## **Undergraduate Programs 2017 2018**

## **College of Business and Economics**

## **Department of Accounting**

#### **Bachelor of Accounting**

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**

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

Program Learning Outcomes

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

• Communicate effectively orally, using technologies to support the oral presentation of information

where appropriate.

Communicate effectively in writing, select and use information technology where appropriate.

Apply appropriate technologies and techniques to the collection and analysis of information and derive

appropriate conclusions for accounting problems.

Research, critically evaluate and interpret accounting information to accurately identify business

problems and suggest solutions.

Demonstrate autonomy and responsibility in their work.

Apply teamwork skill and creativity in leadership and direction, appropriate to the context and level

at which they are operating.

Demonstrate ethical reasoning in relation to accounting issues.

Develop an awareness of the civic responsibilities of the accounting discipline.

Demonstrate a comprehensive knowledge of key concepts across the breadth of accounting topics.

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

Required Credit Hours: minimum 120 hours

General Education (Req. CH:39)

Cluster 1: Values to Live By - Islam (3 hours)

ISLM100	<u>Islamic Culture</u>	
Cluster 1: Value	es to Live By - Ethics (3 hours)	
PHIL120	Principles of Professional Ethics	
Cluster 2: Skills	for Life - English Communication Skills (3 hours)	
ESPU104	Introduction to Academic English For Business	
Cluster 2: Skills	for Life - Information Literacy (3 hours)	
GEIL101	Information Literacy	
Cluster 2: Skills	for Life - Thinking Skills (3 hours)	
HSS110	Scientific Research Skills	
CSBP119	Algorithms and Problem Solving	
PSY105	Creative & Innovative Thinking Skills	

PHI180	Critical Thinking <sup>1</sup>			
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 $\ensuremath{\mathtt{1}}$  : IBLC - Inquiry based learning courses must be taken within first 30 credit hours

Cluster 3: The Human Com	munity - Emirates Society (3 hours)
HSS105	Emirates Studies

Cluster 3: The H	luman Community - Humanities/Fine Arts (3 hours)	
ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History	
HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	Introduction to Literature	
LNG100	Introduction to Linguistics	

LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	
TRS200	Introduction to Translation	

Cluster 3: The Human C	Community - Social and Behavioral Sciences (3 hours)
ECON105	Principles of Microeconomics <sup>2</sup>

 ${\bf 2}$  : Also counts towards the Major

Cluster 3: The Human Community - The Global Experience (3 hours)

AGRB360	Global Agri-food Trade	
ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	
GEO200	World Regional Geography	
HIS120	Arab & Islamic Civilization	
HIS121	World History: Origins to 1500	
HIS125	Contemporary Civilization	
PSG250	Principles of International Relations	

Cluster 4: The	Natural World - Mathematics (3 hours)	
MATH115	Calculus for Business & Economics <sup>3</sup>	

 ${\bf 3}$  : Also counts towards the Major

Cluster 4: The	Natural World - Natural Sciences (6 hours)	
ARAG205	Introduction to Fish & Animal Science	
ARAG220	Natural Resources	
BION100	Biology and its Modern Application	
CHEM181	Chemistry in the Modern World	
FDSC250	Contemporary Food Science & Nutrition	
GEOL110	Planet Earth	
PHED201	Physical Fitness and Wellness	
PHYS101	Conceptual Physics	
PHYS100	<u>Astronomy</u>	

Cluster 5: Cap	stone Experience (3 hours)	
MGMT415	Strategic Management <sup>4</sup>	

4 : Also counts towards the Major

# **College of Business**

Required Courses (45 hours)		
ACCT100	Principles of Financial Accounting	
ACCT225	Fundamental of Cost & Management Accounting	
ECON125	Principles of Macroeconomics	
ESPU240	Business Writing in English	
FINC240	Principles of Financial Management	
GBUS460	Internship <sup>5</sup>	
MGMT200	Fundamentals of Management	
MIST200	Foundation of MIS & Technologies	

MKTG200	Principles of Marketing	
PRVT2652	Business Law (E)	
SCML200	Supply Chain Management & Operations	
STAT130	Statistics for Business	

<sup>5 :</sup> The internship is conducted over 12 Weeks in the last semester (after a four week preparation session). No courses are allow registered during the internship

#### Accounting

Major Requirer	ments (21 hours)	
ACCT311	Islamic Accounting	
ACCT235	Intermediate Accounting I	
ACCT245	Intermediate Accounting II	
ACCT315	Principles of Auditing	

ACCT351	Cost and Managerial Accounting	
ACCT422	Accounting Information Systems	
ACCT455	Comprehensive Accounting Seminar	

Financial Accounting Stream (Must take at least 2 from the following group + 1 from this group or the other two groups) (9 hours)

ACCT324	International Accounting
ACCT413	Advanced Auditing
ACCT451	Advanced Accounting

Managerial Accounting Stream (Must take at least 2 from the following group + 1 from this group or the other two groups) (9 hours)

ACCT353	Internal Auditing	
ACCT423	Advanced Accounting Information Systems	
ACCT452	Advanced Managerial Accounting	

General Stream (May choose fro	om any three courses of the nine stream courses) (9 hours)	
ACCT334	Governmental Accounting	
ACCT352	Oil and Gas Accounting	
ACCT453	Accounting Theory	

Free Electives (6 hours)

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

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**

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

#### **Program Learning Outcomes**

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

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

- Apply teamwork skills and creativity in leadership and direction, appropriate to the context and level at which they are operating.
- Demonstrate ethical reasoning in relation to business issues.
- Develop an awareness of the civic responsibilities of business.
- Demonstrate a comprehensive knowledge of key concepts across the breadth of business administration topics.
- Utilise 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

Required Credit Hours: minimum 120 hours

General Education (Req. CH:39)

Cluster 1: Values to Live By - Islam (3 hours)

ISLM100

**Islamic Culture** 

Cluster 1: Values to Live By - Ethics (3 hours)

PHIL120

Principles of Professional Ethics

Cluster 2: Skills for Life - English Communication Skills (3 hours)

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Introduction to Academic English For Business

GEIL101

Information Literacy

Cluster 2: Skills	for Life - Thinking Skills (3 hours)	
HSS110	Scientific Research Skills	
CSBP119	Algorithms and Problem Solving	
PSY105	Creative & Innovative Thinking Skills	
PHI180	Critical Thinking 1	

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

## Cluster 3: The Human Community - Emirates Society (3 hours)

HSS105

**Emirates Studies** 

Cluster 3: The H	luman Community - Humanities/Fine Arts (3 hours)	
ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History	
HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	<u>Introduction to Literature</u>	
LNG100	Introduction to Linguistics	
LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	

PHI271	History and Philosophy of Science	
TRS200	Introduction to Translation	

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

ECON105 Principles of Microeconomics <sup>2</sup>

2 : Also counts towards the Major

Cluster 3: The Hum	nan Community - The Global Experience (3 hours)	
AGRB360	Global Agri-food Trade	
ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	
GEO200	World Regional Geography	
HIS120	Arab & Islamic Civilization	

HIS121	World History: Origins to 1500	
HIS125	Contemporary Civilization	
PSG250	<u>Principles of International Relations</u>	

## Cluster 4: The Natural World - Mathematics (3 hours)

MATH115 <u>Calculus for Business & Economics</u> <sup>3</sup>

3 : Also counts towards the Major

Cluster 4: The	Natural World - Natural Sciences (6 hours)	
ARAG205	Introduction to Fish & Animal Science	
ARAG220	Natural Resources	
BION100	Biology and its Modern Application	
CHEM181	Chemistry in the Modern World	

FDSC250	Contemporary Food Science & Nutrition	
GEOL110	Planet Earth	
PHED201	Physical Fitness and Wellness	
PHYS100	Astronomy	
PHYS101	Conceptual Physics	

Cluster 5: Cap	stone Experience (3 hours)	
MGMT415	Strategic Management <sup>4</sup>	
4 : Also counts towards the Major		

# **College of Business**

Required Courses (45 hours)		
ACCT100	Principles of Financial Accounting	

ACCT225	Fundamental of Cost & Management Accounting	
ECON125	Principles of Macroeconomics	
ESPU240	Business Writing in English	
FINC240	Principles of Financial Management	
GBUS460	Internship <sup>5</sup>	
MGMT200	<u>Fundamentals of Management</u>	
MIST200	Foundation of MIS & Technologies	
MKTG200	Principles of Marketing	
PRVT2652	Business Law (E)	
SCML200	Supply Chain Management & Operations	
STAT130	Statistics for Business	

<sup>5 :</sup> The internship is conducted over 12 Weeks in the last semester (after a four week preparation session). No courses are allow registered during the internship

## Entrepreneurship Track

Required Cour	rses (15 hours)	
ENTR310	Innovation and Creativity	
ENTR320	<u>Entrepreneurship</u>	
ENTR330	Social Entrepreneurship	
ENTR410	Managing Entrepreneurial Ventures	
ENTR460	International Entrepreneurship	

#### Human Resources Development and Management Track

Required Cou	rses (15 hours)	
HRMD310	Organizational Behavior	

HRMD320	Human Resources Management	
HRMD330	Staffing Organizations	
HRMD410	Human Resources Performance Management	
HRMD420	Compensation & Benefits Management	

## Marketing Track

Required Courses (15 hours)		
MKTG310	Marketing Research	
MKTG320	Consumer Behavior	
MKTG330	Services Marketing	
MKTG340	International Marketing	
MKTG420	Strategic Marketing Management	

## Supply Chain Management and Logistics Track

Required Cour	ses (15 hours)	
SCML310	Supply Chain & Logistics Modeling	
SCML320	Procurement & Supply Management	
SCML330	Logistics & Transportation Management	
SCML410	Global Supply Chain & Logistics	
SCML460	Supply Chain Applications Strategy	

#### **Elective Courses for All Tracks**

Elective courses mu	st come from tracks outside of the declared major. (15 hours)	
ENTR310	Innovation and Creativity	
ENTR320	<u>Entrepreneurship</u>	

HRMD310	Organizational Behavior	
MIST215	Computer Application in Business	
MIST280	E-Business Strategy, Architecture & Design	
MKTG310	Marketing Research	
MKTG320	Consumer Behavior	
SCML310	Supply Chain & Logistics Modeling	
SCML320	Procurement & Supply Management	

Free Electives (6 hours)

#### **Bachelor of Management Information Systems**

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**

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

#### Program Learning Outcomes

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

- Communicate effectively orally, using technologies to support the oral presentation of information where appropriate.
- Communicate effectively in writing, select and use information technology where appropriate.
- Apply appropriate technologies and techniques to the collection and analysis of information and derive appropriate conclusions for business problems.
- Research, critically evaluate and interpret information to accurately identify business problems and suggest solutions.
- Demonstrate autonomy and responsibility in their work.
- Apply teamwork skills and creativity in leadership and direction, appropriate to the context and level at which they are operating.

- Demonstrate ethical reasoning in relation to business issues.
- Develop an awareness of the civic responsibilities of business.
- Demonstrate comprehensive knowledge of key concepts across the breadth of effective application and use of MIS and innovative information technologies in organizations.
- Apply MIS knowledge to facilitate the acquisition, development, deployment, and management of information systems.
- Apply MIS knowledge to the exploitation of opportunities created by information technology innovations ensuring the alignment between MIS strategy and organizational strategy.
- 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

Required Credit Hours: minimum 120 hours

General Education (Req. CH:39)

Cluster 1: Values to I	Live By - Islam (3 hours)	
ISLM100	<u>Islamic Culture</u>	

Cluster 1: Valu	es to Live By - Ethics (3 hours)	
PHIL120	Principles of Professional Ethics	

Cluster 2: Skills	s for Life - English Communication Skills (3 hours)	
ESPU104	Introduction to Academic English For Business	

Cluster 2: Skills for Life - Information Literacy (3 hours)

GEIL101 Information Literacy

Cluster 2: Skills	Cluster 2: Skills for Life - Thinking Skills (3 hours)	
HSS110	Scientific Research Skills	
CSBP119	Algorithms and Problem Solving	
PHI180	Critical Thinking <sup>1</sup>	
PSY105	Creative & Innovative Thinking Skills	

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

Cluster 3: The Human Community - Emirates Society (3 hours)

s Studies

Cluster 3: The H	luman Community - Humanities/Fine Arts (3 hours)	
ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History	
HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	<u>Introduction to Literature</u>	
LNG100	<u>Introduction to Linguistics</u>	
LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
PHI101	Introduction to Philosophy	

PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	
TRS200	Introduction to Translation	

## Cluster 3: Social and Behavioral Sciences (3 hours)

ECON105 Principles of Microeconomics <sup>2</sup>

2 : Also counts towards the Major

Cluster 3: The Hum	nan Community - The Global Experience (3 hours)	
AGRB360	Global Agri-food Trade	
ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	
GEO200	World Regional Geography	

HIS120	Arab & Islamic Civilization	
HIS121	World History: Origins to 1500	
HIS125	Contemporary Civilization	
PSG250	Principles of International Relations	

MATH115 Calculus for Business & Economics <sup>3</sup>

#### 3 : Also counts towards the Major

Cluster 4: The	Cluster 4: The Natural World - Natural Sciences (6 hours)	
ARAG205	Introduction to Fish & Animal Science	
ARAG220	Natural Resources	
BION100	Biology and its Modern Application	

CHEM181	Chemistry in the Modern World	
FDSC250	Contemporary Food Science & Nutrition	
GEOL110	Planet Earth	
PHED201	Physical Fitness and Wellness	
PHYS100	Astronomy	
PHYS101	Conceptual Physics	

Cluster 5: Capstone Experience (3 hours)		
MGMT415	Strategic Management <sup>4</sup>	

4 : Also counts towards the Major

## College of Business

Required Courses (45 hours)

ACCT100	Principles of Financial Accounting	
ACCT225	Fundamental of Cost & Management Accounting	
ECON125	<u>Principles of Macroeconomics</u>	
ESPU240	Business Writing in English	
FINC240	<u>Principles of Financial Management</u>	
GBUS460	Internship <sup>5</sup>	
MGMT200	<u>Fundamentals of Management</u>	
MIST200	Foundation of MIS & Technologies	
MKTG200	Principles of Marketing	
PRVT2652	Business Law (E)	
SCML200	Supply Chain Management & Operations	
STAT130	Statistics for Business	

5 : The internship is conducted over 12 Weeks in the last semester (after a four week preparation session). No courses are allow registered during the internship

#### Management Information Systems

Major Require	Major Required Courses (18 hours)	
MIST205	Introduction to Programming & Web B D	
MIST220	MIS Analysis & Logical Design	
MIST320	Data & Information Management	
MIST360	MIS Project Management & Practice	
MIST420	Business Intelligence & PM	
MIST460	Enterprise Systems & MIS Strategy	

#### **Accounting Track**

Elective Courses (12 hours)		
ACCT235	Intermediate Accounting I	
ACCT315	Principles of Auditing	
ACCT351	Cost and Managerial Accounting	
ACCT422	Accounting Information Systems	
ACCT423	Advanced Accounting Information Systems	

#### Finance Track

Elective Courses (12 hours)		
FINC261	Financial Institutions & Risk Management	
FINC341	Corporate Finance	
FINC377	Investment	

FINC348	<u>International Finance</u>	
FINC475	Derivatives Securities	

## Entrepreneurship Track

Elective Course	es (12 hours)	
ENTR310	Innovation and Creativity	
ENTR320	<u>Entrepreneurship</u>	
ENTR330	Social Entrepreneurship	
ENTR410	Managing Entrepreneurial Ventures	
ENTR460	International Entrepreneurship	
MIST280	E-Business Strategy, Architecture & Design	

Elective Courses (12 hours)		
HRMD310	Organizational Behavior	
HRMD320	Human Resources Management	
HRMD330	Staffing Organizations	
HRMD420	Compensation & Benefits Management	
HRMD410	Human Resources Performance Management	

## Management Information System Track

Elective Courses (12 hours)		
ENTR320	<u>Entrepreneurship</u>	
ENTR310	Innovation and Creativity	
HRMD320	Human Resources Management	

HRMD310	Organizational Behavior	
MIST215	Computer Application in Business	
MIST280	E-Business Strategy, Architecture & Design	
SCML310	Supply Chain & Logistics Modeling	
SCML320	Procurement & Supply Management	
MKTG310	Marketing Research	
MKTG320	Consumer Behavior	

## Marketing Track

Elective Cours	Elective Courses (12 hours)	
MIST280	E-Business Strategy, Architecture & Design	
MKTG310	Marketing Research	

MKTG320	Consumer Behavior	
MKTG330	Services Marketing	
MKTG340	International Marketing	
MKTG420	Strategic Marketing Management	

# Supply Chain Management Track

Elective Course	es (12 hours)	
SCML310	Supply Chain & Logistics Modeling	
SCML320	Procurement & Supply Management	
SCML330	Logistics & Transportation Management	
SCML410	Global Supply Chain & Logistics	
SCML460	Supply Chain Applications Strategy	

Free Electives (6 hours)

# **Department of Economics and Finance**

#### **Bachelor of Economics**

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**

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

#### **Program Learning Outcomes**

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

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

- Apply teamwork skills and creativity in leadership and direction, appropriate to the context and level at which they are operating.
- Demonstrate ethical reasoning in relation to Economic issues.
- Develop an awareness of the civic responsibilities of the Economics discipline.
- Demonstrate a comprehensive knowledge of key concepts across the breadth of Economic topics.
- 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.
- Utilize appropriate economic frameworks and theories to research and assess contemporary issues in the field and related allied fields where appropriate.

#### Degree Requirements

Required Credit Hours: minimum 120 hours

General Education (Req. CH:39)

Cluster 1: Values to L	ive By - Islam (3 hours)	
ISLM100	<u>Islamic Culture</u>	

Cluster 1: Values to Live By - Ethics (3 hours)

PHIL120

Principles of Professional Ethics

Cluster 2: Skills for Life - English Communication Skills (3 hours)

ESPU104 Introduction

Introduction to Academic English For Business

Cluster 2: Skills for Life - Information Literacy (3 hours)

GEIL101

Information Literacy

Cluster 2: Skills for Life - Thinking Skills (3 hours)

PSY105 <u>Creative & Innovative Thinking Skills</u>

CSBP119 Algorithms and Problem Solving <sup>1</sup>

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

Cluster 3: The Human Community - Emirates Society (3 hours)

HSS105 <u>Emirates Studies</u>

Cluster 3: The Human Community - Humanities/Fine Arts (3 hours)

ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History	
HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	Introduction to Literature	
LNG100	Introduction to Linguistics	
LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	

TRS200	Introduction to Translation

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

ECON105 Principles of Microeconomics <sup>2</sup>

 ${\bf 2}$  : Also counts towards the Major

### Cluster 3: The Human Community - The Global Experience (3 hours)

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ACCT100	Principles of Financial Accounting	
ECON105	Principles of Microeconomics	
ARCH346	Contemporary World Architecture	
AGRB360	Global Agri-food Trade	
BIOE240	Principles of Environmental Science	
GEO200	World Regional Geography	

HIS120	Arab & Islamic Civilization	
HIS121	World History: Origins to 1500	
HIS125	Contemporary Civilization	
PSG250	Principles of International Relations	

Cluster 4: The Natural Sciences	- Mathematics	(3 hours)
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MATH115 <u>Calculus for Business & Economics</u> <sup>3</sup>

3 : Also counts towards the Major

Cluster 4: The	Natural World - Natural Sciences (6 hours)	
ARAG205	Introduction to Fish & Animal Science	
ARAG220	Natural Resources	
BION100	Biology and its Modern Application	

CHEM181	Chemistry in the Modern World	
FDSC250	Contemporary Food Science & Nutrition	
GEOL110	Planet Earth	
PHED201	Physical Fitness and Wellness	
PHYS100	Astronomy	
PHYS101	Conceptual Physics	

Cluster 5: Cap	stone Experience (3 hours)	
MGMT415	Strategic Management <sup>4</sup>	

4 : Also counts towards the Major

## Colleges of Business

Required Courses (45 hours)

ACCT100	Principles of Financial Accounting	
ACCT225	Fundamental of Cost & Management Accounting	
ECON125	Principles of Macroeconomics	
ESPU240	Business Writing in English	
FINC240	Principles of Financial Management	
GBUS460	Internship 5	
MGMT200	<u>Fundamentals of Management</u>	
MIST200	Foundation of MIS & Technologies	
MKTG200	Principles of Marketing	
PRVT2652	Business Law (E)	
SCML200	Supply Chain Management & Operations	
STAT130	Statistics for Business	

5 : The internship is conducted over 12 Weeks in the last semester (after a four week preparation session). No courses are allow registered during the internship

### **Economics Program Requirements**

Required Courese (18 hours)		
ECON211	Theory of Microeconomics	
ECON212	Theory of Macroeconomics	
ECON215	Money and Banking	
ECON231	<u>Econometrics</u>	
ECON344	Public Economics	
ECON433	Applied Economics of the Middle East	

Elective Cours	es (12 hours)
ECON236	Project Economics

ECON237	Environmental and Energy Economics	
ECON239	Competition and Business Strategy	
ECON333	Economic Development and Institutions	
ECON338	International Economics and Globalization	
FINC344	Islamic Finance and Banking	
ECON432	Research Methods in Economics	
ECON441	Labor and HR Economics	
ECON455	Selected Topics In Economics	

Free Electives (6 hours)

### **Bachelor of Finance and Banking**

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**

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

#### Program Learning Outcomes

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

- Communicate effectively orally, using technologies to support the oral presentation of information where appropriate.
- Communicate effectively in writing, select and use information technology where appropriate.
- Apply appropriate technologies and techniques to the collection and analysis of information and derive appropriate conclusions for finance problems.
- Research, critically evaluate and interpret information to accurately identify finance problems and suggest solutions.
- Demonstrate autonomy and responsibility in their work.
- Apply teamwork skills and creativity in leadership and direction, appropriate to the context and level at which they are operating.
- Demonstrate ethical reasoning in relation to Finance issues.
- Develop an awareness of the civic responsibilities of the Finance discipline.

- Demonstrate a comprehensive knowledge of key concepts across the breadth of Finance topics.
- 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.
- Utilize appropriate finance frameworks and theories to research and assess contemporary issues in the field and related allied fields where appropriate.

Degree Requirements

Required Credit Hours: minimum 120 hours

General Education (Req. CH:39)

Cluster 1: Values to Live By - Islam (3 hours)		
ISLM100	<u>Islamic Culture</u>	
Cluster 1: Values to Live By - Ethics (3 hours)		
PHIL120	Principles of Professional Ethics	

Cluster 2: Skills	s for Life - English Communication Skills (3 hours)	
ESPU104	Introduction to Academic English For Business	

Cluster 2: Skills for Lif	e - Information Literacy (3 hours)	
GEIL101	Information Literacy	
Cluster 2: Skills for Lif	e - Thinking Skills (3 hours)	

Cluster 2: Skills for Life - Thinking Skills (3 hours)		
HSS110	Scientific Research Skills	
CSBP119	Algorithms and Problem Solving	
PSY105	Creative & Innovative Thinking Skills	
PHI180	Critical Thinking 1	

 $1: \mbox{IBLC}$  - Inquiry based learning courses must be taken within first 30 credit hours

Cluster 3: The Human Com	nunity - Emirates Society (3 hours)	
HSS105	Emirates Studies	

Cluster 3: The Human Community - Humanities/Fine Arts (3 hours)

ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History	
HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	Introduction to Literature	
LNG100	Introduction to Linguistics	
LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	

TRS200	Introduction	to Translation

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

ECON105 Principles of Microeconomics <sup>2</sup>

2 : Also counts towards the Major

### Cluster 3: The Human Community - The Global Experience (3 hours)

AGRB360	Global Agri-food Trade	
ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	
GEO200	World Regional Geography	
HIS120	Arab & Islamic Civilization	
HIS121	World History: Origins to 1500	

HIS125	Contemporary Civilization	
PSG250	Principles of International Relations	

Cluster 4: The Natural	World - Mathematics	(3 hours)
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MATH115 <u>Calculus for Business & Economics</u> <sup>3</sup>

 ${\bf 3}$  : Also counts towards the Major

Cluster 4: The Natural World - Natural Sciences (6 hours)		
ARAG205	Introduction to Fish & Animal Science	
ARAG220	Natural Resources	
BION100	Biology and its Modern Application	
CHEM181	Chemistry in the Modern World	
FDSC250	Contemporary Food Science & Nutrition	

GEOL110	Planet Earth	
PHED201	Physical Fitness and Wellness	
PHYS100	<u>Astronomy</u>	
PHYS101	Conceptual Physics	

Cluster 5: Capstone Experience (3 hours)		
MGMT415	Strategic Management <sup>4</sup>	

4 : Also counts towards the Major

## College of Business

Required Courses (45 hours)		
ACCT100	Principles of Financial Accounting	
ACCT225	Fundamental of Cost & Management Accounting	

ECON125	Principles of Macroeconomics	
ESPU240	Business Writing in English	
FINC240	Principles of Financial Management	
GBUS460	Internship <sup>5</sup>	
MGMT200	Fundamentals of Management	
MIST200	Foundation of MIS & Technologies	
MKTG200	Principles of Marketing	
PRVT2652	Business Law (E)	
SCML200	Supply Chain Management & Operations	
STAT130	Statistics for Business	

<sup>5 :</sup> The internship is conducted over 12 Weeks in the last semester (after a four week preparation session). No courses are allow registered during the internship

Required Courses (21 hours)		
ECON215	Money and Banking	
FINC261	Financial Institutions & Risk Management	
FINC341	Corporate Finance	
FINC377	Investment	
FINC434	Financial Statement Analysis and Business Valuation	
FINC348	<u>International Finance</u>	
FINC475	<u>Derivatives Securities</u>	

Elective Cours	Elective Courses (9 hours)		
ECON212	Theory of Macroeconomics		
ECON231	<u>Econometrics</u>		

FINC344	Islamic Finance and Banking	
FINC472	Portfolio Management	
FINC463	Case Studies in Finance	
FINC474	Selected Topics in Finance	

Free Electives (6 hours)

## **Department of Statistics**

#### **Bachelor of Statistics**

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**

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

#### Program Learning Outcomes

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

- Communicate effectively orally statistical results and their interpretation to non-specialized audiences.
- Communicate in writing statistical results and their interpretation clearly and concisely using different formats and media.
- Integrate statistical and computing skills to develop comprehensive solutions to problems in their field of work.
- Research, critically evaluate and interpret information in identifying and formulating problems that can be solved using statistical techniques.
- Demonstrate autonomy and responsibility in their work.

- Apply teamwork skills and creativity in leadership and direction, appropriate to the context and level at which they are operating.
- Demonstrate ethical reasoning in relation to statistical issues.
- Develop an awareness of the civic responsibilities of the statistics discipline.
- Demonstrate a comprehensive knowledge of key concepts and methodologies in statistics.
- Identify the limitation and assumptions underlying statistical techniques and critically assess the validity of reported results.
- Demonstrate an understanding of allied knowledge and theories in related fields of work or disciplines.

#### Degree Requirements

Required Credit Hours: minimum 120 hours

General Education (req. CH:39)

Cluster 1: Values to L	ive By - Islam (3 hours)	
ISLM100	<u>Islamic Culture</u>	

Cluster 1: Values to Live By - Ehtics (3 hours)

PHIL120

Principles of Professional Ethics

Cluster 2: Skills for Life - English Communication Skills (3 hours)

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Introduction to Academic English For Business

GEIL101

Information Literacy

Cluster 2: Skills for Life - Thinking Skills (3 hours)		
HSS110	Scientific Research Skills	
CSBP119	Algorithms and Problem Solving	
PSY105	Creative & Innovative Thinking Skills	
PHI180	Critical Thinking <sup>1</sup>	

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

## Cluster 3: The Human Community - Emirates Soceity (3 hours)

HSS105

**Emirates Studies** 

Cluster 3: The Human Community - Humanities/Fine Arts (3 hours)		
ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History	
HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	<u>Introduction to Literature</u>	
LNG100	<u>Introduction to Linguistics</u>	
LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	

PHI271	History and Philosophy of Science	
TRS200	Introduction to Translation	

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

ECON105 Principles of Microeconomics <sup>2</sup>

2 : Also counts towards the Major

Cluster 3: The Human Community - The Global Experience (3 hours)		
AGRB360	Global Agri-food Trade	
ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	
GEO200	World Regional Geography	
HIS120	Arab & Islamic Civilization	

HIS121	World History: Origins to 1500	
HIS125	Contemporary Civilization	
PSG250	Principles of International Relations	

# Cluster 4: The Natural World - Mathematics (3 hours)

MATH115 <u>Calculus for Business & Economics</u> <sup>3</sup>

3 : Also counts towards the Major

Cluster 4: The Natural World - Natural Sciences (6 hours)		
ARAG205	Introduction to Fish & Animal Science	
ARAG220	Natural Resources	
BION100	Biology and its Modern Application	
CHEM181	Chemistry in the Modern World	

FDSC250	Contemporary Food Science & Nutrition	
GEOL110	Planet Earth	
PHED201	Physical Fitness and Wellness	
PHYS100	Astronomy	
PHYS101	Conceptual Physics	

Cluster 5: Capstone Experience (3 hours)		
MGMT415	Strategic Management <sup>4</sup>	
4 : Also counts towards the Major		

### College of Business

Required Courses (45 hours)		
ACCT100	Principles of Financial Accounting	

ACCT225	Fundamental of Cost & Management Accounting	
ECON125	Principles of Macroeconomics	
ESPU240	Business Writing in English	
FINC240	Principles of Financial Management	
GBUS460	Internship <sup>5</sup>	
MGMT200	<u>Fundamentals of Management</u>	
MIST200	Foundation of MIS & Technologies	
MKTG200	Principles of Marketing	
PRVT2652	Business Law (E)	
SCML200	Supply Chain Management & Operations	
STAT130	Statistics for Business	

<sup>5 :</sup> The internship is conducted over 12 Weeks in the last semester (after a four week preparation session). No courses are allow registered during the internship

## Statistics Major

Required Cour	Required Courses (18 hours)	
STAT230	Principles of Probability	
STAT331	Design Of Experiments	
STAT338	Regression Analysis	
STAT422	Sampling Techniques	
STAT433	<u>Time Series Analysis</u>	
STAT480	Seminar in Applied Statistics (E)	

### **Statistics Track**

Required Courses (6 hours)

STAT340	Mathematical Statistics	
STAT462	Categorical Data Analysis	

Elective Cours	es (6 hours)	
STAT242	Non-Parametric Statistics	
STAT369	Demographic Analysis	
STAT461	Applied Multivariate Analysis	
STAT469	Statistical Quality Control	
STAT472	Statistical Computing	

### Information System Track

Required Cours	ses (6 hours)	
MIST220	MIS Analysis & Logical Design	

MIST320	Data & Information Management

Elective Course	es (6 hours)	
MIST205	Introduction to Programming & Web B D	
MIST215	Computer Application in Business	
MIST280	E-Business Strategy, Architecture & Design	

## Information Technology (IT) Track

Required Courses (6 hours)		
CSBP119	Algorithms and Problem Solving	
CSBP219	Object Oriented Programming	

Elective Course	es (6 hours)	
CENG205	Digital Design & Computer Organization	

CENG210	Communication & Networks Fundamentals	
CSBP316	Human Computer Interaction	
CSBP315	Operating Systems Fundamentals	

## Finance and Banking Track

Required Courses (6 hours)		
ECON215	Money and Banking	
FINC261	Financial Institutions & Risk Management	

Elective Course	Elective Courses (6 hours)	
ECON231	<u>Econometrics</u>	
FINC341	Corporate Finance	
FINC344	Islamic Finance and Banking	

FINC377	<u>Investment</u>	
FINC472	Portfolio Management	

Free Electives (6 hours)

# **College of Humanities and Social Sciences**

## **Department of Arabic Language & Literature**

## **Bachelor of Arts in Arabic Language and Literature**

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**

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

#### **Program Learning Outcomes**

- Form the structure of the word according to dictionaries and Morphological rules.
- Mention verbal changes, meters and meanings.
- Control vocabulary use grammatically according to language standards.
- Shape linguistic structures correctly according to grammatical rules.
- Demonstrate knowledge of modern linguistic theories in the analysis of the structures and detecting their implications.
- Explain literary text and revealing meaning, purpose and images.
- Show the most important critical issues addressed by the old critics.
- Demonstrate knowledge of modern theories of criticism.
- Listen the most important sources of literary heritage, rhetoric, criticism and their authors.
- know famous (the figures) poets, writers and their ages and literary production.
- Read the text correctly without linguistic or stylistic errors.
- Express orally an accurate expression of the meanings and purposes of the texts.
- Criticize the text objectively.
- Analyze text in literary and Scientific way.
- Explain the literary image revealing the elements of its aesthetic values.
- Specify the subject of the search to allow Innovation and creativity
- Specify the method and the plan that suit search subject.
- Use the Library and Network in obtaining sources and the preparation of the scientific subject
- Discuss opinions and views rationally and scientifically.
- Write search in a way that demonstrates scientific thinking and linguistic aesthetics.
- Provide evidences of the impact of our Arabic creativity in human heritage

- Express writings that shows the richness of language and its ability to deal with modern age.
- Demonstrate pride of nation, faith, and richness of Arabic and Islamic culture and Heritage.
- Collaborate with others to accomplish the scientific goals of team work research

Required Credit Hours: minimum 120 hours

General Education (Req CH:39)

Cluster 1: Values to	Live By - Islam (3 hours)	
ISLM100	<u>Islamic Culture</u>	

Cluster 1: Valu	ues to Live By - Ethics (3 hours)	
FOED102	Professional Ethics in Education	
PHI121	Fundamentals of Environmental Ethics	
PHI122	International Ethics	
PHI226	Human Rights Theory	
PHIL120	Principles of Professional Ethics	

Cluster 2: Skills	s for Life - English Communication (3 hours)	
ESPU1014	Introduction to Academic English for Humanities and SS	

Cluster 2: Skills for Life - Information Literacy (3 hours)

GEIL101 Information Literacy

Cluster 2: Skills	for Life - Thinking Skills (3 hours)	
HSS110	Scientific Research Skills	
CSBP119	Algorithms and Problem Solving	
PSY105	Creative & Innovative Thinking Skills	
PHI180	Critical Thinking <sup>1</sup>	

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

# Cluster 3: The Human Community - Emirates Society (3 hours)

HSS105	Emirates Studies
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Cluster 3: The H	luman Community - Humanities/Fine Arts (3 hours)	
ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History	
HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	Introduction to Literature	
LNG100	Introduction to Linguistics	
LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
PHI101	Introduction to Philosophy	

PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	
TRS200	Introduction to Translation	

Cluster 3: The H	Human Community - Social and Behavioral Sciences (3 hours)	
AGRB210	Introduction to Agribusiness	
ECON110	Principles of Economics	
HSR140	Introduction to Society & Behavior	
HSR150	Introduction to Government Policy & Urban Structures	
PSY100	Introduction to Psychology	
SOC260	<u>Folklore</u>	
SWK200	Introduction to Social Welfare	

Cluster 3: The Hum	nan Community - The Global Experience (3 hours)	
AGRB360	Global Agri-food Trade	
ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	
GEO200	World Regional Geography	
HIS120	Arab & Islamic Civilization	
HIS121	World History: Origins to 1500	
HIS122	Modern World History	
HIS125	Contemporary Civilization	
PSG250	Principles of International Relations	

Cluster 4: The	Natural World - Mathematics (3 hours)	
MATH120	Contemporary Applications of Math	

Cluster 4: The	Natural World - Natural Sciences (6 hours)	
ARAG205	Introduction to Fish & Animal Science	
ARAG220	Natural Resources	
BION100	Biology and its Modern Application	
CHEM181	Chemistry in the Modern World	
FDSC250	Contemporary Food Science & Nutrition	
GEOL110	<u>Planet Earth</u>	
PHED201	Physical Fitness and Wellness	
PHYS100	<u>Astronomy</u>	
PHYS101	Conceptual Physics	

Cluster 5: Caps	tone Experience (3 hours)	
HSR400	Integrated Capstone <sup>2</sup>	
2 : Also counts towards the Major		

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

Required Cour	ses (21 hours)	
ARB100	Styles of Literary Expression	
ARB110	Introduction to Syntax & Morphology	
ARB120	Arabic Rhetoric I	
ARB130	<u>Literary Texts Analysis</u>	
ARB160	General Linguistics	
ARB406	Research Methods in Language & Literature	

ARB430	Modern Literature Criticism				
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# Concentrations - Student must choose Language or Literature

Language Req	uired Courses (12 hours)	
ARB210	<u>Phonetics</u>	
ARB311	Syntax II	
ARB321	Semantics & Arabic Lexicology	
ARB413	Arabic Linguistics	

Literature Req	uired Courses (12 hours)	
ARB250	Abbasid Literature I	
ARB343	Pre Islamic & Islamic Literature	
ARB444	Modern Arabic Literature	

ARB450	Comparative Literature

Elective Cours	es for Both Concentrations (9 hours)	
ARB220	<u>Prosody</u>	
ARB230	Traditional Literary Criticism	
ARB240	Arabic Rhetoric II	
ARB260	Emirati Literature	
ARB270	Modern Arabic Gulf Literature	
ARB301	Abbasid Literature II	
ARB381	Arabic Library / Heritage	
ARB401	<u>Philology</u>	
ARB416	Andalusian & Maghribi Literature	
ARB424	Late Medieval Literature	

ARB436	Ex. in Syntax & Morphology	
ARB440	Research in the Critical & Rhetorical H	

Minors and Free Electives (Req. CH:39)

Minor (1) (18 hours)

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

Minor (2) (18	nours)	
ARB305	Professional Writing	
ARB105	Creative Writing	
ARB205	Writing and Technology	
ARB405	Training Practicum	

MSC235	Principles of the Writing for Media	
TRS200	Introduction to Translation	

Free Elective (3 hours)

# **Minor in Writing (Interdisciplinary in Arabic)**

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

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

#### Program Learning Outcomes

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

Required Credit Hours: minimum 18 hours

Students must take these courses

Required Cour	ses (18 hours)	
ARB105	Creative Writing	
ARB205	Writing and Technology	
ARB305	Professional Writing	
ARB405	Training Practicum	
MSC235	Principles of the Writing for Media <sup>1</sup>	
TRS200	Introduction to Translation <sup>2</sup>	

1: Mass Communication students take ARB 130

2: Translation students take ARB 130

# Minor in Women and Culture (Arabic)

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

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

### **Program Learning Outcomes**

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

Required Credit Hours: minimum 18 hours

Students must take these courses

Required Cour	rses (18 hours)	
ARB115	Womens Literary Theory	
ARB215	Womens Studies & Arabic Literature	
ARB315	Modern Women's Literature	
ARB415	Seminar & Research in Women Studies	
LNG465	Women and Language	
MSC487	Women and Media	

# **Department of English Literature**

# **Bachelor of Arts in English Literature**

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**

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

### Program Learning Outcomes

- Use appropriate terminology to identify key features of literary texts, genres, periods, techniques or devices.
- Critique literary texts with reference to formal or aesthetic properties as well as to socio-historical rootedness and function.
- Communicate appropriately and successfully, orally and in writing, on specialist as well as nonspecialist subject matter, in a variety of academic or non-academic contexts.
- 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.
- 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.
- Undertake research with competent and proper use of printed as well as electronic resources, and of quantitative as well as qualitative methods.

