
7. Develop the knowledge, skills and professional dispositions necessary to promote the development and learning of young children across the entire developmental period of early childhood and in the variety of settings that offer early education

### Program Learning Outcomes

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

1. Apply knowledge of child development and learning principles to provide children with healthy, respectful, and challenging learning environments.
2. Build respectful partnerships with children's families and their communities and communicate with them effectively, both orally and in writing.
3. Apply effective assessment strategies and tools in partnership with families and other professionals.
4. Use a wide array of developmentally appropriate approaches and instructional strategies in partnership with families.
5. Integrate multiple areas of knowledge in planning, implementing and evaluating developmentally appropriate and inclusive early childhood curriculum.
6. Make decisions and take actions based on professional and ethical standards and develop reasoned and creative solutions.
7. Develop the knowledge, skills and professional dispositions and maintain responsibility for self-development and life-long learning to promote the development and learning of young children.
8. Apply a student-centered learning approach, by developing the student as a communicator, a thinker and a problem solver.
9. Develop research skills necessary for integrating knowledge and concepts through effectively using information derived from a variety of sources.

### Degree Requirements:

Total Credit Hours: 126

Course Credits

#### General Education (Req. CH:39)

#### Cluster 1: Values to Live By - Islam

(Required Credit Hours:3)

ISLM	100	Islamic Culture	3
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Cluster 1: Values to Live By - Ethics

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(Required Credit Hours:3)

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FOED 102 \* Professional Ethics in Education 3

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\* Also counts towards the Major

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Cluster 2: Skills for Life - English Communication Skills

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(Required Credit Hours:3)

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ESPU 103 Introduction to Academic English For Education 3

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Cluster 2: Skills for Life - Information Literacy

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(Required Credit Hours:3)

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GEIL 101 Information Literacy 3

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Cluster 2: Skills for Life - Thinking Skills

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(Required Credit Hours:3)

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PHI 180 Critical Thinking 3

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Cluster 3: The Human Community - Emirates Society

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(Required Credit Hours:3)

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HSS 105 Emirates Studies 3

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Cluster 3: The Human Community - Humanities/Fine Arts

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(Required Credit Hours:3)

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ARCH 340 History and Theory of Architecture 3

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HIS 133 Introduction to Art History 3

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HSR 120 Introduction to Heritage & Culture 3

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HSR 130 Introduction to Language & Communication 3

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LIT 150 Introduction to Literature 3

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LNG 100 Introduction to Linguistics 3

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LNG 110 Language, Society & Culture 3

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MSC	200	Introduction to Mass Media	3
MSC	240	World and Arab Media	3
PHI	101	Introduction to Philosophy	3
PHI	270	Philosophy of Education	3
PHI	271	History and Philosophy of Science	3
TRS	200	Introduction to Translation	3

#### Cluster 3: The Human Community - Social and Behavioral Sciences

(Required Credit Hours:3)

PSY	313 *	Educational Psychology	3
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\* Also counts towards the Major

#### Cluster 3: The Human Community - The Global Experience

(Required Credit Hours:3)

AGRB	360	Global Agri-food Trade	3
ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3
GEO	200	World Regional Geography	3
HIS	120	Arab & Islamic Civilization	3
HIS	121	World History: Origins to 1500	3
HIS	125	Contemporary Civilization	3
PSG	250	Principles of International Relations	3

#### Cluster 4: The Natural World - Mathematics

(Required Credit Hours:3)

MATH	120	Contemporary Applications of Math	3
STAT	101	Statistics in the Modern World	3

#### Cluster 4: The Natural World - Natural Sciences

(Required Credit Hours:6)			
ARAG	205	Introduction to Fish & Animal Science	3
ARAG	220	Natural Resources	3
BION	100	Biology and its Modern Application	3
CHEM	181	Chemistry in the Modern World	3
FDSC	250	Contemporary Food Science & Nutrition	3
GEOL	110	Planet Earth	3
PHED	201	Physical Fitness and Wellness	3
PHYS	100	Astronomy	3
PHYS	101	Conceptual Physics	3
<b>Cluster 5: Capstone Experience</b>			
(Required Credit Hours:3)			
CURR	425 *	Capstone Experience in ECE	3
* Also counts towards the Major			
<b>Course Credits</b>			
<b>Early Childhood Education</b>			
<b>Required Courses</b>			
(Required Credit Hours:54)			
CURR	101	Educational Technology	3
CURR	103	Early Childhood Development & Learning	3
CURR	211	Planning & Implementation of ECE Curriculum	3
CURR	212	Language Development and Emergent Literacy	3
CURR	311	Creative Arts for Young Children	3
CURR	312	Development of Religious and Social Concepts in ECE	3
CURR	314	Family, Community, Culture & ECE	3
CURR	317	Child Health and Care	3

CURR	319	Science Education for Young Child	3
CURR	320	Math Education for Young Child	3
CURR	324	Children's Play	3
CURR	414	Early Childhood Learning Environments	3
CURR	416	Assessment in ECE	3
CURR	465 *	Student Teaching in ECE	9
FOED	350	Educational Research	3
SPED	101	Education of Exceptional Children	3

\* The internship is conducted in the last semester. Capstone Course CURR 425 (3 Cr. Hrs.) should be taken during the internship semester

#### Supporting Required Courses Outside of ECED

(Required Credit Hours:30)

ARB	210	Phonetics	3
GEO	432	Geography of the UAE	3
HIS	212	History of the UAE	3
ISLM	201	Fiqh of Worship	3
ISLM	114	Recitation & Cantillation	3
MATH	305	Mathematics For Teachers I	3
MATH	335	Mathematics for Teachers II	3
NSCI	260	Natural Sciences I (Phys&Chem)	3
SOC	316	Folklore in UAE Society	3
TSL	210	English Phonetics	3

#### Elective Courses

(Required Credit Hours:3)

CURR	411	Special Topic in ECE	3
FOED	101	Learning Communities	3

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## Bachelor of Education in Art Education

### Description

The Art Education Program is designed to prepare art teachers for grades K-9, Cycle 1 and Cycle 2 according to the classifications of Abu Dhabi Educational Council (ADEC) and the Ministry of Education. This program is offered in collaboration with the College of Humanities and Social Sciences. The major theme of the program is to prepare highly qualified Art teachers as professional practitioners.

### Program Objectives

1. Actively seek opportunities for professional growth in art education and who become classroom researchers.
2. Have the necessary academic background in art education, professional education knowledge, skills and dispositions to respond effectively to students' differences in education settings.
3. Apply effective communication techniques to foster active inquiry, creative and innovative thinking, collaboration, and supportive interaction inside and outside the classroom.
4. Apply effective communication techniques to foster active inquiry, creative and innovative thinking, collaboration, and supportive interaction inside and outside the classroom.
5. Create positive communities of learners that encourage positive social interaction, active engagement in art learning, and self-motivation for all students.

### Program Learning Outcomes

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

1. Demonstrate skills in research methodology, problem solving, and critical thinking.
2. Evaluate, manage, and apply appropriate art education methods and procedures in processes of investigation toward identified solutions independently and confidently as professional.
3. Evaluate teacher-learner interactions to facilitate and guide student learning art in diverse learning environments.
4. Appraise diversity and its impact on art curriculum and art instruction.
5. Demonstrates an understanding of outcomes-based art curriculum.
6. Develop, implement, and evaluate a personal approach to teaching and learning art through the use of information derived from a variety of art sources.
7. Design, develop and implement appropriate art assessment techniques and tools.
8. Plan and implement art curriculum as related to current trends.

9. Outline the application of technology in art and effective communication techniques in grade K-9 settings.
10. Function and communicate effectively within the social setting of the school, community and society.

**Degree Requirements:**

Total Credit Hours: 126

Course Credits

**General Education (Req. CH:39)**

**Cluster 1: Values to Live By - Islam**

(Required Credit Hours:3)

ISLM	100	Islamic Culture	3
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**Cluster 1: Values to Live By - Ethics**

(Required Credit Hours:3)

FOED	102 *	Professional Ethics in Education	3
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\* Also counts towards the major

**Cluster 2: Skills for Life - English Communication Skills**

(Required Credit Hours:3)

ESPU	103	Introduction to Academic English For Education	3
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**Cluster 2: Skills for Life - Information Literacy**

(Required Credit Hours:3)

GEIL	101	Information Literacy	3
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**Cluster 2: Skills for Life - Thinking Skills**

(Required Credit Hours:3)

PSY	105	Creative & Innovative Thinking Skills	3
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PHI	180	Critical Thinking	3
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GEHP	111	Happiness and Wellbeing	3
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**Cluster 3: The Human Community - Emirates Society**



(Required Credit Hours:3)			
HSS	105	Emirates Studies	3

### Cluster 3: The Human Community - Humanities/Fine Arts

(Required Credit Hours:3)			
ARCH	340	History and Theory of Architecture	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
LIT	150	Introduction to Literature	3
LNG	100	Introduction to Linguistics	3
LNG	110	Language, Society & Culture	3
MSC	200	Introduction to Mass Media	3
MSC	240	World and Arab Media	3
PHI	101	Introduction to Philosophy	3
PHI	270	Philosophy of Education	3
PHI	271	History and Philosophy of Science	3
TRS	200	Introduction to Translation	3

### Cluster 3: The Human Community - Social and Behavioral Sciences

(Required Credit Hours:3)			
PSY	313 *	Educational Psychology	3
* Also counts towards the major			

### Cluster 3: The Human Community - The Global Experience

(Required Credit Hours:3)			
AGRB	360	Global Agri-food Trade	3
ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3

GEO	200	World Regional Geography	3
HIS	120	Arab & Islamic Civilization	3
HIS	121	World History: Origins to 1500	3
HIS	125	Contemporary Civilization	3
PSG	250	Principles of International Relations	3

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#### Cluster 4: The Natural World - Mathematics

(Required Credit Hours:3)

MATH	120	Contemporary Applications of Math	3
STAT	101	Statistics in the Modern World	3

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#### Cluster 4: The Natural World - Natural Sciences

(Required Credit Hours:6)

ARAG	205	Introduction to Fish & Animal Science	3
ARAG	220	Natural Resources	3
BION	100	Biology and its Modern Application	3
CHEM	181	Chemistry in the Modern World	3
FDSC	250	Contemporary Food Science & Nutrition	3
GEOL	110	Planet Earth	3
PHYS	100	Astronomy	3
PHYS	101	Conceptual Physics	3

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#### Cluster 5: Capstone Experience

(Required Credit Hours:3)

CURR	426 *	Capstone Experiences in Art Education	3
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\* Co-Requisite: CURR 466 Student Teaching in Art Education and also counts towards the major

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Course Credits

<b>Art Education Major</b>			
<b>Required Courses</b>			
			(Required Credit Hours:84)
ART	101	Arts and Society I	3
ART	201	Drawing I	3
ART	301	Painting I	3
ART	302	3-D Design	3
ART	303	Digital Photography	3
ART	382	Introduction to Art Criticism	3
CURR	101	Educational Technology	3
CURR	102	Principles of Curriculum & Instruction	3
CURR	104	Introduction to Art Education	3
CURR	213	Children's Artistic Development	3
CURR	223	Assessment in Art Education	3
CURR	224	Interpreting Art Experience: Social and Behavioral Perspectives	3
CURR	301	Colour Theory	3
CURR	302	Introduction to Art Museum Practices	3
CURR	359	Early Field Experience in Cycle I	1.5
CURR	360	Early Field Experience in Cycle II	1.5
CURR	369	Teaching Art in Cycle I Schools	3
CURR	370	Teaching Art in Cycle II Schools	3
CURR	417	Art in Public Places	3
CURR	466 *	Student Teaching in Art Education	9
FIL	312	Animation Filmmaking	3
FOED	201	School and Family	3
PHED	201	Physical Fitness and Wellness	3

FOED	350	Educational Research	3
HIS	133	Introduction to Art History	3
MSC	462	Designing Media Messages	3
SPED	101	Education of Exceptional Children	3
* The internship is conducted in the last semester. Capstone Course CURR 426 (3 Cr. Hrs.) should be taken during the internship semester.			

### Supporting Elective Courses

(Required Credit Hours:3)

FOED	101	Learning Communities	3
PHED	311	Health & Movement	3
SPED	321	Gifted and Talented	3

## Bachelor of Education in Preparatory and Secondary Education

### Description

The overall goal of the proposed Preparatory & Secondary Education Program (Cycles 2 & 3 according to the Ministry of Education's classification) is to prepare highly qualified teachers as professional practitioners who are able to contribute to the development of preparatory and secondary education in particular and education in the United Arab Emirates (UAE) in general. This four year teacher education program purports to prepare instructors to teach in grades 6 through 12.

### Program Objectives

1. Teachers who are reflective practitioners and actively seek opportunities for professional growth to enhance both teaching and classroom based action research skills.
2. Teachers who have the necessary academic background, professional educational knowledge, instructional skills and dispositions to respond effectively to students of diverse needs and abilities in preparatory & secondary education settings.
3. Teachers who have an understanding of a variety of instructional strategies (including planning, implementation and assessment), curriculum, resources

and tools to support students' development and to create effective student-centered learning environments.

4. Teachers who can apply effective communication techniques to foster active inquiry, creative and innovative thinking skills, collaborative learning environments and supportive interaction inside and outside the classroom.
5. Teachers who encourage to create positive communities of motivated learners and positive social interaction environments that support active engagement in learning.

### Program Learning Outcomes

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

1. acquire knowledge, skills, and attitudes necessary to function and communicate effectively within the social setting of the school, community, and society;
2. apply knowledge and skills in research, problem solving, and critical thinking;
3. evaluate the quality of teacher-learner interactions to facilitate and guide student learning in diverse learning environments;
4. integrate information and communication technology into teaching and learning in grades (6-12) settings;
5. demonstrate working knowledge and skills of design, development, and implementation of appropriate assessment strategies;
6. reflect an understanding of diversity and its impact on curriculum and instruction;
7. acquire the necessary skills to become an independent professional with a commitment to sustainable professional growth and development;
8. implement curriculum as related to current trends and standards.

### Degree Requirements:

Total Credit Hours: 126

				Course Credits
<b>General Education (Req. CH:39)</b>				
<b>Cluster 1: Values to Live By - Islam</b>				
				(Required Credit Hours:3)
ISLM	100	Islamic Culture		3
<b>Cluster 1: Values to Live By - Ethics</b>				
				(Required Credit Hours:3)
FOED	102	Professional Ethics in Education		3
<b>Cluster 2: Skills for Life - English Communication Skills</b>				
				(Required Credit Hours:3)

ESPU	103	Introduction to Academic English For Education	3
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Cluster 2: Skills for Life - Information Literacy

(Required Credit Hours:3)

GEIL	101	Information Literacy	3
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Cluster 2: Skills for Life - Thinking Skills

(Required Credit Hours:3)

PHI	180	Critical Thinking	3
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PSY	105	Creative & Innovative Thinking Skills	3
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GEHP	111	Happiness and Wellbeing	3
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Cluster 3: The Human Community - Emirates Society

(Required Credit Hours:3)

HSS	105	Emirates Studies	3
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Cluster 3: The Human Community - Humanities/Fine Arts

(Required Credit Hours:3)

ARCH	340	History and Theory of Architecture	3
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HSR	120	Introduction to Heritage & Culture	3
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HSR	130	Introduction to Language & Communication	3
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HIS	133	Introduction to Art History	3
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TRS	200	Introduction to Translation	3
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MSC	200	Introduction to Mass Media	3
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MSC	240	World and Arab Media	3
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LNG	110	Language, Society & Culture	3
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PHI	101	Introduction to Philosophy	3
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Cluster 3: The Human Community - Social and Behavioral Sciences

			(Required Credit Hours:3)
PSY	313	Educational Psychology	3

Cluster 3: The Human Community - The Global Experience			
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			(Required Credit Hours:3)
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HIS	120	Arab & Islamic Civilization	3
HIS	125	Contemporary Civilization	3
AGRB	360	Global Agri-food Trade	3
PSG	250	Principles of International Relations	3
GEO	200	World Regional Geography	3
ARCH	346	Contemporary World Architecture	3

Cluster 4: The Natural World - Mathematics			
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			(Required Credit Hours:3)
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MATH	120	Contemporary Applications of Math	3
STAT	101	Statistics in the Modern World	3

Cluster 4: The Natural World - Natural Sciences			
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			(Required Credit Hours:6)
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PHYS	100	Astronomy	3
PHYS	101	Conceptual Physics	3
GEOL	110	Planet Earth	3
ARAG	205	Introduction to Fish & Animal Science	3
ARAG	220	Natural Resources	3
BION	100	Biology and its Modern Application	3
FDSC	250	Contemporary Food Science & Nutrition	3
CHEM	181	Chemistry in the Modern World	3
PHED	201	Physical Fitness and Wellness	3

VMED	110	Introduction to Veterinary Medicine	3
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Cluster 5: Capstone Experience  
(Courses listed below also count as major courses and students should take only one course as per their track)

(Required Credit Hours:3)

CURR	427	Capstone Experiences of Teaching Arabic Language in Preparatory & Secondary Schools	3
CURR	428	Capstone Experiences of Teaching General Social Studies in Preparatory & Secondary Schools	3
CURR	429	Capstone Experiences of Teaching Mathematics in Preparatory & Secondary Schools	3
CURR	430	Capstone Experiences of Teaching English Language in Preparatory & Secondary Schools	3
CURR	431	Capstone Experiences of Teaching Islamic Studies in Preparatory & Secondary Schools	3
CURR	432	Capstone Experiences of Teaching Chemistry in Preparatory Schools	3
CURR	433	Capstone Experiences of Teaching Physics in Preparatory Schools	3
CURR	434	Capstone Experiences of Teaching Biology in Preparatory Schools	3

Course Credits

**College of Education Professional Requirements (Req. CH:18)**

Core Requirements

(Required Credit Hours:15)

FOED	103	Foundation of Education	3
SPED	102	Diversity and Student Learning	3
CURR	105	Educational Technology in Preparatory & Secondary Schools	3
CURR	300	Assessment in Preparatory & Secondary Schools	3
CURR	303	Principle of Educational Research	3



Elective Courses			
(Required Credit Hours:3)			
CURR	309	Classroom Environment & Adolescent Culture	3
SPED	326	Educating Gifted and Talented Students in the Regular Classroom	3
FOED	101	Learning Communities	3
Course Credits			
English Language Track (Req. CH:69)			
College of Education Specialization Core Requirements			
(Required Credit Hours:15)			
CURR	208	Curriculum Development in English Language	3
CURR	218	Methods of Teaching English Language in Preparatory & Secondary Schools (1)	3
CURR	308	Methods of Teaching English Language in Preparatory & Secondary Schools (2)	3
CURR	333	Current Trends & Issues in Teaching English Language	3
CURR	344	Thinking and Learning in Teaching English Language	3
Track Requirements			
(Required Credit Hours:39)			
ENG	310	Writing for Research	3
ENG	210	College Reading and Writing	3
ENG	300	Critical Reading in the Disciplines	3
ENG	312	Cultural Literacy: English in the World	3
LIT	150	Introduction to Literature	3
LNG	241	Syntax I	3
LNG	100	Introduction to Linguistics	3
LNG	120	Linguistic Principles of English Grammar	3