Required Credit Hours: minimum 120 hours

General Education (Req. CH:39)

Cluster 1: Values to	Live By - Islam (3 hours)	
ISLM100	<u>Islamic Culture</u>	

Cluster 1: Valu	ues to Live By - Ethics (3 hours)	
FOED102	Professional Ethics in Education	
PHI121	Fundamentals of Environmental Ethics	
PHI122	International Ethics	
PHI226	Human Rights Theory	
PHIL120	Principles of Professional Ethics	

Cluster 2: Skills for Life - English Communication (3 hours)

ESPU1014

Introduction to Academic English for Humanities and SS

Cluster 2: Sk	ills for Life -	Information	Literacy (	(3 hours)	
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GEIL101

Information Literacy

Cluster 2: Skills	s for Life - Thinking Skills (3 hours)	
HSS110	Scientific Research Skills	
CSBP119	Algorithms and Problem Solving	
PSY105	Creative & Innovative Thinking Skills	
PHI180	Critical Thinking <sup>1</sup>	

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

# Cluster 3: The Human Community - Emirates Society (3 hours)

HSS105

**Emirates Studies** 

Cluster 3: The H	luman Community - Humanities/Fine Arts (3 hours)	
ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History	
HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LNG100	<u>Introduction to Linguistics</u>	
LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	

TRS200	Introduction to Translation

Cluster 3: The H	Human Community - Social and Behavioral Sciences (3 hours)	
AGRB210	Introduction to Agribusiness	
ECON110	Principles of Economics	
HSR140	Introduction to Society & Behavior	
HSR150	Introduction to Government Policy & Urban Structures	
PSY100	Introduction to Psychology	
SOC260	<u>Folklore</u>	
SWK200	Introduction to Social Welfare	

Cluster 3: The Hum	an Community - The Global Experience (3 hours)	
AGRB360	Global Agri-food Trade	

ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	
GEO200	World Regional Geography	
HIS120	Arab & Islamic Civilization	
HIS121	World History: Origins to 1500	
HIS122	Modern World History	
HIS125	Contemporary Civilization	
PSG250	Principles of International Relations	
PSG270	Comparative Political Systems	
SOC201	Social & Cultural Change	

Cluster 4: The I	Natural World - Mathematics (3 hours)	
MATH120	Contemporary Applications of Math	

Cluster 4: The	Natural World - Natural Sciences (6 hours)	
ARAG205	Introduction to Fish & Animal Science	
ARAG220	Natural Resources	
BION100	Biology and its Modern Application	
CHEM181	Chemistry in the Modern World	
FDSC250	Contemporary Food Science & Nutrition	
GEOL110	<u>Planet Earth</u>	
PHED201	Physical Fitness and Wellness	
PHYS100	<u>Astronomy</u>	
PHYS101	Conceptual Physics	

Cluster 5: Capst	one Experience (3 hours)	
HSR400	Integrated Capstone	

# English Literature Major (Req. CH:39)

Required Cour	ses (27 hours)	
ENG310	Writing for Research	
ENG250	English Grammar & Usage	
LIT150	Introduction to Literature	
LIT220	Survey of British Literature	
LIT320	Elizabethan & 17th Century Literature	
LIT240	Survey of American Literature	
LIT300	Methods of Research in Literary Study	

LIT410	Criticism and Theory	
LIT420	Senior Seminar Major writer	

Elective Course	es (12 hours)	
LIT330	Romantic & Victorian Literature	
LIT335	20th Century British Literature	
LIT340	19th Century American Literature	
LIT345	20th Century American Literature	
LIT365	Modern World Literature	
LIT370	Anglophone Literature Outside UK & US	
LIT385	Children's Literature	

Minor (1) (18 hours)			

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

Minor (2) (18 hours)

Free Electives (6 hours)

# Minor in Creative and Professional Writing in English

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**

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

### **Program Learning Outcomes**

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

Required Credit Hours: minimum 0 hours

Creative and Professional Writing in English

Required Cour	ses (18 hours)	
EWR215	Advanced Composition TA	
EWR390	Creative Writing Fiction	
EWR395	Tech & Prof Writing TA	
EWR480	Practicum Writing	
DRA370	Playwriting & Performance in Arabic <sup>1</sup>	
MSC235	Principles of the Writing for Media	
EWR380	Creative Writing Non-fiction <sup>2</sup>	

1 : Take only one

2 : Take only one

# Minor in English Language and Literacy

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**

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

### **Program Learning Outcomes**

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

Required Credit Hours: minimum 18 hours

English Language and Literacy Minor

1 : Students must take one only

Required Cours	ses (18 hours)	
ENG210	College Reading and Writing	
ENG250	English Grammar & Usage	
ENG300	Critical Reading in the Disciplines	
ENG310	Writing for Research	
ENG312	Cultural Literacy: English in the World	
ENG450	Public Speaking and Debate <sup>1</sup>	
ENG454	Practicum: Writing for the Workplace	

### **Minor in Fine Arts**

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**

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

Required Credit Hours: minimum 18 hours

### Fine Arts

Required Cour	ses (15 hours)	
ART201	Drawing I	
ART301	Painting I	
ART302	3-D Design	
ART303	<u>Digital Photography</u>	
MSC462	<u>Designing Media Messages</u>	

Elective Courses (Student	ts must take one of the following courses:) (3 hours)	
ART101	Arts and Society I	
ART102	Arts and Society II	
ART382	Introduction to Art Criticism	

### **Minor in Film Studies**

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

- Improve the ability of students to view films critically.
- Create an awareness of international film industries and their significance for the development of film history.
- Illustrate the individual steps in the film production process.
- Engender participation in original film production.
- Situate local productions within the larger context of world cinema.

#### **Program Learning Outcomes**

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

Required Credit Hours: minimum 18 hours

Core Courses: Students must take these courses

Required Cour	ses (15 hours)	
FIL240	Introduction to Film & Visual Studies TA	
FIL245	Film & Culture World Cinema TA	
FIL340	Developing Ideas for Film	
FIL345	Principles of Screenwriting TA	
MSC485	Practicum in Digital Production	

Elective Course	es (3 hours)	
FIL350	Cinema in the Arab World TA	
MSC487	Women and Media	
FIL312	Animation Filmmaking	

## Minor in Drama

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**

- Situate key dramatic works and perspectives across a range of styles and periods.
- Explore ways to interpret human behavior and communicate across obstacles using dramatic texts as
   case studies and drama project management as practical experience.
- Create and manage short and complex dramatic projects in stages.
- 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.
- Manage elaborate events.

#### **Program Learning Outcomes**

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

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

# Degree Requirements

Required Credit Hours: minimum 18 hours

## Drama

Required Cou	rses (18 hours)	
DRA260	Practical Introduction to Theatre TA	
DRA265	Approaches to Drama TA	
DRA365	Drama in Education TA	
DRA370	Playwriting & Performance in Arabic	
DRA360	Fundamentals of Stage Prod TA	
DRA460	Practicum Drama TA	

# **Department of Geography and Urban Planning**

# **Bachelor of Arts in Geography**

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**

- To provide students with the theoretical and practical foundation (knowledge) in physical and human geography, geospatial science (Cartography, GIS, Remote Sensing), and urban planning.
- To equip students with critical thinking and geospatial technical skills.
- To prepare students for conducting quantitative and qualitative researches and embedding ethics in social and environmental problems.
- 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:

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

### Degree Requirements

Required Credit Hours: minimum 120 hours

General Education (Req. CH:39)

Cluster 1: Values to I	Live By - Islam (3 hours)	
ISLM100	<u>Islamic Culture</u>	

Cluster 1: Valu	es to Live By - Ethics (3 hours)	
PHI121	Fundamentals of Environmental Ethics	
PHI122	International Ethics	

PHI226	Human Rights Theory	
PHIL120	Principles of Professional Ethics	
FOED102	Professional Ethics in Education	
Cluster 2: Skills for Life - English Communication (3 hours)		
ESPU1014	Introduction to Academic English for Humanities and SS	
Cluster 2: Skills for Life - Information Literacy (3 hours)		
GEIL101	Information Literacy	
Charten 2: Chill	- for Life Thinking Chille (2 house)	

Cluster 2: Skills for Life - Thinking Skills (3 hours)		
HSS110	Scientific Research Skills	
CSBP119	Algorithms and Problem Solving	
PHI180	Critical Thinking 1	

 $\ensuremath{\mathtt{1}}$  : IBLC - Inquiry based learning courses must be taken within first 30 credit hours

Cluster 3: The Human Community - Emirates Society (3 hours)	
HSS105	Emirates Studies

Cluster 3: The Human Community - Humanities/Fine Arts (3 hours)		
ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History	
HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	Introduction to Literature	
LNG100	Introduction to Linguistics	

LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	
TRS200	Introduction to Translation	

Cluster 3: The Human Community - Social and Behavioral Sciences (3 hours)		
AGRB210	Introduction to Agribusiness	
ECON110	Principles of Economics	
HSR140	Introduction to Society & Behavior	
HSR150	Introduction to Government Policy & Urban Structures	

PSY100	Introduction to Psychology	
SOC260	<u>Folklore</u>	
SWK200	Introduction to Social Welfare	

# Cluster 3: The Human Community - The Global Experience (3 hours)

GEO200 <u>World Regional Geography</u> <sup>2</sup>

 ${\bf 2}$  : Also counts towards the Major

Cluster 4: The Natural World - Mathematics (3 hours)		
MATH120	Contemporary Applications of Math	
STAT101	Statistics in the Modern World	

# Cluster 4: The Natural World - Natural Sciences (3 hours)

GEO201 Physical Geography <sup>3</sup>

# 3 : Also counts towards the Major

Cluster 4: The Natural World	- Natural Sciences Student should take one of the following courses: (3 hours)	
PHYS100	Astronomy	
PHYS101	Conceptual Physics	
FDSC250	Contemporary Food Science & Nutrition	
GEOL110	Planet Earth	
ARAG205	Introduction to Fish & Animal Science	
ARAG220	Natural Resources	
BION100	Biology and its Modern Application	
PHED201	Physical Fitness and Wellness	
CHEM181	Chemistry in the Modern World	

Cluster 5: Caps	tone Experience (3 hours)	
HSR400	Integrated Capstone <sup>4</sup>	
4 : Also counts towards the Major		

# Geography Major (Req. CH:33)

Required Cours	ses (9 hours)	
GEO210	Human Geography	
GEO220	Principles of Cartography	
GEO221	Geographic Information Systems I	

Students should take one of the following Tracks: (Req. CH:24) 1: Environmental Geography Track

Required Courses (15 hours)

GEO211	Remote Sensing	
GEO413	Geomorphology	
GEO452	Climatology	
GEO462	Current Environmental Issues	
GEO400	Practicum <sup>5</sup>	
GEO410	Research Seminar in Geography <sup>6</sup>	

- 5 : Student can either take this course over a complete semester. No courses are allowed to be registered when taking this cour
- 6 : OR student can take this course over a complete semester. Other courses can be registered with this course

Elective Cours	es (9 hours)	
GEO231	Economic Geography	
GEO341	Geography of Population	
GEO402	<u>Land Use</u>	

GEO411	<u>Oceanography</u>	
GEO412	Geography of Arid Lands	
GEO431	Natural Hazards	
GEO443	Geography of Transportation	

## 2: Geoinformatics Track

Required Courses (15 hou	ırs)	
GEO211	Remote Sensing	
GEO334	Spatial Analysis	
GEO420	Cartography II	
GEO422	Geographic Information Systems II	
GEO400	Practicum <sup>7</sup>	

GEO410	Research Seminar in Geography 8
020 110	research seminar in seegraphy

- 7 : Student can either take this course over a complete semester. No courses are allowed to be registered when taking this cour
- $8:\mbox{OR}$  student can take this course over a complete semester. Other courses can be registered with this course

Elective Course	es (9 hours)	
GEO351	Computer Maps	
GEO382	Geography of Industry	
GEO402	Land Use	
GEO432	Geography of the UAE	
GEO443	Geography of Transportation	
GEO451	<u>Digital Imaging Analysis</u>	
GEO452	Climatology	

## 3: Urban Planning Track

Required Courses (15 hours)		
GEO334	<u>Spatial Analysis</u>	
GEO372	Planning Theory and Practice	
GEO481	<u>Urban Planning Internship</u> 9	
GEO402	Land Use	
GEO438	Regional & Urban Planning	

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

Elective Course	es (9 hours)	
GEO232	<u>Urban Economics</u>	
GEO345	<u>Urban Demography</u>	
GEO370	Transit Oriented Development (TOD)	

GEO440	GIS for Urban & Regional Planning	
GEO463	Tourism Policy and Planning	
GEO472	Politics and Planning	

Minors and Free Electives (Req. CH:48) Required Minor

Minor (1) (18 hours)

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

Minor (2) (18 hours)

Free Electives (12 hours)

## **Minor in Geoinformatics**

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**

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

#### **Program Learning Outcomes**

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

- Demonstrate understanding of vector and raster models, database development, management techniques, and spatial analysis.
- Evaluate the quality and suitability of GIS data for diverse applications.
- Illustrate proficiency in the use of GIS software to build database, perform spatial analysis, prepare maps, reports, and charts for presentation of results.
- Apply GIS analysis techniques in various fields such as transportation, urban planning, petroleum,
   coastal management, environment, and GIS project management.

# Degree Requirements

Required Credit Hours: minimum 18 hours

## Geoinformatics

Required Cours	ses (6 hours)
GEO220	Principles of Cartography
GEO221	Geographic Information Systems I

Elective Course	Elective Courses (12 hours)	
GEO430	GIS for Transportation	
GEO440	GIS for Urban & Regional Planning	
GEO450	GIS for Coastal Management	
GEO460	GIS for Petroleum	
GEO470	GIS for Environment	
GEO480	GIS for Project Management	

# **Department of History and Archaeology**

## **Bachelor of Arts in Tourism Studies**

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.
- Solid knowledge about planning, managing, operating and promoting cultural, heritage, environmental
  and leisure tourism resources and products.
- Practical knowledge of planning, developing, managing, operating and promoting sustainable destinations.
- Ability to conduct research with the focus on the relationships between tourism, culture, heritage and sustainable development.
- 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:

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

## Degree Requirements

Required Credit Hours: minimum 120 hours

General Education (Req CH:39)

Cluster 1: Values to	Live By - Islam (3 hours)	
ISLM100	<u>Islamic Culture</u>	

Cluster 1: Valu	ues to Live By - Ethics (3 hours)	
PHI121	<u>Fundamentals of Environmental Ethics</u>	
PHI122	International Ethics	
PHI226	Human Rights Theory	
PHIL120	Principles of Professional Ethics	
FOED102	Professional Ethics in Education	

Cluster 2: Skills for Life - English Communication (3 hours)

ESPU1014

Introduction to Academic English for Humanities and SS

Cluster 2: S	Skills for Life -	Information	Literacy (	(3 hours)
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GEIL101

Information Literacy

Cluster 2: Skills	for Life - Thinking Skills (3 hours)	
HSS110	Scientific Research Skills	
CSBP119	Algorithms and Problem Solving	
PHI180	Critical Thinking <sup>1</sup>	
PSY105	Creative & Innovative Thinking Skills	

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

# Cluster 3: The Human Community - Emirates Society (3 hours)

HSS105

**Emirates Studies** 

Cluster 3: The Human Community - Humanities/Fine Arts (3 hours)		
ARCH340	History and Theory of Architecture	
HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	<u>Introduction to Literature</u>	
LNG100	Introduction to Linguistics	
LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	

Cluster 3: The H	Human Community - Social and Behavioral Sciences (3 hours)	
AGRB210	Introduction to Agribusiness	
ECON110	Principles of Economics	
HSR140	Introduction to Society & Behavior	
HSR150	Introduction to Government Policy & Urban Structures	
PSY100	Introduction to Psychology	
SOC260	<u>Folklore</u>	
SWK200	<u>Introduction to Social Welfare</u>	

Cluster 3: The Human Community - The Global Experience (3 hours)		
AGRB360	Global Agri-food Trade	

ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	
GEO200	World Regional Geography	
HIS120	Arab & Islamic Civilization	
HIS121	World History: Origins to 1500	
HIS125	Contemporary Civilization	
PSG250	Principles of International Relations	

Cluster 4: The Natural World - Mathematics (3 hours)		
MATH120	Contemporary Applications of Math	
STAT101	Statistics in the Modern World	

# Cluster 4: The Natural World - Natural Sciences (6 hours)

ARAG205	Introduction to Fish & Animal Science	
ARAG220	Natural Resources	
BION100	Biology and its Modern Application	
CHEM181	Chemistry in the Modern World	
FDSC250	Contemporary Food Science & Nutrition	
GEOL110	Planet Earth	
PHED201	Physical Fitness and Wellness	
PHYS100	<u>Astronomy</u>	
PHYS101	Conceptual Physics	

Cluster 5: Capstone Experience (3 hours)		
HSR400	Integrated Capstone <sup>2</sup>	

2 : Also counts towards the Major

# Tourism Major (Req CH:39)

Required Courses (21 hours)		
HIS372	Arch. of UAE & A. Gulf States	
TOR101	Introduction to Tourism	
TOR202	Fundamentals of Heritage Management	
TOR205	Introduction to Cultural Tourism	
TOR222	Principles of Tour Guidance	
TOR421	Intensive Research in Tourism	
TOR440	<u>Internship in Tourism &amp; Architecture</u> <sup>3</sup>	

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

Cluster 1: Theoretical/Survey - Students must take two courses from this cluster, one of which must be at the 400 level (6 hours)		
GEO432	Geography of the UAE	
GEO461	Geography of Tourism	
PSG120	Government & Politics of UAE	
PSG250	Principles of International Relations	
TOR263	Tourism Resources in the UAE	
TOR350	Tourism and the Environment	
TOR403	Tourism and Society	
TOR404	Sustainable Tourism Development & Planning	

Cluster 2: Heritage - Stud	ents must take two courses from this cluster, one of which must be an art course (6 hours)	
HIS121	World History: Origins to 1500	

HIS133	Introduction to Art History	
HIS215	Ancient History & Archaeology of Near East	
HIS217	Material Culture of Islamic World	
HIS310	Introduction to Archaeology & Museum Studies	
HIS381	UAE Architectural Heritage	
HIS471	Modern and Contemporary History of the Arab Gulf	
TOR322	Gulf art and design	

Cluster 3: Tourism and Heritage Operation - Students must take two courses, one of which must be enterprise or management (6 hours)		
MGMT200	Fundamentals of Management	
MKTG200	Principles of Marketing	
MSC243	Public Relations & Advertising Principles	

TOR140	Introduction to Museology	
TOR416	Travel Writing & New Technologies	

Minors and Free Electives (Req. CH:42)



# **Bachelor of Arts in History**

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

- Understanding of both the scientific methods and literary values of history.
- Knowledge of the historical forces shaping the past, present and future world.
- Capacity to analyze historical sources and arguments.
- 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:

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

## Degree Requirements

Required Credit Hours: minimum 120 hours

General Education (Req CH:39)

Cluster 1: Values to Live By - Islam (3 hours)		
ISLM100	<u>Islamic Culture</u>	

Cluster 1: Values to Live By - Ethics (3 hours)		
FOED102	Professional Ethics in Education	
PHI121	Fundamentals of Environmental Ethics	
PHI122	International Ethics	
PHI226	Human Rights Theory	
PHIL120	Principles of Professional Ethics	

Cluster 2: Skills for Life - English Communication Skills (3 hours)

ESPU1014

Introduction to Academic English for Humanities and SS

Cluster 2:	Skills for Life -	Information Literac	y I	(3 hours)	
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GEIL101

Information Literacy

Cluster 2: Skills for Life - Thinking Skills (3 hours)		
HSS110	Scientific Research Skills	
CSBP119	Algorithms and Problem Solving	
PHI180	Critical Thinking <sup>1</sup>	
PSY105	Creative & Innovative Thinking Skills	

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

# Cluster 3: The Human Community - Emirates Society (3 hours)

HSS105

**Emirates Studies** 

Cluster 3: The H	luman Community - Humanities/Fine Arts (3 hours)	
ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History <sup>2</sup>	
HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	<u>Introduction to Literature</u>	
LNG100	<u>Introduction to Linguistics</u>	
LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	

PHI271	History and Philosophy of Science	
TRS200	Introduction to Translation	

 $\ensuremath{\mathbf{2}}$  : The Archaeology concentration Students must not take this course in this area

Cluster 3: The I	Human Community - Social and Behavioral Sciences (3 hours)	
AGRB210	Introduction to Agribusiness	
ECON110	Principles of Economics	
HSR140	Introduction to Society & Behavior	
HSR150	Introduction to Government Policy & Urban Structures	
PSY100	Introduction to Psychology	
SOC260	<u>Folklore</u>	
SWK200	Introduction to Social Welfare	

Cluster 3: The	Human Community - The Global Experience (3 hours)	
HIS122	Modern World History <sup>3</sup>	
3 : Also counts	towards the Major	
Cluster 4: The	Natural World - Mathematics (3 hours)	
MATH120	Contemporary Applications of Math	
STAT101	Statistics in the Modern World	
Cluster 4: The	Natural World - Natural Sciences (6 hours)	
ARAG205	<u>Introduction to Fish &amp; Animal Science</u>	
ARAG220	Natural Resources	
BION100	Biology and its Modern Application	
CHEM181	Chemistry in the Modern World	

FDSC250	Contemporary Food Science & Nutrition	
GEOL110	Planet Earth	
PHED201	Physical Fitness and Wellness	
PHYS100	<u>Astronomy</u>	
PHYS101	Conceptual Physics	

Cluster 5: Caps	tone Experience (3 hours)	
HSR400	Integrated Capstone <sup>4</sup>	
4 : Also counts towards the Major		

### History Major

Required Cours	ses for both concentrations (12 hours)	
HIS121	World History: Origins to 1500	

HIS142	History of Islamic World: Origins 1500	
HIS212	History of the UAE	
HIS373	Hist. of Arab World from 1500	

### History Concentration (Req CH:27)

Required Cour	ses (15 hours)	
HIS200	Methodology & Historiography	
HIS318	History of the Arabian Gulf	
HIS376	Special Topics I	
HIS377	Special Topics II	
HIS301	Research Project	

Islam and the Arab World (6 hours)

HIS124	Rise of Islam & Omayyed state	
HIS245	Relationship between East & West in Middle Ages	
HIS251	History of the Islamic West	
HIS332	Ancient History & Archaeology Arabian of the Peninsula	
HIS352	History of the Abbasid State	
HIS378	History of Trade in the Indian ocean till 1500	

The Modern an	nd Contemporary World (6 hours)	
HIS123	American History	
HIS213	Medieval West: 600-1500	
HIS239	History of Africa:1800-present	
HIS241	Modern History of Europe	
HIS243	History of East Asia	

HIS374	Public History	
HIS375	Hist. of Islam World from 1500	

# Archaeology Concentration (Req. CH:24)

Required Cour	ses (24 hours)	
HIS217	Material Culture of Islamic World	
HIS133	Introduction to Art History	
HIS215	Ancient History & Archaeology of Near East	
HIS310	Introduction to Archaeology & Museum Studies	
HIS311	Archaeology Field Methods	
HIS372	Arch. of UAE & A. Gulf States	
HIS301	Research Project	

HIS401	Internship in Museum Studies	
Elective (3 hou	urs)	
HIS379	Maritime Archaeology <sup>5</sup>	
5 : Or can sele	ect from any History offering	
Minors and Fre	e Electives (Req. CH:36) Required Minors	
Minor (1) (18	hours)	

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

Minor (2) (18 hours)

Free Electives for History (6 hours)

Free Electives for Archaeology (9 hours)

## **Minor in Cultural Resource Management**

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

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

#### **Program Learning Outcomes**

- Recognize and explain patterns of change through the study of material culture and documents.
- Develop familiarity with the special art, culture and history of the UAE and Arab Gulf region.
- Identify methods of protecting and preserving architectural, artistic and cultural heritage.
- Evaluate and appreciate the significance of heritage preservation in UAE and international contexts.

Required Credit Hours: minimum 18 hours

### Cultural Resource Management

Required Courses (15 hours)		
HIS132	<u>Fundamentals of Archeology</u>	
HIS312	Historical Preservation	
HIS318	History of the Arabian Gulf	
HIS372	Arch. of UAE & A. Gulf States	
HIS381	UAE Architectural Heritage	

Elective Cours	ses (3 hours)	
HIS217	Material Culture of Islamic World	
HIS440	<u>Oral History</u>	
MGMT200	Fundamentals of Management	

MSC235

Principles of the Writing for Media

### Minor in Tourism

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

- Preparing students for advancement in the field of tourism administration, heritage management,
   travel and tourism, and cultural heritage sectors.
- 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.
- Increasing the chances of student employability in tourism sectors.

#### **Program Learning Outcomes**

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

Required Credit Hours: minimum 18 hours

### Tourism

Core Courses (Students must take these courses) (12 hours)		
TOR101	Introduction to Tourism	
TOR263	Tourism Resources in the UAE	
TOR403	Tourism and Society	
HIS381	UAE Architectural Heritage	

Elective Courses (Choose two of the following courses one of which must be at the 300 level or above) (6 hours)		
HIS215	Ancient History & Archaeology of Near East	
HIS217	Material Culture of Islamic World	
HIS310	Introduction to Archaeology & Museum Studies	
TOR350	Tourism and the Environment	

GEO461	Geography of Tourism	
MSC452	Public Relations & Advertising Campaigns	

## **Bachelor of Arts in Linguistics**

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

- 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.
- To equip students with the necessary professional infrastructure to conduct research, disseminate findings, and undertake community service.
- To enhance traditional values of volunteerism, social solidarity, cooperation and mutual aid through real world humanitarian experiences
- To prepare future leaders and entrepreneurs for professional practice and service in a global context.

#### **Program Learning Outcomes**

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

Required Credit Hours: minimum 120 hours

General Education (Req. CH:39)

Cluster 1: Values to L	Live By - Islam (3 hours)	
ISLM100	<u>Islamic Culture</u>	

Cluster 1: Values to Live By - Ethics (3 hours)		
FOED102	Professional Ethics in Education	
PHI121	Fundamentals of Environmental Ethics	
PHI122	International Ethics	
PHI226	Human Rights Theory	
PHIL120	Principles of Professional Ethics	

Cluster 2: Skills for Life - English Communication Skills (3 hours)

ESPU1014

Introduction to Academic English for Humanities and SS

Cluster 2: Sk	ills for Life -	Information	Literacy (	(3 hours)	
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GEIL101

Information Literacy

Cluster 2: Skills for Life - Thinking Skills (3 hours)		
HSS110	Scientific Research Skills	
CSBP119	Algorithms and Problem Solving	
PHI180	Critical Thinking <sup>1</sup>	
PSY105	Creative & Innovative Thinking Skills	

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

# Cluster 3: The Human Community - Emirates Society (3 hours)

HSS105

**Emirates Studies** 

Cluster 3: The H	luman Community - Humanities/Fine Arts (3 hours)	
ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History	
HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	<u>Introduction to Literature</u>	
LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
PHI101	<u>Introduction to Philosophy</u>	
PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	

TRS200	Introduction to Translation

Cluster 3: The H	Human Community - Social and Behavioral Sciences (3 hours)	
AGRB210	Introduction to Agribusiness	
ECON110	Principles of Economics	
HSR140	Introduction to Society & Behavior	
HSR150	Introduction to Government Policy & Urban Structures	
PSY100	Introduction to Psychology	
SOC260	<u>Folklore</u>	
SWK200	Introduction to Social Welfare	

Cluster 3: The Hum	an Community - The Global Experience (3 hours)	
AGRB360	Global Agri-food Trade	

ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	
GEO200	World Regional Geography	
HIS120	Arab & Islamic Civilization	
HIS121	World History: Origins to 1500	
HIS125	Contemporary Civilization	
PSG250	Principles of International Relations	

Cluster 4: The Natural World - Mathematics (3 hours)		
MATH120	Contemporary Applications of Math	
STAT101	Statistics in the Modern World	

### Cluster 4: The Natural World - Natural Sciences (6 hours)

ARAG205	Introduction to Fish & Animal Science	
ARAG220	Natural Resources	
BION100	Biology and its Modern Application	
CHEM181	Chemistry in the Modern World	
FDSC250	Contemporary Food Science & Nutrition	
GEOL110	Planet Earth	
PHED201	Physical Fitness and Wellness	
PHYS100	<u>Astronomy</u>	
PHYS101	Conceptual Physics	

Cluster 5: Caps	tone Experience (3 hours)	
HSR400	Integrated Capstone <sup>2</sup>	

2 : Also counts towards the Major

# Linguistics Major (Req. CH:39)

Required Cour	ses (30 hours)	
LNG100	Introduction to Linguistics	
LNG220	<u>Phonetics</u>	
LNG231	Phonology I	
LNG241	Syntax I	
LNG250	<u>Morphology</u>	
LNG331	Phonology II	
LNG341	Syntax II	
LNG342	<u>Semantics</u>	
LNG480	Field Methods in Linguistics	

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Elective Courses (Req. CH:9) Students should take one course from each of the following three groups:-

Variation and (	Change (3 hours)	
LNG362	Contrastive Linguistics	
LNG370	Historical Linguistics	
LNG410	Sociolinguistics	
LNG415	Current Topics in Language Variation & Change	

Representation	n, Meaning & Mind (3 hours)	
LNG321	Language & Computer Technology	
LNG420	Computational Linguistics	
LNG450	<u>Psycholinguistics</u>	

LNG475	Current Topics in Language Rept Meaning & Mind	
PHI333	Philosophy of Language	

Arabic linguist	ics (3 hours)	
LNG290	Linguistic Structure of Arabic	
LNG390	Arabic Syntax	
LNG470	Current Topics in Arabic Linguistics	
LNG485	Neuroscience of Arabic	

### Minors and Free Electives (Req. CH:42)

Required Minor (1) (18 hours)

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

Free Electives (6 hours)

## Minor in Aphasia

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

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

#### **Program Learning Outcomes**

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

Required Credit Hours: minimum 18 hours

# Aphasia

Required Courses (18 hours)		
BIOL222	Introduction to Cognitive Neuroscience	
LNG450	<u>Psycholinguistics</u>	
LNG460	Linguistic Theory and Aphasia	
LNG455	Practicum-TA-	
PSY314	Sensation and Perception	
SPED222	Language & Communication Disorders	

## **Minor in Computational Linguistics**

The Minor in Computational Linguistics is an 18-credit hour program. It provides students with insights into the fundamental problems, questions and methods of solution for the fields of Natural language Processing, Computational Linguistics, and Language Technology. The program develops solid programming and software development knowledge in regards to various paradigms of computer programming and in the region of complex linguistic technological problem areas, and an understanding of the foundational formulas of computational linguistics.