LNG	330	Introduction to Phonology & Morphology	3
TSL	100	Introduction to English Grammar	3
TSL	110	Introduction to Applied Linguistics	3
TSL	210	English Phonetics	3
TSL	220	Pedagogical Structure	3

#### Field Experiences

(Required Credit Hours:9)

CURR	470 *	Student Teaching of English Language in Preparatory & Secondary Schools	9
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\* The internship is conducted in the last semester. Capstone Course CURR 430 (3 Cr. Hrs.) should be taken during the internship semester

#### Track Elective Courses

(Required Credit Hours:6)

LIT	240	Survey of American Literature	3
LIT	220	Survey of British Literature	3
ENG	450	Public Speaking and Debate	3
LIT	300	Methods of Research in Literary Study	3

Course Credits

#### General Social Studies Track (Req. CH:69)

##### College of Education Specialization Core Requirements

(Required Credit Hours:15)

CURR	205	Curriculum Development in General Social Studies	3
CURR	215	Methods of Teaching General Social Studies in Preparatory & Secondary Schools (1)	3
CURR	305	Methods of Teaching General Social Studies in Preparatory & Secondary Schools (2)	3

CURR	331	Current Trends & Issues in Teaching General Social Studies	3
CURR	342	Thinking and Learning in Teaching General Social Studies	3

### Track Requirements

(Required Credit Hours:39)

GEO	201	Physical Geography	3
GEO	211	Remote Sensing	3
GEO	220	Principles of Cartography	3
GEO	332	Geography of the Arab World	3
GEO	432	Geography of the UAE	3
HIS	124	Rise of Islam & Omayyed state	3
HIS	212	History of the UAE	3
HIS	318	History of the Arabian Gulf	3
HIS	352	History of the Abbasid State	3
PSG	120	Government & Politics of UAE	3
SOC	101	Introduction to Sociology	3
SOC	303	Bedouin & Rural Society	3
SOC	316	Folklore in UAE Society	3

### Field Experiences

(Required Credit Hours:9)

CURR	468 *	Student Teaching of General Social Studies in Preparatory & Secondary Schools	9
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\* The internship is conducted in the last semester. Capstone Course CURR 428 (3 Cr. Hrs.) should be taken during the internship semester

### Track Elective Courses

(Required Credit Hours:6)

GEO	200	World Regional Geography	3
HIS	310	Introduction to Archaeology & Museum Studies	3
HIS	332	Ancient History & Archaeology Arabian of the Peninsula	3
PSG	321	Gulf & Arabic Peninsula Affairs	3
PHI	225	Citizenship & Civil Society	3
PHI	226	Human Rights Theory	3
SOC	201	Social & Cultural Change	3
SOC	315	Sociology of Education	3
SOC	260	Folklore	3
SWK	230	Human Behavior in Social Environments	3

Course Credits

#### Arabic Language Track (Req. CH:69)

##### College of Education Specialization Core Requirements

(Required Credit Hours:15)

CURR	203	Curriculum Development in Arabic Language	3
CURR	214	Methods of Teaching Arabic Language in Preparatory & Secondary Schools (1)	3
CURR	304	Methods of Teaching Arabic Language in Preparatory & Secondary Schools (2)	3
CURR	330	Current Trends & Issues in Teaching Arabic Language	3
CURR	340	Thinking and Learning in Teaching Arabic Language	3

##### Track Requirements

(Required Credit Hours:39)

ARB	110	Introduction to Syntax & Morphology	3
ARB	120	Arabic Rhetoric I	3
ARB	130	Literary Texts Analysis	3
ARB	160	General Linguistics	3

ARB	210	Phonetics	3
ARB	220	Prosody	3
ARB	230	Traditional Literary Criticism	3
ARB	250	Abbasid Literature I	3
ARB	311	Syntax II	3
ARB	321	Semantics & Arabic Lexicology	3
ARB	430	Modern Literature Criticism	3
ARB	343	Pre-Islamic & Islamic Literature	3
ARB	444	Modern Arabic Literature	3

#### Field Experiences

(Required Credit Hours:9)

CURR	467 *	Student Teaching of Arabic Language in Preparatory & Secondary Schools	9
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\* The internship is conducted in the last semester. Capstone Course CURR 427 (3 Cr. Hrs.) should be taken during the internship semester

#### Track Elective Courses

(Required Credit Hours:6)

ARB	260	Emirati Literature	3
ARB	270	Modern Arabic Gulf Literature	3
ARB	301	Abbasid Literature II	3
ARB	413	Arabic Linguistics	3

Course Credits

#### Islamic Studies Track (Req. CH:69)

#### College of Education Specialization Core Requirements

(Required Credit Hours:15)

CURR	209	Curriculum Development in Islamic Studies	3
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CURR	219	Methods of Teaching Islamic Studies in Preparatory & Secondary Schools (1)	3
CURR	306	Methods of Teaching Islamic Studies in Preparatory & Secondary Schools (2)	3
CURR	334	Current Trends & Issues in Teaching Islamic Studies	3
CURR	345	Thinking and Learning in Teaching Islamic Studies	3

#### Track Requirements

(Required Credit Hours:39)

ISLM	110	Hadith Studies	3
ISLM	111	Qur'anic Studies	3
ISLM	112	Fiqh Of Sira	3
ISLM	114	Recitation & Cantillation	3
ISLM	201	Fiqh of Worship	3
ISLM	202	Islamic Doctrine	3
ISLM	203	Analytical Interpretation	3
SHAR	208	Family Regulations in Islam	3
ISLM	206	Studies in Hadith	3
ISLM	207	Morals & Education in Islam	3
ISLM	333	Fiqh of Islamic Da'wa	3
ISLM	473	Mordern Islamic Legal Issues	3
SHAR	112	Introduction to Islamic Law and its Sources	3

#### Field Experiences

(Required Credit Hours:9)

CURR	471 *	Student Teaching of Islamic Studies in Preparatory & Secondary Schools	9
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\* The internship is conducted in the last semester. Capstone Course CURR 431 (3 Cr. Hrs.) should be taken during the internship semester

Track Elective Courses			
(Required Credit Hours:6)			
PHI	362	Islamic Philosophy	3
ISLM	304	History Of Religions	3
ISLM	305	Selected texts from the Quran and Sunnah	3
SHAR	477	Transactions Jurisprudence	3
Course Credits			
<b>Mathematics Track (Req. CH:69)</b>			
College of Education Specialization Core Requirements			
(Required Credit Hours:15)			
CURR	207	Curriculum Development in Mathematics	3
CURR	217	Methods of Teaching Mathematics in Preparatory & Secondary Schools (1)	3
CURR	307	Methods of Teaching Mathematics in Preparatory Secondary Schools (2)	3
CURR	332	Current Trends & Issues in Teaching Mathematics	3
CURR	343	Thinking and Learning in Teaching Mathematics	3
Track Requirements			
(Required Credit Hours:39)			
MATH	105	Calculus I	3
MATH	110	Calculus II	3
MATH	140	Linear Algebra I	3
MATH	210	Calculus III	3
MATH	215	Introduction to Analysis	3
MATH	245	Set Theory and Logic	3
MATH	246	Number Theory	3

MATH	260	Foundation of Geometry	3
MATH	315	Complex Analysis I	3
MATH	342	Graph Theory	3
PHYS	105	General Physics I	3
STAT	245	Probability and Statistics for Education	3
STAT	210	Probability and Statistics	3

#### Field Experiences

(Required Credit Hours:9)

CURR	469 *	Student Teaching of Mathematics in Preparatory & Secondary Schools	9
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\* The internship is conducted in the last semester. Capstone Course CURR 429 (3 Cr. Hrs.) should be taken during the internship semester

#### Track Elective Courses

(Required Credit Hours:6)

MATH	310	Real Analysis	3
MATH	320	Numerical Analysis I	3
MATH	321	Linear Programming	3
MATH	340	Abstract Algebra 1	3

Course Credits

#### Chemistry Track (Req. CH:69)

##### College of Education Specialization Core Requirements

(Required Credit Hours:15)

CURR	216	Curriculum Development in Chemistry	3
CURR	226	Methods of Teaching Chemistry in Secondary Schools (1)	3
CURR	315	Methods of Teaching Chemistry in Secondary Schools (2)	3



CURR	325	Current Trends & Issues in Teaching Chemistry	3
CURR	336	Thinking and Learning in Teaching Chemistry	3

### Track Requirements

(Required Credit Hours:39)

CHEM	111	General Chemistry I	3
CHEM	112	General Chemistry II	2
CHEM	115	General Chemistry Lab	1
CHEM	221	Analytical Chemistry	3
CHEM	231	Inorganic Chemistry I	3
CHEM	241	Organic Chemistry I	3
CHEM	245	Organic Chemistry Lab I	1
CHEM	251	Physical Chemistry I	3
CHEM	321	Instrumental Analysis I	4
BIOC	100	Basic Biology I	3
MATH	105	Calculus I	3
MATH	110	Calculus II	3
PHYS	105	General Physics I	3
PHYS	110	General Physics II	3
PHYS	135	General Physics Lab I	1

### Field Experiences

(Required Credit Hours:9)

CURR	472 *	Student Teaching of Chemistry in Preparatory Schools	9
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\* The internship is conducted in the last semester. Capstone Course CURR 432 (3 Cr. Hrs.) should be taken during the internship semester

### Track Elective Courses

(Required Credit Hours:6)			
CHEM	242	Organic Chemistry II	3
CHEM	361	Biochemistry	3
BCHM	362	Biochemistry II	3
BIOC	230	General Microbiology	3

Course Credits

**Physics Track (Req. CH:69)**

College of Education Specialization Core Requirements

(Required Credit Hours:15)			
CURR	225	Curriculum Development in Physics	3
CURR	227	Methods of Teaching Physics in Secondary Schools (1)	3
CURR	322	Methods of Teaching Physics in Secondary Schools (2)	3
CURR	335	Current Trends & Issues in Teaching Physics	3
CURR	337	Thinking and Learning in Teaching Physics	3

Track Requirements

(Required Credit Hours:39)			
PHYS	105	General Physics I	3
PHYS	110	General Physics II	3
PHYS	135	General Physics Lab I	1
PHYS	140	General Physics Lab II	1
PHYS	205	Intermediate Physics Lab I	1
PHYS	210	Intermediate Physics Lab II	1
PHYS	220	Thermal Physics	3
PHYS	231	Electronics Fundamentals	3
PHYS	235	Waves and Optics	3
PHYS	250	Modern Physics	3

PHYS	255	Mathematical Physics	3
PHYS	262	Classical Mechanics	3
PHYS	312	Statistical Physics	2
MATH	105	Calculus I	3
MATH	110	Calculus II	3
CHEM	111	General Chemistry I	3

#### Field Experiences

(Required Credit Hours:9)

CURR	474 *	Student Teaching of Physics in Preparatory Schools	9
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\* The internship is conducted in the last semester. Capstone Course CURR 433 (3 Cr. Hrs.) should be taken during the internship semester

#### Track Elective Courses

(Required Credit Hours:6)

PHYS	335	Electromagnetic Theory	3
PHYS	345	Laser Physics	3
PHYS	355	Quantum Mechanics	3
PHYS	390	Introduction to Astrophysics	3

Course Credits

#### Biology Track (Req. CH:69)

##### College of Education Specialization Core Requirements

(Required Credit Hours:15)

CURR	228	Curriculum Development in Biology	3
CURR	229	Methods of Teaching Biology in Secondary Schools (1)	3
CURR	338	Methods of Teaching Biology in Secondary Schools (2)	3
CURR	339	Current Trends & Issues in Teaching Biology	3

CURR	346	Thinking and Learning in Teaching Biology	3
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### Track Requirements

(Required Credit Hours:39)

BIOC	100	Basic Biology I	3
BIOC	205	Basic Biology II	3
BIOC	214	General Biology Lab	1
BIOC	250	Basic Ecology	3
BIOC	270	General Genetics	3
BIOC	495	Seminar (Capstone)	1
BIOC	230	General Microbiology	3
BIOC	275	Genetics Laboratory	1
BIOC	290	Cell and Molecular Biology	3
BIOG	315	Fundamentals of Physiology	3
BIOG	460	Botany	3
CHEM	111	General Chemistry I	3
CHEM	112	General Chemistry II	2
CHEM	115	General Chemistry Lab	1
MATH	105	Calculus I	3
PHYS	105	General Physics I	3

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### Field Experiences

(Required Credit Hours:9)

CURR	475 *	Student Teaching of Biology in Preparatory Schools	9
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\* The internship is conducted in the last semester. Capstone Course CURR 434 (3 Cr. Hrs.) should be taken during the internship semester

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### Track Elective Courses

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(Required Credit Hours:6)

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BIOG	321	Histology	3
BIOG	333	Entomology	3
BIOG	360	Marine Biology	3
BIOM	335	Molecular Biology of Genes	3

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# Department of Special Education

## Bachelor of Education in Special Education

### Description

Special Education means specially designed instruction to meet the unique needs of individuals with special needs. The B.A. in Special Education is designed for students interested in providing services to individuals with special needs. This program provides students with the knowledge, skills and dispositions to become highly qualified special educators who can help students with special needs achieve a higher level of personal self-sufficiency and success in school and in the community. The study plan includes a combination of academic and professional coursework with field experience in the classroom that prepares graduates for teaching in the real world. The program gives the students the opportunity to select a concentration track within two areas of Special Education. These concentration tracks include mild/moderate disabilities and gifted and talented.

### Program Objectives

1. Acquire thorough knowledge of the philosophical, historical, and legal foundation of Special Education.
2. Understand the diverse educational strengths and needs of all students with special needs.
3. Acquire knowledge of the unique strategies, instructional approaches, and assessment which will promote maximum learning and social and emotional growth in all students with special needs.
4. Establish a learning environment that supports the learning of all students.
5. Understand the cultural and social contexts in which students with special needs live and learn.
6. Gain communication skills needed to manage the complexities of teaching for learning in all educational settings.
7. Have commitment to high standards of ethical practices and professionalism.
8. Understand collaborative relationships and its value in fostering communication among schools, homes and the communities.

### Program Learning Outcomes

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

1. Acquire thorough knowledge of the philosophical, historical, and legal foundation of the education of exceptional children.
2. Use multiple assessment data in making educational decisions for students with Mild/Moderate disabilities and Gifts and Talents.
3. Locate and critically use relevant, meaningful, and evidence-based instructional and assistive technologies that will promote maximum learning and social and emotional growth in students with Mild/Moderate disabilities and Gifts and Talents.
4. Establish a research-based responsive learning environment for students with Mild/Moderate disabilities and Gifts and Talents.

5. Examine the cultural and social contexts in which students with exceptionalities live and learn.
6. Assess language development and communication skills of children with exceptionalities using research-based practices.
7. Use effective communication skills (oral and writing) and diverse collaborative models to promote the well-being of individuals with exceptionalities across a wide range of settings.
8. Manage consistently and sensitively ethical practices and professionalism in the area of Special Education.
9. Design research-based and appropriate learning experiences for students with Mild/Moderate disabilities and Gifts and Talents in academic subject matter content of the general curriculum.

**Degree Requirements:**

Total Credit Hours: 126

				Course Credits
<b>General Education (Req. CH:39)</b>				
<b>Cluster 1: Values to Live By - Islam</b>				
				(Required Credit Hours:3)
ISLM	100	Islamic Culture		3
<b>Cluster 1: Values to Live By - Ethics</b>				
				(Required Credit Hours:3)
FOED	102 *	Professional Ethics in Education		3
* Also counts towards the Major				
<b>Cluster 2: Skills for Life - English Communication Skills</b>				
				(Required Credit Hours:3)
ESPU	103	Introduction to Academic English For Education		3
<b>Cluster 2: Skills for Life - Information Literacy</b>				
				(Required Credit Hours:3)
GEIL	101	Information Literacy		3
<b>Cluster 2: Skills for Life - Thinking Skills</b>				
				(Required Credit Hours:3)
PHI	180	Critical Thinking		3

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**Cluster 3: The Human Community - Emirates Society**

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(Required Credit Hours:3)

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HSS	105	Emirates Studies	3
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**Cluster 3: The Human Community - Humanities/Fine Arts**

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(Required Credit Hours:3)

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ARCH	340	History and Theory of Architecture	3
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HIS	133	Introduction to Art History	3
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HSR	120	Introduction to Heritage & Culture	3
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HSR	130	Introduction to Language & Communication	3
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LIT	150	Introduction to Literature	3
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LNG	100	Introduction to Linguistics	3
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LNG	110	Language, Society & Culture	3
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MSC	200	Introduction to Mass Media	3
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MSC	240	World and Arab Media	3
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PHI	101	Introduction to Philosophy	3
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PHI	270	Philosophy of Education	3
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PHI	271	History and Philosophy of Science	3
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TRS	200	Introduction to Translation	3
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**Cluster 3: The Human Community - Social and Behavioral Sciences**

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(Required Credit Hours:3)

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PSY	313 *	Educational Psychology	3
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\* Also counts towards the Major

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**Cluster 3: The Human Community - The Global Experience**

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(Required Credit Hours:3)

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AGRB	360	Global Agri-food Trade	3
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ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3
GEO	200	World Regional Geography	3
HIS	121	World History: Origins to 1500	3
HIS	120	Arab & Islamic Civilization	3
HIS	125	Contemporary Civilization	3
PSG	250	Principles of International Relations	3

#### Cluster 4: The Natural World - Mathematics

(Required Credit Hours:3)

MATH	120	Contemporary Applications of Math	3
STAT	101	Statistics in the Modern World	3

#### Cluster 4: The Natural World - Natural Sciences

(Required Credit Hours:6)

ARAG	205	Introduction to Fish & Animal Science	3
ARAG	220	Natural Resources	3
BION	100	Biology and its Modern Application	3
CHEM	181	Chemistry in the Modern World	3
FDSC	250	Contemporary Food Science & Nutrition	3
GEOL	110	Planet Earth	3
PHED	201	Physical Fitness and Wellness	3
PHYS	100	Astronomy	3
PHYS	101	Conceptual Physics	3

#### Cluster 5: Capstone Experience

(Required Credit Hours:3)

SPED	441 *	Capstone Experience in SPED/Mild/Mod Disabilities	3
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or			
SPED	444 *	Capstone Experience in SPED/Gifted & Talented	3

\* Either SPED 441 or SPED 444 should be taken based on student track. Also counts towards the Major

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Course Credits

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**College of Education**

Required Courses

(Required Credit Hours:15)