#### **Program Objectives**

- gain a theoretically grounded appreciation of contemporary work in Computational Linguistics
   (CL)/Natural Language Processing (NLP).
- develop practical skills in writing and implementing grammar fragments in mainstream CL/NLP formalisms, and in implementing systems.
- introduce styles of argumentation and evaluation criteria used in CL/NLP research.
- recognize contemporary computationally oriented grammar formalisms and linguistic descriptions using these formalisms.
- develop a critical appreciation of a selection of recent research in NLP.

#### **Program Learning Outcomes**

- introduce different approaches to the study of language adopted in contemporary work in Computational Linguistics (CL)/Natural Language Processing (NLP).
- explore the interface of the study of language and contemporary work in CL/NLP.
- identify key concepts, issues, ideas, theories, techniques styles of argumentation and evaluation criteria used in contemporary CL/NLP.
- demonstrate methods and tools employed in contemporary CL/NLP research in relation to collection,
   analysis and presentation of data, programming, system development and evaluation.
- illustrate a range of applications that constitute natural language processing and language technology and the issues that arise in constructing natural language processing applications.
- appraise simple natural language processing systems.

Required Credit Hours: minimum 18 hours

# **Computational Linguistics**

Required Cour	ses (18 hours)	
CSBP301	Artificial Intelligence	
CSBP119	Algorithms and Problem Solving	
CSBP219	Object Oriented Programming	
CSBP316	Human Computer Interaction	
CSBP319	<u>Data Structures</u>	
LNG420	Computational Linguistics	

## **Minor in Educational Linguistics**

The Minor in Educational Linguistics is an 18-credit hour program. Its objective is to introduce students to the main aspects of linguistics as these relate to language education. Courses offered include Introduction to Applied Linguistics, Second Language Acquisition & Teaching, teaching English for Specific Purposes, Teaching Adult Learners, and Language Testing.

#### Program Objectives

- to introduce students to central aspects of linguistics as these relate to language education.
- to provide students with an in-depth understanding of theoretical issues in the field of Educational Linguistics.

#### Program Learning Outcomes

- explain the nature & scope of Educational Linguistics & the key concepts in the field
- develop the technical vocabulary necessary for discussion of key issues in a range of relevant subfields including Second Language Acquisition, English for Specific Purposes, and Language Testing.
- demonstrate acquaintance with contemporary theoretical approaches employed in a range of relevant subfields including Second Language Acquisition, English for Specific Purposes, and Language Testing.
- distinguish the theoretical principles that underlie the key skills, strategies & techniques required for effective teaching of foreign languages, with particular reference to the teaching of English.

Required Credit Hours: minimum 18 hours

# **Educational Linguistics**

Required Cours	ses (9 hours)
TSL110	Introduction to Applied Linguistics
TSL321	Secondary Language Acquisition & Teaching
TSL431	Skills & Strategies

Elective Course	es (9 hours)	
TSL220	Pedagogical Structure	
TSL230	Development of Second Language Literacy	
TSL360	<u>Discourse Analysis</u>	
TSL240	Teaching Adult Learners-TA	
TSL331	Teaching Eng for (ESP)	

TSL351	Language Testing-TA-	
TSL442	Second Language Methodology	
CURR316	Teaching Methods of English for Young Learners	
CURR358	Content and Pedagogy Development of ENGL-EL	

## **Minor in Natural Language Processing**

The Minor in Natural Language Processing is an 18-credit hour program. It introduces students to approaches to the study of Natural Language Processing and provides them with the knowledge and the tools used in NLP research and its applications in the language industry, including system development, implementation and evaluation.

#### Program Objectives

- Gain a theoretically grounded appreciation of contemporary work in Natural Language Processing (NLP).
- Develop practical skills in writing and implementing grammar fragments in mainstream NLP formalisms, and in implementing systems.
- Introduce styles of argumentation and evaluation criteria used in NLP research.
- Recognize contemporary computationally oriented grammar formalisms and linguistic descriptions using these formalisms.
- Develop a critical appreciation of a selection of recent research in NLP.

#### **Program Learning Outcomes**

- Introduce different approaches to the study of language adopted in contemporary work in NLP.
- Explore the interface of the study of language and contemporary work in NLP.
- Identify key concepts, issues, ideas, theories, techniques styles of argumentation and evaluation criteria used in contemporary NLP.
- Demonstrate methods and tools employed in contemporary NLP research in relation to collection, analysis and presentation of data, programming, system development and evaluation.
- Illustrate a range of applications that constitute natural language processing and language technology and the issues that arise in constructing natural language processing applications.
- Appraise simple natural language processing systems.

Required Credit Hours: minimum 18 hours

### Natural Language Processing

Required Cour	ses (12 hours)	
CSBP119	Algorithms and Problem Solving	
CSBP219	Object Oriented Programming	
CSBP316	Human Computer Interaction	
LNG420	Computational Linguistics	

Elective Option	n One (3 hours)	
LNG280	Linguistic Structure of English	
LNG290	Linguistic Structure of Arabic	

Elective Option Two (3 hours)

LNG231	Phonology I	
LNG241	Syntax I	

# **Department of Mass Communication**

### **Bachelor of Arts in Mass Communication**

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

- To produce graduates who are highly competent professionals and who will be competitive in a technology-driven job market.
- 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.
- 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**

- 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.
- Demonstrate critical thinking abilities as applied to academic as well as professional arenas.
- 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.
- 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.
- Explain the importance of diverse perspectives in solving societal problems.
- Develop organizational, team work, and leadership skills.
- Communicate effectively in both oral and written forms with various audiences.

Required Credit Hours: minimum 120 hours

General Education (Req CH:39)

Cluster 1: Valu	es to Live By - Islam (3 hours)
ISLM100	<u>Islamic Culture</u>
Cluster 1: Valu	es to Live By - Ethics (3 hours)
PUBL421	Press Law and Ethics <sup>1</sup>
1 : Also counts towards the Major	
Cluster 2: Skills	s for Life - English Communication (3 hours)
ESPU1014	Introduction to Academic English for Humanities and SS
Cluster 2: Skills for Life - Information Literacy (3 hours)	
GEIL101	Information Literacy

Cluster 2: Skills	for Life - Thinking Skills (3 hours)	
HSS110	Scientific Research Skills	
CSBP119	Algorithms and Problem Solving	
PSY105	Creative & Innovative Thinking Skills	
PHI180	Critical Thinking <sup>2</sup>	

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

Cluster 3: The Human Com	munity - Emirates Society (3 hours)	
HSS105	Emirates Studies	

Cluster 3: The Human Community - Humanities/Fine Arts (3 hours)		
ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History	

HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	Introduction to Literature	
LNG100	Introduction to Linguistics	
LNG110	Language, Society & Culture	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	
TRS200	Introduction to Translation	

Cluster 3: The Human Community - Social and Behavioral Sciences (3 hours)		
AGRB210	Introduction to Agribusiness	
ECON110	Principles of Economics	

HSR140	Introduction to Society & Behavior	
HSR150	Introduction to Government Policy & Urban Structures	
PSY100	Introduction to Psychology	
SOC260	<u>Folklore</u>	
SWK200	<u>Introduction to Social Welfare</u>	

Cluster 3: The Hun	nan Community - The Global Experience (3 hours)	
AGRB360	Global Agri-food Trade	
ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	
GEO200	World Regional Geography	
HIS120	Arab & Islamic Civilization	
HIS121	World History: Origins to 1500	

HIS125	Contemporary Civilization	
PSG250	Principles of International Relations	

Cluster 4: The Natural World - Mathematics (3 hours)		
MATH120	Contemporary Applications of Math	
STAT101	Statistics in the Modern World	

Cluster 4: The	Natural World - Natural Sciences (6 hours)	
ARAG205	Introduction to Fish & Animal Science	
ARAG220	Natural Resources	
BION100	Biology and its Modern Application	
CHEM181	Chemistry in the Modern World	
FDSC250	Contemporary Food Science & Nutrition	

GEOL110	Planet Earth	
PHED201	Physical Fitness and Wellness	
PHYS100	<u>Astronomy</u>	
PHYS101	Conceptual Physics	

Cluster 5: Capstone Experience (3 hours)		
HSR400	Integrated Capstone <sup>3</sup>	
3 · Also counts towards the Major		

# Mass Communication Major (Req CH:39)

Required Courses (2	1 hours)	
MSC203	Principles of Visual Communication	
MSC211	Principles of Oral Communication	

MSC235	Principles of the Writing for Media	
MSC370	Communication Theories	
MSC480	Contemporary Issues in Mass Communications	
MSC490	Practicum <sup>4</sup>	

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

### Concentration Requirements (Req CH:18)

Students should take one of the following Concentration: (18 hours)

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

Required Courses (18 hours)		
MSC264	News Writing	

MSC356	News Reporting	
MSC390	News Editing (lab)	
MSC396	Communication Research Methods	
MSC401	Computer Assisted Reporting	
MSC450	Newspaper& Magazine Production	

# 2: Public Relations and Advertising Concentration

Required Courses (15 hours)		
MSC243	Public Relations & Advertising Principles	
MSC342	Writing for Public Relations	
MSC396	Communication Research Methods	
MSC452	Public Relations & Advertising Campaigns	

MSC462	<u>Designing Media Messages</u>	
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### 3: Radio Broadcasting Concentration

Required Cour	rses (15 hours)	
MSC316	Broadcast Management	
MSC352	Writing for Broadcast	
MSC396	Communication Research Methods	
MSC420	Radio Production I	
MSC460	Radio Production II	

### 4: Television Broadcasting Concentration

Required Courses (15 hours)

MSC257	Television Production I	
MSC316	Broadcast Management	
MSC352	Writing for Broadcast	
MSC355	Television Production II	
MSC396	Communication Research Methods	

### **Elective Courses**

Elective Courses for Public Relations and Advertising, Radio Broadcasting and Television Broadcasting Concentrations (3 hours)		
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
MSC250	<u>Photojournalism</u>	
MSC381	Translation for Communication	

MSC391	Communication in Modern Societies	
MSC411	Case Studies in Public Relations	
MSC412	Public Opinion	
MSC422	Organizational Communication	

Minors and Free Electives (Req. CH:42)

Required Minor (1) (18 hours)

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

Free Electives (6 hours)

### **Minor in Television Studies**

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

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

#### **Program Learning Outcomes**

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

Required Credit Hours: minimum 18 hours

### **Television Studies**

Required Courses (12 hours)		
MSC203	Principles of Visual Communication <sup>1</sup>	
MSC257	Television Production I	
MSC352	Writing for Broadcast	
MSC485	Practicum in Digital Production	

1 : Students on the PR or Journalism Studies tracks of the Mass Communication Program take MSC 200 instead

Elective Courses (6 hours)		
MSC250	<u>Photojournalism</u>	
MSC316	Broadcast Management <sup>2</sup>	
MSC355	Television Production II	

MSC396	Communication Research Methods <sup>3</sup>	
MSC462	Designing Media Messages	

2 : Students in PR Track of Mass Communication should take these two courses only

3 : Not for students of Mass Communication

### Minor in Journalism

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

- To provide students basic insight and understanding of principles and procedures in gathering,
   reporting and writing news and feature articles.
- To develop proficiency and skill in the areas of content production for diverse and converged news media platforms.
- 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**

- Demonstrate competency in journalistic writing and proficiency in various news writing styles.
- Demonstrate basic skill in the craft of non-fiction writing.
- Know interviewing skills and other information gathering skills as well as integration of source information, data and spread sheets into news stories.
- Demonstrate understanding of basic audience effects theories and be media literate.
- 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).
- Demonstrate basic skills in media analysis, including being able to critique a mass media product byusing knowledge from border disciplines.

Required Credit Hours: minimum 18 hours

### Journalism

Required Cour	Required Courses (12 hours)	
MSC235	Principles of the Writing for Media	
MSC264	News Writing	
MSC356	News Reporting	
MSC390	News Editing (lab)	

Elective Courses: St	cudents must chose two of these courses: (6 hours)	
MSC342	Writing for Public Relations	
MSC396	Communication Research Methods	
MSC401	Computer Assisted Reporting	
MSC450	Newspaper& Magazine Production	

PUBL421 Press Law and Ethics

## Minor in Leadership and Communication

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 rang 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 prepares future leaders and decision makers in the UAE society and beyond.

#### Program Objectives

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

#### Program Learning Outcomes

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

- Apply some leadership's theories in practice within the UAE society.
- Apply decision making skills to issues related to UAE society.

Required Credit Hours: minimum 18 hours

### Leadership and Communication

Required Cours	Required Courses (12 hours)	
PSG130	Introduction to Public Administration	
PSY205	Social Psychology	
MKTG200	Principles of Marketing	
MSC211	Principles of Oral Communication	

Elective Option One Stude	ents must choose one of these two courses: (3 hours)	
MSC316	Broadcast Management	
MSC422	Organizational Communication	

Elective Option Two Studer	nts must choose one of these two courses: (3 hours)	
MSC270	Writing for the Media	
MSC435	Intensive Research/Writing	

# **Department of Philosophy**

## **Minor in Citizenship**

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

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

#### **Program Learning Outcomes**

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

Required Credit Hours: minimum 18 hours

## Citizenship

Required Courses (9 hours)	
PHI225	Citizenship & Civil Society
PHI226	Human Rights Theory
PSG120	Government & Politics of UAE

Elective Option One (3 hours)		
PHI314	Contemporary Islamic Political Philosophy	
PSG261	Political Thought	

Elective Option Two (6 hours)		
PHI314	Contemporary Islamic Political Philosophy	

PHI315	Technology and Culture	
PHI320	Ethics in Business Governance	
PHI270	Philosophy of Education	
SOC314	Political Sociology	

## **Minor in Cognitive Science**

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

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

#### **Program Learning Outcomes**

- Demonstrate knowledge of some foundational concepts, theories, and methods necessary to the study
  of both natural and artificial intelligent systems.
- 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.
- Construct rational arguments to support conclusions regarding explanatory models about mental functions and intelligent systems.
- Critically appraise various conflicting perspectives and compare classical and current theories within
  and across the various disciplines that comprise cognitive science.
- Critically assess both quantitative and qualitative methodologies for acquiring data and developing models in the cognitive sciences.

Required Credit Hours: minimum 18 hours

Cognitive Science: Primary Specializations

Required Courses for	non Psychology Majors (12 hours)	
PSY202	Biopsychology	
PSY305	Cognitive Psychology	
PSY417	Neuropsychology	
PHI440	Cognitive Science	

Required Courses for r	on Philosophy Majors (12 hours)	
PHI200	<u>Logic</u>	
PHI322	<u>Epistemology</u>	
PHI323	Philosophy of Mind	
PHI440	Cognitive Science	

Required Courses	s for non Linguistics Majors (12 hours)	
LNG241	Syntax I	
LNG450	<u>Psycholinguistics</u>	
LNG460	Linguistic Theory and Aphasia	
PHI440	Cognitive Science	

Required Cour	ses for non IT Majors (12 hours)	
CSBP119	Algorithms and Problem Solving	
CSBP219	Object Oriented Programming	
CSBP316	Human Computer Interaction	
PHI440	Cognitive Science	

Required Courses for non Biology Majors (12 hours)

BIOC100	Basic Biology I	
BIOL222	Introduction to Cognitive Neuroscience	
BIOE457	Animal Behavior	
PHI440	Cognitive Science	

## **Secondary Specialization Courses**

Students must select two courses from a different specialization stream used as the Primary Specialiation (6 hours)

# **Department of Political Science**

### **Bachelor of Arts in Political Science**

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 sub-divisions 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**

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

#### **Program Learning Outcomes**

- Define basic political science concepts.
- Explicate major theories of various subfields of political science.
- Identify essential political processes, institutions, actors, behaviors, and ideas that shape national and international contexts.
- Demonstrate ethical reasoning in relation to political science issues
- Employ qualitative and quantitative research methods in political science analysis.

- Analyze public policy issues both independently and in a team
- Communicate descriptive and analytical knowledge effectively in written and oral format to various audiences
- Discuss the political and administrative systems of the UAE, as well as its developmental achievements
- Demonstrate preparedness for continued reflective practice and lifelong learning.

Required Credit Hours: minimum 120 hours

General Education (Req. CH:39)

Cluster 1: Values to I	Live By - Islam (3 hours)	
ISLM100	<u>Islamic Culture</u>	

Cluster 1: Valu	ues to Live By - Ethics (3 hours)	
FOED102	Professional Ethics in Education	
PHI121	Fundamentals of Environmental Ethics	
PHI122	International Ethics	
PHI226	Human Rights Theory	

Cluster 2: Skills for Life - English Con	mmunication (3 hours)
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ESPU1014

Introduction to Academic English for Humanities and SS

Cluster 2: Skills for Life - Information Literacy (3 hours)

GEIL101

Information Literacy

Cluster 2: Skills for Life -	Thinking Skills (3 hours)
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HSS110	Scientific Research Skills	
CSBP119	Algorithms and Problem Solving	
PHI180	Critical Thinking <sup>1</sup>	
PSY105	Creative & Innovative Thinking Skills	

 $\ensuremath{\mathtt{1}}$  : IBLC - Inquiry based learning courses must be taken within first 30 credit hours

Cluster 3: The Human Com	munity - Emirates Society (3 hours)	
HSS105	Emirates Studies	

Cluster 3: The H	Human Community - Humanities/Fine Arts (3 hours)	
ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History	
HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	<u>Introduction to Literature</u>	
LNG100	Introduction to Linguistics	
LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	

PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	
TRS200	Introduction to Translation	

Cluster 3: The Human Community - Social and Behavioral Sciences (3 hours)		
AGRB210	Introduction to Agribusiness	
ECON110	Principles of Economics	
HSR140	Introduction to Society & Behavior	
HSR150	Introduction to Government Policy & Urban Structures	
PSY100	Introduction to Psychology	
SOC260	<u>Folklore</u>	
SWK200	Introduction to Social Welfare	

Cluster 3: The	Human Community - The Global Experience (3 hours)		
PSG270	Comparative Political Systems <sup>2</sup>		
2 : Also counts	2 : Also counts towards the Major		
Cluster 4: The	Natural World - Mathematics (3 hours)		
MATH120	Contemporary Applications of Math		
STAT101	Statistics in the Modern World		
Cluster 4: The	Natural World - Natural Sciences (6 hours)		
ARAG205	Introduction to Fish & Animal Science		
ARAG220	Natural Resources		
BION100	Biology and its Modern Application		
CHEM181	Chemistry in the Modern World		

FDSC250	Contemporary Food Science & Nutrition	
GEOL110	Planet Earth	
PHED201	Physical Fitness and Wellness	
PHYS100	Astronomy	
PHYS101	Conceptual Physics	

Cluster 5: Capstone Experience (3 hours)		
HSR400	Integrated Capstone <sup>3</sup>	
3 : Also counts towards the Major		

# Political Science Major (Req. CH:39)

Required Courses (21 hours)		
PSG110	<u>Fundamentals of Political Science</u>	

PSG120	Government & Politics of UAE	
PSG242	Methods of Research in PSG	
PSG250	Principles of International Relations	
PSG261	Political Thought	
PSG430	Special Topics	
PSG440	Internship <sup>4</sup>	

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

Concentration Requirements (Req CH:18)

Students should take one of the following concentrations: (18 hours)

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

Required Cour	Required Courses (12 hours)		
ECON105	Principles of Microeconomics		
PSG301	<u>International Organizations</u>		
PSG315	International Political Economy		
PSG422	Foreign Policy of Great Powers		

Elective Course	es (6 hours)	
PSG302	<u>Diplomatic Systems</u>	
PSG312	Foreign Policy of Arab States	
PSG321	Gulf & Arabic Peninsula Affairs	
PSG332	Europe & The United States	
PUBL207	Public International Law	

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

Required Cours	Required Courses (12 hours)		
ECON105	Principles of Microeconomics		
PSG130	Introduction to Public Administration		
PSG331	Local Governments & Local Administrations		
PSG425	Public Policy		

Elective (6 hours)		
HRMD320	Human Resources Management	
MSC412	Public Opinion	
PSG352	Governmental Budgeting	
PUBL206	Administrative Law	
SOC314	Political Sociology	

### Minors and Free Electives (Req. CH:42)

Required Minor (1) (18 hours)
Optional Minor (2) (Students can either take Minor (2) or 18 credit hours from any free elective courses.) (18 hours)
Free Electives (6 hours)

### **Minor in Political Science**

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

- Provide students with essential concepts and principles in the various subfields of political science.
- Introduce students to various theories and approaches to the study of politics.
- Provide students with solid knowledge about factors that influence international relations and public policy.
- 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:

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

# Degree Requirements

Required Credit Hours: minimum 18 hours

### Political Science

Required Cours	Required Courses (9 hours)		
PSG110	Fundamentals of Political Science		
PSG120	Government & Politics of UAE		
PSG130	Introduction to Public Administration		

Elective Courses Stu	dents must choose three of these courses: (9 hours)	
PSG250	Principles of International Relations	
PSG270	Comparative Political Systems	
PSG315	International Political Economy	
PSG321	Gulf & Arabic Peninsula Affairs	
PSG415	Public Governance	

F	PSG425	Public Policy	
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## **Department of Psychology and Counselling**

### **Bachelor of Arts in Psychology**

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

- To provide students with knowledge of basic concepts, theoretical perspectives, and current and historical trends psychology.
- To train students to apply critical/creative thinking as well as scientific research skills.
- To train students to provide basic psychological services under supervision.
- To prepare students to apply ethical and social responsibilities in their work as well as research.
- 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:

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

### Degree Requirements

Required Credit Hours: minimum 120 hours

General Education (Req. CH:39)

Cluster 1: Values to	Live By - Islam (3 hours)	
ISLM100	<u>Islamic Culture</u>	

Cluster 1: Values to Live By - Ethics (3 hours)		
FOED102	Professional Ethics in Education	
PHI121	Fundamentals of Environmental Ethics	
PHI122	International Ethics	
PHI226	Human Rights Theory	
PHIL120	Principles of Professional Ethics	

Cluster 2: Skills for Life - English Communication (3 hours)

ESPU1014

Introduction to Academic English for Humanities and SS

Cluster 2: Skil	lls for Life - In	formation Litera	су	(3 hours)
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GEIL101

Information Literacy

Cluster 2: Skills for Life - Thinking Skills (3 hours)		
HSS110	Scientific Research Skills	
CSBP119	Algorithms and Problem Solving	
PHI180	Critical Thinking 1	
PSY105	Creative & Innovative Thinking Skills	

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

# Cluster 3: The Human Community - Emirates Society (3 hours)

HSS105

**Emirates Studies** 

Cluster 3: The H	Cluster 3: The Human Community - Humanities/Fine Arts (3 hours)	
ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History	
HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	<u>Introduction to Literature</u>	
LNG100	<u>Introduction to Linguistics</u>	
LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	

PHI271	History and Philosophy of Science	
TRS200	Introduction to Translation	

Cluster 3: The Human Community - Social and Behavioral Sciences (3 hours)		
AGRB210	Introduction to Agribusiness	
ECON110	Principles of Economics	
HSR140	Introduction to Society & Behavior	
HSR150	Introduction to Government Policy & Urban Structures	
SOC260	<u>Folklore</u>	
SWK200	Introduction to Social Welfare	

Cluster 3: The Human Community - The Global Experience (3 hours)		
AGRB360	Global Agri-food Trade	

ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	
GEO200	World Regional Geography	
HIS120	Arab & Islamic Civilization	
HIS121	World History: Origins to 1500	
HIS125	Contemporary Civilization	
PSG250	Principles of International Relations	

Cluster 4: The Natural World - Mathematics (3 hours)		
STAT180	Psychological Statistics I <sup>2</sup>	

 ${\bf 2}$  : Also counts towards the Major

ARAG205	Introduction to Fish & Animal Science	
ARAG220	Natural Resources	
BION100	Biology and its Modern Application	
CHEM181	Chemistry in the Modern World	
FDSC250	Contemporary Food Science & Nutrition	
GEOL110	Planet Earth	
PHED201	Physical Fitness and Wellness	
PHYS100	<u>Astronomy</u>	
PHYS101	Conceptual Physics	

Cluster 5: Capstone Experience (3 hours)		
HSR400	Integrated Capstone <sup>3</sup>	

 ${\bf 3}$  : Also counts towards the Major

# Psychology Major (Req. CH:45)

Required Courses (36 hours)		
PSY100	Introduction to Psychology	
PSY201	Research Methods in Psychology	
PSY202	Biopsychology	
PSY205	Social Psychology	
PSY303	Psychological Tests & Measurements	
PSY304	Developmental Psychology	
PSY305	Cognitive Psychology	
PSY306	Abnormal Psychology	
PSY401	Clinical Psychology	

PSY403	Experimental Psychology	
PSY452	Practicum <sup>4</sup>	
PSY454	Research Project/Internship <sup>5</sup>	

- 4 : Student can take this course over a complete semester. No courses are allowed to be registered when taking this course
- 5 : OR student can take this course over a complete semester. A maximum of 6 Cr. Hrs. of courses can be registered in addition

Elective Courses	Elective Courses - At least two must be PSY 4XX level (9 hours)	
PSY312	Psychology of Learning	
PSY313	Educational Psychology	
PSY314	Sensation and Perception	
PSY315	Industrial Organizational Psychology	
PSY316	School Psychology	
PSY317	Psychology of Personality	

PSY413	Counseling Psychology	
PSY414	Introduction to Health Psychology	
PSY416	<u>Differential Psychology</u>	
PSY417	Neuropsychology	
PSY419	Seminar in Psychology	
STAT280	Psychological Statistics II	

Minors and Electives (Req. CH:36)

Required Minor (18 hours)

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

Minor (2) (18 hours)

## **Department of Social Work**

### **Bachelor of Social Work**

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**

- 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.
- To prepare students for professional practice, to conduct research/dissemination of findings, and for community service.
- To enhance traditional values of volunteerism, social solidarity, cooperation and mutual aid through real world humanitarian experiences.
- 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:

- Apply theoretical knowledge gained in human behavior & social environment, social work practice,
   social policy and research courses to generalist social work practice.
- Present orally and in writing the results of using the problem solving method to case scenarios based on real life situations.
- Conduct bio-psycho-social assessments, needs assessments, planning, and evaluation in relation to generalist social work practice.
- Apply social work generalist practice theory and skills with individuals, families, groups, communities
  and organizational leadership in practice exercises and field practicum settings.
- Apply critical thinking in their interventions with individuals, families, groups, organizations, and communities in their field practicum settings.
- Communicate orally and in writing a research study including data analysis and the use of SPSS.
- Apply a research-based case study on an issue and/or problem encountered in the field.
- Model the professional and ethical behavior expected of entry-level social work professionals,
   including the use of supervision for accountability and improvement of practice.
- Develop self-awareness and learning practice strategies through self-study via readings, practice experiences and reflection.

### Degree Requirements

Required Credit Hours: minimum 120 hours

General Education (Req. CH:39)

Cluster 1: Values to	Live By - Islam (3 hours)	
ISLM100	<u>Islamic Culture</u>	

Cluster 1: Valu	Cluster 1: Values to Live By - Ethics (3 hours)	
FOED102	Professional Ethics in Education	
PHI121	Fundamentals of Environmental Ethics	
PHI122	International Ethics	
PHI226	Human Rights Theory	
PHIL120	Principles of Professional Ethics	

Cluster 2: Skills for Life - English Communication (3 hours)

ESPU1014

Introduction to Academic English for Humanities and SS

Cluster 2: Skills for Life - 1	Information Literacy	(3 hours)
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GEIL101

Information Literacy

Cluster 2: Skills for Life - Thinking Skills (3 hours)		
HSS110	Scientific Research Skills	
CSBP119	Algorithms and Problem Solving	
PHI180	Critical Thinking 1	
PSY105	Creative & Innovative Thinking Skills	

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

# Cluster 3: The Human Community - Emirates Society (3 hours)

HSS105

**Emirates Studies** 

Cluster 3: The H	luman Community - Humanities/Fine Arts (3 hours)	
ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History	
HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	<u>Introduction to Literature</u>	
LNG100	<u>Introduction to Linguistics</u>	
LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	

PHI271	History and Philosophy of Science	
TRS200	Introduction to Translation	

Cluster 3: The H	Cluster 3: The Human Community - Social and Behavioral Sciences (3 hours)	
AGRB210	Introduction to Agribusiness	
ECON110	Principles of Economics	
HSR140	Introduction to Society & Behavior	
HSR150	Introduction to Government Policy & Urban Structures	
PSY100	Introduction to Psychology	
SOC260	<u>Folklore</u>	

Cluster 3: The Hum	an Community - The Global Experience (3 hours)	
AGRB360	Global Agri-food Trade	

ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	
GEO200	World Regional Geography	
HIS120	Arab & Islamic Civilization	
HIS121	World History: Origins to 1500	
HIS125	Contemporary Civilization	
PSG250	Principles of International Relations	

Cluster 4: The Natural World - Mathematics (3 hours)		
STAT101	Statistics in the Modern World	
MATH120	Contemporary Applications of Math	

# Cluster 4: The Natural World - Natural Sciences (6 hours)

ARAG205	Introduction to Fish & Animal Science	
ARAG220	Natural Resources	
BION100	Biology and its Modern Application	
CHEM181	Chemistry in the Modern World	
FDSC250	Contemporary Food Science & Nutrition	
GEOL110	Planet Earth	
PHED201	Physical Fitness and Wellness	
PHYS100	<u>Astronomy</u>	
PHYS101	Conceptual Physics	

Cluster 5: Caps	tone Experience (3 hours)	
HSR400	Integrated Capstone <sup>2</sup>	

2 : Also counts towards the Major

### Social Work Major

Required Courses (63 ho	ours)	
SWK200	Introduction to Social Welfare	
SWK210	Introduction to Humanitarian Social Work	
SWK220	Social Policy & Services	
SWK230	Human Behavior in Social Environments	
SWK240	Social Work Research Methods	
SWK250	Social Work Practice I: Individuals	
SWK251	Social Work Practice I: Skills	
SWK320	Social Policy Research	
SWK350	Social Work Practice II: Families	

SWK351	Social Work Practice II: Skills	
SWK355	Social Work Leadership	
SWK360	Social Work Practice III	
SWK361	Social Work Practice III: Skills	
SWK375	Social Work & Mental Health	
SWK376	Social Work and Special Populations	
SWK380	Social Work & Islam	
SWK385	Social Work & Substance Abuse	
SWK465	Social Work Practicum I <sup>3</sup>	
SWK466	<u>Field Seminar</u>	
SWK470	Field Practicum II <sup>4</sup>	
SWK499	Special Topics In Social Work	

### SWK365

### 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 ser
- 4 : The internship is conducted over 2 semesters. A maximum of 6 Cr. Hrs. of courses can be registered during each of the 2 se

Required Minor (18 hours)

## **Department of Sociology**

## **Bachelor of Arts in Sociology**

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

- To introduce students to sociological Knowledge, methods, concepts, issues and topics that are relevant to the society.
- To provide students with skills and tools needed to engage fieldwork and scientific research in the U.A.E society.
- To train students to think critically in understanding, analyzing, and solving the social issues and problems.
- To enrich students' imagination to understand social behaviors, actions, interactions, problems and policies.
- 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:

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

#### Degree Requirements

Required Credit Hours: minimum 120 hours

General Education (REQ. CH:39)

Cluster 1: Values to I	Live By - Islam (3 hours)
ISLM100	<u>Islamic Culture</u>

Cluster 1: Valu	ues to Live By - Ethics (3 hours)	
FOED102	Professional Ethics in Education	

PHI121	Fundamentals of Environmental Ethics	
PHI122	International Ethics	
PHI226	Human Rights Theory	
PHIL120	Principles of Professional Ethics	
Cluster 2: Skills	s for Life - English Communication (3 hours)	
ESPU1014	Introduction to Academic English for Humanities and SS	
Cluster 2: Skills	Cluster 2: Skills for Life - Information Literacy (3 hours)	
GEIL101	Information Literacy	
Cluster 2: Skills	s for Life - Thinking Skills (3 hours)	
HSS110	Scientific Research Skills	
CSBP119	Algorithms and Problem Solving	

PSY105	Creative & Innovative Thinking Skills	
PHI180	Critical Thinking 1	

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

Cluster 3: The Human Com	nmunity - Emirates Society (3 hours)	
HSS105	Emirates Studies	

Cluster 3: The H	luman Community - Humanities/Fine Arts (3 hours)	
ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History	
HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	Introduction to Literature	

LNG100	Introduction to Linguistics	
LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	
TRS200	Introduction to Translation	

Cluster 3: The H	luman Community - Social and Behavioral Sciences (3 hours)	
AGRB210	Introduction to Agribusiness	
ECON110	Principles of Economics	
HSR140	Introduction to Society & Behavior	

HSR150	Introduction to Government Policy & Urban Structures	
PSY100	Introduction to Psychology	
SOC260	<u>Folklore</u>	
SWK200	Introduction to Social Welfare	

Cluster 3: The Human Community - The Global Experience (3 hours)	

SOC201 Social & Cultural Change <sup>2</sup>

2 : Also counts towards the Major

Cluster 4: The Natural World - Mathematics (3 hours)					
MATH120	Contemporary Applications of Math				
STAT101	Statistics in the Modern World				

# Cluster 4: The Natural World - Natural Sciences (6 hours)

ARAG205	Introduction to Fish & Animal Science	
ARAG220	Natural Resources	
BION100	Biology and its Modern Application	
CHEM181	Chemistry in the Modern World	
FDSC250	Contemporary Food Science & Nutrition	
GEOL110	Planet Earth	
PHED201	Physical Fitness and Wellness	
PHYS100	<u>Astronomy</u>	
PHYS101	Conceptual Physics	

Cluster 5: Capstone Experience (3 hours)				
HSR400	Integrated Capstone <sup>3</sup>			

3 : Also counts towards the Major

### Sociology Major (Req. CH:33)

Required Courses (21 hours)		
SOC101	Introduction to Sociology	
SOC102	Social Theories	
SOC200	Social Research Methods	
SOC202	Social Problems	
SOC324	Applied Sociology	
SOC403	Research Project	
SOC404	Internship <sup>4</sup>	

<sup>4 :</sup> The internship is conducted on 2 days/week during a complete semester. A maximum of 6 Cr. Hrs. of courses can be register days of the week

Development an	d Organizational Change (12 hours)	
SOC301	Sociology of Development	
SOC302	<u>Urban Sociology</u>	
SOC303	Bedouin & Rural Society	
SOC304	<u>Demography</u>	
SOC305	Industrial Sociology	
SOC306	Population & Environment	
SOC307	Human Development	
SOC308	Migration Studies	
SOC405	Assessment of Social Projects	

Applied Social Issues (12 hours)

SOC306	Population & Environment	
SOC309	Sociology of Organizations	
SOC313	Sociology of Family	
SOC314	Political Sociology	
SOC315	Sociology of Education	
SOC318	Crime & Juvenile Delinquency	
SOC325	Sociology of Aging	
STAT2152	Social Statistics (1)	
SOC405	Assessment of Social Projects	

Anthropology and Folklore (12 hours)		
SOC260	<u>Folklore</u>	
HIS310	Introduction to Archaeology & Museum Studies	

SOC316	Folklore in UAE Society	
SOC317	Social & Cultural Anthropology	
SOC319	Anthropology	
HIS332	Ancient History & Archaeology Arabian of the Peninsula	
HIS372	Arch. of UAE & A. Gulf States	
SOC407	Research Methods in Anthropology & Folklore	

Minors and Free Electives (Req. CH:48)

Required Minor (1) (18 hours)

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

Free Electives (12 hours)

### **Minor in Family Studies**

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**

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

#### **Program Learning Outcomes**

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

Required Credit Hours: minimum 18 hours

## Family Studies

Required Cour	ses (12 hours)	
SOC101	Introduction to Sociology	
SOC202	Social Problems	
SOC313	Sociology of Family	
CURR314	Family, Community, Culture & ECE	

Elective course	s (6 hours)	
SOC307	Human Development	
SOC315	Sociology of Education	
SOC318	Crime & Juvenile Delinquency	
HSC300	Introduction to Human Services & Counseling	

### **Department of Translation Studies**

### **Bachelor of Arts in Translation Studies**

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

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

#### **Program Learning Outcomes**

- Demonstrate translation-related reading and writing skills in English and Arabic.
- Analyze the contrastive differences between English and Arabic at linguistic and cultural levels.
- Explain theoretical concepts of translation.
- Perform translation-oriented text analysis.
- Produce acceptable translations of different text types using different translation techniques.
- Revise translations as per quality parameters, i.e. accuracy of meaning, clarity of language and effectiveness of message.
- 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.