CURR	101	Educational Technology	3
CURR	102	Principles of Curriculum & Instruction	3
FOED	101	Learning Communities	3
FOED	350	Educational Research	3
SPED	101	Education of Exceptional Children	3

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Course Credits

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**Special Education Major**

Required Courses

(Required Credit Hours:30)

SPED	210	Assessment in Special Education	3
SPED	211	Technology Applications in Special Education	3
SPED	220	Classroom Behavior Management	3
SPED	221	Collaboration (Home, School & Community)	3
SPED	222	Language & Communication Disorders	3
SPED	313	Early Intervention in Special Education	3
SPED	314	Differentiating Instruction	3
SPED	321	Gifted and Talented	3
SPED	332	Introduction to Rehabilitation	3
SPED	400	Practical Experiences in Special Education	3

Supporting Required Courses Outside of SPED			
(Required Credit Hours:18)			
ENG	300	Critical Reading in the Disciplines	3
ENG	310	Writing for Research	3
HIS	422	Mod. & Con. History of Africa	3
MATH	305	Mathematics For Teachers I	3
PSY	100	Introduction to Psychology	3
PSY	414	Introduction to Health Psychology	3
			Course Credits
Major Specialization Tracks			
Major Specialization Mild/Mod Disabilities			
(Required Credit Hours:18)			
SPED	312	Individuals with Mild/Moderate Disabilities	3
SPED	361	Teaching Children with Mild/Moderate Disabilities	3
SPED	415	Education Diagnosis/ Remediation of Literacy/Math Disabilities	3
SPED	461 *	Student Teaching in SPED/Mild and Moderate Disabilities	9
* The internship is conducted in the last semester. Capstone Course SPED 441 (3 Cr. Hrs.) should be taken during the internship semester			
Major Specialization Gifted and Talented			
(Required Credit Hours:18)			
SPED	331	Curriculum & Materials for the Gifted	3
SPED	326	Educating Gifted and Talented Students in the Regular Classroom	3
SPED	416	Research Seminar for Gifted & Talented	3
SPED	464 *	Student Teaching in SPED/Gifted & Talented	9

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\* The internship is conducted in the last semester. Capstone Course SPED 444 (3 Cr. Hrs.) should be taken during the internship semester

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Free Electives

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(Required Credit Hours:6)

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# Department of Health and Physical Education

## Bachelor of Education in Health and Physical Education

### Description

The Department of Physical Education at UAEU is committed to preparing students as successful teachers of health and physical education for all grades (K-12). Through their training in this program, students will make a valuable contribution to their society by serving as role models and lifestyle educators. Students will develop many competencies in a variety of movement skills, and in physical fitness as well as being capable of analyzing, synthesizing, and applying scientific knowledge to the practice of health and physical education. The Bachelor of Education in Health and Physical Education (HPE) at United Arab Emirates University can achieve this by enhancing the knowledge, skills, and dispositions of undergraduate HPE students.

### Program Objectives

1. Teachers who possess and apply scientific knowledge in their area of specialization.
2. Highly-qualified HPE teachers to meet both the Ministry of Education and Abu-Dhabi Education Council needs and requirements.
3. HPE graduates who actively participate in various community health and physical activity programs.
4. HPE teachers who can serve as role models and demonstrate knowledge of health, physical education, and wellness.
5. Teachers who enthusiastically develop and execute research using various assessment methods that are technology-based to effectively measure and investigate health and wellness of individuals and society.

### Program Learning Outcomes

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

1. Recognizing and locating major concepts, theories, and research in the field of HPE (ILOs 3 and 1, CF 2, NASPE Standard 1, and AAHE 1).
2. Understanding the structure and functions of body systems during physical exercise (ILO 1, CF 2, NASPE Standard 1, and AAHE 1).
3. Critically analyzing various technology applications in HPE settings to enhance teaching, learning, and professional growth (ILO 5, CF 7).
4. Using various assessment techniques in HPE settings and research. (ILOs 2, 4, Skill: QFE).
5. Demonstrating competence in physical fitness and movement skills which can be effectively utilized in teaching (ILO 1, CF 5, and NASPE Standard 3).

6. Recognizing individuals with different abilities and understanding the impact of such differences on teaching and learning (ILO 1, CF 3, NASPE Standard 3, and AAHE 4).
7. Collaborating and communicating effectively with peers and students in school and community settings (ILO 6, CF 6, NASPE Standard 3 Advanced, and AAHE 7 & 8).
8. Developing creative and effective approaches to manage HPE classroom settings (ILO 5, CF 8, NASPE Standard 6, and AAHE 8).

**Degree Requirements:**

Total Credit Hours: 126

Course Credits

**I - General Education (Req. CH:39)**

Cluster 1: Values to Live By - Islam

(Required Credit Hours:3)

ISLM	100	Islamic Culture	3
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Cluster 1: Values to Live By - Ethics

(Required Credit Hours:3)

FOED	102	Professional Ethics in Education	3
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Cluster 2: Skills for Life - English Communication Skills

(Required Credit Hours:3)

ESPU	103	Introduction to Academic English For Education	3
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Cluster 2: Skills for Life - Information Literacy

(Required Credit Hours:3)

GEIL	101	Information Literacy	3
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Cluster 2: Skills for Life - Thinking Skills

(Required Credit Hours:3)

PHI	180	Critical Thinking	3
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Cluster 3: The Human Community - Emirates Society

(Required Credit Hours:3)

HSS	105	Emirates Studies	3
<b>Cluster 3: The Human Community - Social and Behavioral Sciences</b>			
(Required Credit Hours:3)			
PSY	313	Educational Psychology	3
<b>Cluster 3: The Human Community - Humanities and Fine Arts</b>			
(Required Credit Hours:3)			
ARCH	340	History and Theory of Architecture	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
HIS	133	Introduction to Art History	3
LIT	150	Introduction to Literature	3
TRS	200	Introduction to Translation	3
MSC	200	Introduction to Mass Media	3
MSC	240	World and Arab Media	3
LNG	100	Introduction to Linguistics	3
LNG	110	Language, Society & Culture	3
PHI	101	Introduction to Philosophy	3
<b>Cluster 3: The Human Community - The Global Experience</b>			
(Required Credit Hours:3)			
HIS	120	Arab & Islamic Civilization	3
HIS	125	Contemporary Civilization	3
AGRB	360	Global Agri-food Trade	3
PSG	250	Principles of International Relations	3
BIOE	240	Principles of Environmental Science	3
GEO	200	World Regional Geography	3

ARCH	346	Contemporary World Architecture	3
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Cluster 4: The Natural World - Mathematics

(Required Credit Hours:3)

STAT	101	Statistics in the Modern World	3
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Cluster 4: The Natural World - Natural Sciences

(Required Credit Hours:6)

PHYS	100	Astronomy	3
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PHYS	101	Conceptual Physics	3
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FDSC	250	Contemporary Food Science & Nutrition	3
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GEOL	110	Planet Earth	3
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PHED	201	Physical Fitness and Wellness	3
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ARAG	205	Introduction to Fish & Animal Science	3
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ARAG	220	Natural Resources	3
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BION	100	Biology and its Modern Application	3
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CHEM	181	Chemistry in the Modern World	3
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Cluster 5: Capstone Experience

(Required Credit Hours:3)

PHED	408 *	Capstone Experiences in Health and Physical Education	3
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\* Also counts towards the major

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Course Credits

**II - Professional Requirements (Req: CH:48)**

A - Compulsory Professional Requirements

(Required Credit Hours:36)

CURR	101	Educational Technology	3
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PHED	200	Foundations of Health and Physical Education	3
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PHED	205	Adapted Physical Education	3
PHED	206	School and Community Health	3
PHED	305	Health and Physical Education Curriculum	3
PHED	310	Health and PE Teaching Methods for Elementary Education	3
PHED	312	Evaluation and Assessment in Health and Physical Education	3
PHED	314	Biomechanics	3
FOED	350	Educational Research	3
PHED	401	Health and PE Teaching Methods for Secondary Education	3
PHED	402	Exercise Psychology	3
PHED	406	Aerobic Fitness	3

#### B - Elective Professional Requirements

(Required Credit Hours:3)

FOED	101	Learning Communities	3
PHED	311	Health & Movement	3
SPED	321	Gifted and Talented	3
PHED	403	Sport Sociology	3

#### C - Field Experiences

(Required Credit Hours:9)

PHED	409 *	Student Teaching in Health and Physical Education	9
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\* The internship is conducted in the last semester. Capstone Course PHED 408 (3 Cr. Hrs.) should be taken during the internship semester

Course Credits

### III - Academic Major Requirements (Req. CH:39)

#### A - Academic Major Requirements

(Required Credit Hours:36)			
PHED	202	Invasion Games	2
PHED	203	Swimming	2
PHED	204	Human Anatomy and Physiology	4
PHED	207	Exercise Physiology	3
PHED	208	Motor Learning	3
PHED	209	Track and Field	2
PHED	302	Physical Fitness Conditioning	3
PHED	306	Personal Health and Wellness	3
PHED	308	CPR and First Aid	3
PHED	309	Individual and Dual Sports	2
PSY	304	Developmental Psychology	3
PHED	313	Child and Health Development	3
PHED	407	Health, Physical Activity, and Nutrition	3

#### B - Elective Major Requirements

(Required Credit Hours:3)			
PHED	400	Sport Management	3
PHED	404	Techniques of Coaching	3
PHED	405	Martial Arts	3

# College of Law

## Department of Public Law

### Bachelor of Law

#### Description

The Bachelor of Law program designed to provide comprehensive legal education for students interested in the legal profession. Students study several law courses covering public and private law disciplines. As a result, the program provides them with accurate knowledge about the basic concepts and rules of law, with special focus on UAE laws, the accurate way to apply laws and regulations on facts, the interpretation of law provisions according to pre-defined interpretation rules, the comparison between legislative rules and the jurisprudence, as well as judicial trends. Furthermore, the program addresses legal writing skills to enable the students to write memorials and other legal documents efficiently and correctly. Students draw valuable lessons from the practical training offered through the educational courts based in male and female campus. The COL adopts educational court as an essential part of the educational process, which provides great opportunity for students to link theoretical and practical aspects of law study. The College of Law prides itself with its numerous partnerships with local and federal institutions, as well as international law firms, where the students provided hands-on experience combining theoretical and practical aspects of education.

#### Program Objectives

1. Build and develop a solid scientific base of knowledge in all areas of public and private law among the students.
2. Create and enhance the professional practical aspect of the theoretical knowledge gained by students.
3. Enable students to conduct legal research in accordance with well-established scientific research methodologies.
4. Enable students to acquire professional skills and to efficiently use them in order to enhance their professional performance.
5. Develop the ethical aspects of students' unique personality, which are necessary for the exercise of the legal profession.

#### Program Learning Outcomes

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

1. Explain the norms and basic principles of law in general, and the UAE law in particular.
2. Apply rules of law on actual facts in a correct manner.
3. Interpret legal texts in accordance with well-established principles of interpretation.

4. Conduct a scientific research in accordance with legal research methodologies.
5. Formulate memorandums and judicial decisions in a clear and correct language.
6. Address audience with confidence and fluency.
7. Work efficiently as a team member.
8. Use technology accurately and efficiently in undertaking various duties.
9. Independently learn from theoretical and practical contemporary legal developments.
10. Lead a team with effectiveness and efficiency.
11. Express his/her commitment to the rules of law.

**Degree Requirements:**

Total Credit Hours: 136

				Course Credits
<b>General Education (Required Credits: 38)</b>				
<b>Cluster 1: Values to Live By - Islam</b>				
				(Required Credit Hours:3)
ISLM	100	Islamic Culture		3
<b>Cluster 1: Values to Live By - Ethics</b>				
				(Required Credit Hours:3)
PRVT	113 *	Introduction to Law		3
* Also counts towards the Major				
<b>Cluster 2: Skills for Life - English Communication Skills</b>				
				(Required Credit Hours:3)
ESPU	1052	English for Law I		3
<b>Cluster 2: Skills for Life - Information Literacy</b>				
				(Required Credit Hours:3)
GEIL	101	Information Literacy		3
<b>Cluster 2: Skills for Life - Thinking Skills</b>				
				(Required Credit Hours:3)
HSS	110	Scientific Research Skills		3
CSBP	119	Algorithms and Problem Solving		3

PHI	180	Critical Thinking	3
PSY	105	Creative & Innovative Thinking Skills	3
GEHP	111	Happiness and Wellbeing	3
IBLC - Inquiry based learning courses must be taken within first 30 credit hours			

#### Cluster 3: The Human Community - Emirates Society

(Required Credit Hours:3)

HSS	105	Emirates Studies	3
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#### Cluster 3: The Human Community - Humanities/Fine Arts

(Required Credit Hours:3)

SHAR	2073 *	Personal Status (1)	3
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\* Also counts towards the Major

#### Cluster 3: The Human Community - Social and Behavioral Sciences

(Required Credit Hours:3)

SHAR	112 *	Introduction to Islamic Law and its Sources	3
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\* Also counts towards the Major

#### Cluster 3: The Human Community - The Global Experience

(Required Credit Hours:2)

PUBL	442 *	International Organizations	2
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\* Also counts towards the Major

#### Cluster 4: The Natural World - Mathematics

(Required Credit Hours:3)

MATH	120	Contemporary Applications of Math	3
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STAT	101	Statistics in the Modern World	3
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#### Cluster 4: The Natural World - Natural Sciences

(Required Credit Hours:6)			
ARAG	205	Introduction to Fish & Animal Science	3
ARAG	220	Natural Resources	3
BION	100	Biology and its Modern Application	3
CHEM	181	Chemistry in the Modern World	3
FDSC	250	Contemporary Food Science & Nutrition	3
GEOL	110	Planet Earth	3
PHED	201	Physical Fitness and Wellness	3
PHYS	100	Astronomy	3
PHYS	101	Conceptual Physics	3
<b>Cluster 5: Capstone Experience</b>			
(Required Credit Hours:3)			
LAW	340 *	Internal Training	3
* Also counts towards the Major			
<b>Course Credits</b>			
<b>Law Major</b>			
(Required Credit Hours:92)			
LW	111	Arabic For Specific Purposes	3
LW	202	Writing and Legal Research	2
LW	240 *	External Training	6
PRVT	227	Principles of Commercial Law	3
PRVT	333	Selected Studies in Comparative Private Law	3
PRVT	338	Company Law	3
PRVT	451	Primary Rights in Rim	2
SHAR	452	Shaira Studies for Islamic Banking Operations	2

PRVT	453	Commercial Papers & Banking	3
PRVT	454	Personal and Real Securities	2
PRVT	462	Intellectual Property Laws	2
PRVT	2051	Obligations (1)	2
SHAR	205	Principles of Islamic Jurisprudence (Fiqh) 1	3
PRVT	2151	Obligations (2)	2
PRVT	2152	Obligations (3)	2
PRVT	302	Civil Procedures	3
PRVT	3034	Labour Law	2
PRVT	3073	Obligations (4)	2
SHAR	3213	Personal Status (2)	3
PRVT	3243	Nominated Contracts (Sale&Lease)	3
SHAR	3262	Personal Status (3) "Heritage"	2
SHAR	402	Principles of Islamic Jurisprudence (Fiqh) 2	3
PRVT	4492	The Law of Execution	2
PRVT	407	Private International Law	3
PRVT	4725	Maritime Law	2
PUBL	203	The Criminal Law- Part(1)	2
PUBL	220	The Criminal Law-Part (2)	2
PUBL	226	Selected Studies in Comparative Public Law	3
PUBL	305	Penal Law Specific (1) Individual and Financial Crimes	3
PUBL	114	Constitutional Law	3
PUBL	206	Administrative Law	3
SHAR	3283	Hudood in Islam	2
PUBL	207	Public International Law	3
PUBL	4092	Criminal Procedures Law (1)	2

PUBL	4093	Criminal Procedures Law (2)	2
SHAR	4413	Retribution and Blood Money	2

\* The internship conducted over 6 weeks in any of last year semesters (including Summer). No courses are allowed to be registered during the internship

Course Credits

**Elective Courses (Req. CH:6)**

**1- Private Law**

(Required Credit Hours:2)

PRVT	339	Commercial Arbitration Law	2
PRVT	450	Contracts (2)	2
PRVT	2111	Legal Aspects of e-commerce(E)	2
SHAR	4463	Legecy and Mortmain (Waqf)	2

**2- Public Law**

(Required Credit Hours:4)

PUBL	303	Legal Status of Foreign Residents	2
PUBL	306	Penal Law - Private Specific (2) Emerging Crimes	2
PUBL	316	Environmental Law	2
PUBL	401	Human Rights	2
PUBL	404	International Criminal Law	2
PUBL	405	International Humanitarian Law	2
PUBL	3222	Criminology and penology	2
PUBL	3294	Public Employment	2
SHAR	3363	International Relations in Islam	2



# College of Food and Agriculture

## Department of Aridland Agriculture

### Bachelor of Science in Horticulture

#### Description

The horticultural sector is experiencing a remarkable growth in the UAE and other Gulf countries. New modern production sites emerged in many places, and formerly empty urban areas were transformed into vivid green landscapes. Experts able to develop resource-saving plant production concepts, and to properly evaluate prospects and risks pertaining to biotechnological and chemical innovations in the horticultural sector are highly demanded. The Bachelor in Horticulture offers a diverse curriculum that combines theoretical knowledge with intensive practical training in cutting edge research laboratories, on experimental farms, and through off-campus internship experiences. The program encourages students to develop their talents and special interests, and supports them on their way to become creative experts in various fields of horticultural sciences, such as organic farming, plant protection, greenhouse and nursery management, landscaping, applied biotechnology, and several more.

#### Program Objectives

1. Provide students with fundamental scientific information on production and protection of horticultural plants in the arid environment.
2. Develop student's skills to successfully grow a diversity of horticultural plants in a resource-efficient manner in arid environments.
3. Enhance student's ability to sustain natural resources of the country and the region, and improve the quality of the environment.
4. Provide students with new knowledge on agricultural technologies related to the UAE and the Arab world.
5. Develop student's awareness of using modern scientific methods in agriculture and horticulture and technology transfer for field applications.
6. Demonstrate student's professional skills and ethics, to foster positive attitudes.

#### Program Learning Outcomes

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

1. Explain the basic characteristics of horticultural plants and cultural practices in the arid environments.
2. Produce efficiently, safe horticultural crops with an understanding of the natural resources and the environment.
3. Use horticultural plants and plant products for functional and aesthetic purposes in the arid environment.
4. Discuss the principles and theories of integrating basic and applied aspects of modern technologies in the production and protection of horticultural plants.
5. Employ technical skills for managing horticultural projects and natural resources.