- Demonstrate ethical reasoning in relation to translation issues.
- Work effectively both independently and within a translation team.
- Demonstrate preparedness for continued reflective practice of translation and lifelong learning.
- Conduct translation-related research projects using appropriate research methods and ethical procedures.

Required Credit Hours: minimum 120 hours

General Education (Req. CH:39)

Cluster 1: Values to I	Live By - Islam (3 hours)
ISLM100	<u>Islamic Culture</u>

Cluster 1: Values to Live By - Ethics (3 hours)		
FOED102	Professional Ethics in Education	
PHI121	<u>Fundamentals of Environmental Ethics</u>	
PHI122	International Ethics	
PHI226	Human Rights Theory	

PHIL120 Principles of Professional Ethic
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Cluster 2: Skills for Life - Eng	glish Communication (3 hours)
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ESPU1014 Introduction to Academic English for Humanities and SS

Cluster 2: Skills for Life - Information Literacy (3 hours)

GEIL101 Information Literacy

## Cluster 2: Skills for Life - Thinking Skills (3 hours)

HSS110	Scientific Research Skills	
CSBP119	Algorithms and Problem Solving	
PHI180	Critical Thinking <sup>1</sup>	
PSY105	Creative & Innovative Thinking Skills	

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

Cluster 3: The Human Com	munity - Emirates Society (3 hours)	
HSS105	Emirates Studies	

Cluster 3: The I	Cluster 3: The Human Community - Humanities/Fine Arts (3 hours)	
ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History	
HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	Introduction to Literature	
LNG100	Introduction to Linguistics	
LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	

PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	

Cluster 3: The	Cluster 3: The Human Community - Social and Behavioral Sciences (3 hours)	
AGRB210	Introduction to Agribusiness	
ECON110	Principles of Economics	
HSR140	Introduction to Society & Behavior	
HSR150	Introduction to Government Policy & Urban Structures	
PSY100	Introduction to Psychology	
SOC260	<u>Folklore</u>	
SWK200	Introduction to Social Welfare	

Cluster 3: The Hum	nan Community - The Global Experience (3 hours)	
AGRB360	Global Agri-food Trade	
ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	
GEO200	World Regional Geography	
HIS120	Arab & Islamic Civilization	
HIS121	World History: Origins to 1500	
HIS125	Contemporary Civilization	
PSG250	Principles of International Relations	

Cluster 4: The Natural World - Mathematics (3 hours)		
MATH120	Contemporary Applications of Math	
STAT101	Statistics in the Modern World	

Cluster 4: The	Natural World - Natural Sciences (6 hours)	
ARAG205	Introduction to Fish & Animal Science	
ARAG220	Natural Resources	
BION100	Biology and its Modern Application	
CHEM181	Chemistry in the Modern World	
FDSC250	Contemporary Food Science & Nutrition	
GEOL110	<u>Planet Earth</u>	
PHED201	Physical Fitness and Wellness	
PHYS100	<u>Astronomy</u>	
PHYS101	Conceptual Physics	

# Cluster 5: Capstone Experience (3 hours)

HSR400	Integrated Capstone <sup>2</sup>	
2 : Also counts	towards the Major	

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

Required Courses (30 ho	ours)	
ENG250	English Grammar & Usage	
ENG310	Writing for Research	
ENG450	Public Speaking and Debate	
TRS200	Introduction to Translation	
TRS350	Translation of English Texts	
TRS360	Translation of Arabic texts	
TRS340	Translating Literary Texts	

TRS430	Advanced Written Translation	
TRS452	Practicum / Oral <sup>3</sup>	
ENG300	Critical Reading in the Disciplines	

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

Elective Course	Elective Courses (9 hours)	
ARB110	Introduction to Syntax & Morphology	
ENG312	Cultural Literacy: English in the World	
LIT200	Writing About literature	
TRS310	Contrastive Analysis of Arabic/English	
TRS312	Community Interpreting	
TRS370	Modern Media Translation	
TRS412	Translation of Scientific/Legal Text	

Minors and Free Electives (Req. CH:42)

Required Minor (1) (18 hours)

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

Free Electives (6 hours)

### Minor in Korean Language

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**

- 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)).
- To familiarize students with the Korean culture.

#### **Program Learning Outcomes**

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

Required Credit Hours: minimum 18 hours

### Korean Language

Core Courses (	Core Courses (12 hours)	
KOR100	Korean I for Beginners	
KOR102	Korean II for Beginners	
KOR202	Intermediate Korean	
KOR301	Advanced Korean	

Elective Courses (6 hours)		
KOR302	Korean Language and Culture	
KOR401	Reading and Writing (Korean)	
KOR411	Introduction to Translation (Korean)	
KOR416	Transation of Short Texts into Korean	

### **Minor in Business Translation**

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**

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

#### **Program Learning Outcomes**

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

Required Credit Hours: minimum 18 hours

**Business Translation** 

Required Cour	ses (18 hours)	
MSC270	Writing for the Media	
PRVT2652	Business Law (E)	
TRS310	Contrastive Analysis of Arabic/English	
TRS331	Basic Issues in Translation-TA	
TRS433	Translation of Business Correspondence & Promotional Materials	
TRS480	Practicum-TA-	

### Minor in French Language

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**

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

#### **Program Learning Outcomes**

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

Required Credit Hours: minimum 18 hours

### French Language

Required Cours	ses (12 hours)	
FCH260	Listening & Speaking	
FCH270	French Language & Culture I	
FCH272	French Language & Culture II	
FCH321	Reading & Writing I	

Elective Clusters: Student must choose a cluster and complete both courses

Cluster One (6	Cluster One (6 hours)				
FCH303	Advanced Listening & Speaking				
FCH401	Advanced Reading & Writing				

Cluster Two (6	hours)	
FCH411	Introduction to Translation FR	
FCH442	Translation of Texts from & to French	

### Minor in German Language

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

- 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.
- Familiarize students with the history and culture of German-speaking countries.

#### **Program Learning Outcomes**

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

Required Credit Hours: minimum 18 hours

### German Language

Required Cour	rses (12 hours)	
GER100	German I for Beginners	
GER102	German II for Beginners	
GER202	<u>Intermediate German</u>	
GER301	Advanced German	

Elective Course	Elective Courses (6 hours)		
GER302	German Language and Culture		
GER401	Reading and Writing (GER)		
GER411	Intro to Translation (GER)		
GER416	Trans of Texts from & in GER		

# **College of Information Technology**

## **Department of Information Systems and Security**

### **Bachelor of Science in Information Technology**

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

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

#### **Program Learning Outcomes**

- Apply knowledge of computing and mathematics appropriate to the discipline.
- Analyze a problem, and identify and define the computing requirements appropriate to its solution.
- Design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs.
- Function effectively on teams to accomplish a common goal.
- Analyze, and act in accordance with, professional, ethical, legal, security, and social issues and responsibilities

- Communicate effectively in written and oral forms with a range of audiences.
- Analyze the local and global impact of IT on individuals, organizations and society.
- Recognize the need for and engage in continuing professional development.
- Use current techniques, skills, and tools necessary for computing practice.
- Use and apply the current concepts and practices of the core information technologies.
- Identify and analyze user needs and take them into account in the selection, creation, evaluation and administration of computer-based systems.
- Integrate IT-based solutions into the user environment.
- Discuss the best practices and standards and their application.
- Create an effective project plan.

Required Credit Hours: minimum 130 hours

General Education (Req. CH:42)

Cluster 1: Values to Live By - Islam (3 hours)		
ISLM100	<u>Islamic Culture</u>	

Cluster 1: Valu	es to Live By - Ethics (3 hours)	
ITBP370	Professional Responsibility in Information Technology <sup>1</sup>	

1	Alco	countc	towards	tho	Major
Τ.	AISO	Counts	towarus	uie	Major

Cluster 2: Skills fo	r Life - English Communication Skills (3 hours)	
ESPU1081 I	ntroduction to Academic English for Information Technology I	
Cluster 2: Skills fo	r Life - Information Literacy (3 hours)	
GEIL101	Information Literacy	
Cluster 2: Skills for Life - Thinking Skills (3 hours)		
CSBP119	Algorithms and Problem Solving	
Cluster 3: The Human Community - Emirates Society (3 hours)		
HSS105	Emirates Studies	
Cluster 3: The Hui	man Community - Humanities and Fine Arts (3 hours)	

ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History	
HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	Introduction to Literature	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
LNG100	Introduction to Linguistics	
LNG110	Language, Society & Culture	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	

TRS200

<u>Introduction to Translation</u>

Cluster 3: The Human Community - Social and Behavioral Sciences (3 hours)		
AGRB210	Introduction to Agribusiness	
ECON110	Principles of Economics	
HSR140	Introduction to Society & Behavior	
HSR150	Introduction to Government Policy & Urban Structures	
PSY100	Introduction to Psychology	
SOC260	<u>Folklore</u>	
SWK200	Introduction to Social Welfare	

Cluster 3: The Hum	an Community - The Global Experience (3 hours)	
AGRB360	Global Agri-food Trade	

ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	
GEO200	World Regional Geography	
HIS120	Arab & Islamic Civilization	
HIS125	Contemporary Civilization	
HIS121	World History: Origins to 1500	
PSG250	Principles of International Relations	

Cluster 4: The Natural World - Mathematics (3 hours)		
MATH105	Calculus I <sup>2</sup>	

 ${\bf 2}$  : Also counts towards the Major

Cluster 4: The Natural World - Natural Sciences (6 hours)

PHYS105	General Physics I <sup>3</sup>	
BIOC100	Basic Biology I	
CHEM111	General Chemistry I 4	

3: Required

4 : Either CHEM 111 or BIOC 100 should be taken

Cluster 5: Capstone Experience (6 hours)		
ITBP480	Senior Graduation Project I	
ITBP481	Senior Graduation Project II <sup>5</sup>	

5 : Both ITBP 480 & ITBP 481 counts towards the Major

College Requirements (Req. CH:36)

Required Courses (36 hours)

CSBP315	Operating Systems Fundamentals	
STAT210	Probability and Statistics	
MATH110	<u>Calculus II</u>	
CENG202	Discrete Mathematics	
CENG205	Digital Design & Computer Organization	
CSBP219	Object Oriented Programming	
CSBP319	<u>Data Structures</u>	
ITBP495	Internship <sup>6</sup>	
ITBP103	Principles of Information Technology	

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

Students must	complete all 40 CHs (40 hours)	
CSBP121	Programming Lab I	
CSBP221	Programming Lab II	
CSBP316	Human Computer Interaction	
CSBP340	<u>Database Systems</u>	
CSBP301	Artificial Intelligence	
CSBP320	Data Mining	
CENG210	Communication & Networks Fundamentals	
CENG530	Computer Network Protocols	
CENG529	Networking Lab	
ITBP280	Information Technology Project Management Exhibition	
ITBP301	Security Principles & Practice	

ITBP321	Web Application Development Lab	
ITBP418	Entrepreneurship in Information Technology	
ITBP324	Cloud Computing Fundamentals	
ITBP323	Systems Integration and Administration	
ITBP322	Web and Mobile Systems	

## Major Electives (9 Credit Hours)

Students can choose three of the following courses based on what is being offered and demand. (9 hours)		
CSBP483	Mobile Web Content and Development	
ISEC411	Privacy and Anonymity	
ITBP410	The Internet of Things	
ITBP420	<u>Data Analytics</u>	

ITBP421	Big Data Analytics	
ITBP430	Mobile Computing	

Free Elective (3 hours)

### **Bachelor of Science in Information Security**

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

- 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.
- Alumni will be engaged in designing, analyzing, auditing, testing, implementing and acquiring information and network security solutions for their organizations.
- 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.
- Alumni will be committed to the highest standards of ethical practice relevant to the information and network security profession.
- 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:

- apply knowledge of mathematics and science in information security.
- design and conduct information security experiments, as well as to analyze and interpret data.
- 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.
- function effectively individually and on multidisciplinary teams.

- identify, formulate and solve information security problems.
- Analyze, and act in accordance with, professional, ethical, legal, security, and social issues and responsibilities
- communicate effectively in writing and orally with a range of audiences.
- describe and analyze the impact of information security solutions in a global, economic,
   environmental, and societal context.
- recognize the need for, and an ability to engage in life-long learning.
- discuss contemporary issues related to information security.
- use techniques, skills, and modern tools necessary for information security practices.
- apply solutions based on the information security life cycle of an organization, including policy,
   planning, acquisition, development and evolution of secure infrastructures.

#### Degree Requirements

Required Credit Hours: minimum 130 hours

General Education (Req CH: 42)

Cluster 1: Values to Live By - Islam (3 hours)	
ISLM100	<u>Islamic Culture</u>

Cluster 1: Valu	es to Live By - Ethics (3 hours)	
ITBP370	Professional Responsibility in Information Technology	

Cluster 2: Skills for Life - English Communication Skills (3 hours)		
ESPU1081 Introduction to Academic English for Information Technology I		
Cluster 2: Skills for Life - Information Literacy (3 hours)		
GEIL101 Information Literacy		
Cluster 2: Skills for Life - Thinking Skills (3 hours)		
CSBP119 Algorithms and Problem Solving <sup>1</sup>		
1 : Also counts towards the Major		
Cluster 3: The Human Community - Emirates Society (3 hours)		
HSS105 <u>Emirates Studies</u>		
Cluster 3: The Human Community - Humanities and Fine Arts (3 hours)		
ARCH340 <u>History and Theory of Architecture</u>		

HIS133	Introduction to Art History	
HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	<u>Introduction to Literature</u>	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
LNG100	<u>Introduction to Linguistics</u>	
LNG110	Language, Society & Culture	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	
TRS200	Introduction to Translation	

Cluster 3: The Human Community - Social and Behavioral Sciences (3 hours)		
AGRB210	Introduction to Agribusiness	
ECON110	Principles of Economics	
HSR140	Introduction to Society & Behavior	
HSR150	Introduction to Government Policy & Urban Structures	
PSY100	Introduction to Psychology	
SOC260	<u>Folklore</u>	
SWK200	Introduction to Social Welfare	

Cluster 3: The Human Community - The Global Experience (3 hours)		
AGRB360	Global Agri-food Trade	
ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	

GEO200	World Regional Geography	
HIS120	Arab & Islamic Civilization	
HIS125	Contemporary Civilization	
HIS121	World History: Origins to 1500	
PSG250	Principles of International Relations	

Cluster 4: The Natural World	- Mathematics (3 hours)	
MATH105	<u>Calculus I</u>	

Cluster 4: The Natural World - Natural Sciences (6 hours)		
PHYS105	General Physics I <sup>2</sup>	
BIOC100	Basic Biology I	
CHEM111	General Chemistry I	

# 2 : Required

Cluster 5: Cap	Cluster 5: Capstone Experience (6 hours)	
ITBP480	Senior Graduation Project I	
ITBP481	Senior Graduation Project II	

# College of Information Technology

College Requirement	s (36 hours)	
CENG202	<u>Discrete Mathematics</u>	
CENG205	Digital Design & Computer Organization	
CSBP319	<u>Data Structures</u>	
CSBP219	Object Oriented Programming	
ITBP495	Internship <sup>3</sup>	

CSBP315	Operating Systems Fundamentals	
MATH110	<u>Calculus II</u>	
ITBP103	Principles of Information Technology	
STAT210	Probability and Statistics	

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

Major Require	Major Requirements (46 hours)	
CSBP320	Data Mining	
CSBP121	Programming Lab I	
CENG210	Communication & Networks Fundamentals	
ITBP301	Security Principles & Practice	
CSBP221	Programming Lab II	
CSBP340	<u>Database Systems</u>	

ISEC311	Network Security I	
ISEC321	Network Security II	
ISEC312	<u>Cryptography</u>	
ISEC322	Design and Analysis of Security Protocols	
ISEC323	Secure Software Design and Engineering	
ISEC324	Cryptography Lab	
ISEC411	Privacy and Anonymity	
ISEC412	<u>Digital Forensics</u>	
ISEC413	Security Architecture and Mechanisms	
ISEC414	Network Security Lab	
ISEC421	Risk Analysis and Management	
ISEC422	Security Policy, Laws, and Governance	

ISEC423 <u>Systems Security Lab</u>

Major Electives (Students should select two courses from the list below.) (6 hours)		
ISEC416	Information Security Management	
ISEC417	Database Security	
ISEC424	Hardware-Oriented Security and Trust	
ISEC428	Special Topics in Information Security	
ITBP280	Information Technology Project Management Exhibition	
ITBP418	Entrepreneurship in Information Technology	

### **Department of Computer and Network Engineering**

### **Bachelor of Science in Computer Engineering**

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**

- The program graduates should be able to practice computer engineering to serve UAE industries,
   government agencies, and international industries.
- 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.
- 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.
- The program graduates should be prepared for admission to top graduate programs, reaching advanced degrees in engineering and related disciplines.
- 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:

- apply knowledge of mathematics, science, and computer engineering.
- design and conduct computer-engineering experiments, as well as to analyze and interpret data.
- 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.
- function effectively individually and on multidisciplinary teams.
- identify, formulate, and solve computer-engineering problems.
- discuss professional, ethical, legal, computer engineering and social issues and responsibility.
- communicate effectively in writing and orally with a range of audiences.
- explain the impact of computer engineering solutions in a global, economic, environmental, and societal context.
- recognize the need for, and an ability to engage in life-long learning
- discuss computer engineering contemporary issues.
- use techniques, skills, and modern tools necessary for computer engineering practice.

### Degree Requirements

Required Credit Hours: minimum 144 hours

General Education (Req CH: 42)

Cluster 1: Valu	es to Live By - Islam (3 hours)	
ISLM100	<u>Islamic Culture</u>	
Cluster 1: Valu	es to Live By - Ethics (3 hours)	
ITBP370	Professional Responsibility in Information Technology	
Cluster 2: Skills	s for Life - English Communication Skills (3 hours)	
ESPU1081	Introduction to Academic English for Information Technology I	
Cluster 2: Skills for Life - Information Literacy (3 hours)		
GEIL101	Information Literacy	
Cluster 2: Skills for Life - Thinking Skills (3 hours)		

## ${\bf 1}$ : Also counts towards the Major

Cluster 3: The Human Community - Humanities and Fine Arts (3 hours)		
ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History	
HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	<u>Introduction to Literature</u>	
MSC200	<u>Introduction to Mass Media</u>	
MSC240	World and Arab Media	
LNG100	Introduction to Linguistics	
LNG110	Language, Society & Culture	

PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	
TRS200	Introduction to Translation	

Cluster 3: The Human Com	munity - Emirates Society (3 hours)	
HSS105	Emirates Studies	

Cluster 3: The Human Community - Social and Behavioral Sciences (3 hours)		
AGRB210	Introduction to Agribusiness	
ECON110	Principles of Economics	
HSR140	Introduction to Society & Behavior	
HSR150	Introduction to Government Policy & Urban Structures	

PSY100	Introduction to Psychology	
SOC260	<u>Folklore</u>	
SWK200	<u>Introduction to Social Welfare</u>	

Cluster 3: The Human Community - The Global Experience (3 hours)		
AGRB360	Global Agri-food Trade	
ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	
HIS120	Arab & Islamic Civilization	
GEO200	World Regional Geography	
HIS125	Contemporary Civilization	
HIS121	World History: Origins to 1500	
PSG250	Principles of International Relations	

Cluster 4: The Natural World - Mathematics (3 hours)		
MATH105	<u>Calculus I</u>	

Cluster 4: The Natural World - Natural Sciences (6 hours)		
PHYS105	General Physics I <sup>2</sup>	
CHEM111	General Chemistry I	
BIOC100	Basic Biology I <sup>3</sup>	

2 : Required

3: Either CHEM 111 or BIOC 100 should be taken

Cluster 5: Capstone Experience (6 hours)		
ITBP480	Senior Graduation Project I	
ITBP481	Senior Graduation Project II	

## College of Information Technology

College Requirement	s (36 hours)	
CENG202	<u>Discrete Mathematics</u>	
CENG205	Digital Design & Computer Organization	
CSBP319	<u>Data Structures</u>	
CSBP219	Object Oriented Programming	
ITBP495	Internship <sup>4</sup>	
CSBP315	Operating Systems Fundamentals	
ITBP103	Principles of Information Technology	
MATH110	<u>Calculus II</u>	
STAT210	Probability and Statistics	

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

Major Require	Major Requirements (50 hours)	
PHYS231	Electronics Fundamentals	
ITBP301	Security Principles & Practice	
ELEC370	Electronic Circuits	
ELEC375	Electronic Circuits Lab	
CENG325	<u>Digital Design lab</u>	
CENG320	Signals and Systems I	
CENG328	<u>Introduction to Embedded Systems</u>	
CENG210	Communication & Networks Fundamentals	
MATH140	<u>Linear Algebra I</u>	
MATH275	Ordinary Differential Equations	
CENG221	Computer Architecture	

CENG329	Introduction to Embedded Systems Lab	
CENG201	<u>Circuits Fundamentals</u>	
CENG231	<u>Circuits Lab</u>	
CENG326	Entrepreneurship for Computer Engineers	
CENG324	<u>Digital System Design</u>	
SWEB300	Software Engineering Fundamentals	
CSBP121	Programming Lab I	
PHYS135	General Physics Lab I	
CSBP221	Programming Lab II	
PHYS110	General Physics II	
PHYS140	General Physics Lab II	

Major Electives (Sixteen (16) semester credit hours of Major Technical Electives (five courses and one lab) are required.) (16 hours)	
CENG518	VLSI Design

CENG518	VLSI Design	
CENG513	Hardware Testing and Fault Tolerance	
CENG521	Hardware/Software Integration	
CENG530	Computer Network Protocols	
CENG531	Wireless Communication and Sensor Networks	
CENG532	Network Security	
CENG533	Advanced Network Services	
CENG529	Networking Lab	
CENG580	Selected Topics in Computer Engineering	

### **Department of Computer Science and Software Engineering**

### **Bachelor of Science in Computer Science**

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

- Serve UAE government agencies and industry with a broad-based knowledge of computer science,
   related principles, theories, and applications.
- Provide UAE government agencies and industry the capacity in designing, analyzing, testing, and implementing computer systems.
- 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 lifelong learning.
- Be committed to the highest standards of ethical practice and to social and environmental issues relevant to the computer science profession.
- 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:

- apply knowledge of science, computing and mathematics appropriate to Computer Science.
- analyze a problem, and identify and define the computing requirements appropriate to its solution.
- design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs.
- function effectively on teams to accomplish a common goal.
- discuss professional, ethical, legal, security and social issues and responsibilities.
- communicate effectively in written, oral, and graphical forms with a range of audiences.
- analyze the local and global impact of Computer Science on individuals, organizations, and society.
- recognize the need for and engage in continuing professional development.
- use current techniques, skills, and tools necessary for computer science practice.
- 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.
- apply design and development principles in the construction of software systems of varying complexity.

### Degree Requirements

Required Credit Hours: minimum 130 hours

General Education (Req CH:42)

Cluster 1: Valu	Cluster 1: Values to Live By - Islam (3 hours)			
ISLM100	<u>Islamic Culture</u>			
Cluster 1: Ethic	cs (3 hours)			
ITBP370	Professional Responsibility in Information Technology			
Cluster 2: Skills	s for Life - English Communication Skills (3 hours)			
ESPU1081	Introduction to Academic English for Information Technology I			
Cluster 2: Skills for Life - Information Literacy (3 hours)				
GEIL101	GEIL101 Information Literacy			
Cluster 2: Skills for Life - Thinking Skills (3 hours)				

CSBP119	Algorithms and Problem Solving <sup>1</sup>

 ${\bf 1}$  : Also counts towards the Major

Cluster 3: The Human Com	munity - Emirates Society (3 hours)	
HSS105	Emirates Studies	

Cluster 3: The Human Community - Humanities and Fine Arts (3 hours)		
ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History	
HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	Introduction to Literature	
MSC200	Introduction to Mass Media	

MSC240	World and Arab Media	
LNG100	Introduction to Linguistics	
LNG110	Language, Society & Culture	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	
TRS200	Introduction to Translation	

Cluster 3: The Human Community - Social and Behavioral Sciences (3 hours)		
AGRB210	<u>Introduction to Agribusiness</u>	
ECON110	Principles of Economics	
HSR140	Introduction to Society & Behavior	
HSR150	Introduction to Government Policy & Urban Structures	

PSY100	Introduction to Psychology	
SOC260	<u>Folklore</u>	
SWK200	<u>Introduction to Social Welfare</u>	

Cluster 3: The Hum	nan Community - The Global Experience (3 hours)	
AGRB360	Global Agri-food Trade	
ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	
HIS120	Arab & Islamic Civilization	
HIS125	Contemporary Civilization	
HIS121	World History: Origins to 1500	
GEO200	World Regional Geography	
PSG250	Principles of International Relations	

Cluster 4: The Natural World	- Mathematics (3 hours)	
MATH105	<u>Calculus I</u>	

Cluster 4: The Natural	World - Natural Sciences (6 hours)	
PHYS105	General Physics I <sup>2</sup>	
BIOC100	Basic Biology I	
CHEM111	General Chemistry I <sup>3</sup>	

2 : Required

3: Either CHEM 111 or BIOC 100 should be taken

Cluster 5: Capstone Experience (6 hours)		
ITBP480	Senior Graduation Project I	
ITBP481	Senior Graduation Project II	

## College of Information Technology

College Requirement	s (36 hours)	
CENG202	Discrete Mathematics	
CENG205	Digital Design & Computer Organization	
CSBP319	<u>Data Structures</u>	
CSBP219	Object Oriented Programming	
ITBP495	Internship 4	
CSBP315	Operating Systems Fundamentals	
ITBP103	Principles of Information Technology	
MATH110	<u>Calculus II</u>	
STAT210	Probability and Statistics	

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

Major Require	ments (40 hours)	
CSBP121	Programming Lab I	
CENG210	Communication & Networks Fundamentals	
CSBP221	Programming Lab II	
ITBP301	Security Principles & Practice	
CSBP316	Human Computer Interaction	
ITBP321	Web Application Development Lab	
CSBP340	<u>Database Systems</u>	
CSBP301	Artificial Intelligence	
CSBP400	Modeling & Simulation	
CSBP411	Machine Learning	
CSBP412	<u>Introduction to Engineering and Design</u>	

CSBP421	Smart Computer Graphics	
CSBP461	Internet Computing	
CSBP492	Computer Science Project Lab	
SWEB450	Analysis of Algorithms	
SWEB300	Software Engineering Fundamentals	

Major Electives (12 hours)		
CSBP320	Data Mining	
CSBP431	<u>Bioinformatics</u>	
CSBP476	Robotics and Intelligent Systems	
CSBP483	Mobile Web Content and Development	
CSBP487	Computer Animation and Visualization	
CSBP491	Computational Intelligence for Data Management	

CSBP499	Special Topics in Computer Science	
SWEB451	Game Development	

### **Minor in Artificial Intelligence**

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**

• 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:

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

## Degree Requirements

Required Credit Hours: minimum 18 hours

## Artificial Intelligence

Required Cour	ses (9 hours)	
CSBP301	Artificial Intelligence	
CSBP219	Object Oriented Programming	
CSBP319	<u>Data Structures</u>	

#### **Elective Courses**

Choose three o	of the following courses (9 hours)	
CSBP411	Machine Learning	
CSBP476	Robotics and Intelligent Systems	
CSBP441	Applied Computer Vision	

CSBP491	Computational Intelligence for Data Management	
CSBP499	Special Topics in Computer Science	

# **College of Engineering**

### **Department of Architectural Engineering**

### **Bachelor of Science in Architectural Engineering**

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

- Efficiently use relevant building engineering knowledge and skills in professional practice.
- Effectively design and evaluate architectural engineering systems to satisfy client needs according to engineering specifications and interdisciplinary requirements.
- Successfully manage real life engineering problems to achieve practical and optimal solutions.
- Commit to social, economic, and environmental issues and practice high ethical standards in the profession.
- 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:

- Outcome A: An ability to apply knowledge of math, science, and engineering
- Outcome B: An ability to design and conduct experiments, as well as to analyze and interpret data
- Outcome C: An ability to design and evaluate building engineering systems, components, or processes to meet desired needs
- Outcome D: An ability to function on multi-disciplinary teams
- Outcome E: An ability to identify, formulate, and solve engineering problems
- Outcome F: An understanding of professional and ethical responsibility
- Outcome G: An ability to communicate effectively
- Outcome H: The broad education necessary to understand the impact of engineering solutions in a global and societal context
- Outcome I: A recognition of the need for, and an ability to engage in lifelong learning
- Outcome J: A knowledge of contemporary issues
- Outcome K: An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice

# Degree Requirements

Required Credit Hours: minimum 147 hours

General Education (Req. CH:41)

Cluster 1: Value	Cluster 1: Values to Live By - Islam (3 hours)	
ISLM100	Islamic Culture	
Cluster 1: Value	s to Live By - Ethics (2 hours)	
GENG215	Engineering Ethics <sup>1</sup>	
1 : Also counts t	owards the Major	
Cluster 2: Skills	for Life - English Communication Skills (3 hours)	
ESPU107	Introduction to Academic English For Engineering	
Cluster 2: Skills for Life - Information Literacy (3 hours)		
GEIL101	Information Literacy	

Cluster 2: Skills for Life - Thinking Skills (3 hours)		
HSS110	Scientific Research Skills	
CSBP119	Algorithms and Problem Solving	
PSY105	Creative & Innovative Thinking Skills	
PHI180	Critical Thinking <sup>2</sup>	

2 : IBLC - Inquiry based learning course must be taken within first 30 credit hours

Cluster 3: The Human Community - Emirates Society (3 hours)		
HSS105	Emirates Studies	

Cluster 3: The Human Community - Humanities/Fine Arts (3 hours)		
ARCH340	History and Theory of Architecture <sup>3</sup>	

 ${\bf 3}$  : Also counts towards the Major

Cluster 3: The Hui	man Community - Social and Behavioral Sciences (3 hours)	
GENG315	Engineering Economics <sup>4</sup>	
4 : Also counts to	wards the Major	
Cluster 3: The Hui	man Community - The Global Experience (3 hours)	
ARCH346	Contemporary World Architecture <sup>5</sup>	
5 : Also counts to	wards the Major	
Cluster 4: The Nat	cural World - Mathematics (3 hours)	
MATH1110	Calculus I for Engineering <sup>6</sup>	
6 : Also counts towards the Major		
Cluster 4: The Natural World - Natural Sciences (6 hours)		
CHEM111	General Chemistry I	

PHYS105	General Physics I
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Cluster 5: Capstone Experience (6 hours)		
ARCH585	Graduation Project I	
ARCH590	Graduation Project II <sup>7</sup>	

7 : Also counts towards the Major

### College of Engineering

Required Courses (21 hours)		
CHEM175	Chemistry Lab I for Engineering	
GENG220	Engineering Thermodynamics	
MATH1120	Calculus II for Engineering	
MATH2210	Differential Equations for Engineering	

MATH2220	Linear Algebra for Engineering	
STAT210	Probability and Statistics	
PHYS135	General Physics Lab I	
PHYS110	General Physics II	
PHYS140	General Physics Lab II	

# Architectural Engineering

Required Courses (70 hours)		
ARCH320	Introductory Building Design Studio	
ARCH335	Intermediate Building Design Studio	
ARCH341	Building Electrical Circuits	
ARCH342	Building Acoustics and Illumination	

ARCH345	Building Engineering Systems	
ARCH495	Professional Practical Training <sup>8</sup>	
ARCH440	Construction Project Management	
ARCH430	Integrated Building Design Studio	
CIVL358	Surveying for Architectural Engineering	
CIVL240	Statics	
MECH305	Mechanics of Materials	
ARCH433	Environmental Systems & Control	
ARCH302	Introduction to Architectural Engineering	
ARCH450	Construction Project Planning and Control	
ARCH316	Building Construction Systems	
ARCH425	Advanced Building Construction Systems	

ARCH313	Analysis and Design Principles for Building Structures
ARCH422	Structural Design for Buildings
ARCH326	Building Construction Methods and Equipment
CIVL345	Fluid Mechanics for Civil and Architectural Engineering

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

Architecture El	Architecture Elective Courses (9 hours)	
ARCH501	Advanced Building Design Studio	
ARCH503	Building Construction Detailing	
ARCH509	Modeling and Simulation	
ARCH526	Specification and Quantity Surveying	
ARCH532	Sustainable Architecture & Urban Environments in Hot Climate	
ARCH530	Selected Topics In Architecture Engineering	

ARCH542	Housing and Urban Design	
ARCH551	Urban Planning & Infrastructure	
ARCH562	Construction Contracts	

Math and Science Electives (6 hours)		
BIOC100	Basic Biology I	
BIOE240	Principles of Environmental Science	
GEOL105	Physical Geology	
MATH205	Set Theory and Logic	
MATH260	Foundation of Geometry	