6. Select horticultural plants to enhance tolerance to stresses in arid environment.
7. Implement technologies for improving horticultural plant productivity, quality, and protection methods.
8. Improve germplasm to develop modern breeding technologies.
9. Apply sustainable horticultural principles and safe environmental practices.
10. Minimize the negative impact of cultural practices on the environment.
11. Develop skills to maintain and protect native and exotic plant species for the purposes of beautifying the environment and commercially producing horticultural crops.
12. Explain the main characteristics of the UAE society in relation to farming and adoption of technologies as a part of the Arab World.
13. Discuss the similarity and integration of the Arab world in terms of the environment and natural resources.
14. Conduct research using statistical methods and data analysis to establish significance of technology applications.
15. Demonstrate the ability to apply the knowledge learned in coursework and during the internship experience.
16. Design, execute, and evaluate technology transfer programs.
17. Demonstrate communication skills necessary for leadership roles, and teamwork.
18. Demonstrate critical thinking and creativity skills in learning process and applications.

**Degree Requirements:**

Total Credit Hours: 120

Course Credits

**General Education (Req. CH:39)**

**Cluster 1: Values to Live By - Islam**

(Required Credit Hours:3)

ISLM	100	Islamic Culture	3
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**Cluster 1: Values to Live By - Ethics**

(Required Credit Hours:3)

PHI	121	Fundamentals of Environmental Ethics	3
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PHI	122	International Ethics	3
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PHI	226	Human Rights Theory	3
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PHIL	120	Principles of Professional Ethics	3
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**Cluster 2: Skills for Life - English Communication Skills**

(Required Credit Hours:3)

ESPU	106	Introduction to Academic English For Food & Agriculture	3
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Cluster 2: Skills for Life - Information Literacy

(Required Credit Hours:3)

GEIL	101	Information Literacy	3
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Cluster 2: Skills for Life - Thinking Skills

(Required Credit Hours:3)

HSS	110	Scientific Research Skills	3
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CSBP	119	Algorithms and Problem Solving	3
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PHI	180	Critical Thinking	3
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PSY	105	Creative & Innovative Thinking Skills	3
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GEHP	111	Happiness and Wellbeing	3
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IBLC - Inquiry based learning courses must be taken within first 30 credit hours

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Cluster 3: The Human Community - Emirates Society

(Required Credit Hours:3)

HSS	105	Emirates Studies	3
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Cluster 3: The Human Community - Humanities/Fine Arts

(Required Credit Hours:3)

ARCH	340	History and Theory of Architecture	3
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HIS	133	Introduction to Art History	3
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HSR	120	Introduction to Heritage & Culture	3
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HSR	130	Introduction to Language & Communication	3
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LIT	150	Introduction to Literature	3
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LNG	100	Introduction to Linguistics	3
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LNG	110	Language, Society & Culture	3
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MSC	200	Introduction to Mass Media	3
MSC	240	World and Arab Media	3
PHI	101	Introduction to Philosophy	3
PHI	270	Philosophy of Education	3
PHI	271	History and Philosophy of Science	3
TRS	200	Introduction to Translation	3

### Cluster 3: The Human Community - Social and Behavioral Sciences

(Required Credit Hours:3)

AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
SOC	260	Folklore	3
SWK	200	Introduction to Social Welfare	3

### Cluster 3: The Human Community - The Global Experience

(Required Credit Hours:3)

AGRB	360	Global Agri-food Trade	3
ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3
GEO	200	World Regional Geography	3
HIS	120	Arab & Islamic Civilization	3
HIS	121	World History: Origins to 1500	3
HIS	125	Contemporary Civilization	3
PSG	250	Principles of International Relations	3

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**Cluster 4: The Natural World - Mathematics**

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(Required Credit Hours:3)

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MATH	105 *	Calculus I	3
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\* Also counts towards the Major

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**Cluster 4: The Natural World - Natural Sciences**

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(Required Credit Hours:6)

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BIOC	100 *	Basic Biology I	3
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PHYS	105 *	General Physics I	3
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\* Also counts towards the Major

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**Cluster 5: Capstone Experience**

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(Required Credit Hours:3)

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ARAG	485 *	Senior Project	3
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\* Also counts towards the Major

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Course Credits

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**Horticulture**

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**Required Courses**

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(Required Credit Hours:48)

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ARAG	200	Principles of Soil and Water	3
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ARAG	220	Natural Resources	3
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ARAG	242	Principles of Plant Protection	3
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ARAG	307	Introduction to Horticulture	2
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ARAG	308	Soil Fertility and Fertilizer	3
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ARAG	310	Agricultural Technology Transfer	3
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ARAG	311	Plant Propagation	2
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ARAG	327	Plant Physiology and Environmental Stress	3
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ARAG	443	Irrigation, Drainage and Water Management	3
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ARAG	445 *	Internship	3
ARAG	465	Salt and Drought Tolerant Plants	2
BIOL	215	Plant Biology	3
BIOL	225	Practical Plant Biology	1
BIOL	270	General Genetics	2
CHEM	111	General Chemistry I	3
CHEM	282	Organic Chemistry for Non-Majors	3
CHEM	283	Biochemistry for Non-Majors	3
STAT	235	Statistics for Biology	3

\* The internship is conducted on 2 days/week during a semester in the last study year. Courses can be registered in the other days of the week

#### Supporting Elective Courses

(Required Credit Hours:12)

ARAG	323	Post-Harvest Physiology of Plant and Animal Systems	3
ARAG	401	Sustainable Agriculture in Arid Lands	3
ARAG	414	Plant Breeding and Horticultural Biotechnology	3
ARAG	437	Disease and Insect Pests	3
ARAG	439	Pesticides	3
AGRB	352	Agribusiness Management & Entrepreneurship	3
BIOC	230	General Microbiology	3

Course Credits

#### Environment Horticulture Track

##### Required Courses

(Required Credit Hours:9)

ARAG	402	Woody Plants in the Landscape	3
ARAG	451	Landscape Management for Arid Lands	3

ARAG	453	Indoor Plants and Flower Arrangements	3
ARAG	454	Landscape Design	3
<b>Elective Courses</b>			
(Required Credit Hours:6)			
ARAG	313	Urban Tree Management	3
ARAG	321	Floriculture Crop Production	3
ARAG	408	Survey of Plant Communities in Arid Lands	3
ARAG	455	Nursery and Greenhouse Operations	3
ARAG	456	Turfgrass Management	3
Course Credits			
<b>Crop Production and Organic Farming Track</b>			
<b>Required Courses</b>			
(Required Credit Hours:9)			
ARAG	305	Principles of Organic Horticulture	3
ARAG	404	Vegetable Production in Arid Lands	3
ARAG	407	Design of Organic Production System	3
ARAG	452	Palms and Dates	3
<b>Elective Courses</b>			
(Required Credit Hours:6)			
ARAG	320	World Herbs and Vegetables	3
ARAG	376	Soil Processes in Organic Farming	3
ARAG	410	Fruit Production in Arid Lands	3
ARAG	412	Specialty Crops	3
ARAG	442	Protected Agriculture	3
ARAG	456	Turfgrass Management	3

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Free Electives
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(Required Credit Hours:6)

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## **Bachelor of Science in Marine Fisheries and Animal Science**

### **Description**

The consumption of animal products is strongly increasing worldwide. Young, creative experts in animal production sciences are in great demand to support the intensification of animal production while maintaining high product quality, public health and environmental sustainability. The Bachelor program in Marine Fisheries and Animal Science encourages students to excel in a wide range of animal science specializations that are highly relevant to food security in arid lands. Students are provided with up-to-date theoretical information, and receive intensive practical training in well-equipped laboratories, on our experimental stations, and through internship opportunities. Graduates of this program are ready to build their careers in, e.g. aquaculture, fisheries management, poultry and domestic livestock production, or in the sport animal business.

### **Program Objectives**

1. Provide students with fundamental scientific knowledge on production and protection of domestic animals and fish in the arid environment.
2. Develop student's skills to produce a wide range of animal products in a resource-efficient manner in arid environments.
3. Enhance student's ability to sustain natural resources of the country and the region, and improve the quality of the environment.
4. Provide students with important and new agricultural knowledge related to the UAE and the Arab world.
5. Develop student's awareness of using modern scientific methods and technology transfer.
6. Develop student's professional skills and ethics, and foster positive attitudes.

### **Program Learning Outcomes**

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

1. Discuss the basic concepts of animal production and marine fisheries.
2. Explain the basic characteristics of domestic animals and their husbandry in the arid environments.
3. Explain populations of marine animals, and develop concepts for their sustainable use for food production.
4. Employ technical skills for sustainably managing natural resources in fisheries and agricultural projects.



5. Utilize and improve animal breeds with particular tolerance to stresses prevailing in arid environments.
6. Manage livestock in intensive and extensive production systems.
7. Improve and conserve germplasm through modern breeding technologies.
8. Apply sustainable agricultural principles and safe environmental practices.
9. Minimize the negative impact of fisheries and animal production on the environment.
10. Maintain and protect native farm animal genotypes along with knowledge on traditional production systems, as cultural heritage and valuable source of information and genetic diversity.
11. Demonstrate the understanding of the animal production and fisheries sector in the UAE and the Arab world.
12. Discuss the similarity and integration of the Arab World in terms of the environment and natural resources.
13. Conduct research using appropriate statistical methods for data analysis.
14. Utilize library and research skills for organizing and applying information for decision making.
15. Demonstrate knowledge about design, execute, and evaluate technology transfer programs.
16. Demonstrate communication skills necessary for leadership roles, team work, and scientific rational discussion.
17. Respect and value the living resources that serve our food production, and employ appropriate ethical standards to animal production systems and research approaches.
18. Think critically, creatively and employ appropriate ethical standards to animal production systems and research approaches
19. Engage in life-long learning.

**Degree Requirements:**

Total Credit Hours: 120

Course Credits

**General Education (Req. CH:39)**

**Cluster 1: Values to Live By - Islam**

(Required Credit Hours:3)

ISLM	100	Islamic Culture	3
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**Cluster 1: Values to Live By - Ethics**

(Required Credit Hours:3)

PHI	121	Fundamentals of Environmental Ethics	3
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PHI	122	International Ethics	3
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PHI	226	Human Rights Theory	3
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PHIL	120	Principles of Professional Ethics	3
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**Cluster 2: Skills for Life - English Communication Skills**

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(Required Credit Hours:3)

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ESPU	106	Introduction to Academic English For Food & Agriculture	3
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**Cluster 2: Skills for Life - Information Literacy**

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(Required Credit Hours:3)

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GEIL	101	Information Literacy	3
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**Cluster 2: Skills for Life - Thinking Skills**

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(Required Credit Hours:3)

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HSS	110	Scientific Research Skills	3
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CSBP	119	Algorithms and Problem Solving	3
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PHI	180	Critical Thinking	3
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PSY	105	Creative & Innovative Thinking Skills	3
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GEHP	111	Happiness and Wellbeing	3
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IBLC - Inquiry based learning courses must be taken within first 30 credit hours

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**Cluster 3: The Human Community - Emirates Society**

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(Required Credit Hours:3)

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HSS	105	Emirates Studies	3
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**Cluster 3: The Human Community - Humanities/Fine Arts**

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(Required Credit Hours:3)

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ARCH	340	History and Theory of Architecture	3
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HIS	133	Introduction to Art History	3
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HSR	120	Introduction to Heritage & Culture	3
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HSR	130	Introduction to Language & Communication	3
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LIT	150	Introduction to Literature	3
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LNG	100	Introduction to Linguistics	3
LNG	110	Language, Society & Culture	3
MSC	200	Introduction to Mass Media	3
MSC	240	World and Arab Media	3
PHI	101	Introduction to Philosophy	3
PHI	270	Philosophy of Education	3
PHI	271	History and Philosophy of Science	3
TRS	200	Introduction to Translation	3

### Cluster 3: The Human Community - Social and Behavioral Sciences

(Required Credit Hours:3)

AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
SOC	260	Folklore	3
SWK	200	Introduction to Social Welfare	3

### Cluster 3: The Human Community - The Global Experience

(Required Credit Hours:3)

AGRB	360	Global Agri-food Trade	3
ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3
HIS	120	Arab & Islamic Civilization	3
HIS	121	World History: Origins to 1500	3
HIS	125	Contemporary Civilization	3
PSG	250	Principles of International Relations	3

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**Cluster 4: The Natural World - Mathematics**

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(Required Credit Hours:3)

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MATH 105 \* Calculus I 3

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\* Also counts towards the Major

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**Cluster 4: The Natural World - Natural Sciences**

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(Required Credit Hours:6)

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BIOC 100 \* Basic Biology I 3

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PHYS 105 \* General Physics I 3

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\* Also counts towards the Major

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**Cluster 5: Capstone Experience**

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(Required Credit Hours:3)

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ARAG 485 \* Senior Project 3

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\* Also counts towards the Major

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Course Credits

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**Marine Fisheries and Animal Science**

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**Required Courses**

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(Required Credit Hours:48)

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ARAG 205 Introduction to Fish & Animal Science 3

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ARAG 220 Natural Resources 3

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ARAG 230 Principles of Fisheries Management 3

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ARAG 310 Agricultural Technology Transfer 3

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ARAG 314 Animal Breeding & Biotechnology 3

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ARAG 316 Animal Nutrition 3

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ARAG 319 Anatomy & Physiology of Animals 3

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ARAG 335 Production Medicine 3

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ARAG	434	Reproductive Physiology	3
ARAG	440	Seminar in Animal Science	1
ARAG	445 *	Internship	3
BIOL	210	Animal Biology	3
BIOL	270	General Genetics	2
CHEM	111	General Chemistry I	3
CHEM	282	Organic Chemistry for Non-Majors	3
CHEM	283	Biochemistry for Non-Majors	3
STAT	235	Statistics for Biology	3

\* The internship is conducted on 2 days/week during a semester in the last study year. Courses can be registered in the other days of the week

Course Credits

### Crop Production and Organic Farming

#### Elective Courses

(Required Credit Hours:9)

AGRB	352	Agribusiness Management & Entrepreneurship	3
ARAG	323	Post-Harvest Physiology of Plant and Animal Systems	3
ARAG	329	Organic Animal Production	3
ARAG	450	Advanced Animal Nutrition	3
ARAG	459	Issues in Animal Protein Production	3

Course Credits

### Marine Fisheries Track

#### Required Courses

(Required Credit Hours:12)

ARAG	325	Fisheries Management and Conservation	3
ARAG	326	Mariculture	3

ARAG	424	Fish Breeding and Propagation	3
ARAG	425	Shellfish and Molluscan Aquaculture	3

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**Elective Courses**

(Required Credit Hours:6)

ARAG	426	Aquatic Ecology	3
ARAG	428	Animal Welfare	3
ARAG	430	Fisheries Stock Assessment	3
ARAG	433	Fish Nutrition	3
ARAG	457	Issues in Animal Protein Production	2
BIOC	230	General Microbiology	3
FDSC	319	Food packaging	3

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Course Credits

**Animal Science Track**

**Required Courses**

(Required Credit Hours:12)

ARAG	318	Camel Management	3
ARAG	322	Introductory Poultry Production	3
ARAG	432	Sheep and Goat Production	3
ARAG	435	Egg Production	3

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**Elective Courses**

(Required Credit Hours:6)

ARAG	304	Range and Pasture Management	3
ARAG	339	Management of Sport Animals	3
ARAG	423	Dairy Cattle Management	3
ARAG	428	Animal Welfare	3

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ARAG	436	Poultry Meat Production	3
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BIOC	230	General Microbiology	3
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Free Electives

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(Required Credit Hours:6)

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# Department of Food Science

## Bachelor of Science in Food Science

### Description

Food Science is concerned with the application of science and technology to the manufacturing, production, processing, packaging and distribution of safe and high quality nutritious food. The Food Science Bachelor Program is accredited by the Institute of Food Technologists (IFT), USA. Students joining this program will undergo a professional training in the five core disciplines of Food Science: Food Chemistry & Analysis, Food Safety & Microbiology, Food Processing & Engineering, Applied Food Science, and Success Skills. Graduates from this program are able to perform physicochemical analyses of foods, describe the quality and safety characteristics, and apply different processing technologies to produce and ensure safe and high quality food.

### Program Objectives

1. To provide students with advanced knowledge in food science and related fields.
2. To train students to conduct basic and applied research that provides fundamental and applied knowledge about food science, and addresses the needs of the food technology profession and food industry stakeholders.
3. To train students to attain high level of competent and abilities including multiple task operation and communication skills.
4. Equip graduates with competencies in organization & team work and thoughts of ethical, social issues and respect for diversity.
5. Provide students with enhanced understanding of the national and global food sector and prepare them to work successfully in the wide range of governmental and non-governmental food control & legislation authorities and in industrial and commercial settings within the food sector.
6. Equip students with competencies in critical thinking, life-long learning and leadership.

### Program Learning Outcomes

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

1. Explain the basic principles of Food Science and its multidisciplinary scope.
2. Describe the physical, chemical, and biological properties of food and their effects on food safety and sensory and nutritional quality.
3. Apply analytical techniques to characterize composition and to identify physical, chemical, and biological changes in foods.
4. Explain the effects of food processing, engineering, preservation, packaging, and storage on food safety and quality.
5. Identify the importance of food laws and regulations in ensuring safety and quality of foods.
6. Conduct applied research, and use statistical tools in experimental design and data analysis.



7. Apply acquired knowledge to real world situations in food systems, components, products, and processes.
8. Apply critical thinking and continued learning to professional problems.
9. Communicate effectively in both oral and written forms.
10. Develop organizational, team work, and leadership skills.
11. Demonstrate professional skills and thoughts of ethical, social, integrity and respect for diversity.
12. Demonstrate preparedness for continued reflective practice and lifelong learning relevant to careers in food science.