### **Department of Chemical & Petroleum Engineering**

### **Bachelor of Science in Chemical Engineering**

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**

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

- Outcome A: An ability to apply knowledge of math, science, and engineering
- Outcome B: An ability to design and conduct experiments, as well as to analyze and interpret data
- Outcome C: An ability to design and evaluate chemical engineering systems, components, or processes to meet desired needs
- Outcome D: An ability to function on multi-disciplinary teams
- Outcome E: An ability to identify, formulate, and solve engineering problems
- Outcome F: An understanding of professional and ethical responsibility
- Outcome G: An ability to communicate effectively
- Outcome H: The broad education necessary to understand the impact of engineering solutions in a global and societal context
- Outcome I: A recognition of the need for, and an ability to engage in lifelong learning
- Outcome J: A knowledge of contemporary issues
- Outcome K: An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice

# Degree Requirements

Required Credit Hours: minimum 147 hours

General Education (req. CH:41)

Cluster 1: Values to	b Live By - Islam (3 hours)	
ISLM100	<u>Islamic Culture</u>	
Cluster 1: Values to	Cluster 1: Values to Live By - Ethics (2 hours)	
GENG215	Engineering Ethics <sup>1</sup>	
1 : Also counts towards the Major		
Cluster 2: Skills for	Life - English Communication Skills (3 hours)	
ESPU107 Ir	stroduction to Academic English For Engineering	
Cluster 2: Skills for Life - Information Literacy (3 hours)		
GEIL101	Information Literacy	

Cluster 2: Skills	for Life - Thinking Skills (3 hours)	
HSS110	Scientific Research Skills	
CSBP119	Algorithms and Problem Solving	
PSY105	Creative & Innovative Thinking Skills	
PHI180	Critical Thinking <sup>2</sup>	

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

Cluster 3: The Human Com	munity - Emirates Society (3 hours)	
HSS105	Emirates Studies	

Cluster 3: The Human Community - Humanities/Fine Arts (3 hours)		
ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History	

HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	Introduction to Literature	
LNG100	Introduction to Linguistics	
LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	
TRS200	Introduction to Translation	

GENG315 Engineering Economics <sup>3</sup>	
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# ${\bf 3}$ : Also counts towards the Major

Cluster 3: The Hum	nan Community - The Global Experience (3 hours)	
AGRB360	Global Agri-food Trade	
ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	
GEO200	World Regional Geography	
HIS120	Arab & Islamic Civilization	
HIS121	World History: Origins to 1500	
HIS125	Contemporary Civilization	
PSG250	Principles of International Relations	

Cluster 4: The N	atural World - Mathematics (6 hours)		
MATH1110	Calculus I for Engineering <sup>4</sup>		
PHYS105	General Physics I <sup>5</sup>		
	4 : Also counts towards the Major 5 : Also counts towards the Major		
Cluster 4: The N	atural World - Natural Sciences (7 hours)		
CHEM111	General Chemistry I		
Cluster 5: Capstone Experience (6 hours)			
CHME585	Graduation Project I		
CHME590	Graduation Project II <sup>6</sup>		
6 : Also counts towards the Major			

Required Cour	ses (24 hours)	
CHEM175	Chemistry Lab I for Engineering	
GENG220	Engineering Thermodynamics	
MATH1120	Calculus II for Engineering	
MATH2210	Differential Equations for Engineering	
MATH2220	Linear Algebra for Engineering	
STAT210	Probability and Statistics	
ELEC230	Computer Programming	
PHYS135	General Physics Lab I	
PHYS110	General Physics II	
PHYS140	General Physics Lab II	

# **Chemical Engineering**

Required Courses (70 ho	ours)	
BIOC100	Basic Biology I	
CHEM112	General Chemistry II	
CHEM251	Physical Chemistry I	
CHEM351	Physical Chemistry II	
CHEM282	Organic Chemistry for Non-Majors	
CHEM355	Physical Chemistry Lab I	
CHME300	Introduction to Chemical Engineering	
CHME310	Computer Applications in Chemical Engineering	
CHME322	Chemical Engineering Thermodynamics	
CHME330	Chemical Engineering Fluid Mechanics	

CHEM3707	Instrumental Analysis for Chemical Engineering
CHME411	Reactor Design
CHME413	Heat Transfer
CHME418	Chemical Eng Laboratory I
CHME421	Mass Transfer
CHME495	Industrial Training 7
CHME506	Process Modeling & Simulation
CHME508	Process Control
CHME510	Process and Plant Design
CHME517	Mass Transfer Operations
CHME519	Chemical Engineering Lab II
CHME390	Engineering and Strength of Materials

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

Elective Course	es (12 hours)	
CHEM283	Biochemistry for Non-Majors	
PETE424	Safety & Environment Impact	
CHME433	Water Desalination	
CHME441	Industrial & Wastewater Treatment	
CHME442	Corrosion	
CHME444	Renewable Energy Sources	
CHME452	Biochemical Treatment	
CHME453	Biofuels Technology	
CHME454	Biochemical Separation	
CHME457	Fundamentals of Biochemical Engineering	

CHME461	Natural Gas Processing	
CHME462	Petroleum Refining Engineering	
CHME463	Petrochemical Technology	
CHME464	Polymer Engineering	
CHME570	Special Topics in Chemical Engineering	
CHME575	Independent Studies in Chemical Engineering	

### **Bachelor of Science in Petroleum Engineering**

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**

- Have successful careers in various fields related to petroleum engineering and have leadership roles in industry/organizations.
- Demonstrate high level of professionalism, commitment to ethical and social responsibility, and desire for life-long learning.
- Demonstrate innovative solutions for the petroleum industry through creative thinking.
- 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:

- Competency in mathematics through differential equations, linear algebra, probability, and statistics; and engineering subjects including strength of materials, fluid mechanics, and thermodynamics; and ability to apply these courses to practical petroleum engineering problems. (A)
- Ability to design and conduct different petroleum laboratory experiments, as well as to analyze and interpret laboratory and field data. (B)
- Competency in petroleum engineering including design and analysis of well systems, procedures for
  drilling and completing wells, characterization and evaluation of subsurface geological formations,
  design and analysis of systems for producing, injecting, lifting and handling fluids; application of
  reservoir engineering principles and practices for optimizing resource development and management;
  use of project economics and resource valuation methods for design and decision making under
  conditions of risk and uncertainty. (C)
- Ability to work and interact effectively in groups/teams which have diverse personalities, cultures,
   and backgrounds. (D)
- Ability to identify, formulate, and solve practical petroleum engineering problems. (E)
- Understanding of professional and ethical responsibility.(F)
- Ability to develop effective oral, written, and interpersonal communication skills. (G)
- Ability to evaluate potential risks, i.e. consequences and probabilities of engineering solutions which may affect the society and environment. (H)
- Recognition of the need for and an ability to engage in independent-learning and life-long learning.
   (I)
- Knowledge of contemporary issues related to the petroleum industry. (J)
- Ability to use computer software such as spreadsheets, mathematics packages, word processors,
   reservoir simulation models, and design packages in solution of petroleum engineering problems. (K)

# Degree Requirements

Required Credit Hours: minimum 147 hours

General Education (Req. CH:41)

Cluster 1: Values	to Live By - Islam (3 hours)	
ISLM100	<u>Islamic Culture</u>	
Cluster 1: Values	to Live By - Ethics (2 hours)	
GENG215	Engineering Ethics <sup>1</sup>	
1 : Also counts to	wards the Major	
Cluster 2: Skills fo	or Life - English Communication Skills (3 hours)	
ESPU107 I	introduction to Academic English For Engineering	
Cluster 2: Skills fo	Cluster 2: Skills for Life - Information Literacy (3 hours)	
GEIL101	Information Literacy	

Cluster 2: Skills	for Life - Thinking Skills (3 hours)	
HSS110	Scientific Research Skills	
CSBP119	Algorithms and Problem Solving	
PHI180	Critical Thinking <sup>2</sup>	
PSY105	Creative & Innovative Thinking Skills	

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

Cluster 3: The Human Com	munity - Emirates Society (3 hours)	
HSS105	Emirates Studies	

Cluster 3: The H	luman Community - Humanities/Fine Arts (3 hours)	
ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History	

HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	Introduction to Literature	
LNG100	Introduction to Linguistics	
LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	
TRS200	Introduction to Translation	

GENG315 Engineering Economics <sup>3</sup>	
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# 3 : Also counts towards the Major

Cluster 3: The Hum	nan Community - The Global Experience (3 hours)	
AGRB360	Global Agri-food Trade	
ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	
GEO200	World Regional Geography	
HIS120	Arab & Islamic Civilization	
HIS121	World History: Origins to 1500	
HIS125	Contemporary Civilization	
PSG250	Principles of International Relations	

Cluster 4: The Natural World - Mathematics (3 hours)					
MATH1110	Calculus I for Engineering <sup>4</sup>				
4 : Also counts towards the Major					
Cluster 4: The I	Natural '	World - Natural Sciences (6 hours)			
CHEM111		General Chemistry I			
PHYS105		General Physics I			
Cluster 5: Capstone Experience (6 hours)					
PETE585	Graduation Project I				
PETE590	Graduation Project II <sup>5</sup>				
5 : Also counts towards the Major					

Required Courses (24 hours)		
CHEM175	Chemistry Lab I for Engineering	
GENG220	Engineering Thermodynamics	
MATH1120	Calculus II for Engineering	
MATH2220	Linear Algebra for Engineering	
MATH2210	Differential Equations for Engineering	
STAT210	Probability and Statistics	
ELEC230	Computer Programming	
PHYS135	General Physics Lab I	
PHYS110	General Physics II	
PHYS140	General Physics Lab II	

Required Courses (70 hours)		
GEOL115	Physical Geology for Petroleum Engineering	
CHEM282	Organic Chemistry for Non-Majors	
CHME330	Chemical Engineering Fluid Mechanics	
PETE290	Introduction to Petroleum Engineering	
PETE305	Reservoir Rock & Fluid Properties	
PETE308	Drilling Engineering I	
PETE320	Reservoir Mechanics	
PETE362	Data Analysis in Petroleum Engineering	
PETE403	Well Logging	
PETE407	Drilling Engineering II	
PETE315	Reservoir Rock & Fluid Properties lab	

PETE409	Natural Gas Engineering	
PETE413	Applied Reservoir Geology	
PETE419	Well Performance	
PETE422	Reservoir Simulation	
PETE495	Industrial Training 6	
PETE507	Well Testing	
PETE512	Petroleum Production Operations	
PETE519	Secondary Recovery Methods	
PETE520	Fluid Flow in Porous Media Lab	
PETE542	Petroleum Property Evaluation	
CHME390	Engineering and Strength of Materials	

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

Elective Courses (12 hours)		
CHME442	Corrosion	
PETE410	<u>Independent Studies</u>	
PETE424	Safety & Environment Impact	
PETE443	Transport & Storage of Petroleum	
PETE526	Separation & Treatment Petrol Fluid	
PETE547	Applied Reservoir Simulation	
PETE557	Enhanced Oil Recovery	
PETE570	Special Topics in Petroleum Engineering	

### **Department of Civil & Environmental Engineering**

### **Bachelor of Science in Civil Engineering**

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**

- 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.
- Successfully deal with real life civil engineering problems and achieve practical, effective and optimum solutions based on sound science and engineering knowledge.
- Efficiently design, manage, execute and/or evaluate a civil engineering system/component to satisfy client needs per design specifications and/or requirements.
- Effectively use modern engineering tools and technical communication in different aspects of professional practices.
- 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:

- Identify, formulate, and solve complex civil engineering problems by applying principles of engineering, science, and mathematics.
- 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.
- Communicate effectively with a range of audiences.
- 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.
- Function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
- Develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
- Acquire and apply new knowledge as needed, using appropriate learning strategies.

### Degree Requirements

Required Credit Hours: minimum 147 hours

General Education (Req. CH:41)

Cluster 1: Values t	o Live By - Islam (3 hours)	
ISLM100	<u>Islamic Culture</u>	
Cluster 1: Values t	o Live By - Ethics (2 hours)	
GENG215	Engineering Ethics <sup>1</sup>	
1 : Also counts towards the Major		
Cluster 2: Skills fo	Life - English Communication Skills (3 hours)	
ESPU107 I	ntroduction to Academic English For Engineering	
Cluster 2: Skills for Life - Information Literacy (3 hours)		
GEIL101	Information Literacy	

Cluster 2: Skills	for Life - Thinking Skills (3 hours)	
HSS110	Scientific Research Skills	
CSBP119	Algorithms and Problem Solving	
PSY105	Creative & Innovative Thinking Skills	
PHI180	Critical Thinking <sup>2</sup>	

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

Cluster 3: The Human Com	munity - Emirates Society (3 hours)	
HSS105	Emirates Studies	

Cluster 3: The H	luman Community - Humanities/Fine Arts (3 hours)	
ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History	

HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	Introduction to Literature	
LNG100	Introduction to Linguistics	
LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	
TRS200	Introduction to Translation	

GENG315 Engineering Economics <sup>3</sup>	
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# 3 : Also counts towards the Major

Cluster 3: The Hum	nan Community - The Global Experience (3 hours)	
AGRB360	Global Agri-food Trade	
ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	
GEO200	World Regional Geography	
HIS120	Arab & Islamic Civilization	
HIS121	World History: Origins to 1500	
HIS125	Contemporary Civilization	
PSG250	Principles of International Relations	

Cluster 4: The Na	tural World - Mathematics (3 hours)	
MATH1110	Calculus I for Engineering <sup>4</sup>	
4 : Also counts towards the Major		

Cluster 4: The Natura	l World - Natural Sciences (6 hours)	
CHEM111	General Chemistry I <sup>5</sup>	
PHYS105	General Physics I <sup>6</sup>	

5 : Also counts towards the Major

6 : Also counts towards the Major

Cluster 5: Caps	tone Experience (6 hours)	
CIVL585	Graduation Project I 7	
CIVL590	Graduation Project II 8	

7: Also counts towards the Major

 $8: \mbox{Also counts towards the Major}$ 

### College of Engineering

Required Cour	ses (27 hours)	
CHEM175	Chemistry Lab I for Engineering	
GENG220	Engineering Thermodynamics	
MATH1120	Calculus II for Engineering	
MATH2210	Differential Equations for Engineering	
MATH2220	Linear Algebra for Engineering	
CHEM2706	Materials Science	
ELEC230	Computer Programming	
STAT210	Probability and Statistics	

PHYS110	General Physics II	
PHYS135	General Physics Lab I	
PHYS140	General Physics Lab II	

### Civil Engineering

Required Courses (70	hours)	
BIOL250	Basic Microbiology	
CIVL240	<u>Statics</u>	
MECH305	Mechanics of Materials	
CIVL270	Introduction to Environmental Engineering	
CIVL310	Structural Analysis	
CIVL220	Computer Aided Drawing (CIVL)	

CIVL330	Transportation Engineering	
CIVL335	Surveying	
CIVL340	Soil Mechanics	
CIVL345	Fluid Mechanics for Civil and Architectural Engineering	
CIVL360	Concrete Technology	
CIVL365	Reinforced Concrete Design I	
CIVL375	Water & Wastewater Technology	
CIVL400	Water Resources	
CIVL412	Reinforced Concrete Design II	
CIVL417	Structural Steel Design	
CIVL433	Highway Engineering	
CIVL442	Foundation Engineering	

CIVL445	Construction Management
CIVL495	Industrial Training 9

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

### Civil Engineering Specialization Tracks

A student must complete 9 credit hours (3 courses) from any of the following 4 tracks. (9 hours)

Geotechnical and Construction Management (9 hours)		
CIVL540	Special Topics in Construction Management	
CIVL541	Special Topics in Soil Mechanics & Foundation Engineering	
CIVL547	Advanced Construction Management	
CIVL548	Advanced Geotechnical Engineering	

Structural Engineering (9 hours)

CIVL510	Special Topics in Structural Engineering	
CIVL515	Advanced Concrete Technology	
CIVL517	Matrix Structural Analysis	
CIVL552	Advanced Steel Design	

Surveying and Transportation Engineering (9 hours)		
CIVL530	Special Topics in Transportation Engineering	
CIVL531	Topographic Surveying	
CIVL534	Computer Aided Mapping	
CIVL538	Advanced Highway Engineering	
CIVL539	Traffic Engineering	

Water Resources and Environmental Engineering (9 hours)

CIVL520	Special Topics in Water Resources & Environmental Engineering	
CIVL522	Advanced Environmental Engineering	
CIVL524	Geo-environmental Engineering	
CIVL525	<u>Hydrology</u>	

### **Department of Electrical Engineering**

## **Bachelor of Science in Communication Engineering**

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**

- PEO-1: Have distinguished careers in communication engineering and related fields and perform leadership roles to serve the industry and the community.
- PEO-2: Achieve industry goals related to communication engineering by using innovative ideas and adopting emerging technologies.
- PEO-3: Incorporate teamwork, communication, and interpersonal skills to be productive in multidisciplinary environments with awareness of ethical and social responsibilities.
- 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:

- (a) Ability to apply knowledge of mathematics, statistics, science and engineering principles. The
  mathematics knowledge includes linear algebra, vector algebra, partial differential equations, complex
  analysis, probability, and random processes.
- (b) Ability to design and conduct experiments safely, as well as to analyze and interpret data.
- (c) Ability to design electrical and communication components, systems or processes to meet desired specifications and imposed constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
- (d) Ability to work in teams including multidisciplinary teams.
- (e) Ability to identify, formulate and solve problems encountered in the practice of electrical and communication engineering.
- (f) Understanding of professional and ethical responsibility.
- (g) Ability to communicate effectively orally and in writing.
- (h) Ability to understand the impact of engineering solutions in a global and societal context.
- (i) Recognition of the need for, and an ability to engage in life-long learning.
- (j) Knowledge of contemporary issues.
- (k) Ability to use the techniques, skills, and modern engineering tools necessary for electrical and communication engineering practice.

### Degree Requirements

Required Credit Hours: minimum 147 hours

General Education (Req. CH:41)

Cluster 1: Values	to Live By - Islam (3 hours)
ISLM100	<u>Islamic Culture</u>
Cluster 1: Values	to Live By - Ethics (2 hours)
GENG215	Engineering Ethics <sup>1</sup>
1 : Also counts towards the Major	
Cluster 2: Skills fo	r Life - English Communication Skills (3 hours)
ESPU107 I	ntroduction to Academic English For Engineering
Cluster 2: Skills for Life - Information Literacy (3 hours)	
GEIL101	Information Literacy

Cluster 2: Skills	for Life - Thinking Skills (3 hours)	
HSS110	Scientific Research Skills	
CSBP119	Algorithms and Problem Solving	
PSY105	Creative & Innovative Thinking Skills	
PHI180	Critical Thinking <sup>2</sup>	

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

Cluster 3: The Human Com	munity - Emirates Society (3 hours)	
HSS105	Emirates Studies	

Cluster 3: The H	luman Community - Humanities/Fine Arts (3 hours)	
ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History	

HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	Introduction to Literature	
LNG100	Introduction to Linguistics	
LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	
TRS200	Introduction to Translation	

GENG315 Engineering Economics <sup>3</sup>
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## ${\bf 3}$ : Also counts towards the Major

Cluster 3: The Hum	nan Community - The Global Experience (3 hours)	
AGRB360	Global Agri-food Trade	
ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	
GEO200	World Regional Geography	
HIS120	Arab & Islamic Civilization	
HIS121	World History: Origins to 1500	
HIS125	Contemporary Civilization	
PSG250	Principles of International Relations	

Cluster 4: The I	Natural '	World - Mathematics (3 hours)		
MATH1110	<u>Ca</u> l	Calculus I for Engineering <sup>4</sup>		
4 : Also counts	towards	s the Major		
Cluster 4: The I	Natural '	World - Natural Sciences (6 hours)		
CHEM111		General Chemistry I		
PHYS105		General Physics I		
Cluster 5: Capstone Experience (6 hours)				
ELEC585	Graduation Project I			
ELEC590	Graduation Project II 5			
5 : Also counts towards the Major				

Required Cour	ses (24 hours)	
CHEM175	Chemistry Lab I for Engineering	
GENG220	Engineering Thermodynamics	
MATH1120	Calculus II for Engineering	
MATH2210	Differential Equations for Engineering	
MATH2220	Linear Algebra for Engineering	
CHEM2706	Materials Science	
STAT210	Probability and Statistics	
PHYS135	General Physics Lab I	
PHYS110	General Physics II	
PHYS140	General Physics Lab II	

Required Courses (70 ho	ours)	
ECOM320	Random Signals	
ECOM402	Communication Systems Lab	
ECOM360	<u>Fundamentals of Communication Systems</u>	
ECOM412	Electromagnetic Waves	
ECOM422	<u>Digital Communication Systems</u>	
ECOM432	<u>Data Communications &amp; Networks</u>	
ECOM442	<u>Data Communications &amp; Networks Lab</u>	
ECOM451	<u>Digital Signal Processing</u>	
ECOM461	<u>Digital Signal Processing Lab</u>	
ELEC305	Electric Circuits I	
ELEC310	Electric Circuits I lab	

ELEC315	<u>Fundamentals of Microelec Devices</u>	
ELEC325	Engineering Electromagnetics	
ELEC230	Computer Programming	
ELEC335	<u>Digital Logic Design</u>	
ELEC345	<u>Digital Logic Design Lab</u>	
ELEC360	Signals & Systems	
ELEC370	Electronic Circuits	
ELEC451	<u>Microprocessors</u>	
ELEC375	Electronic Circuits Lab	
ELEC461	Microprocessors Lab	
ELEC495	Industrial Training 6	
ELEC380	Analytical Methods for Electrical Engineering	

ELEC462	Co

Computer Architecture & Organization

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

Elective Cours	es (12 hours)	
ECOM532	Antenna Engineering	
ECOM542	Wireless Communications	
ECOM561	Information Theory & Coding	
ECOM562	Satellite Communications Systems	
ECOM571	Communication Circuits	
ECOM580	Special Topics in Communications	
ELEC431	Control Systems	

# **Bachelor of Science in Electrical Engineering**

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

- PEO-1: Have distinguished careers in electrical engineering and related fields and perform leadership
  roles to serve the industry and the community.
- PEO-2: Achieve industry goals related to electrical engineering by using innovative ideas and adopting emerging technologies.
- PEO-3: Incorporate teamwork, communication, and interpersonal skills to be productive in multidisciplinary environments with awareness of ethical and social responsibilities.
- 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:

- (a) Ability to apply knowledge of mathematics, statistics, science and engineering principles. The
  mathematics knowledge includes linear algebra, vector algebra, partial differential equations, complex
  analysis, and probability.
- (b) Ability to design and conduct experiments safely, as well as to analyze and interpret data.
- (c) Ability to design electrical components, systems or processes to meet desired specifications and imposed constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
- (d) Ability to work in teams including multidisciplinary teams.
- (e) Ability to identify, formulate and solve problems encountered in the practice of electrical engineering.
- (f) Understanding of professional and ethical responsibility.
- (g) Ability to communicate effectively orally and in writing.
- (h) Ability to understand the impact of engineering solutions in a global and societal context.
- (i) Recognition of the need for, and an ability to engage in life-long learning.
- (j) Knowledge of contemporary issues.
- (k) Ability to use the techniques, skills, and modern engineering tools necessary for electrical engineering practice.

## Degree Requirements

Required Credit Hours: minimum 147 hours

General Education (Req. CH:41)

Cluster 1: Values to	b Live By - Islam (3 hours)	
ISLM100	<u>Islamic Culture</u>	
Cluster 1: Values to	D Live By - Ethics (2 hours)	
GENG215	Engineering Ethics <sup>1</sup>	
1 : Also counts towards the Major		
Cluster 2: Skills for	Life - English Communication Skills (3 hours)	
ESPU107 In	troduction to Academic English For Engineering	
Cluster 2: Skills for Life - Information Literacy (3 hours)		
GEIL101	Information Literacy	

Cluster 2: Skills for Life - Thinking Skills (3 hours)		
HSS110	Scientific Research Skills	
PHI180	Critical Thinking <sup>2</sup>	
PSY105	Creative & Innovative Thinking Skills	
CSBP119	Algorithms and Problem Solving	

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

Cluster 3: The Human Com	munity - Emirates Society (3 hours)	
HSS105	Emirates Studies	

Cluster 3: The Human Community - Humanities/Fine Arts (3 hours)		
ARCH346	Contemporary World Architecture	
HIS133	Introduction to Art History	

HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	Introduction to Literature	
LNG100	Introduction to Linguistics	
LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	
TRS200	Introduction to Translation	

GENG315 Engineering Economics <sup>3</sup>	
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# 3 : Also counts towards the Major

Cluster 3: The Hum	nan Community - The Global Experience (3 hours)	
AGRB360	Global Agri-food Trade	
ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	
GEO200	World Regional Geography	
HIS120	Arab & Islamic Civilization	
HIS121	World History: Origins to 1500	
HIS125	Contemporary Civilization	
PSG250	Principles of International Relations	

Cluster 4: The I	Natural <sup>v</sup>	World - Mathematics (3 hours)	
MATH1110	<u>Cal</u>	alculus I for Engineering <sup>4</sup>	
4 : Also counts	4 : Also counts towards the Major		
Cluster 4: The I	Natural '	World - Natural Sciences (6 hours)	
CHEM111		General Chemistry I	
PHYS105		General Physics I	
Cluster 5: Capstone Experience (6 hours)			
ELEC585	Graduation Project I		
ELEC590	Graduation Project II <sup>5</sup>		
5 : Also counts towards the Major			

Required Cour	ses (24 hours)	
CHEM175	Chemistry Lab I for Engineering	
GENG220	Engineering Thermodynamics	
MATH1120	Calculus II for Engineering	
MATH2210	Differential Equations for Engineering	
MATH2220	Linear Algebra for Engineering	
CHEM2706	Materials Science	
STAT210	Probability and Statistics	
PHYS135	General Physics Lab I	
PHYS110	General Physics II	
PHYS140	General Physics Lab II	

Required Courses (70 ho	ours)	
ECOM360	Fundamentals of Communication Systems	
ECOM432	<u>Data Communications &amp; Networks</u>	
ECOM442	Data Communications & Networks Lab	
ELEC305	Electric Circuits I	
ELEC310	Electric Circuits I lab	
ELEC315	<u>Fundamentals of Microelec Devices</u>	
ELEC320	Electric Circuits II	
ELEC325	Engineering Electromagnetics	
ELEC230	Computer Programming	
ELEC335	<u>Digital Logic Design</u>	
ELEC345	<u>Digital Logic Design Lab</u>	

ELEC360	Signals & Systems	
ELEC370	Electronic Circuits	
ELEC375	Electronic Circuits Lab	
ELEC411	Electric Energy Conversion	
ELEC431	<u>Control Systems</u>	
ELEC433	<u>Instrument &amp; Control Lab</u>	
ELEC451	<u>Microprocessors</u>	
ELEC461	Microprocessors Lab	
ELEC462	Computer Architecture & Organization	
ELEC472	Power Systems	
ELEC481	Electric Energy Conversion Lab	
ELEC495	<u>Industrial Training</u> <sup>6</sup>	

ELEC380	<b>Analytical</b>	<b>Methods</b>	for Electrical	<b>Engineering</b>
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6 : The internship is conducted over a full semester (before the last study year). No courses are allowed to be registered during

Elective Course	es (12 hours)	
ECOM451	<u>Digital Signal Processing</u>	
ELEC512	<u>Digital Electronics</u>	
ELEC521	Advanced Control Systems	
ELEC522	Industrial Automation	
ELEC530	Special Topics in Power & Control Engineering	
ELEC531	Power Systems Analysis	
ELEC533	Very Large Scale Integrated Circuits (VLSI)	
ELEC534	Power System Distribution	
ELEC551	Digital Image Processing	

ELEC561	Java Programming Applications	
ELEC562	Embedded System Design	
ELEC570	Special Topics Computer Engineering	
ELEC580	Special Topics in Electronic Engineering	
ELEC582	Analog Integrated Circuit Design	
ELEC592	Power Electronics	
ECOM412	Electromagnetic Waves	

## **Department of Mechanical Engineering**

### **Bachelor of Science in Mechanical Engineering**

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, turbumachinery, 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**

- Our graduates will be be creative and self-motivated engineers, able to mentor others and to achieve advancements in their areas.
- Our graduates will be qualified to achieve the goals of industry which will be recognized through the periodic promotions, leadership, reputation and additional responsibilities.
- Our graduates will be expected to disseminate and implement codes of ethics and professional practice guidelines in resolving ethical dilemmas in their workplace.
- 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:

- Apply knowledge of mathematics, science, and engineering sciences.
- Design and conduct experiments, as well as to analyze and interpret data
- Design a system, component, or process to meet desired needs within realistic constraints such as
  economic, environmental, social, political, ethical, health and safety, manufacturability, and
  sustainability
- Function on multidisciplinary teams.
- Identify, formulate, and solve engineering problems.
- An understanding of professional and ethical responsibility.
- Communicate effectively.
- Broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
- A recognition of the need for, and an ability to engage in life-long learning.
- A knowledge of contemporary issues.
- Use the techniques, skills, and modern engineering tools necessary for engineering practice. Use the techniques, skills, and modern engineering tools necessary for engineering practice.
- A recognition of the need for and an ability to engage in entrepreneurial activities.

## Degree Requirements

Required Credit Hours: minimum 147 hours

General Education (Req. CH:41)

Cluster 1: Values	Cluster 1: Values to Live By - Islam (3 hours)		
ISLM100	Islamic Culture		
Cluster 1: Values	to Live By - Ethics (2 hours)		
GENG215	Engineering Ethics <sup>1</sup>		
1 : Also counts towards the Major			
Cluster 2: Skills fo	or Life - English Communication Skills (3 hours)		
ESPU107 I	Introduction to Academic English For Engineering		
Cluster 2: Skills for Life - Information Literacy (3 hours)			
GEIL101	Information Literacy		

Cluster 2: Skills for Life - Thinking Skills (3 hours)		
HSS110	Scientific Research Skills	
CSBP119	Algorithms and Problem Solving	
PHI180	Critical Thinking <sup>2</sup>	
PSY105	Creative & Innovative Thinking Skills	

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

Cluster 3: The Human Com	munity - Emirates Society (3 hours)	
HSS105	Emirates Studies	

Cluster 3: The Human Community - Humanities/Fine Arts (3 hours)		
ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History	

HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	Introduction to Literature	
LNG100	Introduction to Linguistics	
LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	
TRS200	Introduction to Translation	

GENG315 Engineering Economics <sup>3</sup>	
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# 3 : Also counts towards the Major

Cluster 3: The Hum	Cluster 3: The Human Community - The Global Experience (3 hours)	
AGRB360	Global Agri-food Trade	
ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	
GEO200	World Regional Geography	
HIS120	Arab & Islamic Civilization	
HIS121	World History: Origins to 1500	
HIS125	Contemporary Civilization	
PSG250	Principles of International Relations	

Cluster 4: The Na	tural World - Mathematics (3 hours)	
MATH1110	Calculus I for Engineering <sup>4</sup>	
4 : Also counts towards the Major		

Cluster 4: The Natural World - Natural Sciences (6 hours)		
CHEM111	General Chemistry I	
PHYS105	General Physics I <sup>5</sup>	

5 : Also counts towards the Major

Cluster 5: Capstone Experience (6 hours)		
MECH585	Graduation Project I	
MECH590	Graduation Project II <sup>6</sup>	

 $\mathbf{6}$  : Also counts towards the Major

# College of Engineering

Required Cour	Required Courses (27 hours)	
CHEM175	Chemistry Lab I for Engineering	
GENG220	Engineering Thermodynamics	
MATH1120	Calculus II for Engineering	
MATH2210	Differential Equations for Engineering	
MATH2220	Linear Algebra for Engineering	
MECH390	Engineering Materials	
ELEC230	Computer Programming	
STAT210	Probability and Statistics	
PHYS135	General Physics Lab I	
PHYS110	General Physics II	

PHYS140

General Physics Lab II

## Mechanical Engineering

Required Courses (67 hours)		
ELEC372	Electro-Mechanical Devices	
CIVL240	Statics	
MECH305	Mechanics of Materials	
MECH306	Manufacturing Processes	
MECH310	Dynamics	
MECH311	Applied Thermodynamics	
MECH315	Geometric Modeling	
MECH340	Fluid Mechanics	

MECH348	Fluid Mechanics Lab	
MECH350	Introduction to Mechatronics	
MECH384	Mathematics for Mech. Eng.	
MECH433	Introduction to Computer Aided Manufacturing	
MECH407	Machine Design I	
MECH409	Dynamic Systems & Control	
MECH411	Heat Transfer	
MECH412	Machine Design II	
MECH417	Kinematics Design of Machinery	
MECH426	Thermofluid System Design & Analysis	
MECH430	Thermal Engineering Lab	
MECH440	Design and Manufacturing Lab	

MECH450	System Dynamics Lab	
MECH495	Industrial Training <sup>7</sup>	

<sup>7 :</sup> The internship is conducted over a full semester (before the last study year). No courses are allowed to be registered during

### **Basic Sciences Electives**

Student should take one course from this group (3 hours)		
PHYS235	Waves and Optics	
PHYS250	Modern Physics	
CHEM282	Organic Chemistry for Non-Majors	
BIOC100	Basic Biology I	

Elective Mechanical Engineering Specialization Requirements

A student must successfully complete 9 credit hours (3 courses) from any of the following 4 groups. (9 hours)

Bioengineering (9 hours)		
MECH520	Selected Topics in Bioengineering	
MECH521	Biomechanics	
MECH522	Bioinstrumentation	
MECH525	Introduction to Bioengineering	

Design and Manufacturing (9 hours)		
MECH540	Selected Topics in Design & Manufacturing	
MECH541	Non-conventional Manufacturing	
MECH545	Maintenance Engineering	
MECH547	Intermediate Mechanics of Material	

Thermo-Fluids	(9 hours)	
MECH510	Selected Topics in Thermal Sciences	
MECH513	Air Conditioning Systems	
MECH514	Heat Engines	
MECH516	Energy Management	
MECH517	Turbomachinery	

Mechatronics	and Control (9 hours)	
MECH530	Selected Topics in Mechatronics	
MECH531	Introduction to Robotics	
MECH532	Design of Mechatronics Systems	
MECH533	Mechanical Vibration	

Aerospace (Student not a	allowed to take more than two courses from this group) (9 hours)	
MECH550	Introduction to Aerospace Engineering	
MECH551	Foundations of Aerodynamics	
MECH552	Aircraft Structures	
MECH553	Flight Dynamics, Stability and Control	
MECH554	Aerospace Propulsion	

# **Minor in Mechatronics Engineering**

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

- Augment the Electrical/Mechanical engineering student's ability with in depth knowledge in Mechatronics
- Contribute to the UAE regional economic development

#### Program Learning Outcomes

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

- Developed an understanding of the operation and design of Mechatronics systems
- Gained skills in solving engineering kinematics, kinetics and vibration problems
- Gained programming skills and an understanding of logic, electronics and automation

### Degree Requirements

Required Credit Hours: minimum 18 hours

Minor in Mechatronics Engineering for Electrical Engineering (EE) Major (Req. CH:18)

Required courses	for EE Major (6 hours)
ELEC431	Control Systems
MECH310	<u>Dynamics</u>
Elective Courses for	for EE Major (Choose any two of the following EE Courses:) (6 hours)
ELEC521	Advanced Control Systems
ELEC522	Industrial Automation
ELEC562	Embedded System Design
Elective Courses for EE Major (Choose any two of the following ME Courses:) (6 hours)	
MECH530	Selected Topics in Mechatronics

MECH532	Design of Mechatronics Systems	
MECH533	Mechanical Vibration	

Minor in Mechatronics Engineering for Mechanical Engineering (ME) MajorME (CH:18)

Required course	es for ME Major (6 hours)	
MECH350	Introduction to Mechatronics	
ELEC335	<u>Digital Logic Design</u>	

Elective Courses for ME Ma	ajor (Choose any two of the following ME courses:) (6 hours)	
MECH530	Selected Topics in Mechatronics	
MECH531	Introduction to Robotics	
MECH532	Design of Mechatronics Systems	

Elective Courses for ME Major (Choose any two of the following EE courses:) (6 hours)

ELEC370	Electronic Circuits	
ELEC522	Industrial Automation	
ELEC562	Embedded System Design	

## Minor in Aerospace Engineering

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

- To develop engineers who are broad-based in aerospace technical knowledge and aerospace engineering applications.
- 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.
- 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:

- To apply knowledge of mathematics, calculus based sciences and engineering to aerospace engineering.
- To design aerospace engineering related thermal and mechanical systems, component or processes to meet desired needs.
- To identify, formulate and solve aerospace engineering problems.
- To use modern engineering techniques, skills and computing tools necessary for aerospace engineering practice.

### Degree Requirements

Required Credit Hours: minimum 18 hours

### Aerospace Engineering

Required Coures (15 hours)		
MECH550	Introduction to Aerospace Engineering	
MECH551	Foundations of Aerodynamics	
MECH552	Aircraft Structures	
MECH553	Flight Dynamics, Stability and Control	
MECH554	Aerospace Propulsion	

Elective Courses (Student should select one course from the following groups)

Group-1 (3 ho	urs)	
MECH540	Selected Topics in Design & Manufacturing	

MECH541	Non-conventional Manufacturing	
MECH542	Introduction to Composites Design & Manufacturing	
MECH543	Introduction to Rapid Tooling	
MECH545	Maintenance Engineering	
MECH547	Intermediate Mechanics of Material	

Group-2 (3 hours)		
MECH510	Selected Topics in Thermal Sciences	
MECH512	Intermediate Heat Transfer	
MECH513	Air Conditioning Systems	
MECH516	Energy Management	
MECH517	Turbomachinery	

Group-3 (3 ho	Group-3 (3 hours)	
MECH506	Control Engineering	
MECH530	Selected Topics in Mechatronics	
MECH531	Introduction to Robotics	
MECH532	Design of Mechatronics Systems	
MECH533	Mechanical Vibration	

# **College of Education**

## **Department of Curriculum & Instruction**

## **Bachelor of Education in Elementary Education**

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**

- 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.
- 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.
- 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.
- 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:

- Describe major concepts, principles, theories, and research in specialized disciplines at the elementary education level.
- 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.
- Employ formal and informal assessment strategies to plan, evaluate, and strengthen instruction in the elementary school.
- Use recent media communication techniques to foster active collaboration, and supportive interaction in the elementary schools to conduct research projects using appropriate research methods.
- Create learning opportunities that support individual students' development, acquisition of knowledge and motivation in the elementary school.
- Plan for elementary school instruction based on knowledge of diverse students, learning theories,
   subject matters, curricular goals, institutional and ethical standards and community.
- 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.
- Demonstrate willingness, competence and strategies to work independently and in a team to respond to different situations and problems.
- Develop awareness, willingness and practices for lifelong career professional development.
- Develop relationships and partnership with families, colleagues and stakeholders to enhance elementary school children's intellectual, social, emotional, and physical growth.

# Degree Requirements

Required Credit Hours: minimum 126 hours

General Education (Req. CH:39)

Cluster 1: Valu	es to Live By - Islam (3 hours)
ISLM100	<u>Islamic Culture</u>
Cluster 1: Valu	es to Live By - Ethics (3 hours)
FOED102	Professional Ethics in Education <sup>1</sup>
1 : Also counts towards the Major	
Cluster 2: Skills	s for Life - English Communication Skills (3 hours)
ESPU103	Introduction to Academic English For Education
Cluster 2: Skills for Life - Information Literacy (3 hours)	
GEIL101	Information Literacy

Cluster 2: Skills	for Life - Thinking Skills (3 hours)	
PHI180	Critical Thinking	
Cluster 3: The H	uman Community - Emirates Society (3 hours)	
HSS105	Emirates Studies	
Cluster 3: The Human Community - Humanities/Fine Arts (3 hours)		
ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History	
HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	

LIT150

LNG100

<u>Introduction to Literature</u>

<u>Introduction to Linguistics</u>

LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	
TRS200	Introduction to Translation	

Cluster 3: The Human Com	munity - Social and Behavioral Sciences (3 hours)
PSY313	Educational Psychology <sup>2</sup>

 ${\bf 2}$  : Also counts towards the Major

Cluster 3: The Human Community - The Global Experience (3 hours)

AGRB360	Global Agri-food Trade	
ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	
GEO200	World Regional Geography	
HIS120	Arab & Islamic Civilization	
HIS121	World History: Origins to 1500	
HIS125	Contemporary Civilization	
PSG250	Principles of International Relations	

Cluster 4: The Natural World - Mathematics (3 hours)		
MATH120	Contemporary Applications of Math	
STAT101	Statistics in the Modern World	

Cluster 4: The Natural World - Natural Sciences (6 hours)		
ARAG205	Introduction to Fish & Animal Science	
ARAG220	Natural Resources	
BION100	Biology and its Modern Application	
CHEM181	Chemistry in the Modern World	
FDSC250	Contemporary Food Science & Nutrition	
GEOL110	Planet Earth	
PHYS100	Astronomy	
PHYS101	Conceptual Physics	

Cluster 5: Capstone Experience (3 hours)		
CURR421	Cap Exp in Elem/Islm&Arab	
CURR422	Cap Exp in ELEM/SS & CIVICS	

CURR423	Cap Exp in ELEM/MATH & SC <sup>3</sup>	
CURR424	Cap Exp in ELEM/English <sup>4</sup>	

- ${\bf 3}$  : Also counts towards the Major
- 4 : Either of these courses should be taken based on student track. Also counts towards the Major

### **Elementary Education Major**

Required Cour	Required Courses (21 hours)	
CURR101	Educational Technology	
CURR102	Principles of Curriculum & Instruction	
CURR310	Classroom Assessment in Elementary Education	
FOED201	School and Family	
FOED350	Educational Research	
SPED101	Education of Exceptional Children	

Supporting Ele	Supporting Elective Courses (3 hours)	
CURR201	Language Ed in Elem School	
FOED101	Learning Communities	
FOED321	School Management & Supervision	
SPED321	Gifted and Talented	

# English Language Track

Track Required	d Courses (33 hours)	
ENG250	English Grammar & Usage	
ENG300	Critical Reading in the Disciplines	
ENG310	Writing for Research	

ENG312	Cultural Literacy: English in the World	
ENG450	Public Speaking and Debate	
HSR100	Rhetoric and Composition 2A	
LIT150	Introduction to Literature	
LIT240	Survey of American Literature	
LNG100	Introduction to Linguistics	
LNG241	Syntax I	
TSL210	English Phonetics	

Track Professional Educat	ion Courses (21 hours)	
CURR206	Plan & Implement of ENGL CURR	
CURR316	Teaching Methods of English for Young Learners	
CURR358	Content and Pedagogy Development of ENGL-EL	

CURR368	Teachings Methods of ENGL in ELEM	
CURR464	Student Teaching in ELEM / ENGL <sup>5</sup>	

5 : The internship is conducted in the last semester. Capstone Course CURR 424 (3 Cr. Hrs.) should be taken during the internsh Requisite:

Track Elective	Track Elective Courses (6 hours)	
LIT200	Writing About literature	
LIT220	Survey of British Literature	
LNG341	Syntax II	
LNG362	Contrastive Linguistics	
TRS200	Introduction to Translation	

Islamic Studies and Arabic Language Track

ARB110	Introduction to Syntax & Morphology	
ARB120	Arabic Rhetoric I	
ARB210	<u>Phonetics</u>	
ARB270	Modern Arabic Gulf Literature	
ARB311	Syntax II	
ISLM110	Hadith Studies	
ISLM201	Fiqh of Worship	
ISLM202	Islamic Doctrine	
ISLM111	Qur'Anic Studies	
ISLM114	Recitation & Cantillation	
ISLM112	Fiqh Of Sira	

CURR200	Planning & Implement ISAR CURR	
CURR351	Content and Pedagogy Development of ISLM-EL	
CURR352	Content and Pedagogy Development of ARAB-EL	
CURR361	Teach Islamic Education in Elementary	
CURR362	Teaching Arabic in Elem School	
CURR461	Student Teaching in ELEM / ISLM ED & AR <sup>6</sup>	

6 : The internship is conducted in the last semester. Capstone Course CURR 421 (3 Cr. Hrs.) should be taken during the internsh Requisite:

Track Elective	Courses (Islamic) (3 hours)	
ISLM203	Analytical Interpretation	
SHAR208	Family Regulations in Islam	
SHAR402	Principles of Islamic Jurisprudence (Fiqh) 2	

Track Elective	Track Elective Courses (Arabic) (3 hours)	
ARB100	Styles of Literary Expression	
ARB130	Literary Texts Analysis	
ARB160	General Linguistics	

### Mathematics and Science Track

Required Courses (33 hours)		
BIOC100	Basic Biology I	
BIOC270	General Genetics	
BIOC275	Genetics Laboratory	
CHEM111	General Chemistry I	
CHEM115	General Chemistry Lab	

GEOL105	Physical Geology	
MATH105	<u>Calculus I</u>	
MATH140	Linear Algebra I	
MATH260	Foundation of Geometry	
MATH305	Mathematics For Teachers I	
MATH335	Mathematics for Teachers II	
PHYS105	General Physics I	
PHYS135	General Physics Lab I	

Track Professional Education Courses (24 hours)		
CURR204	Plan & Implement of SCMA CURR	
CURR356	Content and Pedagogy Development of MATH-ED	
CURR357	Content and Pedagogy Development of SCIE EL	

CURR366	Teachings Methods of Math in ELEM	
CURR367	Teaching Methods of SC in ELEM	
CURR463	Student Teaching in ELEM / MATH & SC 7	

7 : The internship is conducted in the last semester. Capstone Course CURR 423 (3 Cr. Hrs.) should be taken during the internsh Requisite:

Track Elective Courses (Mathematics) (3 hours)		
MATH320	Numerical Analysis I	
STAT101	Statistics in the Modern World	
STAT245	Probability and Statistics for Education	

Track Elective Courses (Science) (3 hours)		
BIOC250	Basic Ecology	
CHEM281	Analytical Chemistry for Non-Majors	

PHYS110 General Physics II	
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### Social Studies and Civics Track

Track Required	d Courses (33 hours)	
ECON110	Principles of Economics	
GEO201	Physical Geography	
GEO210	Human Geography	
GEO220	Principles of Cartography	
GEO432	Geography of the UAE	
HIS142	History of Islamic World: Origins 1500	
HIS318	History of the Arabian Gulf	
HIS373	Hist. of Arab World from 1500	

PSG120	Government & Politics of UAE	
SOC101	Introduction to Sociology	
SOC313	Sociology of Family	

Track Required Profession	nal Education Courses (24 hours)	
CURR202	Plan & Implement of SOCV CURR	
CURR353	Content and Pedagogy Development of SOCI-EL	
CURR354	Content and Pedagogy Development of CIVIC-EL	
CURR363	Teaching Methods of SS in ELEM	
CURR364	Teaching Methods of CIVICS in ELEM	
CURR462	Student Teaching in ELEM / SS & CIVICS 8	

<sup>8 :</sup> The internship is conducted in the last semester. Capstone Course CURR 422 (3 Cr. Hrs.) should be taken during the internsh Requisite:

Track Elective	Courses (Civics) (3 hours)	
PSG110	Fundamentals of Political Science	
PSY205	Social Psychology	
SOC309	Sociology of Organizations	

Track Elective	: Courses (Geography) (3 hours)	
GEO221	Geographic Information Systems I	
GEO332	Geography of the Arab World	
GEO462	Current Environmental Issues	

# **Bachelor of Education in Early Childhood Education**

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

- Understand the child development and learning and provide all children with learning environments that are healthy, respectful, supportive, and challenging.
- 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.
- Apply effective assessment strategies and tools in partnership with families and other professionals to positively influence children's development and learning.
- 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.
- Integrate multiple areas of knowledge in planning, implementing and evaluating individually, culturally, and developmentally appropriate, meaningful and inclusive early childhood curriculum.
- 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.
- 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:

- Apply knowledge of child development and learning principles to provide children with healthy,
   respectful, and challenging learning environments.
- Build respectful partnerships with children's families and their communities and communicate with them effectively, both orally and in writing.
- Apply effective assessment strategies and tools in partnership with families and other professionals.
- Use a wide array of developmentally appropriate approaches and instructional strategies in partnership with families.
- Integrate multiple areas of knowledge in planning, implementing and evaluating developmentally appropriate and inclusive early childhood curriculum.
- Make decisions and take actions based on professional and ethical standards and develop reasoned and creative solutions.
- Develop the knowledge, skills and professional dispositions and maintain responsibility for selfdevelopment and life-long learning to promote the development and learning of young children.
- Apply a student-centered learning approach, by developing the student as a communicator, a thinker and a problem solver.
- Develop research skills necessary for integrating knowledge and concepts through effectively using information derived from a variety of sources.

# Degree Requirements

Required Credit Hours: minimum 126 hours

General Education (Req. CH:39)

Cluster 1: Valu	ues to Live By - Islam (3 hours)	
ISLM100	<u>Islamic Culture</u>	
Cluster 1: Valu	ues to Live By - Ethics (3 hours)	
FOED102	Professional Ethics in Education <sup>1</sup>	
1 : Also counts	es towards the Major	
Cluster 2: Skill	lls for Life - English Communication Skills (3 hours)	
ESPU103	Introduction to Academic English For Education	
Cluster 2: Skills for Life - Information Literacy (3 hours)		
GEIL101	Information Literacy	

Cluster 2: Skills	for Life - Thinking Skills (3 hours)	
PHI180	Critical Thinking	
Cluster 3: The H	luman Community - Emirates Society (3 hours)	
HSS105	Emirates Studies	
Cluster 3: The H	luman Community - Humanities/Fine Arts (3 hours)	
Cluster 3: The H	luman Community - Humanities/Fine Arts (3 hours)  History and Theory of Architecture	
ARCH340	History and Theory of Architecture	

LIT150

LNG100

<u>Introduction to Literature</u>

<u>Introduction to Linguistics</u>

LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	
TRS200	Introduction to Translation	

Cluster 3: The Human Com	nunity - Social and Behavioral Sciences (3 hours)	
PSY313	Educational Psychology <sup>2</sup>	

 ${\bf 2}$  : Also counts towards the Major

Cluster 3: The Human Community - The Global Experience (3 hours)

AGRB360	Global Agri-food Trade	
ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	
GEO200	World Regional Geography	
HIS120	Arab & Islamic Civilization	
HIS121	World History: Origins to 1500	
HIS125	Contemporary Civilization	
PSG250	Principles of International Relations	

Cluster 4: The Natural World - Mathematics (3 hours)		
MATH120	Contemporary Applications of Math	
STAT101	Statistics in the Modern World	

Cluster 4: The	Natural World - Natural Sciences (6 hours)	
ARAG205	Introduction to Fish & Animal Science	
ARAG220	Natural Resources	
BION100	Biology and its Modern Application	
CHEM181	Chemistry in the Modern World	
FDSC250	Contemporary Food Science & Nutrition	
GEOL110	Planet Earth	
PHED201	Physical Fitness and Wellness	
PHYS100	<u>Astronomy</u>	
PHYS101	Conceptual Physics	

Cluster 5: Cap	stone Experience (3 hours)	
CURR425	Capstone Experience in ECE <sup>3</sup>	

## 3 : Also counts towards the Major

# Early Childhood Education

Required Courses (54 hours)		
CURR101	Educational Technology	
CURR103	Early Childhood Development & Learning	
CURR211	Planning & Implementation of ECE Curriculum	
CURR212	Language Development and Emergent Literacy	
CURR311	Creative Arts for Young Children	
CURR312	Development of Religious and Social Concepts in ECE	
CURR314	Family, Community, Culture & ECE	
CURR317	Child Health and Care	

CURR319	Science Education for Young Child	
CURR320	Math Education for Young Child	
CURR324	<u>Children's Play</u>	
CURR414	Early Childhood Learning Environments	
CURR416	Assessment in ECE	
CURR465	Student Teaching in ECE <sup>4</sup>	
FOED350	Educational Research	
SPED101	Education of Exceptional Children	

4 : The internship is conducted in the last semester. Capstone Course CURR 425 (3 Cr. Hrs.) should be taken during the internsh

Supporting Required Courses Outside of ECED (30 hours)		
ARB210	<u>Phonetics</u>	
GEO432	Geography of the UAE	

HIS212	History of the UAE	
ISLM201	Fiqh of Worship	
ISLM114	Recitation & Cantillation	
MATH305	Mathematics For Teachers I	
MATH335	Mathematics for Teachers II	
NSCI260	Natural Sciences I (Phys&Chem)	
SOC316	Folklore in UAE Society	
TSL210	English Phonetics	

Elective Course	es (3 hours)	
CURR411	Special Topic in ECE	
FOED101	Learning Communities	
SPED321	Gifted and Talented	

## **Bachelor of Education in Art Education**

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

- Actively seek opportunities for professional growth in art education and who become classroom researchers.
- Have the necessary academic background in art education, professional education knowledge, skills
  and dispositions to respond effectively to students' differences in education settings.
- Apply effective communication techniques to foster active inquiry, creative and innovative thinking,
   collaboration, and supportive interaction inside and outside the classroom.
- Apply effective communication techniques to foster active inquiry, creative and innovative thinking,
   collaboration, and supportive interaction inside and outside the classroom.
- 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:

- Demonstrate skills in research methodology, problem solving, and critical thinking.
- Evaluate, manage, and apply appropriate art education methods and procedures in processes of investigation toward identified solutions independently and confidently as professional.
- Evaluate teacher-learner interactions to facilitate and guide student learning art in diverse learning environments.
- Appraise diversity and its impact on art curriculum and art instruction.
- Demonstrates an understanding of outcomes-based art curriculum.
- Develop, implement, and evaluate a personal approach to teaching and learning art through the use of information derived from a variety of art sources.

- Design, develop and implement appropriate art assessment techniques and tools.
- Plan and implement art curriculum as related to current trends.
- Outline the application of technology in art and effective communication techniques in grade K-9 settings.
- Function and communicate effectively within the social setting of the school, community and society.

### Degree Requirements

Required Credit Hours: minimum 126 hours

General Education (Req. CH:39)

Cluster 1: Values to	Live By - Islam (3 hours)	
ISLM100	<u>Islamic Culture</u>	

Cluster 1: Valu	ues to Live By - Ethics (3 hours)	
FOED102	Professional Ethics in Education <sup>1</sup>	

1 : Also counts towards the major

Cluster 2: Skills	s for Life - English Communication Skills (3 hours)	
ESPU103	Introduction to Academic English For Education	

Cluster 2: Skills	Cluster 2: Skills for Life - Information Literacy (3 hours)		
GEIL101	Information Literacy		
Cluster 2: Skills	s for Life - Thinking Skills (3 hours)		
PSY105	Creative & Innovative Thinking Skills		
PHI180	Critical Thinking		
Cluster 3: The	Human Community - Emirates Society (3 hours)		
HSS105	Emirates Studies		
Cluster 3: The Human Community - Humanities/Fine Arts (3 hours)			
ARCH340	40 <u>History and Theory of Architecture</u>		
HSR120	Introduction to Heritage & Culture		
HSR130	Introduction to Language & Communication		

LIT150	<u>Introduction to Literature</u>	
LNG100	Introduction to Linguistics	
LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	
TRS200	Introduction to Translation	

Cluster 3: The Human Com	munity - Social and Behavioral Sciences (3 hours)	
PSY313	Educational Psychology <sup>2</sup>	

 ${\bf 2}$  : Also counts towards the major

Cluster 3: The Hum	nan Community - The Global Experience (3 hours)	
AGRB360	Global Agri-food Trade	
ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	
GEO200	World Regional Geography	
HIS120	Arab & Islamic Civilization	
HIS121	World History: Origins to 1500	
HIS125	Contemporary Civilization	
PSG250	<u>Principles of International Relations</u>	

Cluster 4: The N	Natural World - Mathematics (3 hours)	
MATH120	Contemporary Applications of Math	

STAT101	Statistics in the Modern Worl	d
01711202	Statistics in the Housen World	_

Cluster 4: The	Natural World - Natural Sciences (6 hours)	
ARAG205	Introduction to Fish & Animal Science	
ARAG220	Natural Resources	
BION100	Biology and its Modern Application	
CHEM181	Chemistry in the Modern World	
FDSC250	Contemporary Food Science & Nutrition	
GEOL110	<u>Planet Earth</u>	
PHYS100	Astronomy	
PHYS101	Conceptual Physics	

CURR426	Capstone Experiences in Art Education <sup>3</sup>	

 ${\tt 3}$  : Co-Requisite: CURR 466 Student Teaching in Art Education and also counts towards the major

# Art Education Major

Required Courses (8	34 hours)	
ART101	Arts and Society I	
ART201	Drawing I	
ART301	Painting I	
ART302	3-D Design	
ART303	<u>Digital Photography</u>	
ART382	Introduction to Art Criticism	
CURR101	Educational Technology	

CURR102	Principles of Curriculum & Instruction	
CURR104	Introduction to Art Education	
CURR213	Children's Artistic Development	
CURR223	Assessment in Art Education	
CURR224	Interpreting Art Experience: Social and Behavioral Perspectives	
CURR301	<u>Colour Theory</u>	
CURR302	Introduction to Art Museum Practices	
CURR359	Early Field Experience in Cycle I	
CURR360	Early Field Experience in Cycle II	
CURR369	Teaching Art in Cycle I Schools	
CURR370	Teaching Art in Cycle II Schools	
CURR417	Art in Public Places	

CURR466	Student Teaching in Art Education <sup>4</sup>
FIL312	Animation Filmmaking
FOED201	School and Family
PHED201	Physical Fitness and Wellness
FOED350	Educational Research
HIS133	Introduction to Art History
MSC462	Designing Media Messages
SPED101	Education of Exceptional Children

4 : The internship is conducted in the last semester. Capstone Course CURR 426 (3 Cr. Hrs.) should be taken during the internsh

Supporting Elective Courses (3 hours)		
FOED101	Learning Communities	
PHED311	Health & Movement	

SPED321 <u>Gifted and Talented</u>

## **Bachelor of Education in Preparatory and Secondary Education**

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

- Teachers who are reflective practitioners and actively seek opportunities for professional growth to enhance both teaching and classroom based action research skills.
- 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.
- 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.
- 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.
- 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:

- acquire knowledge, skills, and attitudes necessary to function and communicate effectively within the social setting of the school, community, and society;
- apply knowledge and skills in research, problem solving, and critical thinking;
- evaluate the quality of teacher-learner interactions to facilitate and guide student learning in diverse learning environments;
- integrate information and communication technology into teaching and learning in grades (6-12)
   settings;
- demonstrate working knowledge and skills of design, development, and implementation of appropriate assessment strategies;
- reflect an understanding of diversity and its impact on curriculum and instruction;
- acquire the necessary skills to become an independent professional with a commitment to sustainable professional growth and development;
- implement curriculum as related to current trends and standards.

## Degree Requirements

Required Credit Hours: minimum 126 hours

General Education (Req. CH:39)

Cluster 1: Valu	es to Live By - Islam (3 hours)	
ISLM100	<u>Islamic Culture</u>	
Cluster 1: Valu	es to Live By - Ethics (3 hours)	
FOED102	Professional Ethics in Education	
Cluster 2: Skills	s for Life - English Communication Skills (3 hours)	
ESPU103	Introduction to Academic English For Education	
Cluster 2: Skills for Life - Information Literacy (3 hours)		
GEIL101	Information Literacy	
Cluster 2: Skills	s for Life - Thinking Skills (3 hours)	

PHI180	<u>Critical Thinking</u>	
PSY105	Creative & Innovative Thinking Skills	

Cluster 3: The Human Com	munity - Emirates Society (3 hours)	
HSS105	Emirates Studies	

Cluster 3: The H	Human Community - Humanities/Fine Arts (3 hours)	
ARCH340	History and Theory of Architecture	
HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
HIS133	Introduction to Art History	
TRS200	Introduction to Translation	
MSC200	Introduction to Mass Media	

MSC240	World and Arab Media	
LNG110	Language, Society & Culture	
PHI101	Introduction to Philosophy	

# Cluster 3: The Human Community - Social and Behavioral Sciences (0 hours)

PSY313 <u>Educational Psychology</u>

Cluster 3: The Hum	nan Community - The Global Experience (3 hours)	
HIS120	Arab & Islamic Civilization	
HIS125	Contemporary Civilization	
AGRB360	Global Agri-food Trade	
PSG250	Principles of International Relations	
GEO200	World Regional Geography	

Cluster 4: The	Natural World - Mathematics (3 hours)
MATH120	Contemporary Applications of Math
STAT101	Statistics in the Modern World

Cluster 4: The Natural World - Natural Sciences (6 hours)		
PHYS100	<u>Astronomy</u>	
PHYS101	Conceptual Physics	
GEOL110	Planet Earth	
ARAG205	Introduction to Fish & Animal Science	
ARAG220	Natural Resources	
BION100	Biology and its Modern Application	

FDSC250	Contemporary Food Science & Nutrition	
CHEM181	Chemistry in the Modern World	
PHED201	Physical Fitness and Wellness	
VMED110	Introduction to Veterinary Medicine	

Cluster 5: Capstone course as per their t	Experience (Courses listed below also count as major courses and students should take only one rack) (3 hours)	
CURR427	Capstone Experiences of Teaching Arabic Language in Preparatory & Secondary Schools	
CURR428	Capstone Experiences of Teaching General Social Studies in Preparatory & Seconedary Schools	
CURR429	Capstone Experiences of Teaching Mathematics in Preparatory & Secondary Schools	
CURR430	Capstone Experiences of Teaching English Language in Preparatory & Secondary Schools	
CURR431	Capstone Experiences of Teaching Islamic Studies in Preparatory & Secondary Schools	
CURR432	Capstone Experiences of Teaching Chemistry in Prearatory Schools	

CURR433	Capstone Experiences of Teaching Physics in Prearatory Schools

# College of Education Professional Requirements (Req. CH:18)

Core Requirem	nents (15 hours)	
FOED103	Foundation of Education	
SPED102	Diversity and Student Learning	
CURR105	Educational Technology in Preparatory & Secondary Schools	
CURR300	Assessement in Preparatory & Secondary Schools	
CURR303	Principle of Educational Research	

Elective Courses (3 hours)		
CURR309	Classroom Environment & Adolescent Culture	
SPED326	Educating Gifted and Talented Students in the Regular Classroom	

	FOED101	Learning Communities	
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# English Language Track (Req. CH:69)

College of Edu	cation Specialization Core Requirements (15 hours)	
CURR208	Curriculum Development in English Language	
CURR218	Methods of Teaching English Language in Preparatory & Secondary Schools (1)	
CURR308	Methods of Teaching English Language in Preparatory & Secondary Schools (2)	
CURR333	Current Trends & Issues in Teaching English Language	
CURR344	Thinking and Learning in Teaching English Language	

Track Requirements (39 hours)		
ENG310	Writing for Research	
ENG210	College Reading and Writing	

ENG300	Critical Reading in the Disciplines	
ENG312	Cultural Literacy: English in the World	
LIT150	Introduction to Literature	
LNG241	Syntax I	
LNG100	Introduction to Linguistics	
LNG120	Linguistic Principles of English Grammar	
LNG330	Introduction to Phonology & Morphology	
TSL100	Introduction to English Grammar	
TSL110	Introduction to Applied Linguistics	
TSL210	English Phonetics	
TSL220	Pedagogical Structure	

1 : The internship is conducted in the last semester. Capstone Course CURR 430 (3 Cr. Hrs.) should be taken during the internsh

Track Elective	Courses (6 hours)	
LIT240	Survey of American Literature	
LIT220	Survey of British Literature	
ENG450	Public Speaking and Debate	
LIT300	Methods of Research in Literary Study	

## General Social Studies Track (Req. CH:69)

College of Edu	cation Specialaization Core Requirements (15 hours)	
CURR205	Curriculum Development in General Social Studies	
CURR215	Methods of Teaching General Social Studies in Preparatory & Secondary Schools (1)	

CURR305	Methods of Teaching General Social Studies in Preparatory & Secondary Schools (2)	
CURR331	Current Trends & Issues in Teaching General Social Studies	
CURR342	Thinking and Learning in Teaching General Social Studies	

Track Requirer	ments (39 hours)	
GEO201	Physical Geography	
GEO211	Remote Sensing	
GEO220	Principles of Cartography	
GEO332	Geography of the Arab World	
GEO432	Geography of the UAE	
HIS124	Rise of Islam & Omayyed state	
HIS212	History of the UAE	
HIS318	History of the Arabian Gulf	

HIS352	History of the Abbasid State	
PSG120	Government & Politics of UAE	
SOC101	Introduction to Sociology	
SOC303	Bedouin & Rural Society	
SOC316	Folklore in UAE Society	

Field Experiences	s (9 hours)	
CURR468	Student Teaching of General Social Studies in Preparatory & Secondary Schools <sup>2</sup>	

2 : The internship is conducted in the last semester. Capstone Course CURR 428 (3 Cr. Hrs.) should be taken during the internsh

Track Elective	Courses (6 hours)	
GEO200	World Regional Geography	
HIS310	Introduction to Archaeology & Museum Studies	

HIS332	Ancient History & Archaeology Arabian of the Peninsula	
PSG321	Gulf & Arabic Peninsula Affairs	
PHI225	Citizenship & Civil Society	
PHI226	Human Rights Theory	
SOC201	Social & Cultural Change	
SOC315	Sociology of Education	
SOC260	<u>Folklore</u>	
SWK230	Human Behavior in Social Environments	

## Arabic Language Track (Req. CH:69)

College of Edu	ucation Specialaization Core Requirements (15 hours)	
CURR203	Curriculum Development in Arabic Language	

CURR214	Methods of Teaching Arabic Language in Preparatory & Secondary Schools (1)	
CURR304	Methods of Teaching Arabic Language in Preparatory & Secondary Schools (2)	
CURR330	Current Trends & Issues in Teaching Arabic Language	
CURR340	Thinking and Learning in Teaching Arabic Language	

Track Require	ments (39 hours)	
ARB110	Introduction to Syntax & Morphology	
ARB120	Arabic Rhetoric I	
ARB130	<u>Literary Texts Analysis</u>	
ARB160	General Linguistics	
ARB210	<u>Phonetics</u>	
ARB220	<u>Prosody</u>	
ARB230	Traditional Literary Criticism	

ARB250	Abbasid Literature I
ARB311	Syntax II
ARB321	Semantics & Arabic Lexicology
ARB430	Modern Literature Criticism
ARB343	Pre Islamic & Islamic Literature
ARB444	Modern Arabic Literature

Field Experiences	(9 hours)	
CURR467	Student Teaching of Arabic Language in Preparatory & Secondary Schools <sup>3</sup>	

: The internship is conducted in the last semester. Capstone Course CURR 427 (3 Cr. Hrs.) should be taken during the internship

Track Elective	Courses (6 hours)	
ARB260	Emirati Literature	

ARB270	Modern Arabic Gulf Literature	
ARB301	Abbasid Literature II	
ARB413	Arabic Linguistics	

### Islamic Studies Track (Req. CH:69)

College of Edu	cation Specialaization Core Requirements (15 hours)	
CURR209	Curriculum Development in Islamic Studies	
CURR219	Methods of Teaching Islamic Studies in Preparatory & Secondary Schools (1)	
CURR306	Methods of Teaching Islamic Studies in Preparatory & Secondary Schools (2)	
CURR334	Current Trends & Issues in Teaching Islamic Studies	
CURR345	Thinking and Learning in Teaching Islamic Studies	

# Track Requirements (39 hours)

ISLM110	Hadith Studies	
ISLM111	Qur'Anic Studies	
ISLM112	Fiqh Of Sira	
ISLM114	Recitation & Cantillation	
ISLM201	Fiqh of Worship	
ISLM202	<u>Islamic Doctrine</u>	
ISLM203	Analytical Interpretation	
SHAR208	Family Regulations in Islam	
ISLM206	Studies in Hadith	
ISLM207	Morals & Education in Islam	
ISLM333	Figh of Islamic Da'wa	
ISLM473	Mordern Islamic Legal Issues	

SHAR112

Introduction to Islamic Law and its Sources

Field Experiences	(9 hours)	
CURR471	Student Teaching of Islamic Studies in Preparatory & Secondary Schools <sup>4</sup>	

4 : The internship is conducted in the last semester. Capstone Course CURR 431 (3 Cr. Hrs.) should be taken during the internsh

Track Elective	Track Elective Courses (6 hours)	
PHI362	<u>Islamic Phliosophy</u>	
ISLM304	History Of Religions	
ISLM305	Selected texts from the Quran and Sunnah	
SHAR477	Transactions Jurisprudence	

Mathematics Track (Req. CH:69)

CURR207	Curriculum Development in in Mathematics	
CURR217	Methods of Teaching Mathematics in Preparatory & Secondary Schools (1)	
CURR307	Methods of Teaching Mathematics in Preparatory Secondary Schools (2)	
CURR332	Current Trends & Issues in Teaching Mathematics	
CURR343	Thinking and Learning in Teaching Mathematics	

Track Require	ments (39 hours)	
MATH105	Calculus I	
MATH110	<u>Calculus II</u>	
MATH140	Linear Algebra I	
MATH210	<u>Calculus III</u>	
MATH215	<u>Introduction to Analysis</u>	
MATH245	Set Theory and Logic	

MATH246	Number Theory	
MATH260	Foundation of Geometry	
MATH315	Complex Analysis I	
MATH342	Graph Theory	
PHYS105	General Physics I	
STAT245	Probability and Statistics for Education	
STAT210	Probability and Statistics	

Field Experiences	(9 hours)	
CURR469	Student Teaching of Mathematics in Preparatory & Secondary Schools <sup>5</sup>	

5 : The internship is conducted in the last semester. Capstone Course CURR 429 (3 Cr. Hrs.) should be taken during the internsh

Track Elective Courses (6 hours)

MATH310	Real Analysis	
MATH320	Numerical Analysis I	
MATH321	<u>Linear Programming</u>	
MATH340	Abstract Algebra 1	

# Chemistry Track (Req. CH:69)

College of Education Specialization Core Requirements (15 hours)		
CURR216	Curriculum Development in Chemistry	
CURR226	Methods of Teaching Chemistry in Secondary Schools (1)	
CURR315	Methods of Teaching Chemistry in Secondary Schools (2)	
CURR325	Current Trends & Issues in Teaching Chemistry	
CURR336	Thinking and Learning in Teaching Chemistry	

Track Requirer	ments (39 hours)	
CHEM111	General Chemistry I	
CHEM112	General Chemistry II	
CHEM115	General Chemistry Lab	
CHEM221	Analytical Chemistry	
CHEM231	Inorganic Chemistry I	
CHEM241	Organic Chemistry I	
CHEM245	Organic Chemistry Lab I	
CHEM251	Physical Chemistry I	
CHEM321	<u>Instrumental Analysis I</u>	
BIOC100	Basic Biology I	
MATH105	<u>Calculus I</u>	

MATH110	<u>Calculus II</u>	
PHYS105	General Physics I	
PHYS110	General Physics II	
PHYS135	General Physics Lab I	

Field Experiences (9 hours)		
CURR472	Student Teaching of Chemistry in Preparatory Schools <sup>6</sup>	

6 : The internship is conducted in the last semester. Capstone Course CURR 432 (3 Cr. Hrs.) should be taken during the internsh

Track Elective	Courses (6 hours)	
CHEM242	Organic Chemistry II	
CHEM361	Biochemistry	
BCHM362	Biochemistry II	

BIOC230	General Microbiology				
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## Physics Track (Req. CH:69)

College of Education Specialization Core Requirements (15 hours)		
CURR225	Curriculum Development in Physics	
CURR227	Methods of Teaching Physics in Secondary Schools (1)	
CURR322	Methods of Teaching Physics in Secondary Schools (2)	
CURR335	Current Trends & Issues in Teaching Physics	
CURR337	Thinking and Learning in Teaching Physics	

Track Requiren	nents (39 hours)	
PHYS105	General Physics I	
PHYS110	General Physics II	

PHYS135	General Physics Lab I	
PHYS140	General Physics Lab II	
PHYS205	<u>Intermediate Physics Lab I</u>	
PHYS210	Intermediate Physics Lab II	
PHYS220	Thermal Physics	
PHYS231	Electronics Fundamentals	
PHYS235	Waves and Optics	
PHYS250	Modern Physics	
PHYS255	Mathematical Physics	
PHYS262	Classical Mechanics	
PHYS312	Statistical Physics	
MATH105	<u>Calculus I</u>	

MATH110	<u>Calculus II</u>	
CHEM111	General Chemistry I	

Field Experiences (9 h	ours)	
CURR474	Student Teaching of Physics in Preparatory Schools <sup>7</sup>	

7 : The internship is conducted in the last semester. Capstone Course CURR 433 (3 Cr. Hrs.) should be taken during the internsh

Track Elective	Courses (6 hours)	
PHYS335	Electromagnetic Theory	
PHYS345	<u>Laser Physics</u>	
PHYS355	Quantum Mechanics	
PHYS390	Introduction to Astrophysics	

## **Department of Physical Education**

## **Bachelor of Education in Health and Physical Education**

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

- Teachers who possess and apply scientific knowledge in their area of specialization.
- Highly-qualified HPE teachers to meet both the Ministry of Education and Abu-Dhabi Education Council needs and requirements.
- HPE graduates who actively participate in various community health and physical activity programs.
- HPE teachers who can serve as role models and demonstrate knowledge of health, physical education,
   and wellness.
- 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:

- 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).
- Understanding the structure and functions of body systems during physical exercise (ILO 1, CF 2, NASPE Standard 1, and AAHE 1).
- Critically analyzing various technology applications in HPE settings to enhance teaching, learning, and professional growth (ILO 5, CF 7).
- Using various assessment techniques in HPE settings and research. (ILOs 2, 4, Skill: QFE).
- Demonstrating competence in physical fitness and movement skills which can be effectively utilized in teaching (ILO 1, CF 5, and NASPE Standard 3).
- 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).
- 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).
- Developing creative and effective approaches to manage HPE classroom settings (ILO 5, CF 8, NASPE Standard 6, and AAHE 8).