**Degree Requirements:** Total Credit Hours: 120

				Course Credits
<b>General Education Req. CH:39)</b>				
<b>Cluster 1: Values to Live By</b>				
				(Required Credit Hours:3)
ISLM	100	Islamic Culture		3
<b>Cluster 1: Values to Live By - Ethics</b>				
				(Required Credit Hours:3)
PHI	121	Fundamentals of Environmental Ethics		3
PHI	122	International Ethics		3
PHI	226	Human Rights Theory		3
PHIL	120	Principles of Professional Ethics		3
<b>Cluster 2: Skills for Life - English Communication Skills</b>				
				(Required Credit Hours:3)
ESPU	106	Introduction to Academic English For Food & Agriculture		3
<b>Cluster 2: Skills for Life - Information Literacy</b>				
				(Required Credit Hours:3)
GEIL	101	Information Literacy		3
<b>Cluster 2: Skills for Life - Thinking Skills</b>				
				(Required Credit Hours:3)

HSS	110	Scientific Research Skills	3
CSBP	119	Algorithms and Problem Solving	3
PHI	180	Critical Thinking	3
PSY	105	Creative & Innovative Thinking Skills	3
GEHP	111	Happiness and Wellbeing	3

### Cluster 3: The Human Community - Emirates Society

(Required Credit Hours:3)

HSS	105	Emirates Studies	3
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### Cluster 3: The Human Community - Humanities/Fine Arts

(Required Credit Hours:3)

ARCH	340	History and Theory of Architecture	3
HIS	133	Introduction to Art History	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
LIT	150	Introduction to Literature	3
LNG	100	Introduction to Linguistics	3
LNG	110	Language, Society & Culture	3
MSC	200	Introduction to Mass Media	3
MSC	240	World and Arab Media	3
PHI	101	Introduction to Philosophy	3
PHI	270	Philosophy of Education	3
PHI	271	History and Philosophy of Science	3
TRS	200	Introduction to Translation	3

### Cluster 3: The Human Community - Social and Behavioral Sciences

(Required Credit Hours:3)

AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
SOC	260	Folklore	3
SWK	200	Introduction to Social Welfare	3

### Cluster 3: The Human Community - The Global Experience

(Required Credit Hours:3)

AGRB	360	Global Agri-food Trade	3
ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3
GEO	200	World Regional Geography	3
HIS	120	Arab & Islamic Civilization	3
HIS	121	World History: Origins to 1500	3
HIS	125	Contemporary Civilization	3
PSG	250	Principles of International Relations	3

### Cluster 4: The Natural World - Mathematics

(Required Credit Hours:3)

MATH	105 *	Calculus I	3
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\* Also counts towards the Major

### Cluster 4: The Natural World - Natural Sciences

(Required Credit Hours:6)

BIOC	100 *	Basic Biology I	3
PHYS	105 *	General Physics I	3

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\* Also counts towards the Major

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Cluster 5: Capstone Experience

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(Required Credit Hours:3)

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FDSC	480 *	Senior Project	3
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\* Also counts towards the Major

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Course Credits

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**Food Science**

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Required Courses

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(Required Credit Hours:60)

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ARAG	323	Post-Harvest Physiology of Plant and Animal Systems	3
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BIOC	230	General Microbiology	3
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CHEM	111	General Chemistry I	3
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CHEM	112	General Chemistry II	2
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CHEM	115	General Chemistry Lab	1
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CHEM	282	Organic Chemistry for Non-Majors	3
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CHEM	283	Biochemistry for Non-Majors	3
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FDSC	260	Principles of Food Science	3
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FDSC	309	Sensory evaluation	3
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FDSC	319	Food packaging	3
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FDSC	347	Food Process Engineering I	3
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FDSC	350	Food Chemistry	3
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FDSC	351	Food Plant Sanitation	3
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FDSC	355	Food Processing	3
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FDSC	425 *	Internship	3
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FDSC	453	Quality Control and Assurance	3
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FDSC	454	Food Laws	2
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FDSC	470	Current Issues in Food Science	2
STAT	235	Statistics for Biology	3
NUTR	301	Human Nutrition	2
FDSC	340	Food Microbiology	3
FDSC	450	Food Analysis	3

\* The internship is conducted over half a semester (8 weeks) during the last study year. Offered condensed courses should be taken during the other half of the semester

### Elective Courses

(Required Credit Hours:15)

FDSC	465	Food Safety Management	3
FDSC	357	Technology of Muscle Foods	3
FDSC	363	Fruit and Vegetable Technology	3
FDSC	378	Cereal Technology	3
FDSC	402	Technical Problem Solving in Food Industry	3
FDSC	455	Food Inspection	3
FDSC	460	Hazard Analysis Critical Control Point (HACCP)	3
FDSC	458	Dairy Product Technology	3
FDSC	466	Food Product Development	3
FDSC	477	Oil and Fat Technology	3

### Free Electives

(Required Credit Hours:6)

# Department of Nutrition and Health

## Bachelor of Science in Dietetics

### Description

The Coordinated Program in Dietetics offered by the Nutrition and Health Department (NHD), College of Food and Agriculture aims to prepare graduates who are competent entry-level dietitians. The program mission is to prepare competent graduates who are highly qualified entry-level dietitians, to improve the nutritional well-being and health of the UAE population. The program goals are (1) to prepare graduates to be competent, entry-level dietitians and (2) to prepare graduates who demonstrate leadership and a commitment to community service. The Coordinated Program in Dietetics at UAEU is accredited as a Foreign Dietitian Education Programs (FDE) by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy of Nutrition and Dietetics (AND), 120 South Riverside Plaza, Suite 2190, Chicago, IL 60606-6995, 1(312) 899-0040 ext. 5400; Website: <http://www.eatright.org/ACEND/>. Outcome data measuring achievement of program objectives are available on request.

### Program Objectives

1. The program will prepare graduates to be competent, entry-level dietitians
2. The program will prepare graduates who demonstrate leadership and a commitment to community service.

### Program Learning Outcomes

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

1. Select indicators of program quality and/or customer service and measure achievement of objectives.
2. Apply evidence-based guidelines, systematic reviews and scientific literature (such as the Academy's Evidence Analysis Library and Evidence-based Nutrition Practice Guidelines, the Cochrane Database of Systematic Reviews and the U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality, National Guideline Clearinghouse Web sites) in the nutrition care process and model and other areas of dietetics practice.
3. Justify programs, products, services and care using appropriate evidence or data.
4. Evaluate emerging research for application in dietetics practice.
5. Conduct research projects using appropriate research methods, ethical procedures and statistical analysis.
6. Practice in compliance with current federal regulations and state statutes and rules, as applicable and in accordance with accreditation standards and the Scope of Dietetics Practice and Code of Ethics for the Profession of Dietetics.
7. Demonstrate professional writing skills in preparing professional communications CRD 2.3: Design, implement and evaluate presentations to a target audience.

8. Use effective education and counseling skills to facilitate behavior change.
9. Demonstrate active participation, teamwork and contributions in group settings.
10. Assign patient care activities to DTRs and/or support personnel as appropriate.
11. Refer clients and patients to other professionals and services when needs are beyond individual scope of practice.
12. Apply leadership skills to achieve desired outcomes.
13. Participate in professional and community organizations.
14. Establish collaborative relationships with other health professionals and support personnel to deliver effective nutrition services.
15. Demonstrate professional attributes within various organizational cultures.
16. Perform self-assessment, develop goals and objectives and prepare a draft portfolio for professional development as defined by the Commission on Dietetics Registration.
17. Demonstrate negotiation skills.
18. Assess the nutritional status of individuals, groups and populations in a variety of settings where nutrition care is or can be delivered.
19. Diagnose nutrition problems and create problem, etiology, signs and symptoms (PES) statements.
20. Plan and implement nutrition interventions to include prioritizing the nutrition diagnosis, formulating a nutrition prescription, establishing goals and selecting and managing intervention.
21. Monitor and evaluate problems, etiologies, signs, symptoms and the impact of interventions on the nutrition diagnosis.
22. Complete documentation that follows professional guidelines, guidelines required by health care systems and guidelines required by the practice setting.
23. Develop and demonstrate effective communications skills for clinical and customer services in a variety of formats.
24. Develop and deliver products, programs or services that promote consumer health, wellness and lifestyle management.
25. Deliver respectful, science-based answers to consumer questions concerning emerging trends.
26. Coordinate procurement, production, distribution and service of goods and services.
27. Develop and evaluate recipes, formulas and menus for acceptability and affordability that accommodate the cultural diversity and health needs of various populations, groups and individuals.
28. Participate in management of human resources.
29. Perform management functions related to safety, security and sanitation that affect employees, customers, patients, facilities and food.
30. Participate in public policy activities, including both legislative and regulatory initiatives.
31. Conduct clinical and customer service quality management activities.
32. Use current informatics technology to develop, store, retrieve and disseminate information and data.
33. Analyze quality, financial or productivity data and develop a plan for intervention.
34. Propose and use procedures as appropriate to the practice setting to reduce waste and protect the environment.
35. Conduct feasibility studies for products, programs or services with consideration of costs and benefits.

36. Analyze financial data to assess utilization of resources.
37. Develop a plan to provide or develop a product, program or service that includes a budget, staffing needs, equipment and supplies.
38. Code and bill for dietetics/nutrition services to obtain reimbursement for services from public or private insurers.

**Degree Requirements:** Total Credit Hours: 120

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Course Credits

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**General Education (Req. CH:39)**

**Cluster 1: Values to Live By - Islam**

(Required Credit Hours:3)

ISLM	100	Islamic Culture	3
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**Cluster 1: Values to Live By - Ethics**

(Required Credit Hours:3)

PHI	121	Fundamentals of Environmental Ethics	3
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PHI	122	International Ethics	3
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PHI	226	Human Rights Theory	3
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PHIL	120	Principles of Professional Ethics	3
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**Cluster 2: Skills for Life - English Communication Skills**

(Required Credit Hours:3)

ESPU	106	Introduction to Academic English For Food & Agriculture	3
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**Cluster 2: Skills for Life - Information Literacy**

(Required Credit Hours:3)

GEIL	101	Information Literacy	3
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**Cluster 2: Skill for Life - Thinking Skills**

(Required Credit Hours:3)

HSS	110	Scientific Research Skills	3
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CSBP	119	Algorithms and Problem Solving	3
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PHI	180	Critical Thinking	3
PSY	105	Creative & Innovative Thinking Skills	3
GEHP	111	Happiness and Wellbeing	3
IBLC - Inquiry based learning courses must be taken within first 30 credit hours			

#### Cluster 3: The Human Community - Emirates Society

(Required Credit Hours:3)

HSS	105	Emirates Studies	3
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#### Cluster 3: The Human Community - Humanities/Fine Arts

(Required Credit Hours:3)

ARCH	340	History and Theory of Architecture	3
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HIS	133	Introduction to Art History	3
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HSR	120	Introduction to Heritage & Culture	3
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HSR	130	Introduction to Language & Communication	3
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LIT	150	Introduction to Literature	3
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LNG	100	Introduction to Linguistics	3
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LNG	110	Language, Society & Culture	3
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MSC	200	Introduction to Mass Media	3
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MSC	240	World and Arab Media	3
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PHI	101	Introduction to Philosophy	3
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PHI	270	Philosophy of Education	3
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PHI	271	History and Philosophy of Science	3
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TRS	200	Introduction to Translation	3
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#### Cluster 3: The Human Community - Social and Behavioral Sciences

(Required Credit Hours:3)

AGRB	210	Introduction to Agribusiness	3
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ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
SOC	260	Folklore	3
SWK	200	Introduction to Social Welfare	3

### Cluster 3: The Human Community - The Global Experience

(Required Credit Hours:3)

AGRB	360	Global Agri-food Trade	3
ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3
GEO	200	World Regional Geography	3
HIS	120	Arab & Islamic Civilization	3
HIS	121	World History: Origins to 1500	3
HIS	125	Contemporary Civilization	3
PSG	250	Principles of International Relations	3

### Cluster 4: The Natural World - Mathematics

(Required Credit Hours:3)

MATH	105 *	Calculus I	3
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\* Also counts towards the Major

### Cluster 4: The Natural World - Natural Sciences

(Required Credit Hours:6)

BIOC	100 *	Basic Biology I	3
PHYS	105 *	General Physics I	3

\* Also counts towards the Major

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**Cluster 5: Capstone Experience**

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(Required Credit Hours:3)

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NUTR	481 *	Senior Project (CPD Program)	3
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\* Also counts towards the Major

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Course Credits

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**Coordinated Program in Dietetics**

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**Required Courses**

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(Required Credit Hours:69)

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BIOL	270	General Genetics	2
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BIOC	275	Genetics Laboratory	1
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BIOC	230	General Microbiology	3
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CHEM	111	General Chemistry I	3
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CHEM	112	General Chemistry II	2
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CHEM	115	General Chemistry Lab	1
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CHEM	282	Organic Chemistry for Non-Majors	3
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CHEM	283	Biochemistry for Non-Majors	3
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FDSC	250	Contemporary Food Science & Nutrition	3
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FDSC	331	Fundamentals of Food Preparation	4
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MGMT	200	Fundamentals of Management	3
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NUTR	320	Nutrition I	3
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NUTR	330	Nutrition II	3
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NUTR	355	Nutrition Seminar	1
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NUTR	352	Human Nutrition in Various Ages Stages	3
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NUTR	371	Food Service Systems Management I	2
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NUTR	372	Food Service Systems Management I SP	2
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NUTR	377	Medical Nutrition Therapy I (CPD Program)	2
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NUTR	378	Medical Nutrition Therapy I SP	1
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NUTR	403	Nutrition Education and Communication (CPD Program)	2
NUTR	404	Nutrition Education and Communication (SP)	1
NUTR	484	Food Service Systems Management II	2
NUTR	485	Food Service Systems Management II (SP)	1
NUTR	486	Community Nutrition	2
NUTR	487	Community Nutrition (SP)	1
NUTR	488	Medical Nutrition Therapy II	2
NUTR	489	Medical Nutrition Therapy II (SP)	1
NUTR	490 *	Internship	6
PHYL	101	Introductory Physiology	3
STAT	235	Statistics for Biology	3

\* The internship is conducted over 24 weeks after finishing all course work. No courses are allowed to be registered during the internship

#### Elective Courses

(Required Credit Hours:6)

FDSC	309	Sensory evaluation	3
FDSC	352	Food Safety	3
FDSC	355	Food Processing	3
NUTR	396	Sports Nutrition	3
NUTR	443	Meal Planning	3

#### Free Electives

(Required Credit Hours:6)

## Bachelor of Science in Nutritional Science

### Description

Nutritional Science aims at understanding the relationships between nutrition, health and disease. The Nutritional Science program provides students with a solid understanding of the key role that a healthy nutrition plays in the prevention, development and treatment of most major diseases. The program also emphasizes the basic sciences and human nutrition for students planning further studies in health-related professions such as medicine, dentistry, nursing, or physical therapy.

### Program Objectives

1. To provide knowledge, skills and professional values for a successful career in nutrition and potential entry into graduate education
2. To prepare graduates who demonstrate commitment to community service, leadership, communication, research skills, knowledge as well as ethical values.

### Program Learning Outcomes

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

1. Explain scientific basis of human nutrition, nutritional requirements, nutritional epidemiology and research methods.
2. Implement nutritional assessment, nutrient analysis of foods and dietary planning for individuals and group.
3. Describe the food chain and its impact on food choices and practices in social and behavioral contexts.
4. Demonstrate ethical behavior and values of professional conduct, according to good clinical practices.
5. Formulate ideas and opinions concerning food and diet.
6. Evaluate appropriate theories and methods (dietary, research, statistical) for health promotion, education and nutrition-related investigations.
7. Effectively perform and interpret statistical analyses for decision-making purposes in the field of nutrition.
8. Demonstrate the ability to work efficiently and effectively in group.
9. Communicate effectively in oral and written forms with diverse audiences.

### Degree Requirements:

Total Credit Hours: 120

				Course Credits
<b>General Education (Req. CH:39)</b>				
<b>Cluster 1: Values to Live By - Islam</b>				
				(Required Credit Hours:3)
ISLM	100	Islamic Culture		3
<b>Cluster 1: Values to Live By - Ethics</b>				
				(Required Credit Hours:3)
PHI	121	Fundamentals of Environmental Ethics		3

PHI	122	International Ethics	3
PHI	226	Human Rights Theory	3
PHIL	120	Principles of Professional Ethics	3
<b>Cluster 2: Skills for Life - English Communication Skills</b>			
(Required Credit Hours:3)			
ESPU	106	Introduction to Academic English For Food & Agriculture	3
<b>Cluster 2: Skills for Life - Information Literacy</b>			
(Required Credit Hours:3)			
GEIL	101	Information Literacy	3
<b>Cluster 2: Skills for Life - Thinking Skills</b>			
(Required Credit Hours:3)			
HSS	110	Scientific Research Skills	3
CSBP	119	Algorithms and Problem Solving	3
PHI	180	Critical Thinking	3
PSY	105	Creative & Innovative Thinking Skills	3
GEHP	111	Happiness and Wellbeing	3
IBLC - Inquiry based learning courses must be taken within first 30 credit hours			
<b>Cluster 3: The Human Community - Emirates Society</b>			
(Required Credit Hours:3)			
HSS	105	Emirates Studies	3
<b>Cluster 3: The Human Community - Humanities/Fine Arts</b>			
(Required Credit Hours:3)			
ARCH	340	History and Theory of Architecture	3
HIS	133	Introduction to Art History	3

HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
LIT	150	Introduction to Literature	3
LNG	100	Introduction to Linguistics	3
LNG	110	Language, Society & Culture	3
MSC	200	Introduction to Mass Media	3
MSC	240	World and Arab Media	3
PHI	101	Introduction to Philosophy	3
PHI	270	Philosophy of Education	3
PHI	271	History and Philosophy of Science	3
TRS	200	Introduction to Translation	3

#### Cluster 3: The Human Community - Social and Behavioral Sciences

(Required Credit Hours:3)

AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
SOC	260	Folklore	3
SWK	200	Introduction to Social Welfare	3

#### Cluster 3: The Human Community - The Global Experience

(Required Credit Hours:3)

AGRB	360	Global Agri-food Trade	3
ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3
GEO	200	World Regional Geography	3

HIS	120	Arab & Islamic Civilization	3
HIS	121	World History: Origins to 1500	3
HIS	125	Contemporary Civilization	3
PSG	250	Principles of International Relations	3

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**Cluster 4: The Natural World - Mathematics**

(Required Credit Hours:3)

MATH	105 *	Calculus I	3
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\* Also counts towards the Major

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**Cluster 4: The Natural World - Natural Sciences**

(Required Credit Hours:6)

BIOC	100 *	Basic Biology I	3
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PHYS	105 *	General Physics I	3
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\* Also counts towards the Major

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**Cluster 5: Capstone Experience**

(Required Credit Hours:3)

NUTR	480 *	Senior Research Project (NS Program)	3
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\* Also counts towards the Major

Course Credits

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**Nutritional Science**

**Required Courses**

(Required Credit Hours:60)

BIOC	275	Genetics Laboratory	1
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BIOC	230	General Microbiology	3
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BIOL	270	General Genetics	2
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BIOM	229	Cell Biology I	2
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CHEM	111	General Chemistry I	3
CHEM	112	General Chemistry II	2
CHEM	115	General Chemistry Lab	1
CHEM	282	Organic Chemistry for Non-Majors	3
CHEM	283	Biochemistry for Non-Majors	3
FDSC	250	Contemporary Food Science & Nutrition	3
PHYL	101	Introductory Physiology	3
PHYS	135	General Physics Lab I	1
STAT	235	Statistics for Biology	3
FDSC	330	Fundamentals of Food Science	3
NUTR	320	Nutrition I	3
NUTR	330	Nutrition II	3
NUTR	355	Nutrition Seminar	1
NUTR	352	Human Nutrition in Various Ages Stages	3
NUTR	360	Immunology and Nutrition	2
NUTR	375	Medical Nutrition Therapy I (NS Program)	3
NUTR	401	Nutrition Education and Communication (NS Program)	3
NUTR	443	Meal Planning	3
NUTR	491 *	Internship	3
NUTR	482	Community Nutrition (NS Program)	3

\* The internship is conducted over a complete semester during the last study year. No courses are allowed to be registered during the internship

#### Elective Courses

(Required Credit Hours:15)

BIOM	399	Molecular Biology	2
BIOM	466	Genetic Engineering	2

BIOM	473	Biotechnology	2
BIOM	482	Cell Biology II	2
FDSC	309	Sensory evaluation	3
NUTR	396	Sports Nutrition	3
PHYS	110	General Physics II	3
NUTR	379	Functional Food and Health	3
AGRB	360	Global Agri-food Trade	3
AGRB	395	Contemporary Food Sustainability and Nutrition	3
Free Electives			
(Required Credit Hours:6)			

## Department of Agribusiness and Consumer Sciences

### Bachelor of Science in Agribusiness

#### Description

The Bachelor's Degree program in Agribusiness emphasizes the application of both business and economic principles to the issues confronting agribusiness firms. Students will have an opportunity to pursue a rigorous program of study in both agricultural sciences and business courses leading to a wide range of employment opportunities within agricultural related enterprises. The students are provided skills to examine domestic and global consumer interests and their impact on demand for food and agriculture products. Students will gain a basic foundation in business, marketing, finance, and accounting. They will specialize in marketing intelligence for agribusiness by supplementing coursework with market research that applies quantitative and qualitative research methods. Students will learn economic principles and strategies for both marketing and management of agribusiness by examining the efficient allocation of the country's scarce resources and profit maximization for producers.

#### Program Objectives

1. Provide students with important and new knowledge required for careers in agribusiness.

2. Prepare students for work in fields related to agribusiness or for advanced studies.
3. Develop students' professional skills needed for careers in agribusiness.
4. Develop students' general skills and desired attitudes.

## Program Learning Outcomes

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

1. Develop knowledge and skills in the agribusiness sector.
2. Communicate effectively in written and oral forms with diverse audiences.
3. Apply economic theories, quantitative techniques, and research methods required for careers in agribusiness.
4. Utilize business management tools in public and private sectors, as well as domestic and global settings.
5. Demonstrate skills related to leadership and team work in agribusiness.
6. Evaluate problems in agribusiness critically and ethically, and offer viable solutions, including business project feasibility studies, marketing and business plans.
7. Analyze UAE, regional, and international agricultural trade and food sectors.

**Degree Requirements:** Total Credit Hours: 120

Course Credits

### General Education (Req. CH:40)

#### Cluster 1: Values to Live By - Islam

(Required Credit Hours:3)

ISLM	100	Islamic Culture	3
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#### Cluster 1: Values to Live By - Ethics

(Required Credit Hours:3)

PHI	121	Fundamentals of Environmental Ethics	3
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PHI	122	International Ethics	3
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PHI	226	Human Rights Theory	3
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PHIL	120	Principles of Professional Ethics	3
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#### Cluster 2: Skills for Life - English Communication Skills

(Required Credit Hours:3)

ESPU	106	Introduction to Academic English For Food & Agriculture	3
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**Cluster 2: Skills for Life - Information Literacy**

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(Required Credit Hours:3)

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GEIL	101	Information Literacy	3
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**Cluster 2: Skills for Life - Thinking Skills**

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(Required Credit Hours:3)

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HSS	110	Scientific Research Skills	3
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CSBP	119	Algorithms and Problem Solving	3
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PHI	180	Critical Thinking	3
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PSY	105	Creative & Innovative Thinking Skills	3
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GEHP	111	Happiness and Wellbeing	3
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IBLC - Inquiry based learning courses must be taken within first 30 credit hours

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**Cluster 3: The Human Community - Emirates Society**

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(Required Credit Hours:3)

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HSS	105	Emirates Studies	3
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**Cluster 3: The Human Community - Humanities/Fine Arts**

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(Required Credit Hours:3)

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ARCH	340	History and Theory of Architecture	3
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HIS	133	Introduction to Art History	3
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HSR	120	Introduction to Heritage & Culture	3
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HSR	130	Introduction to Language & Communication	3
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LIT	150	Introduction to Literature	3
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LNG	100	Introduction to Linguistics	3
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LNG	110	Language, Society & Culture	3
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MSC	200	Introduction to Mass Media	3
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MSC	240	World and Arab Media	3
PHI	101	Introduction to Philosophy	3
PHI	270	Philosophy of Education	3
PHI	271	History and Philosophy of Science	3
TRS	200	Introduction to Translation	3

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### Cluster 3: The Human Community - Social and Behavioral Sciences

(Required Credit Hours:3)

AGRB	210 *	Introduction to Agribusiness	3
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\* Also counts towards the Major

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### Cluster 3: The Human Community - The Global Experience

(Required Credit Hours:3)

AGRB	360 *	Global Agri-food Trade	3
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\* Also counts towards the Major

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### Cluster 4: The Natural World - Mathematics

(Required Credit Hours:3)

MATH	105 *	Calculus I	3
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\* Also counts towards the Major

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### Cluster 4: The Natural World - Natural Sciences

(Required Credit Hours:6)

BIOC	100 *	Basic Biology I	3
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PHYS	105 *	General Physics I	3
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\* Also counts towards the Major

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### Cluster 5: Capstone Experience

(Required Credit Hours:4)

AGRB	480 *	Senior Project	4
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\* Also counts towards the Major

Course Credits

**Agribusiness**

Required Courses

(Required Credit Hours:53)

ACCT	100	Principles of Financial Accounting	3
ACCT	225	Fundamental of Cost & Management Accounting	3
AGRB	200	Agricultural Economics	3
AGRB	300	Marketing Management for Agribusiness	3
AGRB	312	Logistics in Global Agriculture	3
AGRB	352	Agribusiness Management & Entrepreneurship	3
AGRB	391	Applications Of Quantitative Research Techniques to Social Sciences	3
AGRB	410 *	Internship	3
AGRB	421	Agribusiness Strategy	3
AGRB	422	International Agribusiness Policy	3
AGRB	432	Agribusiness Marketing Plans	3
AGRB	450	Agribusiness Senior Seminar	2
ECON	125	Principles of Macroeconomics	3
FINC	240	Principles of Financial Management	3
FINC	377	Investment	3
HRMD	320	Human Resources Management	3
MKTG	310	Marketing Research	3
STAT	130	Statistics for Business	3

\* The internship is conducted after completion of 90 Credit Hours following one of the following 3 options: Option1: 2 days/week for a complete semester (16 weeks). Courses can be registered in the other days of the week Option 2: 3 days/week for 3/4 of a semester (12 weeks). Courses can be registered in the other days of the week Option 3: 4 days/week for half a semester (8 weeks).

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Option3: Condensed courses can be taken in the remaining 8 weeks of the semester

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Elective Courses

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(Required Credit Hours:21)

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AGRB	341	E-Commerce & Agri-food Industries	3
AGRB	371	Linear Programming for Agribusiness	3
AGRB	374	Fundamentals of Production Economic	3
AGRB	377	Principles of Economic Development	3
AGRB	392	Introduction to Resource & Environmental Economics	3
AGRB	401	Evaluation of Agribusiness Projects	3
ARAG	220	Natural Resources	3
ARAG	240	Contemporary Agricultural Science	3
FDSC	250	Contemporary Food Science & Nutrition	3
MIST	200	Foundation of MIS & Technologies	3
MSC	243	Public Relations & Advertising Principles	3
SOC	304	Demography	3

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Free Electives

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(Required Credit Hours:6)

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# Department of Veterinary Medicine

## Bachelor of Veterinary Medicine

### Description

The bachelor of veterinary medicine program is the only one of its kind in the UAE. The program is five year long, after which, graduates will be qualified veterinarians. The student will receive veterinary basic sciences education and intensive clinical training sorted by animal species and specialized discipline.

### Program Objectives

1. To enable the veterinary students to acquire knowledge, practical skills, and experience needed for a qualified veterinarian.
2. To enforce evidence base veterinary medicine and problem oriented problem solving methods.
3. To graduate veterinarians capable of providing superior animal health care, including disease investigation and prevention, at the individual and herd or flock level.
4. To meet the growing national needs for qualified veterinarians in the public and private sectors.
5. To demonstrate the achievement of the PLOs by the graduation time and enable graduates pursue higher academic degrees in veterinary medical sciences or other related sciences.

### Program Learning Outcomes

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

1. Implement appropriate health care regimen for individual animals of different species.
2. Monitor the health and production of animals at the herd or flock level.
3. Apply high standards of public health and food safety.
4. Recognize veterinary diseases and the optimal treatment and prevention methods.
5. Conduct disease epidemiological investigation and veterinary research using appropriate research methods, ethics procedures, and statistical analysis.
6. Communicate technical information effectively with clients, fellow professionals and intended audience.
7. Synthesize information from different resources and use information technology to find up-to-date information and manage data.

### Degree Requirements:

Total Credit Hours: 152

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Course Credits

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### General Education (Req. CH:39)

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Cluster 1: Values to Live By - Islam

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(Required Credit Hours:3)

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ISLM	100	Islamic Culture	3
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Cluster 1: Values to Live By - Ethics

(Required Credit Hours:3)

PHI	121	Fundamentals of Environmental Ethics	3
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PHI	122	International Ethics	3
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PHI	226	Human Rights Theory	3
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PHIL	120	Principles of Professional Ethics	3
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Cluster 2: Skills for Life - English Communication Skills

(Required Credit Hours:3)

ESPU	106	Introduction to Academic English For Food & Agriculture	3
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Cluster 2: Skills for Life - Information Literacy

(Required Credit Hours:3)

GEIL	101	Information Literacy	3
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Cluster 2: Skill for Life - Thinking Skills

(Required Credit Hours:3)

HSS	110	Scientific Research Skills	3
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CSBP	119	Algorithms and Problem Solving	3
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PHI	180	Critical Thinking	3
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PSY	105	Creative & Innovative Thinking Skills	3
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GEHP	111	Happiness and Wellbeing	3
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Cluster 3: The Human Community - Emirates Society

(Required Credit Hours:3)

HSS	105	Emirates Studies	3
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Cluster 3: The Human Community - Humanities/Fine Arts

(Required Credit Hours:3)			
ARCH	340	History and Theory of Architecture	3
HIS	133	Introduction to Art History	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
LIT	150	Introduction to Literature	3
LNG	100	Introduction to Linguistics	3
LNG	110	Language, Society & Culture	3
MSC	200	Introduction to Mass Media	3
MSC	240	World and Arab Media	3
PHI	101	Introduction to Philosophy	3
PHI	270	Philosophy of Education	3
PHI	271	History and Philosophy of Science	3
TRS	200	Introduction to Translation	3
<b>Cluster 3: The Human Community - Social and Behavioral Sciences</b>			
(Required Credit Hours:3)			
AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
SOC	260	Folklore	3
SWK	200	Introduction to Social Welfare	3
<b>Cluster 3: The Human Community - The Global Experience</b>			
(Required Credit Hours:3)			
AGRB	360	Global Agri-food Trade	3

ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3
GEO	200	World Regional Geography	3
HIS	120	Arab & Islamic Civilization	3
HIS	121	World History: Origins to 1500	3
HIS	125	Contemporary Civilization	3
PSG	250	Principles of International Relations	3

#### Cluster 4: The Natural World - Mathematics

(Required Credit Hours:3)

MATH	105 *	Calculus I	3
* Also counts towards the Major			

#### Cluster 4: The Natural World - Natural Sciences

(Required Credit Hours:6)

BIOC	100 *	Basic Biology I	3
PHYS	105 *	General Physics I	3
* Also counts towards the Major			

#### Cluster 5: Capstone Experience

(Required Credit Hours:3)

VMED	580 *	Senior project	3
* Also counts towards the Major			

Course Credits

#### Veterinary Science

##### Required Courses

(Required Credit Hours:101)

ARAG	316	Animal Nutrition	3
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ARAG	475	Molecular Biology Genetics	3
CHEM	111	General Chemistry I	3
CHEM	282	Organic Chemistry for Non-Majors	3
CHEM	283	Biochemistry for Non-Majors	3
STAT	235	Statistics for Biology	3
VMED	100	Animal Anatomy I	3
VMED	120	Animal Husbandry	3
VMED	210	Animal Physiology	3
VMED	250	Immunity and Infection (Microbiology) I	3
VMED	260	Neuroscience	3
VMED	270	Presentation of Selected Clinical Cases	1
VMED	300	Pharmacology and Toxicology	3
VMED	310	Parasitology	3
VMED	320	Pathology	4
VMED	340	Clinical pathology and propaedeutic	3
VMED	350	Infectious Diseases	3
VMED	360	Camels and Equine Medicine	3
VMED	370	Histology	3
VMED	380	Case Studies I	1
VMED	390	Training in meat inspection (Slaughter House)	1
VMED	395	Training in Camels & Equine Sport Medicine (Animal Hospital)	1
VMED	400	Preventive medicine	2
VMED	410	Surgery	4
VMED	420	Anesthesiology	2
VMED	430	Case Studies II	1
VMED	440	Sheep and goat medicine	3

VMED	450	Theriogenology	3
VMED	460	Companion Animal Medicine	2
VMED	490	Training in Clinical Surgery (Animal Hospital)	1
VMED	495	Training in Sheep & Goats Med & Surgery (Animal Hospital)	1
VMED	510	Ophthalmology and Dermatology	2
VMED	520	Diagnostic imaging	2
VMED	530	Seminar in Veterinary Science	1
VMED	590 *	Internship in Animal Hospital	9
VMED	150	Animal Anatomy II	4
VMED	280	Immunity and Infection II	3
VMED	385	Meat Hygiene	2

\* The internship is conducted in the last semester. 5 Cr. Hrs. of relevant courses (as shown in the study plan) should be taken during the internship semester

#### Elective Courses

(Required Credit Hours:12)

FDSC	280	Food Hygiene	3
ARAG	470	Camels and Equine Nutrition	3
VMED	240	Animal Welfare and Ethics	3
VMED	110	Introduction to Veterinary Medicine	3
VMED	445	Large animals (Cattle & Dairy Cattle)	3
VMED	330	Poultry Medicine	3
VMED	455	Clinical Pharmacology	3
VMED	470	Falcon Medicine	2
VMED	475	Exotic and Laboratory Animal Medicine	1

# College of Science

## Department of Biology

### Bachelor of Science in Biology

#### Description

The program in Biology is designed to provide students with a strong foundation in biological sciences, after which they can major in one of three concentrations: cellular and molecular biology, general biology, or ecological and environmental biology. The Department of Biology emphasizes early students' involvement in the learning environment, to ensure solid foundation of their theoretical and practical skills. Students are exposed to diverse methods of biological analyses in all three major areas. The program aims at graduating students who are intellectually apt and technically wise, as to provide biological solutions to current major challenges of everyday life.

#### Program Objectives

1. Develop proficiency of basic concepts in cellular and molecular biology, ecology and environmental sciences, and general biology.
2. Foster teamwork and improve oral and communication skills.
3. Foster a student-oriented research program that results in professional publications.
4. Embrace student-oriented teaching methods that nurture critical thinking abilities and apply their knowledge to solve theoretical and empirical real-life problems.
5. Prepare students for future job market and careers.

#### Program Learning Outcomes

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

1. Explain major biological concepts.
2. Solve and criticize practical and theoretical problems in biology.
3. Communicate effectively in oral and written forms.
4. Conduct safe and ethical biological lab experiments, data analysis, and interpretation of results.
5. Demonstrate research competence including analysis of scientific literature and adherence to professional standards.
6. Work effectively both independently and in a team.

**Degree Requirements:**

Total Credit Hours: 120

Course Credits

**General Education (Req. CH:39)**

Cluster 1: Values to Live By - Islam

			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

#### Cluster 1: Values to Live By - Ethics

			(Required Credit Hours:3)
PHI	121	Fundamentals of Environmental Ethics	3
PHI	122	International Ethics	3
PHI	226	Human Rights Theory	3
PHIL	120	Principles of Professional Ethics	3

#### Cluster 2: Skills for Life - English Communication Skills

			(Required Credit Hours:3)
ESPU	102	Introduction to Academic English For Science	3

#### Cluster 2: Skills for Life - Information Literacy

			(Required Credit Hours:3)
GEIL	101	Information Literacy	3

#### Cluster 2: Skills for Life - Thinking Skills

			(Required Credit Hours:3)
HSS	110	Scientific Research Skills	3
CSBP	119	Algorithms and Problem Solving	3
PSY	105	Creative & Innovative Thinking Skills	3
PHI	180	Critical Thinking	3
GEHP	111	Happiness and Wellbeing	3

IBLC - Inquiry based learning courses must be taken within first 30 credit hours

#### Cluster 3: The Human Community - Emirates Society

			(Required Credit Hours:3)
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HSS	105	Emirates Studies	3
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Cluster 3: The Human Community - Humanities/Fine Arts

(Required Credit Hours:3)

ARCH	340	History and Theory of Architecture	3
HIS	133	Introduction to Art History	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
LIT	150	Introduction to Literature	3
LNG	100	Introduction to Linguistics	3
LNG	110	Language, Society & Culture	3
MSC	200	Introduction to Mass Media	3
MSC	240	World and Arab Media	3
PHI	101	Introduction to Philosophy	3
PHI	270	Philosophy of Education	3
PHI	271	History and Philosophy of Science	3
TRS	200	Introduction to Translation	3

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Cluster 3: The Human Community - Social and Behavioral Sciences

(Required Credit Hours:3)

AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
SOC	260	Folklore	3
SWK	200	Introduction to Social Welfare	3

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**Cluster 3: The Human Community - The Global Experience**

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(Required Credit Hours:3)

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BIOE	240 *	Principles of Environmental Science	3
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\* Also counts towards the Major

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**Cluster 4: The Natural World - Mathematics**

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(Required Credit Hours:3)

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MATH	105 *	Calculus I	3
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\* Also counts towards the Major

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**Cluster 4: The Natural World - Natural Sciences**

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(Required Credit Hours:6)

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CHEM	111 *	General Chemistry I	3
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PHYS	105 *	General Physics I	3
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\* Also counts towards the Major

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**Cluster 5: Capstone Experience**

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(Required Credit Hours:3)

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BIOC	480 *	Research Project	3
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\* Also counts towards the Major

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Course Credits

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**Biology Major (Req. CH:48)**

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**Required Courses**

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(Required Credit Hours:29)

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BIOC	100	Basic Biology I	3
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BIOC	205	Basic Biology II	3
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BIOC	214	General Biology Lab	1
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BIOC	230	General Microbiology	3
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BIOC	250	Basic Ecology	3
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BIOC	270	General Genetics	3
BIOC	275	Genetics Laboratory	1
BIOC	290	Cell and Molecular Biology	3
BIOC	490	Advanced Bioapplications (Capstone)	2
BIOC	495	Seminar (Capstone)	1
BIOL	500 *	Internship	6