#### Degree Requirements

Required Credit Hours: minimum 126 hours

Cluster 2: Skills for Life - Thinking Skills (3 hours)

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

Cluster 1: Valu	Cluster 1: Values to Live By - Islam (3 hours)					
ISLM100	ISLM100 Islamic Culture					
Cluster 1: Valu	ues to Live By - Ethics (3 hours)					
FOED102	02 <u>Professional Ethics in Education</u>					
Cluster 2: Skill	s for Life - English Communication Skills (3 hours)					
ESPU103	ESPU103 Introduction to Academic English For Education					
Cluster 2: Skills for Life - Information Literacy (3 hours)						
GEIL101	Information Literacy					

PHI180	<u>Criti</u>	<u>cal Thinking</u>	
Cluster 3: The Hu	ıman Comm	nunity - Emirates Society (3 hours)	
HSS105		Emirates Studies	
Cluster 3: The Hu	ıman Comm	nunity - Social and Behavioral Sciences (3 hours)	
PSY313		Educational Psychology	
Cluster 3: The Hu	Cluster 3: The Human Community - Humanities and Fine Arts (3 hours)		
ARCH340	ARCH340 History and Theory of Architecture		
HSR120	HSR120 Introduction to Heritage & Culture		
HSR130	Introduction to Language & Communication		
HIS133	Introduction to Art History		

LIT150

<u>Introduction to Literature</u>

TRS200	Introduction to Translation	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
LNG100	Introduction to Linguistics	
LNG110	Language, Society & Culture	
PHI101	Introduction to Philosophy	

Cluster 3: The Hum	nan Community - The Global Experience (3 hours)	
HIS120	Arab & Islamic Civilization	
HIS125	Contemporary Civilization	
AGRB360	Global Agri-food Trade	
PSG250	Principles of International Relations	
BIOE240	Principles of Environmental Science	

GEO200	World Regional Geography	
ARCH346	Contemporary World Architecture	

Cluster 4: The Na	atural World - Mathematics (3 hours)	
STAT101	Statistics in the Modern World	

Cluster 4: The	Cluster 4: The Natural World - Natural Sciences (6 hours)	
PHYS100	Astronomy	
PHYS101	Conceptual Physics	
FDSC250	Contemporary Food Science & Nutrition	
GEOL110	Planet Earth	
PHED201	Physical Fitness and Wellness	
ARAG205	Introduction to Fish & Animal Science	

ARAG220	Natural Resources	
BION100	Biology and its Modern Application	
CHEM181	Chemistry in the Modern World	

Cluster 5: Cap	stone Experience (3 hours)	
PHED408	Capstone Experiences in Health and Physical Education <sup>1</sup>	
1 : Also counts towards the major		

## II - Professional Requirements (Req: CH:48)

A - Compulsor	y Professional Requirements (36 hours)	
CURR101	Educational Technology	
PHED200	Foundations of Health and Physical Education	
PHED205	Adapted Physical Education	

PHED206	School and Community Health	
PHED305	Health and Physical Education Curriculum	
PHED310	Health and PE Teaching Methods for Elementary Education	
PHED312	Evaluation and Assessment in Health and Physical Education	
PHED314	<u>Biomechanics</u>	
FOED350	Educational Research	
PHED401	Health and PE Teaching Methods for Secondary Education	
PHED402	Exercise Psychology	
PHED406	Aerobic Fitness	

B - Elective Profes	sional Requirements (3 hours)	
FOED101	Learning Communities	
PHED311	Health & Movement	

SPED321	Gifted and Talented	
PHED403	Sport Sociology	

C - Field Experiences	(9 hours)	
PHED409	Student Teaching in Health and Physical Education <sup>2</sup>	

2: The internship is conducted in the last semester. Capstone Course PHED 408 (3 Cr. Hrs.) should be taken during the internship

### III - Academic Major Requirements (Req. CH:39)

A - Academic N	Major Requirements (36 hours)	
PHED202	<u>Invasion Games</u>	
PHED203	Swimming	
PHED204	Human Anatomy and Physiology	
PHED207	Exercise Physiology	

PHED208	Motor Learning	
PHED209	Track and Field	
PHED302	Physical Fitness Conditioning	
PHED306	Personal Health and Wellness	
PHED308	CPR and First Aid	
PHED309	Individual and Dual Sports	
PSY304	Developmental Psychology	
PHED313	Child and Health Development	
PHED407	Health, Physical Activity, and Nutrition	

B - Elective Major Requirements (3 hours)		
PHED400	Sport Management	
PHED404	Techniques of Coaching	

PHED405

**Martial Arts** 

### **Department of Special Education**

## **Bachelor of Education in Special Education**

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**

- Acquire thorough knowledge of the philosophical, historical, and legal foundation of Special Education.
- Understand the diverse educational strengths and needs of all students with special needs.
- 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.
- Establish a learning environment that supports the learning of all students.
- Understand the cultural and social contexts in which students with special needs live and learn.
- Gain communication skills needed to manage the complexities of teaching for learning in all educational settings.
- Have commitment to high standards of ethical practices and professionalism.
- 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:

- Acquire thorough knowledge of the philosophical, historical, and legal foundation of the education of exceptional children.
- Use multiple assessment data in making educational decisions for students with Mild/Moderate disabilities and Gifts and Talents.
- 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.
- Establish a research-based responsive learning environment for students with Mild/Moderate disabilities and Gifts and Talents.
- Examine the cultural and social contexts in which students with exceptionalities live and learn.
- Assess language development and communication skills of children with exceptionalities using research-based practices.
- 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.
- Manage consistently and sensitively ethical practices and professionalism in the area of Special Education.
- 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

Required Credit Hours: minimum 126 hours

General Education (Req. CH:39)

Cluster 1: Value	es to Live By - Islam (3 hours)	
ISLM100	<u>Islamic Culture</u>	
Cluster 1: Value	es to Live By - Ethics (3 hours)	
FOED102	Professional Ethics in Education <sup>1</sup>	
1 : Also counts towards the Major		
Cluster 2: Skills	s for Life - English Communication Skills (3 hours)	
ESPU103	Introduction to Academic English For Education	
Cluster 2: Skills for Life - Information Literacy (3 hours)		
GEIL101	Information Literacy	

Cluster 2: Skills t	for Life - Thinking Skills (3 hours)	
PHI180	Critical Thinking	
Cluster 3: The H	uman Community - Emirates Society (3 hours)	
HSS105	Emirates Studies	
Cluster 3: The Human Community - Humanities/Fine Arts (3 hours)		
ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History	
HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	

LIT150

LNG100

<u>Introduction to Literature</u>

<u>Introduction to Linguistics</u>

LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	
TRS200	Introduction to Translation	

Cluster 3: The Human Com	munity - Social and Behavioral Sciences (3 hours)
PSY313	Educational Psychology <sup>2</sup>

 ${\bf 2}$  : Also counts towards the Major

Cluster 3: The Human Community - The Global Experience (3 hours)

AGRB360	Global Agri-food Trade	
ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	
GEO200	World Regional Geography	
HIS121	World History: Origins to 1500	
HIS120	Arab & Islamic Civilization	
HIS125	Contemporary Civilization	
PSG250	Principles of International Relations	

Cluster 4: The Natural World - Mathematics (3 hours)		
MATH120	Contemporary Applications of Math	
STAT101	Statistics in the Modern World	

Cluster 4: The	Natural World - Natural Sciences (6 hours)	
ARAG205	Introduction to Fish & Animal Science	
ARAG220	Natural Resources	
BION100	Biology and its Modern Application	
CHEM181	Chemistry in the Modern World	
FDSC250	Contemporary Food Science & Nutrition	
GEOL110	Planet Earth	
PHED201	Physical Fitness and Wellness	
PHYS100	<u>Astronomy</u>	
PHYS101	Conceptual Physics	

Cluster 5: Capsto	one Experience (3 hours)	
SPED441	Capstone Experience in SPED/Mild/Mod Disabilities	

SPED444	Capstone Experience in SPED/Gifted & Talented <sup>3</sup>

3 : Either SPED 441 or SPED 444 should be taken based on student track. Also counts towards the Major

# College of Education

Required Cour	ses (15 hours)	
CURR101	Educational Technology	
CURR102	Principles of Curriculum & Instruction	
FOED101	Learning Communities	
FOED350	Educational Research	
SPED101	Education of Exceptional Children	

#### Special Education Major

Required Cours	ses (30 hours)	
SPED210	Assessment in Special Education	
SPED211	Technology Applications in Special Education	
SPED220	Classroom Behavior Management	
SPED221	Collaboration (Home, School & Community)	
SPED222	Language & Communication Disorders	
SPED313	Early Intervention in Special Education	
SPED314	Differentiating Instruction	
SPED321	Gifted and Talented	
SPED332	Introduction to Rehabilitation	
SPED400	Practical Experiences in Special Education	

ENG300	Critical Reading in the Disciplines	
ENG310	Writing for Research	
HIS422	Mod. & Con. History of Africa	
MATH305	Mathematics For Teachers I	
PSY100	Introduction to Psychology	
PSY414	Introduction to Health Psychology	

## Major Specialization Tracks

Major Specialization	Mild/Mod Disabilities (18 hours)	
SPED312	Individuals with Mild/Moderate Disabilities	
SPED361	Teaching Children with Mild/Moderate Disabilities	
SPED415	Education Diagnosis/ Remediation of Literacy/Math Disabilities	

SPED461	Student Teaching in SPED/Mild and Moderate Disabilities 4

4 : The internship is conducted in the last semester. Capstone Course SPED 441 (3 Cr. Hrs.) should be taken during the internsh

Major Specialization	Gifted and Talented (18 hours)	
SPED331	Curriculum & Materials for the Gifted	
SPED326	Educating Gifted and Talented Students in the Regular Classroom	
SPED416	Research Seminar for Gifted & Talented	
SPED464	Student Teaching in SPED/Gifted & Talented <sup>5</sup>	

5 : The internship is conducted in the last semester. Capstone Course SPED 444 (3 Cr. Hrs.) should be taken during the internsh

Free Electives (6 hours)

# College of Law

## **Bachelor of Law**

The Bachelor of Law program is 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 are provided hands-on experience combining theoretical and practical aspects of education.

#### **Program Objectives**

- Build and develop a solid scientific base of knowledge in all areas of public and private law among the students.
- Create and enhance the professional practical aspect of the theoretical knowledge gained by students.
- Enable students to conduct legal research in accordance with well-established scientific research methodologies.
- Enable students to acquire professional skills and to efficiently use them in order to enhance their professional performance.
- 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:

- Explain the norms and basic principles of law in general, and the UAE law in particular.
- Apply rules of law on actual facts in a correct manner.
- Interpret legal texts in accordance with well-established principles of interpretation.
- Conduct a scientific research in accordance with legal research methodologies.
- Formulate memorandums and judicial decisions in a clear and correct language.
- Address audience with confidence and fluency.
- Work efficiently as a team member.
- Use technology accurately and efficiently in undertaking various duties.
- Independently learn from theoretical and practical contemporary legal developments.
- Lead a team with effectiveness and efficiency.
- Express his/her commitment to the rules of law.

Degree Requirements

Required Credit Hours: minimum 136 hours

General Education (Required Credits: 38)

Cluster 1: Values to	Live By - Islam (3 hours)	
ISLM100	<u>Islamic Culture</u>	
Cluster 1: Values to	Live By - Ethics (3 hours)	
PRVT113	Introduction to Law <sup>1</sup>	
1 : Also counts towards the Major		
Cluster 2: Skills for	Life - English Communication Skills (3 hours)	
ESPU1052	English for Law I	
Cluster 2: Skills for Life - Information Literacy (3 hours)		
GEIL101	Information Literacy	

Cluster 2: Skills for Life - Thinking Skills (3 hours)		
HSS110	Scientific Research Skills	
CSBP119	Algorithms and Problem Solving	
PHI180	Critical Thinking <sup>2</sup>	
PSY105	Creative & Innovative Thinking Skills	

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

Cluster 3: The Human Com	nunity - Emirates Society (3 hours)	
HSS105	Emirates Studies	

Cluster 3: The Human Cor	nmunity - Humanities/Fine Arts (3 hours)	
SHAR2073	Personal Status (1) <sup>3</sup>	

 ${\bf 3}$  : Also counts towards the Major

Cluster 3: The	Human Community - Social and Behavioral Sciences (3 hours)	i	
SHAR112	Introduction to Islamic Law and its Sources <sup>4</sup>		
4 : Also counts	towards the Major		
Cluster 3: The	Human Community - The Global Experience (2 hours)		
PUBL442	International Organizations <sup>5</sup>		
5 : Also counts	5 : Also counts towards the Major		
Cluster 4: The	Natural World - Mathematics (3 hours)		
MATH120	Contemporary Applications of Math		
STAT101	Statistics in the Modern World		
Cluster 4: The	Natural World - Natural Sciences (6 hours)		
ARAG205	Introduction to Fish & Animal Science		

ARAG220	Natural Resources	
BION100	Biology and its Modern Application	
CHEM181	Chemistry in the Modern World	
FDSC250	Contemporary Food Science & Nutrition	
GEOL110	Planet Earth	
PHED201	Physical Fitness and Wellness	
PHYS100	<u>Astronomy</u>	
PHYS101	Conceptual Physics	

LAW340 Internal Training <sup>6</sup>	Cluster 5: Capsto	one Experience (3 hours)	
	LAW340	Internal Training 6	

6 : Also counts towards the Major

Required Courses (92 hours)		
LW111	Arabic For Specific Purposes	
LW202	Writing and Legal Research	
LW240	External Training 7	
PRVT227	Principles of Commercial Law	
PRVT333	Selected Studies in Comparative Private Law	
PRVT338	Company Law	
PRVT451	Primary Rights in Rim	
SHAR452	Shaira Studies for Islamic Banking Operations	
PRVT453	Commercial Papers & Banking	
PRVT454	Personal and Real Securities	

PRVT462	Intellectual Property Laws	
PRVT2051	Obligations (1)	
SHAR205	Principles of Islamic Jurisprudence (Fiqh) 1	
PRVT2151	Obligations (2)	
PRVT2152	Obligations (3)	
PRVT302	<u>Civil Procedures</u>	
PRVT3034	<u>Labour Law</u>	
PRVT3073	Obligations (4)	
SHAR3213	Personal Stutes (2)	
PRVT3243	Nominated Contracts (Sale&Lease)	
SHAR3262	Personal Status (3) "Heritage"	
SHAR402	Principles of Islamic Jurisprudence (Fiqh) 2	

PRVT4492	The Law of Execution	
PRVT407	Private International Law	
PRVT4725	Maritime Law	
PUBL203	The Criminal Law- Part(1)	
PUBL220	The Criminal Law-Part (2)	
PUBL226	Selected Studies in Comparative Public Law	
PUBL305	Penal Law Specific (1) Individual and Financial Crimes	
PUBL114	Constitutional Law	
PUBL206	Administrative Law	
SHAR3283	<u>Hudood in Islam</u>	
PUBL207	Public International Law	
PUBL4092	Criminal Procedures Law (1)	

PUBL4093	Criminal Procedures Law (2)	
SHAR4413	Retribution and Blood Money	

7 : The internship is conducted over 6 weeks in any of last year semesters (including Summer). No courses are allowed to be reinternship

## Elective Courses (Req. CH:6)

1- Private Law	(2 hours)	
PRVT339	Commercial Arbitration Law	
PRVT450	Contracts (2)	
PRVT2111	Legal Aspects of e-commerce(E)	
SHAR4463	Legecy and Mortmain (Waqf)	

2- Public Law (4 hours)		
PUBL303	Legal Status of Foreign Residents	

PUBL306	Penal Law - Private Specific (2) Emerging Crimes	
PUBL316	Environmental Law	
PUBL401	Human Rights	
PUBL404	International Criminal Law	
PUBL405	International Humanitarian Law	
PUBL3222	Criminology and penology	
PUBL3294	Public Employment	
SHAR3363	<u>International Relations in Islam</u>	

# **College of Food and Agriculture**

# **Department of Agribusiness and Consumer Science**

# **Bachelor of Science in Agribusiness**

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

- Provide students with important and new knowledge required for careers in agribusiness.
- Prepare students for work in fields related to agribusiness or for advanced studies.
- Develop students' professional skills needed for careers in agribusiness.
- Develop students' general skills and desired attitudes.

#### **Program Learning Outcomes**

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

- Develop knowledge and skills in the agribusiness sector.
- Communicate effectively in written and oral forms with diverse audiences.
- Apply economic theories, quantitative techniques, and research methods required for careers in agribusiness.
- Utilize business management tools in public and private sectors, as well as domestic and global settings.
- Demonstrate skills related to leadership and team work in agribusiness.

- Evaluate problems in agribusiness critically and ethically, and offer viable solutions, including business project feasibility studies, marketing and business plans.
- Analyze UAE, regional, and international agricultural trade and food sectors.

## Degree Requirements

Required Credit Hours: minimum 120 hours

General Education (Req. CH:39)

Cluster 1: Values to	Live By - Islam (3 hours)	
ISLM100	<u>Islamic Culture</u>	

Cluster 1: Valu	Cluster 1: Values to Live By - Ethics (3 hours)	
PHI121	Fundamentals of Environmental Ethics	
PHI122	International Ethics	
PHI226	Human Rights Theory	
PHIL120	Principles of Professional Ethics	

Cluster 2: Skills for Life - English Communication Skills (3 hours)

ESPU106

Introduction to Academic English For Food & Agriculture

Cluster 2:	Skills for Life -	Information Liter	acy (3 hours)
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GEIL101

Information Literacy

Cluster 2: Skills for Life -	Thinking Skills (3 hours)
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HSS110	Scientific Research Skills	
CSBP119	Algorithms and Problem Solving	
PHI180	Critical Thinking 1	
PSY105	Creative & Innovative Thinking Skills	

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

# Cluster 3: The Human Community - Emirates Society (3 hours)

HSS105

**Emirates Studies** 

Cluster 3: The H	luman Community - Humanities/Fine Arts (3 hours)	
ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History	
HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	<u>Introduction to Literature</u>	
LNG100	<u>Introduction to Linguistics</u>	
LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	

PHI271	History and Philosophy of Science	
TRS200	Introduction to Translation	

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

AGRB210 <u>Introduction to Agribusiness</u> <sup>2</sup>

2 : Also counts towards the Major

## Cluster 3: The Human Community - The Global Experience (3 hours)

AGRB360 Global Agri-food Trade <sup>3</sup>

3 : Also counts towards the Major

## Cluster 4: The Natural World - Mathematics (3 hours)

MATH105 <u>Calculus I</u> <sup>4</sup>

4 : Also counts towards the Major

Cluster 4: The Natural World - Natural Sciences (6 hours)		
BIOC100	Basic Biology I	
PHYS105	General Physics I <sup>5</sup>	
PHYS105	General Physics I <sup>5</sup>	

5 : Also counts towards the Major

Cluster 5: Capston	e Experience (4 hours)	
AGRB480	Senior Project <sup>6</sup>	
6 : Also counts tov	vards the Major	

# Agribusiness

Required Courses (53 hours)		
ACCT100	Principles of Financial Accounting	

ACCT225	Fundamental of Cost & Management Accounting	
AGRB200	Agricultural Economics	
AGRB300	Marketing Management for Agribusiness	
AGRB312	Logistics in Global Agriculture	
AGRB352	Agribusiness  Management & Entrepreneurship	
AGRB391	Applications Of Quantitative Research Techniques to Social Sciences	
AGRB410	Internship <sup>7</sup>	
AGRB421	Agribusiness Strategy	

AGRB422	International Agribusiness Policy
AGRB432	Agribusiness Marketing Plans
AGRB450	Agribusiness Senior Seminar
ECON125	Principles of Macroeconomics
FINC240	Principles of Financial Management
FINC377	<u>Investment</u>
HRMD320	Human Resources Management
MKTG310	Marketing Research
STAT130	Statistics for Business

<sup>7 :</sup> The internship is conducted after completion of 90 Credit Hours following one of the following 3 options: Option1: 2 days/we 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 days/weeks).

can be registered in the other days of the week Option 3: 4 days/week for half a semester (8 weeks). Option3: Condensed cours the remaining 8 weeks of the semester

Elective Course	es (21 hours)	
AGRB341	E-Commerce & Agri-food Industries	
AGRB371	Linear Programming for Agribusiness	
AGRB374	Fundamentals of Production Economic	
AGRB377	Principles of Economic Development	
AGRB392	Introduction to Resource & Environmental Economics	
AGRB401	Evaluation of Agribusiness Projects	
ARAG220	Natural Resources	
ARAG240	Contemporary Agricultural Science	
FDSC250	Contemporary Food Science & Nutrition	
MIST200	Foundation of MIS & Technologies	

MSC243	Public Relations & Advertising Principles	
SOC304	<u>Demography</u>	

Free Electives (6 hours)

# **Department of AridLand Agriculture**

## **Bachelor of Science in Horticulture**

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**

- Provide students with fundamental scientific information on production and protection of horticultural plants in the arid environment.
- Develop student's skills to successfully grow a diversity of horticultural plants in a resource-efficient manner in arid environments.
- Enhance student's ability to sustain natural resources of the country and the region, and improve the quality of the environment.
- Provide students with new knowledge on agricultural technologies related to the UAE and the Arab world.
- Develop student's awareness of using modern scientific methods in agriculture and horticulture and technology transfer for field applications.
- 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:

- Explain the basic characteristics of horticultural plants and cultural practices in the arid environments.
- Produce efficiently, safe horticultural crops with an understanding of the natural resources and the environment.
- Use horticultural plants and plant products for functional and aesthetic purposes in the arid environment.
- Discuss the principles and theories of integrating basic and applied aspects of modern technologies
  in the production and protection of horticultural plants.
- Employ technical skills for managing horticultural projects and natural resources.
- Select horticultural plants to enhance tolerance to stresses in arid environment.
- Implement technologies for improving horticultural plant productivity, quality, and protection methods.
- Improve germplasm to develop modern breeding technologies.
- Apply sustainable horticultural principles and safe environmental practices.
- Minimize the negative impact of cultural practices on the environment.
- Develop skills to maintain and protect native and exotic plant species for the purposes of beautifying the environment and commercially producing horticultural crops.
- Explain the main characteristics of the UAE society in relation to farming and adoption of technologies
   as a part of the Arab World.
- Discuss the similarity and integration of the Arab world in terms of the environment and natural resources.
- Conduct research using statistical methods and data analysis to establish significance of technology applications.
- Demonstrate the ability to apply the knowledge learned in coursework and during the internship experience.

- Design, execute, and evaluate technology transfer programs.
- Demonstrate communication skills necessary for leadership roles, and teamwork.
- Demonstrate critical thinking and creativity skills in learning process and applications.

### Degree Requirements

Required Credit Hours: minimum 120 hours

General Education (Req. CH:39)

Cluster 1: Values to I	Live By - Islam (3 hours)
ISLM100	<u>Islamic Culture</u>

Cluster 1: Valu	ies to Live By - Ethics (3 hours)	
PHI121	Fundamentals of Environmental Ethics	
PHI122	International Ethics	
PHI226	Human Rights Theory	
PHIL120	Principles of Professional Ethics	

Cluster 2: Skills for Life - English Communication Skills (3 hours)

ESPU106

Introduction to Academic English For Food & Agriculture

Cluster 2:	Skills for Life -	Information Litera	СУ	(3 hours)	
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GEIL101

Information Literacy

Cluster 2: Skills for Life - Thinking Skills (3 hours)		
HSS110	Scientific Research Skills	
CSBP119	Algorithms and Problem Solving	
PHI180	Critical Thinking <sup>1</sup>	
PSY105	Creative & Innovative Thinking Skills	

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

# Cluster 3: The Human Community - Emirates Society (3 hours)

HSS105

**Emirates Studies** 

Cluster 3: The H	luman Community - Humanities/Fine Arts (3 hours)	
ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History	
HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	<u>Introduction to Literature</u>	
LNG100	<u>Introduction to Linguistics</u>	
LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	

PHI271	History and Philosophy of Science	
TRS200	Introduction to Translation	

Cluster 3: The H	Human Community - Social and Behavioral Sciences (3 hours)	
AGRB210	Introduction to Agribusiness	
ECON110	Principles of Economics	
HSR140	Introduction to Society & Behavior	
HSR150	Introduction to Government Policy & Urban Structures	
PSY100	Introduction to Psychology	
SOC260	<u>Folklore</u>	
SWK200	Introduction to Social Welfare	

Cluster 3: The Human Community - The Global Experience (3 hours)

AGRB360	Global Agri-food Trade	
ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	
GEO200	World Regional Geography	
HIS120	Arab & Islamic Civilization	
HIS121	World History: Origins to 1500	
HIS125	Contemporary Civilization	
PSG250	Principles of International Relations	

World - Mathematics (3 hours)	
Calculus I <sup>2</sup>	
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 ${\bf 2}$  : Also counts towards the Major

Cluster 4: The Natural V	World - Natural Sciences (6 hours)	
BIOC100	Basic Biology I	
PHYS105	General Physics I <sup>3</sup>	

 ${\bf 3}$  : Also counts towards the Major

Cluster 5: Capston	e Experience (3 hours)	
ARAG485	Senior Project <sup>4</sup>	
4 - Alex		

# 4 : Also counts towards the Major

## Horticulture

Required Courses (48 hou	urs)	
ARAG200	Principles of Soil and Water	
ARAG220	Natural Resources	

ARAG242	Principles of Plant Protection	
ARAG307	Introduction to Horticulture	
ARAG308	Soil Fertility and Fertilizer	
ARAG310	Agricultural Technology Transfer	
ARAG311	Plant Propagation	
ARAG327	Plant Physiology and Environmental Stress	
ARAG443	Irrigation, Drainage and Water Management	
ARAG445	Internship <sup>5</sup>	
ARAG465	Salt and Drought Tolerant Plants	
BIOL215	<u>Plant Biology</u>	
BIOL225	Practical Plant Biology	
BIOL270	General Genetics	

CHEM111	General Chemistry I
CHEM282	Organic Chemistry for Non-Majors
CHEM283	Biochemistry for Non-Majors
STAT235	Statistics for Biology

5 : The internship is conducted on 2 days/week during a semester in the last study year. Courses can be registered in the other

Supporting Ele	ective Courses (12 hours)	
ARAG323	Post-Harvest Physiology of Plant and Animal Systems	
ARAG401	Sustainable Agriculture in Arid Lands	
ARAG414	Plant Breeding and Horticultural Biotechnology	
ARAG437	Disease and Insect Pests	
ARAG439	<u>Pesticides</u>	
AGRB352	Agribusiness Management & Entrepreneurship	

BIOC230	General Microbiology				
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## **Environment Horticulture Track**

Required Courses (9 hours)		
ARAG402	Woody Plants in the Landscape	
ARAG451	Landscape Management for Arid Lands	
ARAG453	Indoor Plants and Flower Arrangements	
ARAG454	Landscape Design	

Elective Course	es (6 hours)	
ARAG313	<u>Urban Tree Management</u>	
ARAG321	Floriculture Crop Production	
ARAG408	Survey of Plant Communities in Arid Lands	

ARAG455	Nursery and Greenhouse Operations	
ARAG456	Turfgrass Management	

# Crop Production and Organic Farming Track

Required Courses (9 hours)		
ARAG305	Principles of Organic Horticulture	
ARAG404	Vegetable Production in Arid Lands	
ARAG407	Design of Organic Production System	
ARAG452	Palms and Dates	

Elective Courses (6 hours)		
ARAG320	World Herbs and Vegetables	
ARAG376	Soil Processes in Organic Farming	

ARAG410	Fruit Production in Arid Lands	
ARAG412	Specialty Crops	
ARAG442	Protected Agriculture	
ARAG456	Turfgrass Management	

Free Electives (6 hours)

## **Bachelor of Science in Marine Fisheries and Animal Science**

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

- Provide students with fundamental scientific knowledge on production and protection of domestic animals and fish in the arid environment.
- Develop student's skills to produce a wide range of animal products in a resource-efficient manner in arid environments.
- Enhance student's ability to sustain natural resources of the country and the region, and improve the quality of the environment.
- Provide students with important and new agricultural knowledge related to the UAE and the Arab world.
- Develop student's awareness of using modern scientific methods and technology transfer.
- 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:

- Discuss the basic concepts of animal production and marine fisheries.
- Explain the basic characteristics of domestic animals and their husbandry in the arid environments.
- Explain populations of marine animals, and develop concepts for their sustainable use for food production.
- Employ technical skills for sustainably managing natural resources in fisheries and agricultural projects.
- Utilize and improve animal breeds with particular tolerance to stresses prevailing in arid environments.

- Manage livestock in intensive and extensive production systems.
- Improve and conserve germplasm through modern breeding technologies.
- Apply sustainable agricultural principles and safe environmental practices.
- Minimize the negative impact of fisheries and animal production on the environment.
- 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.
- Demonstrate the understanding of the animal production and fisheries sector in the UAE and the Arab world.
- Discuss the similarity and integration of the Arab World in terms of the environment and natural resources.
- Conduct research using appropriate statistical methods for data analysis.
- Utilize library and research skills for organizing and applying information for decision making.
- Demonstrate knowledge about design, execute, and evaluate technology transfer programs.
- Demonstrate communication skills necessary for leadership roles, team work, and scientific rational discussion.
- Respect and value the living resources that serve our food production, and employ appropriate ethical standards to animal production systems and research approaches.
- Think critically, creatively and employ appropriate ethical standards to animal production systems and research approaches
- Engage in life-long learning.