\* The internship conducted over half a semester (8 weeks) during the third year of study. Offered condensed courses should be taken during the other half of the semester

#### Supporting Required Courses Non-Biology

(Required Credit Hours:19)

CHEM	112	General Chemistry II	2
CHEM	115	General Chemistry Lab	1
CHEM	241	Organic Chemistry I	3
CHEM	361	Biochemistry	3
CHEM	245	Organic Chemistry Lab I	1
CSBP	112	Introduction To Programming	3
MATH	110	Calculus II	3
STAT	235	Statistics for Biology	3

Course Credits

#### Cellular and Molecular Biology Track

##### Elective Courses

(Required Credit Hours:15)

BIOM	335	Molecular Biology of Genes	3
BIOM	339	Virology	2
BIOM	350	Developmental Biology	3
BIOM	420	Molecular Basis of Cell and Tissue Development	3

BIOM	433	Biotechnology & Genetic Engineering	3
BIOM	435	Human Molecular Genetics	3
BIOM	445	Macromolecules Structure Function and Bioinformatics	3
BIOM	461	Tissue Culture	3
BIOM	462	Immunology	3
BIOM	489	Molecular Biology Techniques	1
BIOM	492	Special Topics (Cell & Mole)	1

Course Credits

**Ecological and Environmental Biology Track**

Elective Courses

(Required Credit Hours:15)

BIOE	250	Biodiversity and Evolution	3
BIOE	380	Desert Ecology	3
BIOE	390	Wildlife & Rangeland Management	3
BIOE	410	Field Survey & Environmental Assessment	3
BIOE	425	Principles of Ecological Modeling	3
BIOE	452	Oceanography	3
BIOE	453	Environmental Toxicology	3
BIOE	455	Ecology of Pathogens	3
BIOE	457	Animal Behavior	3
BIOE	459	Conservation Biology	3

Course Credits

**General Biology Track (Req. CH:15)**

Required Course

(Required Credit Hours:3)

BIOG	315	Fundamentals of Physiology	3
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Student must select ONE COURSE from each of the following groups

Group A

(Required Credit Hours:3)

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BIOG	330	Mycology	3
BIOG	332	Parasitology	3
BIOG	434	Bacteriology	3

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Group B

(Required Credit Hours:3)

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BIOG	333	Entomology	3
BIOG	360	Marine Biology	3
BIOG	400	Biology of Invertebrates	3

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Group C

(Required Credit Hours:3)

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BIOG	321	Histology	3
BIOG	433	Biology of Vertebrates	3
BIOG	445	Animal Physiology	3

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Group D

(Required Credit Hours:3)

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BIOG	450	Plant Physiology	3
BIOG	460	Botany	3
BIOG	470	Plant Anatomy	3

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Elective Courses - Upon the approval of the Department, the student may select a total of 18 Credit Hours from a specific minor.

(Required Credit Hours:18)

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# Department of Geology

## Bachelor of Science in Geology

### Description

The B.Sc. degree program at the geology department is offered for concentration tracks in Applied Geology and in Petroleum Geology. Fundamental principles in geosciences are provided to both tracks through theoretical, laboratory and fieldwork. At the specialization level, students of the applied geology track are given knowledge in disciplines focusing on applications related to economic geology and groundwater resources. In petroleum geology track, the emphasis is given to knowledge in hydrocarbon sources and exploration. The students of both tracks are also given adequate skills in geoinformatics and environmental analysis. Students receive training in research through both preparation of a research project at the final year of their education and participation in the research projects of the department. The preparation of students for work places in private or state companies and agencies is performed through internship, regular visits and projects.

### Program Objectives

1. To serve the national interest by graduating students capable to work in the different domains of geosciences.
2. Prepare the students with sufficient knowledge of fundamental principles geosciences
3. Improve the students' capacity in research in order to prepare them for further postgraduate studies.

### Program Learning Outcomes

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

1. Apply knowledge of basic theoretical concepts and practical models of geosystems.
2. Conduct laboratory experiments and analyze results.
3. Collect, competently record, and interpret diverse field data: including material sampling, processing and data interpretation to answer basic questions about terrains and their histories.
4. Solve problems relevant to the geological disciplines, including assessment of terrains for their material, mineral, water and hydrocarbon resource potential and geohazards.
5. Prepare map, geophysical and lithological logs and interpret photographic and digital terrain imagery.
6. Accomplish self-management and co-operation in teamwork within the frame of basic safety precautions in the field and laboratory.
7. Communicate professionally through both oral presentation and in writing of scientific documents.
8. Demonstrate competence in search and review of the scientific literature.

9. Evaluate the impact of the exploration for and exploitation of natural resources on the society at local and global scales in terms of managing natural resources, environmental impacts and climate change.
10. Apply the guidelines of the profession in respect to scientific integrity and ethics in accordance with current practices.

**Degree Requirements:** Total Credit Hours: 120

				Course Credits
<b>General Education (Req. CH:40)</b>				
<b>Cluster 1: Values to Live By - Islam</b>				
				(Required Credit Hours:3)
ISLM	100	Islamic Culture		3
<b>Cluster 1: Values to Live By - Ethics</b>				
				(Required Credit Hours:3)
PHI	121	Fundamentals of Environmental Ethics		3
PHI	122	International Ethics		3
PHI	226	Human Rights Theory		3
PHIL	120	Principles of Professional Ethics		3
<b>Cluster 2: Skills for Life - English Communication Skills</b>				
				(Required Credit Hours:3)
ESPU	102	Introduction to Academic English For Science		3
<b>Cluster 2: Skills for Life - Information Literacy</b>				
				(Required Credit Hours:3)
GEIL	101	Information Literacy		3
<b>Cluster 2: Skills for Life - Thinking Skills</b>				
				(Required Credit Hours:3)
HSS	110	Scientific Research Skills		3
CSBP	119	Algorithms and Problem Solving		3

PHI	180	Critical Thinking	3
PSY	105	Creative & Innovative Thinking Skills	3
GEHP	111	Happiness and Wellbeing	3
IBLC - Inquiry based learning courses must be taken within first 30 credit hours			

#### Cluster 3: The Human Community - Emirates Society

(Required Credit Hours:3)

HSS	105	Emirates Studies	3
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#### Cluster 3: The Human Community - Humanities/Fine Arts

(Required Credit Hours:3)

ARCH	340	History and Theory of Architecture	3
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HIS	133	Introduction to Art History	3
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HSR	120	Introduction to Heritage & Culture	3
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HSR	130	Introduction to Language & Communication	3
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LIT	150	Introduction to Literature	3
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LNG	100	Introduction to Linguistics	3
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LNG	110	Language, Society & Culture	3
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MSC	200	Introduction to Mass Media	3
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MSC	240	World and Arab Media	3
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PHI	101	Introduction to Philosophy	3
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PHI	270	Philosophy of Education	3
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PHI	271	History and Philosophy of Science	3
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TRS	200	Introduction to Translation	3
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#### Cluster 3: The Human Community - Social and Behavioral Sciences

(Required Credit Hours:3)

AGRB	210	Introduction to Agribusiness	3
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ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
SOC	260	Folklore	3
SWK	200	Introduction to Social Welfare	3

### Cluster 3: The Human Community - The Global Experience

(Required Credit Hours:3)

AGRB	360	Global Agri-food Trade	3
ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3
GEO	200	World Regional Geography	3
HIS	120	Arab & Islamic Civilization	3
HIS	121	World History: Origins to 1500	3
HIS	125	Contemporary Civilization	3
PSG	250	Principles of International Relations	3

### Cluster 4: The Natural World - Mathematics

(Required Credit Hours:3)

MATH	105 *	Calculus I	3
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\* Also counts towards the Major

### Cluster 4: The Natural World - Natural Sciences

(Required Credit Hours:6)

CHEM	111 *	General Chemistry I	3
PHYS	105 *	General Physics I	3

\* Also counts towards the Major



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**Cluster 5: Capstone Experience**

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(Required Credit Hours:4)

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GEOL	499 *	Field Geology	4
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\* Also counts towards the Major

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Course Credits

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**Geology Major****Required Courses**

(Required Credit Hours:27)

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GEOL	105	Physical Geology	3
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GEOA	290	Structure Geology & Tectonics	4
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GEOA	320	Mineralogy	4
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GEOA	325	Sedimentology & Stratigraphy	4
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GEOA	372	Geophysics	3
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GEOA	458	Geology Of UAE	3
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GEOL	500 *	Internship	6
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\* The internship is conducted over half a semester (8 weeks) during the third year of study. Offered condensed courses should be taken during the other half of the semester

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**Supporting Required Courses Non-Geology**

(Required Credit Hours:12)

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CHEM	112	General Chemistry II	2
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CHEM	115	General Chemistry Lab	1
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CSBP	112	Introduction To Programming	3
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MATH	110	Calculus II	3
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PHYS	110	General Physics II	3
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Course Credits

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**Applied Geology Track**

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Required Courses			
			(Required Credit Hours:20)
BIOC	100	Basic Biology I	3
GEOA	250	Paleontology	4
GEOA	322	Igneous & Metamorphic Petrology	4
GEOA	358	Hydrogeology	3
GEOA	412	Remote Sensing and GIS	3
GEOA	461	Geochemistry	3

Track Elective Courses			
			(Required Credit Hours:3)
GEOA	414	Environmental Geology	3
GEOA	452	Economic Geology	3
GEOA	462	Hydro Geochemistry	3
GEOA	490	Mineral Exploration	3
GEOA	495	Selected Topics	3
GEOP	453	Petroleum and Subsurface Geology	3

Course Credits

**Petroleum Geology Track**

Required Courses			
			(Required Credit Hours:20)
CHEM	241	Organic Chemistry I	3
GEOP	413	Petrophysics	3
GEOP	420	Basin Analysis	3
GEOP	453	Petroleum and Subsurface Geology	3
GEOP	463	Geophysical Exploration	3
GEOP	469	Petroleum Geochemistry	3

GEOP	499	Research Project	2
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**Track Elective Courses**

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(Required Credit Hours:3)

GEOA	414	Environmental Geology	3
GEOP	495	Selected Topics	3
GEOP	322	Igneous & Metamorphic Petrology	3
GEOP	431	Seismic Stratigraphy	3
PETE	403	Well Logging	3

Course Credits

**Required Minor**

Upon the approval of the Department, the student may select a total of 18 Credit Hours from a specific minor

(Required Credit Hours:18)

# Department of Chemistry

## Bachelor of Science in Biochemistry

### Description

The B.Sc. in Biochemistry program provides students with a strong foundation in all areas of chemistry, with emphasis on biochemistry. Students also develop a good background in the related areas of molecular biology and microbiology. Students develop practical skills through laboratory courses utilizing state of the art equipment and internship training. Students also gain strong IT and communication skills and have the opportunity to become involved in biochemistry research. Graduates of the program are well prepared to take up positions in the chemical, pharmaceutical and biotechnology industries or pursue further studies at the graduate level.

### Program Objectives

1. To provide students with a strong foundation in chemistry and biochemistry.
2. To develop students' transferable skills in areas such as communication and teamwork.
3. To train students to use modern lab techniques safely and effectively.
4. To develop students' appreciation of the role of biochemistry and scientific research in modern life.
5. To prepare students for a successful career or further studies in chemistry and biochemistry.

### Program Learning Outcomes

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

1. Demonstrate knowledge of major concepts, theoretical principles and experimental findings in chemistry, biochemistry and biology.
2. Conduct biochemistry laboratory experiments and analyze results.
3. Retrieve and use chemical and biochemical information from scientific literature.
4. Solve practical and theoretical problems in biochemistry and demonstrate critical thinking.
5. Communicate effectively both orally and in writing.
6. Work effectively independently and in teams
7. Conform to safety, ethical and professional standards of chemistry and biochemistry.

### Degree Requirements:

Total Credit Hours: 120

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Course Credits

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### General Education (Req. CH:39)

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Cluster 1: Values to Live by - Islam

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(Required Credit Hours:3)

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ISLM	100	Islamic Culture	3
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Cluster 1: Values to Live By - Ethics			
			(Required Credit Hours:3)
PHI	121	Fundamentals of Environmental Ethics	3
PHI	122	International Ethics	3
PHI	226	Human Rights Theory	3
PHIL	120	Principles of Professional Ethics	3
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Cluster 2: Skills for Life - English Communication Skills			
			(Required Credit Hours:3)
ESPU	102	Introduction to Academic English For Science	3
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Cluster 2: Skills for Life - Information Literacy			
			(Required Credit Hours:3)
GEIL	101	Information Literacy	3
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Cluster 2: Skills for Life - Thinking Skills			
			(Required Credit Hours:3)
HSS	110	Scientific Research Skills	3
CSBP	119	Algorithms and Problem Solving	3
PSY	105	Creative & Innovative Thinking Skills	3
PHI	180	Critical Thinking	3
GEHP	111	Happiness and Wellbeing	3
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IBLC - Inquiry based learning courses must be taken within first 30 credit hours			
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Cluster 3: The Human Community - Emirates Society			
			(Required Credit Hours:3)
HSS	105	Emirates Studies	3

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**Cluster 3: The Human Community - Humanities/Fine Arts**

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(Required Credit Hours:3)

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ARCH	340	History and Theory of Architecture	3
HIS	133	Introduction to Art History	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
LIT	150	Introduction to Literature	3
LNG	100	Introduction to Linguistics	3
LNG	110	Language, Society & Culture	3
MSC	200	Introduction to Mass Media	3
MSC	240	World and Arab Media	3
PHI	101	Introduction to Philosophy	3
PHI	270	Philosophy of Education	3
PHI	271	History and Philosophy of Science	3
TRS	200	Introduction to Translation	3

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**Cluster 3: The Human Community - Social and Behavioral Sciences**

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(Required Credit Hours:3)

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AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
SOC	260	Folklore	3
SWK	200	Introduction to Social Welfare	3

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**Cluster 3: The Human Community - The Global Experience**

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(Required Credit Hours:3)			
AGRB	360	Global Agri-food Trade	3
ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3
GEO	200	World Regional Geography	3
HIS	120	Arab & Islamic Civilization	3
HIS	121	World History: Origins to 1500	3
HIS	125	Contemporary Civilization	3
PSG	250	Principles of International Relations	3
<b>Cluster 4: The Natural World - Mathematics</b>			
(Required Credit Hours:3)			
MATH	105 *	Calculus I	3
* Also counts towards the Major			
<b>Cluster 4: The Natural World - Natural Sciences</b>			
(Required Credit Hours:6)			
CHEM	111 *	General Chemistry I	3
PHYS	105 *	General Physics I	3
* Also counts towards the Major			
<b>Cluster 5: Capstone Experience</b>			
(Required Credit Hours:3)			
BCHM	345 *	Experimental Biochemistry	1
BCHM	471 *	Protein Structure and Function	2
* Also counts towards the Major			
			Course Credits
<b>Biochemistry Major</b>			

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**Required Courses**

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(Required Credit Hours:45)

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BCHM	362	Biochemistry II	3
BCHM	481	Special Topics Biochemistry I	2
BCHM	482	Special Topics Biochemistry II	2
BIOC	230	General Microbiology	3
BIOL	270	General Genetics	2
BIOM	399	Molecular Biology	2
BIOM	489	Molecular Biology Techniques	1
CHEM	112	General Chemistry II	2
CHEM	115	General Chemistry Lab	1
CHEM	211	Professional & Transferable Skills	1
CHEM	221	Analytical Chemistry	3
CHEM	231	Inorganic Chemistry I	3
CHEM	241	Organic Chemistry I	3
CHEM	242	Organic Chemistry II	3
CHEM	245	Organic Chemistry Lab I	1
CHEM	251	Physical Chemistry I	3
CHEM	355	Physical Chemistry Lab I	1
CHEM	361	Biochemistry	3
CHEM	419 *	Internship	6

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\* The internship is conducted over half a semester (8 weeks) during the third year of study. Offered condensed courses should be taken during the other half of the semester

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**Supporting Required Courses Non-Biochemistry**

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(Required Credit Hours:15)

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BIOC	100	Basic Biology I	3
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ENG	310	Writing for Research	3
CSBP	112	Introduction To Programming	3
MATH	110	Calculus II	3
PHYS	110	General Physics II	3

Elective Courses - Upon the approval of the Department, the student may select a total of 18 Credit Hours from a specific minor.

(Required Credit Hours:18)

Free Elective

(Required Credit Hours:3)

## Bachelor of Science in Chemistry

### Description

The B.Sc. in Chemistry program provides students with a strong foundation in the traditional branches of chemistry including analytical, organic, inorganic, and physical and biochemistry. The program also emphasizes development of IT and communication skills. Students develop practical skills through laboratory courses utilizing state of the art equipment. An internship placement provides students with training and preparation for the workplace. All students obtain experience in research through a project completed in their final year. Graduates of the program are well prepared to take up positions in the chemical and pharmaceutical industries or pursue further studies at the graduate level. The B.Sc. Chemistry program is accredited by the Canadian Society of Chemistry and the Royal Society of Chemistry.

### Program Objectives

1. To provide students with a strong foundation in all of the major sub-disciplines of chemistry.
2. To train students to use modern lab techniques safely and effectively.
3. To develop students' transferable skills in areas such as communication and teamwork.
4. To develop students' appreciation of the role of chemistry and scientific research in modern life.
5. To prepare students for a successful career or further studies in chemistry.

### Program Learning Outcomes

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

1. Demonstrate knowledge of major concepts, theoretical principles and experimental findings in chemistry.
2. Conduct chemistry laboratory experiments and analyze results.
3. Retrieve and use chemical information from scientific literature.
4. Solve practical and theoretical problems and think critically.
5. Communicate effectively both orally and in writing.
6. Work effectively independently and in teams.
7. Demonstrate compliance with safety, ethical and professional standards of chemistry.

**Degree Requirements:**

Total Credit Hours: 120

Course Credits

**General Education (Req. CH:39)**

**Cluster 1: Values to Live By - Islam**

(Required Credit Hours:3)

ISLM	100	Islamic Culture	3
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**Cluster 1: Values to Live By - Ethics**

(Required Credit Hours:3)

PHI	121	Fundamentals of Environmental Ethics	3
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PHI	122	International Ethics	3
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PHI	226	Human Rights Theory	3
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PHIL	120	Principles of Professional Ethics	3
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**Cluster 2: Skills for Life - English Communication Skills**

(Required Credit Hours:3)

ESPU	102	Introduction to Academic English For Science	3
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**Cluster 2: Skills for Life - Information Literacy**

(Required Credit Hours:3)

GEIL	101	Information Literacy	3
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**Cluster 2: Skills for Life - Thinking Skills**

(Required Credit Hours:3)

HSS	110	Scientific Research Skills	3
CSBP	119	Algorithms and Problem Solving	3
PSY	105	Creative & Innovative Thinking Skills	3
PHI	180	Critical Thinking	3
GEHP	111	Happiness and Wellbeing	3
IBLC - Inquiry based learning courses must be taken within first 30 credit hours			

### Cluster 3: The Human Community - Emirates Society

(Required Credit Hours:3)

HSS	105	Emirates Studies	3
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### Cluster 3: The Human Community - Humanities/Fine Arts

(Required Credit Hours:3)

ARCH	340	History and Theory of Architecture	3
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HIS	133	Introduction to Art History	3
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HSR	120	Introduction to Heritage & Culture	3
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HSR	130	Introduction to Language & Communication	3
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LIT	150	Introduction to Literature	3
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LNG	100	Introduction to Linguistics	3
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LNG	110	Language, Society & Culture	3
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MSC	200	Introduction to Mass Media	3
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MSC	240	World and Arab Media	3
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PHI	101	Introduction to Philosophy	3
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PHI	270	Philosophy of Education	3
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PHI	271	History and Philosophy of Science	3
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TRS	200	Introduction to Translation	3
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### Cluster 3: The Human Community - Social and Behavioral Sciences

(Required Credit Hours:3)			
AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
SOC	260	Folklore	3
SWK	200	Introduction to Social Welfare	3

#### Cluster 3: The Human Community - The Global Experience

(Required Credit Hours:3)			
AGRB	360	Global Agri-food Trade	3
ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3
GEO	200	World Regional Geography	3
HIS	120	Arab & Islamic Civilization	3
HIS	121	World History: Origins to 1500	3
HIS	125	Contemporary Civilization	3
PSG	250	Principles of International Relations	3

#### Cluster 4: The Natural World - Mathematics

(Required Credit Hours:3)			
MATH	105 *	Calculus I	3
* Also counts towards the Major			

#### Cluster 4: The Natural World - Natural Sciences

(Required Credit Hours:6)			
CHEM	111 *	General Chemistry I	3

PHYS	105 *	General Physics I	3
* Also counts towards the Major			

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Cluster 5: Capstone Experience

(Required Credit Hours:3)

CHEM	418 *	Research Project	3
* Also counts towards the Major			

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Course Credits

**Chemistry Major (Req. CH:60)**

Required Courses

(Required Credit Hours:42)

CHEM	112	General Chemistry II	2
CHEM	115	General Chemistry Lab	1
CHEM	221	Analytical Chemistry	3
CHEM	231	Inorganic Chemistry I	3
CHEM	241	Organic Chemistry I	3
CHEM	242	Organic Chemistry II	3
CHEM	245	Organic Chemistry Lab I	1
CHEM	251	Physical Chemistry I	3
CHEM	321	Instrumental Analysis I	4
CHEM	331	Inorganic Chemistry II	3
CHEM	337	Practical Inorganic Chemistry	1
CHEM	345	Organic Chemistry Lab II	1
CHEM	351	Physical Chemistry II	3
CHEM	355	Physical Chemistry Lab I	1
CHEM	356	Physical Chemistry Lab II	1
CHEM	361	Biochemistry	3

CHEM	419 *	Internship	6
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\* The internship is conducted over half a semester (8 weeks) during the third year of study. Offered condensed courses should be taken during the other half of the semester

#### Supporting required Courses Non-Chemistry

(Required Credit Hours:15)

BIOC	100	Basic Biology I	3
ENG	310	Writing for Research	3
CSBP	112	Introduction To Programming	3
MATH	110	Calculus II	3
PHYS	110	General Physics II	3

#### Chemistry Elective Courses

(Required Credit Hours:3)

CHEM	417	Advanced Laboratory Techniques	1
CHEM	421	Instrumental Analysis II	2
CHEM	431	Inorganic Chemistry III	2
CHEM	445	Spectroscopic Identification of Chemical Compounds	1
CHEM	451	Physical Chemistry III	2
CHEM	452	Electrochemistry	2

Elective Courses - Upon the approval of the Department, the student may select a total of 18 Credit Hours from a specific minor + 3 CH Free Electives.

(Required Credit Hours:21)

# Department of Mathematical Sciences

## Bachelor of Science in Mathematics

### Description

The heart of the program consists of fundamental courses in the main areas of mathematics (numerical analysis, algebra, analysis), together with a variety of specialized, elective courses. It is complemented by supportive courses from other departments, in addition to the University general education requirements. Opportunities for internship and research are given, preparing students for the job market and for higher studies. With a pedagogy emphasizing students' learning outcomes and encouraging the use of technology, students are aided in developing quantitative skills and an ability to think clearly and critically about complex problems, while communicating results with precision.

### Program Objectives

1. Offer a breadth of courses which will allow each student to develop quantitative skills, an ability to think clearly, to be proficient in the use of technology, and to have excellent problem solving skills.
2. Foster within each student an aesthetic appreciation for the logical foundation of mathematics.
3. Emphasize problem solving strategies in all courses in order to develop each student's capacity for independent use of the contents of the course.
4. Foster the development of each student's communication skills.
5. Foster the development of each student's learning skills and help them synthesize knowledge in order to move to higher levels of independent learning.

### Program Learning Outcomes

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

1. Demonstrate knowledge of important concepts and results representing the breadth of mathematical sciences.
2. Solve mathematical problems in rigorous, logically deductive, and critical way ranging from formal proofs to computational approaches.
3. Employ technology to assist in solving and investigating mathematical problems and presenting corresponding results.
4. Formulate real-life and interdisciplinary problems mathematically.
5. Structure mathematical arguments in a clear well-organized and logical way.
6. Communicate mathematical ideas effectively through presentations and reports.
7. Work efficiently in groups on mathematical projects.
8. Search mathematical literature in order to acquire new knowledge and attempt new projects to motivate long-life learning.
9. Prepare a job portfolio demonstrating various professional career competences (ethics, technology, communication, group work, critical thinking, and self-learning).

**Degree Requirements:**

Total Credit Hours: 120

Course Credits

**General Education (Req. CH:39)**

## Cluster 1: Values to Live By - Islam

(Required Credit Hours:3)

ISLM	100	Islamic Culture	3
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## Cluster 1: Values to Live By - Ethics

(Required Credit Hours:3)

FOED	102	Professional Ethics in Education	3
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PHI	121	Fundamentals of Environmental Ethics	3
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PHI	122	International Ethics	3
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PHI	226	Human Rights Theory	3
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PHIL	120	Principles of Professional Ethics	3
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## Cluster 2: Skills for Life - English Communication Skills

(Required Credit Hours:3)

ESPU	102	Introduction to Academic English For Science	3
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## Cluster 2: Skills for Life - Information Literacy

(Required Credit Hours:3)

GEIL	101	Information Literacy	3
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## Cluster 2: Skills for Life - Thinking Skills

(Required Credit Hours:3)

HSS	110	Scientific Research Skills	3
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CSBP	112	Introduction To Programming	3
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PSY	105	Creative & Innovative Thinking Skills	3
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PHI	180	Critical Thinking	3
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GEHP	111	Happiness and Wellbeing	3
IBLC - Inquiry based learning courses must be taken within first 30 credit hours			

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Cluster 3: The Human Community - Emirates Society

(Required Credit Hours:3)

HSS	105	Emirates Studies	3
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Cluster 3: The Human Community - Humanities/Fine Arts

(Required Credit Hours:3)

ARCH	340	History and Theory of Architecture	3
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HIS	133	Introduction to Art History	3
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HSR	120	Introduction to Heritage & Culture	3
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HSR	130	Introduction to Language & Communication	3
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LIT	150	Introduction to Literature	3
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LNG	100	Introduction to Linguistics	3
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LNG	110	Language, Society & Culture	3
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MSC	200	Introduction to Mass Media	3
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MSC	240	World and Arab Media	3
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PHI	101	Introduction to Philosophy	3
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PHI	270	Philosophy of Education	3
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PHI	271	History and Philosophy of Science	3
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TRS	200	Introduction to Translation	3
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Cluster 3: The Human Community - Social and Behavioral Sciences

(Required Credit Hours:3)

PSY	313 *	Educational Psychology	3
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\* Also counts towards the Major

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**Cluster 3: The Human Community - The Global Experience**

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(Required Credit Hours:3)

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AGRB	360	Global Agri-food Trade	3
ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3
GEO	200	World Regional Geography	3
HIS	120	Arab & Islamic Civilization	3
HIS	121	World History: Origins to 1500	3
HIS	125	Contemporary Civilization	3
PSG	250	Principles of International Relations	3

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**Cluster 4: The Natural World - Mathematics**

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(Required Credit Hours:3)

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MATH	105 *	Calculus I	3
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\* Also counts towards the Major

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**Cluster 4: The Natural World - Natural Sciences**

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(Required Credit Hours:6)

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PHYS	105 *	General Physics I	3
PHYS	110 *	General Physics II	3

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\* Both PHYS 110 and PHYS 105 counts towards the Major

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**Cluster 5: Capstone Experience**

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(Required Credit Hours:3)

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MATH	495 *	Research Project	3
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\* Also counts towards the Major

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Course Credits

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**Mathematics Major (Req. CH:81)**

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**Required Courses**

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(Required Credit Hours:42)			
MATH	110	Calculus II	3
MATH	140	Linear Algebra I	3
MATH	210	Calculus III	3
MATH	215	Introduction to Analysis	3
MATH	275	Ordinary Differential Equations	3
MATH	310	Real Analysis	3
MATH	315	Complex Analysis I	3
MATH	320	Numerical Analysis I	3
MATH	340	Abstract Algebra 1	3
MATH	205	Set Theory and Logic	3
MATH	246	Number Theory	3
MATH	372	Partial Differential Equations	3
MATH	500 *	Internship	6
<p>* The internship is conducted over half a semester (8 weeks) during the third year of study. Offered condensed courses should be taken during the other half of the semester</p>			

#### Supporting Required Courses Non-Mathematics

(Required Credit Hours:9)			
ENG	310	Writing for Research	3
CSBP	112	Introduction To Programming	3
STAT	230	Principles of Probability	3

#### Supporting Elective Courses Non-Mathematics

(Required Credit Hours:12)			
ARB	100	Styles of Literary Expression	3
ARB	110	Introduction to Syntax & Morphology	3
ENG	250	English Grammar & Usage	3

CSBP	119	Algorithms and Problem Solving	3
CSBP	219	Object Oriented Programming	3
STAT	210	Probability and Statistics	3
STAT	340	Mathematical Statistics	3
PHYS	235	Waves and Optics	3
PHYS	262	Classical Mechanics	3

### Mathematics Elective Courses

(Required Credit Hours:12)

MATH	260	Foundation of Geometry	3
MATH	321	Linear Programming	3
MATH	341	Linear Algebra II	3
MATH	342	Graph Theory	3
MATH	344	Introduction to Cryptography and Coding Theory	3
MATH	374	Dynamical Systems and Applications	3
MATH	391	Financial Mathematics	3
MATH	413	Complex Analysis II	3
MATH	422	Numerical Analysis II	3
MATH	462	Introduction to Topology	3
MATH	471	Control Theory & Applications	3
MATH	470	Mathematical Modeling	3
MATH	313	Advanced Calculus	3
MATH	443	Abstract Algebra 2	3

### Free Electives

(Required Credit Hours:6)

# Department of Physics

## Bachelor of Science in Physics

### Description

The Department of Physics offers a rich and comprehensive program of study leading to the B.Sc. degree in Physics. The B.Sc. Physics students have an option to choose from two separate tracks, namely General Physics and Space Sciences, after taking a set of mandatory Physics courses. The General Physics track is offered as a standard Physics track, and the Space Sciences track focuses specifically on space-related Physics themes. The program aims at training and graduating specialists in physics to meet the work force needs in key areas of national interest. The program offers a well-designed and updated physics curriculum enabling the graduates to participate effectively in their work place or continue their postgraduate studies and conduct research. Physics students are required to take additional courses in mathematics, science, general education, and information technology to further develop their knowledge, background, and skills.

### Program Objectives

1. Knowledge of fundamental concepts and theories in various fields of physics.
2. Disciplinary skills, abilities and competencies.
3. The right attitude and correct behavior towards Learning and National priorities.

### Program Learning Outcomes

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

1. Explain qualitatively the basic concepts of physics.
2. Express basic physical concepts mathematically
3. Integrate the acquired knowledge of various physical disciplines
4. Apply mathematical skills to solve physical problems correctly.
5. Use skills in experimental physics to apply physical concepts.
6. Demonstrate computational Physics solving skills and the capable use of information technology.
7. Communicate effectively in both oral and written forms.
8. Engage in research activities related to national interests.
9. Work effectively, responsibly, and ethically in team-oriented projects.
10. Think critically and logically.

**Degree Requirements:**

Total Credit Hours: 120

Course Credits

**General Education (Req. CH:39)**

Cluster 1: Values to Live By - Islam

(Required Credit Hours:3)

ISLM	100	Islamic Culture	3
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Cluster 1: Values to Live By - Ethics

(Required Credit Hours:3)

PHI	121	Fundamentals of Environmental Ethics	3
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PHI	122	International Ethics	3
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PHI	226	Human Rights Theory	3
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PHIL	120	Principles of Professional Ethics	3
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Cluster 2: Skills for Life - English Communication Skills

(Required Credit Hours:3)

ESPU	102	Introduction to Academic English For Science	3
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Cluster 2: Skills for Life - Information Literacy

(Required Credit Hours:3)

GEIL	101	Information Literacy	3
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Cluster 2: Skills for Life - Thinking Skills

(Required Credit Hours:3)

HSS	110	Scientific Research Skills	3
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CSBP	119	Algorithms and Problem Solving	3
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PSY	105	Creative & Innovative Thinking Skills	3
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PHI	180	Critical Thinking	3
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GEHP	111	Happiness and Wellbeing	3
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IBLC - Inquiry based learning courses must be taken within first 30 credit hours

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Cluster 3: The Human Community - Emirates Society

(Required Credit Hours:3)

HSS	105	Emirates Studies	3
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**Cluster 3: The Human Community - Humanities/Fine Arts****(Required Credit Hours:3)**

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ARCH	340	History and Theory of Architecture	3
HIS	133	Introduction to Art History	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
LIT	150	Introduction to Literature	3
LNG	100	Introduction to Linguistics	3
LNG	110	Language, Society & Culture	3
MSC	200	Introduction to Mass Media	3
MSC	240	World and Arab Media	3
PHI	101	Introduction to Philosophy	3
PHI	270	Philosophy of Education	3
PHI	271	History and Philosophy of Science	3
TRS	200	Introduction to Translation	3

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**Cluster 3: The Human Community - Social and Behavioral Sciences****(Required Credit Hours:3)**

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PSY	313 *	Educational Psychology	3
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\* Also counts towards the Major

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**Cluster 3: The Human Community - The Global Experience****(Required Credit Hours:3)**

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AGRB	360	Global Agri-food Trade	3
ARCH	346	Contemporary World Architecture	3
BIOE	240	Principles of Environmental Science	3
GEO	200	World Regional Geography	3

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HIS	120	Arab & Islamic Civilization	3
HIS	121	World History: Origins to 1500	3
HIS	125	Contemporary Civilization	3
PSG	250	Principles of International Relations	3

#### Cluster 4: The Natural World - Mathematics

(Required Credit Hours:3)

MATH	105 *	Calculus I	3
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\* Also counts towards the Major

#### Cluster 4: The Natural World - Natural Sciences

(Required Credit Hours:6)

PHYS	105 *	General Physics I	3
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PHYS	110 *	General Physics II	3
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\* Also counts towards the Major

#### Cluster 5: Capstone Experience

(Required Credit Hours:3)

PHYS	494	Research Project	3
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Also counts towards the Major

Course Credits

#### Physics Major

##### Required Courses

(Required Credit Hours:27)

PHYS	135	General Physics Lab I	1
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PHYS	140	General Physics Lab II	1
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PHYS	205	Intermediate Physics Lab I	1
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PHYS	220	Thermal Physics	3
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PHYS	231	Electronics Fundamentals	3
PHYS	235	Waves and Optics	3
PHYS	250	Modern Physics	3
PHYS	262	Classical Mechanics	3
PHYS	335	Electromagnetic Theory	3
PHYS	500 *	Internship	6

\* The internship is conducted over half a semester (8 weeks) during the third year of study. Offered condensed courses should be taken during the other half of the semester

Course Credits

**Students should take one of the following Tracks:**

**1: General Physics Track**

(Required Credit Hours:15)

PHYS	210	Intermediate Physics Lab II	1
PHYS	255	Mathematical Physics	3
PHYS	312	Statistical Physics	2
PHYS	355	Quantum Mechanics	3
PHYS	470	Solid State Physics	3
PHYS	483	Introductory Nuclear Physics	3

**2: Space Sciences Track**

(Required Credit Hours:18)

PHYS	200	Introduction to Space Sciences	3
PHYS	270	Celestial Mechanics	3
PHYS	310	Space Missions	3
PHYS	320	Spacecraft Instrument Science	3
PHYS	410	Space Applications I	3
PHYS	420	Space Applications II	3

			Course Credits
<b>Compulsory Supporting</b>			
Supporting Required Courses Non-Physics			
			(Required Credit Hours:18)
CHEM	111	General Chemistry I	3
CSBP	112	Introduction To Programming	3
MATH	110	Calculus II	3
MATH	140	Linear Algebra I	3
STAT	210	Probability and Statistics	3
MATH	275	Ordinary Differential Equations	3

			Course Credits
<b>Elective Physics Courses (General Physics Track)</b>			
General Physics Track students should choose 9 credit hours from this basket			
			(Required Credit Hours:9)
PHYS	330	Computational Physics	3
PHYS	345	Laser Physics	3
PHYS	385	Radiation Physics	3
PHYS	390	Introduction to Astrophysics	3
PHYS	430	Electromagnetic Theory II	3
PHYS	450	Quantum Mechanics II	3
PHYS	475	Semiconductor Physics	3
PHYS	495	Selected Topics	3

			Course Credits
<b>Elective Physics Courses (Space Sciences Track)</b>			
Space Sciences Track students should choose 6 credit hours from this basket			
			(Required Credit Hours:6)

PHYS	390	Introduction to Astrophysics	3
PHYS	255	Mathematical Physics	3
PHYS	312	Statistical Physics	2
PHYS	385	Radiation Physics	3
PHYS	330	Computational Physics	3
PHYS	345	Laser Physics	3
PHYS	495	Selected Topics	3

Supporting Elective Courses Non-Physics : the student may select a total of 6 Credit Hours

(Required Credit Hours:6)

GEOL	105	Physical Geology	3
MATH	210	Calculus III	3
BIOE	240	Principles of Environmental Science	3
CSBP	400	Modeling & Simulation	3
ENG	310	Writing for Research	3
CHME	444	Renewable Energy Sources	3
MGMT	200	Fundamentals of Management	3

Free Electives

(Required Credit Hours:6)