## Degree Requirements

Required Credit Hours: minimum 120 hours

General Education (Req. CH:39)

Cluster 1: Values to Live By - Islam (3 hours)		
ISLM100	<u>Islamic Culture</u>	

Cluster 1: Values to Live By - Ethics (3 hours)		
PHI121	Fundamentals of Environmental Ethics	
PHI122	International Ethics	
PHI226	Human Rights Theory	
PHIL120	Principles of Professional Ethics	

Cluster 2: Skills	s for Life - English Communication Skills (3 hours)	
ESPU106	Introduction to Academic English For Food & Agriculture	

Cluster 2: Skills for Life - Information Literacy (3 hours)		
GEIL101	Information Literacy	
Cluster 2: Skills	s for Life - Thinking Skills (3 hours)	
HSS110	Scientific Research Skills	
CSBP119	Algorithms and Problem Solving	
PHI180	Critical Thinking <sup>1</sup>	
PSY105	Creative & Innovative Thinking Skills	
1: IBLC - Inquiry based learning courses must be taken within first 30 credit hours		

Cluster 3: The Human Com	nunity - Emirates Society (3 hours)	
HSS105	Emirates Studies	

Cluster 3: The Human Community - Humanities/Fine Arts (3 hours)

ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History	
HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	Introduction to Literature	
LNG100	Introduction to Linguistics	
LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	

Cluster 3: The Human Community - Social and Behavioral Sciences (3 hours)		
AGRB210	Introduction to Agribusiness	
ECON110	Principles of Economics	
HSR140	Introduction to Society & Behavior	
HSR150	Introduction to Government Policy & Urban Structures	
PSY100	Introduction to Psychology	
SOC260	<u>Folklore</u>	
SWK200	Introduction to Social Welfare	

Cluster 3: The Human Community - The Global Experience (3 hours)		an Community - The Global Experience (3 hours)	
	AGRB360	Global Agri-food Trade	

ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	
HIS120	Arab & Islamic Civilization	
HIS121	World History: Origins to 1500	
HIS125	Contemporary Civilization	
PSG250	Principles of International Relations	

Cluster 4: The Natural Wor	ld - Mathematics (3 hours)	
MATH105	Calculus I <sup>2</sup>	
2 : Also counts towards the	e Major	

Cluster 4: The Natural \	World - Natural Sciences (6 hours)	
BIOC100	Basic Biology I	

PHYS105	General Physics I <sup>3</sup>	

 ${\bf 3}$  : Also counts towards the Major

Cluster 5: Capstone Experience (3 hours)		
ARAG485	Senior Project <sup>4</sup>	

4 : Also counts towards the Major

#### Marine Fisheries and Animal Science

Required Courses (48 hours	)	
ARAG205	Introduction to Fish & Animal Science	
ARAG220	Natural Resources	
ARAG230	Principles of Fisheries Management	
ARAG310	Agricultural Technology Transfer	

ARAG314	Animal Breeding & Biotechnology	
ARAG316	Animal Nutrition	
ARAG319	Anatomy & Physiology of Animals	
ARAG335	Production Medicine	
ARAG434	Reproductive Physiology	
ARAG440	Seminar in Animal Science	
ARAG445	Internship <sup>5</sup>	
BIOL210	Animal Biology	
BIOL270	General Genetics	
CHEM111	General Chemistry I	
CHEM282	Organic Chemistry for Non-Majors	
CHEM283	Biochemistry for Non-Majors	

STAT235	Statistics for Biology	
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5: The internship is conducted on 2 days/week during a semester in the last study year. Courses can be registered in the other

## Crop Production and Organic Farming

Elective Course	Elective Courses (9 hours)	
AGRB352	Agribusiness Management & Entrepreneurship	
ARAG323	Post-Harvest Physiology of Plant and Animal Systems	
ARAG329	Organic Animal Production	
ARAG450	Advanced Animal Nutrition	
ARAG459	Issues in Animal Protein Production	

Marine Fisheries Track

Required Cour	Required Courses (12 hours)	
ARAG325	Fisheries Management and Conservation	
ARAG326	<u>Mariculture</u>	
ARAG424	Fish Breeding and Propagation	
ARAG425	Shellfish and Molluscan Aquaculture	

Elective Course	Elective Courses (6 hours)	
ARAG426	Aquatic Ecology	
ARAG428	Animal Welfare	
ARAG430	Fisheries Stock Assessment	
ARAG433	Fish Nutrition	
ARAG457	Issues in Animal Protein Production	
BIOC230	General Microbiology	

FDSC319	Food packaging				
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### **Animal Science Track**

Required Courses (12 hours)		
ARAG318	Camel Management	
ARAG322	Introductory Poultry Production	
ARAG432	Sheep and Goat Production	
ARAG435	Egg Production	

Elective Course	Elective Courses (6 hours)	
ARAG304	Range and Pasture Management	
ARAG339	Management of Sport Animals	
ARAG423	Dairy Cattle Management	

ARAG428	Animal Welfare	
ARAG436	Poultry Meat Production	
BIOC230	General Microbiology	

Free Electives (6 hours)

## **Department of Food Science**

### **Bachelor of Science in Food Science**

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**

- To provide students with advanced knowledge in food science and related fields.
- 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.
- To train students to attain high level of competent and abilities including multiple task operation and communication skills.
- Equip graduates with competencies in organization & team work and thoughts of ethical, social issues and respect for diversity.
- 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.
- 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:

- Explain the basic principles of Food Science and its multidisciplinary scope.
- Describe the physical, chemical, and biological properties of food and their effects on food safety and sensory and nutritional quality.
- Apply analytical techniques to characterize composition and to identify physical, chemical, and biological changes in foods.
- Explain the effects of food processing, engineering, preservation, packaging, and storage on food safety and quality.
- Identify the importance of food laws and regulations in ensuring safety and quality of foods.
- Conduct applied research, and use statistical tools in experimental design and data analysis.
- Apply acquired knowledge to real world situations in food systems, components, products, and processes.
- Apply critical thinking and continued learning to professional problems.
- Communicate effectively in both oral and written forms.
- Develop organizational, team work, and leadership skills.
- Demonstrate professional skills and thoughts of ethical, social, integrity and respect for diversity.
- Demonstrate preparedness for continued reflective practice and lifelong learning relevant to careers in food science.

## Degree Requirements

Required Credit Hours: minimum 120 hours

General Education Req. CH:39)

Cluster 1: Values	to Live By (3 hours)
ISLM100	<u>Islamic Culture</u>

Cluster 1: Values to Live By - Ethics (3 hours)		
PHI121	Fundamentals of Environmental Ethics	
PHI122	<u>International Ethics</u>	
PHI226	Human Rights Theory	
PHIL120	Principles of Professional Ethics	

Cluster 2: Skills	s for Life - English Communication Skills (3 hours)	
ESPU106	Introduction to Academic English For Food & Agriculture	

Cluster 2: Skills	s for Life - Information Literacy (3 hours)	
GEIL101	Information Literacy	
Cluster 2: Skills	s for Life - Thinking Skills (3 hours)	
HSS110	Scientific Research Skills	
CSBP119	Algorithms and Problem Solving	
PHI180	Critical Thinking	
PSY105	Creative & Innovative Thinking Skills	
Cluster 3: The	Human Community - Emirates Society (3 hours)	
HSS105	Emirates Studies	
Cluster 3: The	Human Community - Humanities/Fine Arts (3 hours)	
ARCH340	History and Theory of Architecture	

HIS133	Introduction to Art History	
HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	<u>Introduction to Literature</u>	
LNG100	<u>Introduction to Linguistics</u>	
LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	
TRS200	Introduction to Translation	

Cluster 3: The Human Community - Social and Behavioral Sciences (3 hours)		
AGRB210	Introduction to Agribusiness	
ECON110	Principles of Economics	
HSR140	Introduction to Society & Behavior	
HSR150	Introduction to Government Policy & Urban Structures	
PSY100	Introduction to Psychology	
SOC260	<u>Folklore</u>	
SWK200	Introduction to Social Welfare	

Cluster 3: The Human Community - The Global Experience (3 hours)		
AGRB360	Global Agri-food Trade	
ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	

GEO200	World Regional Geography	
HIS120	Arab & Islamic Civilization	
HIS121	World History: Origins to 1500	
HIS125	Contemporary Civilization	
PSG250	Principles of International Relations	

Cluster 4: The Natural World	d - Mathematics (3 hours)	
MATH105	Calculus I 1	

# 1 : Also counts towards the Major

Cluster 4: The Natural \	World - Natural Sciences (6 hours)	
BIOC100	Basic Biology I	
PHYS105	General Physics I <sup>2</sup>	

### 2 : Also counts towards the Major

Cluster 5: Capstone Experience (3 hours)		
FDSC480	Senior Project <sup>3</sup>	
3 : Also counts to	wards the Major	

### Food Science

Required Courses (60 hours	s)	
ARAG323	Post-Harvest Physiology of Plant and Animal Systems	
BIOC230	General Microbiology	
CHEM111	General Chemistry I	
CHEM112	General Chemistry II	
CHEM115	General Chemistry Lab	

CHEM282	Organic Chemistry for Non-Majors	
CHEM283	Biochemistry for Non-Majors	
FDSC260	Principles of Food Science	
FDSC309	Sensory evaluation	
FDSC319	Food packaging	
FDSC347	Food Process Engineering I	
FDSC350	Food Chemistry	
FDSC351	Food Plant Sanitation	
FDSC355	Food Processing	
FDSC425	Internship <sup>4</sup>	
FDSC453	Quality Control and Assurance	
FDSC454	<u>Food Laws</u>	

FDSC470	Current Issues in Food Science	
STAT235	Statistics for Biology	
NUTR301	Human Nutrition	
FDSC340	Food Microbiology	
FDSC450	Food Analysis	

4 : The internship is conducted over half a semester (8 weeks) during the last study year. Offered condensed courses should be other half of the semester

Elective Courses (15 hours)		
FDSC465	Food Safety Management	
FDSC357	Technology of Muscle Foods	
FDSC363	Fruit and Vegetable Technology	
FDSC378	Cereal Technology	

FDSC402	Technical Problem Solving in Food Industry	
FDSC455	Food Inspection	
FDSC460	Hazard Analysis Critical Control Point (HACCP)	
FDSC458	Dairy Product Technology	
FDSC466	Food Product Development	
FDSC477	Oil and Fat Technology	

Free Electives (6 hours)

## **Department Nutrition and Health**

### **Bachelor of Science in Dietetics**

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 has obtained Candidacy Status in January 2015, and is currently working towards acquiring full accreditation, as a Foreign Dietitian Education Programs (FDE), from 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/

#### **Program Objectives**

- The program will prepare graduates to be competent, entry-level dietitians
- 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:

- Select indicators of program quality and/or customer service and measure achievement of objectives.
- 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.
- Justify programs, products, services and care using appropriate evidence or data.
- Evaluate emerging research for application in dietetics practice.
- Conduct research projects using appropriate research methods, ethical procedures and statistical analysis.

- 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.
- Demonstrate professional writing skills in preparing professional communications CRD 2.3: Design,
   implement and evaluate presentations to a target audience.
- Use effective education and counseling skills to facilitate behavior change.
- Demonstrate active participation, teamwork and contributions in group settings.
- Assign patient care activities to DTRs and/or support personnel as appropriate.
- Refer clients and patients to other professionals and services when needs are beyond individual scope of practice.
- Apply leadership skills to achieve desired outcomes.
- Participate in professional and community organizations.
- Establish collaborative relationships with other health professionals and support personnel to deliver effective nutrition services.
- Demonstrate professional attributes within various organizational cultures.
- Perform self-assessment, develop goals and objectives and prepare a draft portfolio for professional development as defined by the Commission on Dietetics Registration.
- Demonstrate negotiation skills.
- Assess the nutritional status of individuals, groups and populations in a variety of settings where nutrition care is or can be delivered.
- Diagnose nutrition problems and create problem, etiology, signs and symptoms (PES) statements.
- Plan and implement nutrition interventions to include prioritizing the nutrition diagnosis, formulating a nutrition prescription, establishing goals and selecting and managing intervention.
- Monitor and evaluate problems, etiologies, signs, symptoms and the impact of interventions on the nutrition diagnosis.

- Complete documentation that follows professional guidelines, guidelines required by health care systems and guidelines required by the practice setting.
- Develop and demonstrate effective communications skills for clinical and customer services in a variety of formats.
- Develop and deliver products, programs or services that promote consumer health, wellness and lifestyle management.
- Deliver respectful, science-based answers to consumer questions concerning emerging trends.
- Coordinate procurement, production, distribution and service of goods and services.
- 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.
- Participate in management of human resources.
- Perform management functions related to safety, security and sanitation that affect employees,
   customers, patients, facilities and food.
- Participate in public policy activities, including both legislative and regulatory initiatives.
- Conduct clinical and customer service quality management activities.
- Use current informatics technology to develop, store, retrieve and disseminate information and data.
- Analyze quality, financial or productivity data and develop a plan for intervention.
- Propose and use procedures as appropriate to the practice setting to reduce waste and protect the environment.
- Conduct feasibility studies for products, programs or services with consideration of costs and benefits.
- Analyze financial data to assess utilization of resources.
- Develop a plan to provide or develop a product, program or service that includes a budget, staffing needs, equipment and supplies.
- Code and bill for dietetics/nutrition services to obtain reimbursement for services from public or private insurers.

## Degree Requirements

Required Credit Hours: minimum 120 hours

General Education (Req. CH:39)

Cluster 1: Values to	Live By - Islam (3 hours)	
ISLM100	<u>Islamic Culture</u>	

Cluster 1: Values to Live By - Ethics (3 hours)		
PHI121	Fundamentals of Environmental Ethics	
PHI122	International Ethics	
PHI226	Human Rights Theory	
PHIL120	Principles of Professional Ethics	

Cluster 2: Skills	s for Life - English Communication Skills (3 hours)	
ESPU106	Introduction to Academic English For Food & Agriculture	

Cluster 2: Skills for Life - Information Literacy (3 hours)		
GEIL101	Information Literacy	
Cluster 2: Skill	Cluster 2: Skill for Life - Thinking Skills (3 hours)	
HSS110	Scientific Research Skills	
CSBP119	Algorithms and Problem Solving	
PHI180	Critical Thinking 1	
PSY105	Creative & Innovative Thinking Skills	

 $\ensuremath{\mathtt{1}}$  : IBLC - Inquiry based learning courses must be taken within first 30 credit hours

Cluster 3: The Human Com	munity - Emirates Society (3 hours)	
HSS105	Emirates Studies	

Cluster 3: The Human Community - Humanities/Fine Arts (3 hours)

ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History	
HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	Introduction to Literature	
LNG100	Introduction to Linguistics	
LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	

Cluster 3: The Human Community - Social and Behavioral Sciences (3 hours)		
AGRB210	Introduction to Agribusiness	
ECON110	Principles of Economics	
HSR140	Introduction to Society & Behavior	
HSR150	Introduction to Government Policy & Urban Structures	
PSY100	Introduction to Psychology	
SOC260	<u>Folklore</u>	
SWK200	Introduction to Social Welfare	

Cluster 3: The Human Community - The Global Experience (3 hours)		
AGRB360	Global Agri-food Trade	

ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	
GEO200	World Regional Geography	
HIS120	Arab & Islamic Civilization	
HIS121	World History: Origins to 1500	
HIS125	Contemporary Civilization	
PSG250	Principles of International Relations	

Cluster 4: The Natural World - Mathematics (3 hours)		
MATH105	Calculus I <sup>2</sup>	

 ${\bf 2}$  : Also counts towards the Major

Cluster 4: The Natural World - Natural Sciences (6 hours)

BIOC100	Basic Biology I	
PHYS105	General Physics I <sup>3</sup>	

### 3 : Also counts towards the Major

Cluster 5: Cap	Cluster 5: Capstone Experience (3 hours)		
NUTR481	Senior Project (CPD Program) <sup>4</sup>		
4 : Also counts towards the Major			

### Coordinated Program in Dietetics

Required Courses (69	9 hours)	
BIOL270	General Genetics	
BIOC275	Genetics Laboratory	
BIOC230	General Microbiology	

CHEM111	General Chemistry I	
CHEM112	General Chemistry II	
CHEM115	General Chemistry Lab	
CHEM282	Organic Chemistry for Non-Majors	
CHEM283	Biochemistry for Non-Majors	
FDSC250	Contemporary Food Science & Nutrition	
FDSC331	Fundamentals of Food Preparation	
MGMT200	Fundamentals of Management	
NUTR320	Nutrition I	
NUTR330	Nutrition II	
NUTR355	Nutrition Seminar	
NUTR352	Human Nutrition in Various Ages Stages	

NUTR371	Food Service Systems Management I	
NUTR372	Food Service Systems Management I SP	
NUTR377	Medical Nutrition Therapy I (CPD Program)	
NUTR378	Medical Nutrition Therapy I SP	
NUTR403	Nutrition Education and Communication (CPD Program)	
NUTR404	Nutrition Education and Communication (SP)	
NUTR484	Food Service Systems Management II	
NUTR485	Food Service Systems Management II (SP)	
NUTR486	Community Nutrition	
NUTR487	Community Nutrition (SP)	
NUTR488	Medical Nutrition Therapy II	
NUTR489	Medical Nutrition Therapy II (SP)	

NUTR490	Internship 5
PHYL101	Introductory Physiology
STAT235	Statistics for Biology

5 : The internship is conducted over 24 weeks after finishing all course work. No courses are allowed to be registered during the

Elective Course	es (6 hours)	
FDSC309	Sensory evaluation	
FDSC352	Food Safety	
FDSC355	Food Processing	
NUTR396	Sports Nutrition	
NUTR443	Meal Planning	

Free Electives (6 hours)

#### **Bachelor of Science in Nutritional Science**

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

- To provide knowledge, skills and professional values for a successful career in nutrition and potential entry into graduate education
- 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:

- Explain scientific basis of human nutrition, nutritional requirements, nutritional epidemiology and research methods.
- Implement nutritional assessment, nutrient analysis of foods and dietary planning for individuals and group.
- Describe the food chain and its impact on food choices and practices in social and behavioral contexts.
- Demonstrate ethical behavior and values of professional conduct, according to good clinical practices.
- Formulate ideas and opinions concerning food and diet.
- Evaluate appropriate theories and methods (dietary, research, statistical) for health promotion,
   education and nutrition-related investigations.
- Effectively perform and interpret statistical analyses for decision-making purposes in the field of nutrition.
- Demonstrate the ability to work efficiently and effectively in group.
- Communicate effectively in oral and written forms with diverse audiences.

## Degree Requirements

Required Credit Hours: minimum 120 hours

General Education (Req. CH:39)

Cluster 1: Values to	Live By - Islam (3 hours)	
ISLM100	<u>Islamic Culture</u>	

Cluster 1: Values to Live By - Ethics (3 hours)		
PHI121	Fundamentals of Environmental Ethics	
PHI122	International Ethics	
PHI226	Human Rights Theory	
PHIL120	Principles of Professional Ethics	

Cluster 2: Skills	s for Life - English Communication Skills (3 hours)	
ESPU106	Introduction to Academic English For Food & Agriculture	

Cluster 2: Skills	s for Life - Information Literacy (3 hours)	
GEIL101	Information Literacy	
Cluster 2: Skills	Cluster 2: Skills for Life - Thinking Skills (3 hours)	
HSS110	Scientific Research Skills	
CSBP119	Algorithms and Problem Solving	
PHI180	Critical Thinking 1	
PSY105	Creative & Innovative Thinking Skills	

 $\ensuremath{\mathtt{1}}$  : IBLC - Inquiry based learning courses must be taken within first 30 credit hours

Cluster 3: The Human Com	munity - Emirates Society (3 hours)	
HSS105	Emirates Studies	

Cluster 3: The Human Community - Humanities/Fine Arts (3 hours)

ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History	
HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	Introduction to Literature	
LNG100	Introduction to Linguistics	
LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	

Cluster 3: The Human Community - Social and Behavioral Sciences (3 hours)		
AGRB210	Introduction to Agribusiness	
ECON110	Principles of Economics	
HSR140	Introduction to Society & Behavior	
HSR150	Introduction to Government Policy & Urban Structures	
PSY100	Introduction to Psychology	
SOC260	<u>Folklore</u>	
SWK200	<u>Introduction to Social Welfare</u>	

Cluster 3: The Hum	an Community - The Global Experience (3 hours)	
AGRB360	Global Agri-food Trade	

ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	
GEO200	World Regional Geography	
HIS120	Arab & Islamic Civilization	
HIS121	World History: Origins to 1500	
HIS125	Contemporary Civilization	
PSG250	Principles of International Relations	

Cluster 4: The Natural Wo	rld - Mathematics (3 hours)	
MATH105	Calculus I <sup>2</sup>	

 ${\bf 2}$  : Also counts towards the Major

Cluster 4: The Natural World - Natural Sciences (6 hours)

BIOC100	Basic Biology I	
PHYS105	General Physics I <sup>3</sup>	

### 3 : Also counts towards the Major

Cluster 5: Cap	stone Experience (3 hours)	
NUTR480	Senior Research Project (NS Program) <sup>4</sup>	
4 : Also counts towards the Major		

#### **Nutritional Science**

Required Courses (60 h	nours)	
BIOC275	Genetics Laboratory	
BIOC230	General Microbiology	
BIOL270	General Genetics	

BIOM229	Cell Biology I
CHEM111	General Chemistry I
CHEM112	General Chemistry II
CHEM115	General Chemistry Lab
CHEM282	Organic Chemistry for Non-Majors
CHEM283	Biochemistry for Non-Majors
FDSC250	Contemporary Food Science & Nutrition
PHYL101	Introductory Physiology
PHYS135	General Physics Lab I
STAT235	Statistics for Biology
FDSC330	<u>Fundamentals of Food Science</u>
NUTR320	Nutrition I

NUTR330	Nutrition II
NUTR355	Nutrition Seminar
NUTR352	Human Nutrition in Various Ages Stages
NUTR360	Immunology and Nutrition
NUTR375	Medical Nutrition Therapy I (NS Program)
NUTR401	Nutrition Education and Communication (NS Program)
NUTR443	Meal Planning
NUTR491	Internship 5
NUTR482	Community Nutrition (NS Program)

5 : The internship is conducted over a complete semester during the last study year. No courses are allowed to be registered durinternship

BIOM399	Molecular Biology	
BIOM466	Genetic Engineering	
BIOM473	Biotechnology	
BIOM482	Cell Biology II	
FDSC309	Sensory evaluation	
NUTR396	Sports Nutrition	
PHYS110	General Physics II	
NUTR379	Functional Food and Health	
AGRB360	Global Agri-food Trade	
AGRB395	Contemporary Food Sustainability and Nutrition	

Free Electives (6 hours)

### **Department of Veterinary Medicine**

# **Bachelor of Veterinary Medicine**

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

- To enable the veterinary students to acquire knowledge, practical skills, and experience needed for a qualified veterinarian.
- To enforce evidence base veterinary medicine and problem oriented problem solving methods.
- To graduate veterinarians capable of providing superior animal health care, including disease investigation and prevention, at the individual and herd or flock level.
- To meet the growing national needs for qualified veterinarians in the public and private sectors.
- 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:

- Implement appropriate health care regimen for individual animals of different species.
- Monitor the health and production of animals at the herd or flock level.
- Apply high standards of public health and food safety.
- Recognize veterinary diseases and the optimal treatment and prevention methods.
- Conduct disease epidemiological investigation and veterinary research using appropriate research methods, ethics procedures, and statistical analysis.
- Communicate technical information effectively with clients, fellow professionals and intended audience.
- Synthesize information from different resources and use information technology to find up-to-date information and manage data.

## Degree Requirements

Required Credit Hours: minimum 152 hours

General Education (Req. CH:39)

Cluster 1: Values to	Live By - Islam (3 hours)	
ISLM100	<u>Islamic Culture</u>	

Cluster 1: Values to Live By - Ethics (3 hours)		
PHI121	Fundamentals of Environmental Ethics	
PHI122	International Ethics	
PHI226	Human Rights Theory	
PHIL120	Principles of Professional Ethics	

Cluster 2: Skills	s for Life - English Communication Skills (3 hours)	
ESPU106	Introduction to Academic English For Food & Agriculture	

Cluster 2: Skills	s for Life - Information Literacy (3 hours)	
GEIL101	Information Literacy	
Cluster 2: Skill	for Life - Thinking Skils (3 hours)	
HSS110	Scientific Research Skills	
CSBP119	Algorithms and Problem Solving	
PHI180	Critical Thinking	
PSY105	Creative & Innovative Thinking Skills	
Cluster 3: The Human Community - Emirates Society (3 hours)		
HSS105	Emirates Studies	
Cluster 3: The Human Community - Humanities/Fine Arts (3 hours)		
ARCH340	History and Theory of Architecture	

HIS133	Introduction to Art History	
HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	<u>Introduction to Literature</u>	
LNG100	<u>Introduction to Linguistics</u>	
LNG110	Language, Society & Culture	
MSC200	<u>Introduction to Mass Media</u>	
MSC240	World and Arab Media	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	
TRS200	Introduction to Translation	

Cluster 3: The H	Human Community - Social and Behavioral Sciences (3 hours)	
AGRB210	Introduction to Agribusiness	
ECON110	Principles of Economics	
HSR140	Introduction to Society & Behavior	
HSR150	Introduction to Government Policy & Urban Structures	
PSY100	Introduction to Psychology	
SOC260	<u>Folklore</u>	
SWK200	Introduction to Social Welfare	

Cluster 3: The Hum	nan Community - The Global Experience (3 hours)	
AGRB360	Global Agri-food Trade	
ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	

GEO200	World Regional Geography	
HIS120	Arab & Islamic Civilization	
HIS121	World History: Origins to 1500	
HIS125	Contemporary Civilization	
PSG250	Principles of International Relations	

Cluster 4: The Natural World	d - Mathematics (3 hours)	
MATH105	Calculus I 1	

# 1 : Also counts towards the Major

Cluster 4: The Natural \	World - Natural Sciences (6 hours)	
BIOC100	Basic Biology I	
PHYS105	General Physics I <sup>2</sup>	

### 2 : Also counts towards the Major

Cluster 5: Capstone Experience (3 hours)		
VMED580	Senior project <sup>3</sup>	
3 : Also counts towards the Major		

### Veterinary Science

Required Courses (101	hours)	
ARAG316	Animal Nutrition	
ARAG475	Molecular Biology Genetics	
CHEM111	General Chemistry I	
CHEM282	Organic Chemistry for Non-Majors	
CHEM283	Biochemistry for Non-Majors	

STAT235	Statistics for Biology	
VMED100	Animal Anatomy I	
VMED120	Animal Husbandry	
VMED210	Animal Physiology	
VMED250	Immunity and Infection (Microbiology) I	
VMED260	Neuroscience	
VMED270	Presentation of Selected Clinical Cases	
VMED300	Pharmacology and Toxicology	
VMED310	Parasitology	
VMED320	<u>Pathology</u>	
VMED340	Clinical pathology and propaedeutic	
VMED350	<u>Infectious Diseases</u>	

VMED360	Camels and Equine Medicine	
VMED370	Histology	
VMED380	Case Studies I	
VMED390	Training in meat inspection (Slaughter House)	
VMED395	Training in Camels & Equine Sport Medicine (Animal Hospital)	
VMED400	Preventive medicine	
VMED410	<u>Surgery</u>	
VMED420	Anesthesiology	
VMED430	Case Studies II	
VMED440	Sheep and goat medicine	
VMED450	Theriogenology	
VMED460	Companion Animal Medicine	

VMED490	Training in Clinical Surgery (Animal Hospital)	
VMED495	Training in Sheep &Goats Med & Surgery (Animal Hospital)	
VMED510	Opthalmology and Dermatology	
VMED520	Diagnostic imagining	
VMED530	Seminar in Veterinary Science	
VMED590	Internship in Animal Hospital <sup>4</sup>	
VMED150	Animal Anatomy II	
VMED280	Immunity and Infection II	
VMED385	Meat Hygiene	

<sup>4 :</sup> The internship is conducted in the last semester. 5 Cr. Hrs. of relevant courses (as shown in the study plan) should be taken internship semester

FDSC280	Food Hygiene	
ARAG470	Camels and Equine Nutrition	
VMED240	Animal Welfare and Ethics	
VMED110	Introduction to Veterinary Medicine	
VMED330	Poultry Medicine	
VMED455	Clinical Pharmacology	
VMED445	Large animals (Cattle & Dairy Cattle)	
VMED470	<u>Falcon Medicine</u>	
VMED475	Exotic and Laboratory Animal Medicine	

## **College of Science**

## **Department of Biology**

### **Bachelor of Science in Biology**

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**

- Develop proficiency of basic concepts in cellular and molecular biology, ecology and environmental sciences, and general biology.
- Foster teamwork and improve oral and communication skills.
- Foster a student-oriented research program that results in professional publications.
- Embrace student-oriented teaching methods that nurture critical thinking abilities and apply their knowledge to solve theoretical and empirical real-life problems.
- Prepare students for future job market and careers.

#### **Program Learning Outcomes**

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

- Explain major biological concepts.
- Solve and criticize practical and theoretical problems in biology.
- Communicate effectively in oral and written forms.
- Conduct safe and ethical biological lab experiments, data analysis, and interpretation of results.
- Demonstrate research competence including analysis of scientific literature and adherence to professional standards.
- Work effectively both independently and in a team.

## Degree Requirements

Required Credit Hours: minimum 120 hours

General Education (Req. CH:39)

Cluster 1: Values to	Live By - Islam (3 hours)	l i
ISLM100	<u>Islamic Culture</u>	

Cluster 1: Valu	es to Live By - Ethics (3 hours)	
PHI121	Fundamentals of Environmental Ethics	
PHI122	International Ethics	
PHI226	Human Rights Theory	
PHIL120	Principles of Professional Ethics	

Cluster 2: Skills for Life - English Communication Skills (3 hours)		
ESPU102	Introduction to Academic English For Science	

Cluster 2: Skills for Life - Information Literacy (3 hours)		
GEIL101	Information Literacy	
Cluster 2: Skills for Life	e - Thinking Skills (3 hours)	

Cluster 2: Skill	s for Life - Thinking Skills (3 hours)	
HSS110	Scientific Research Skills	
CSBP119	Algorithms and Problem Solving	
PSY105	Creative & Innovative Thinking Skills	
PHI180	Critical Thinking 1	

 $1: \mbox{IBLC}$  - Inquiry based learning courses must be taken within first 30 credit hours

Cluster 3: The Human Com	munity - Emirates Society (3 hours)	
HSS105	Emirates Studies	

Cluster 3: The Human Community - Humanities/Fine Arts (3 hours)

ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History	
HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	Introduction to Literature	
LNG100	Introduction to Linguistics	
LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	

TRS200	Introduction to Translation

Cluster 3: The Human Community - Social and Behavioral Sciences (3 hours)		
AGRB210	Introduction to Agribusiness	
ECON110	Principles of Economics	
HSR140	Introduction to Society & Behavior	
HSR150	Introduction to Government Policy & Urban Structures	
PSY100	Introduction to Psychology	
SOC260	<u>Folklore</u>	
SWK200	Introduction to Social Welfare	

Cluster 3: The Hum	nan Community - The Global Experience (3 hours)	
BIOE240	Principles of Environmental Science <sup>2</sup>	

### 2 : Also counts towards the Major

Cluster 4: The Natural World	d - Mathematics (3 hours)	
MATH105	<u>Calculus I</u> <sup>3</sup>	

3 : Also counts towards the Major

Cluster 4: The Natural	World - Natural Sciences (6 hours)	
CHEM111	General Chemistry I	
PHYS105	General Physics I <sup>4</sup>	

4 : Also counts towards the Major

Cluster 5: Capsto	ne Experience (3 hours)	
BIOC480	Research Project <sup>5</sup>	

5 : Also counts towards the Major

## Biology Major (Req. CH:48)

Required Courses (29 hours)		
BIOC100	Basic Biology I	
BIOC205	Basic Biology II	
BIOC214	General Biology Lab	
BIOC230	General Microbiology	
BIOC250	Basic Ecology	
BIOC270	General Genetics	
BIOC275	Genetics Laboratory	
BIOC290	Cell and Molecular Biology	
BIOC490	Advanced Bioapplications (Capstone)	
BIOC495	Seminar (Capstone)	

BIOL500	Internship <sup>6</sup>	

6 : The internship is conducted over half a semester (8 weeks) during the third year of study. Offered condensed courses should the other half of the semester

Supporting Requ	ired Courses Non-Biology (19 hours)	
CHEM112	General Chemistry II	
CHEM115	General Chemistry Lab	
CHEM241	Organic Chemistry I	
CHEM361	Biochemistry	
CHEM245	Organic Chemistry Lab I	
CSBP112	Introduction To Programming	
MATH110	Calculus II	
STAT235	Statistics for Biology	

## Cellular and Molecular Biology Track

Elective Course	es (15 hours)	
BIOM335	Molecular Biology of Genes	
BIOM339	Virology	
BIOM350	Developmental Biology	
BIOM420	Molecular Basis of Cell and Tissue Development	
BIOM433	Biotechnology & Genetic Engineering	
BIOM435	Human Molecular Genetics	
BIOM445	Macromolecules Structure Function and Bioinformatics	
BIOM461	<u>Tissue Culture</u>	
BIOM462	Immunology	
BIOM489	Molecular Biology Techniques	

BIOM492	Special Topics (Cell & Mole)				
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## Ecological and Environmental Biology Track

Elective Course	es (15 hours)	
BIOE250	Biodiversity and Evolution	
BIOE380	Desert Ecology	
BIOE390	Wildlife & Rangeland Management	
BIOE410	Field Survey & Environmental Assessment	
BIOE425	Principles of Ecological Modeling	
BIOE452	<u>Oceanography</u>	
BIOE453	Environmental Toxicology	
BIOE455	Ecology of Pathogens	

BIOE457	Animal Behavior	
BIOE459	Conservation Biology	

## General Biology Track (Req. CH:15)

Required Cour	se (3 hours)
BIOG315	Fundamentals of Physiology

Student must select ONE COURSE from each of the following groups Group A (3 hours)		
BIOG330	<u>Mycology</u>	
BIOG332	<u>Parasitology</u>	
BIOG434	Bacteriology	

Group B (3 ho	urs)	
BIOG333	Entomology	

BIOG360	Marine Biology	
BIOG400	Biology of Invertebrates	

Group C (3 ho	urs)	
BIOG321	<u>Histology</u>	
BIOG433	Biology of Vertebrates	
BIOG445	Animal Physiology	

Group D (3 ho	urs)	
BIOG450	Plant Physiology	
BIOG460	<u>Botany</u>	
BIOG470	Plant Anatomy	

Elective Courses - Upon the approval of the Department, the student may select a total of 18 Credit Hours from a specific minor. (18 hours)

### **Department of Chemistry**

### **Bachelor of Science in Biochemistry**

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**

- To provide students with a strong foundation in chemistry and biochemistry.
- To develop students' transferable skills in areas such as communication and teamwork.
- To train students to use modern lab techniques safely and effectively.
- To develop students' appreciation of the role of biochemistry and scientific research in modern life.
- 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:

- Demonstrate knowledge of major concepts, theoretical principles and experimental findings in chemistry, biochemistry and biology.
- Conduct biochemistry laboratory experiments and analyze results.
- Retrieve and use chemical and biochemical information from scientific literature.
- Solve practical and theoretical problems in biochemistry and demonstrate critical thinking.
- Communicate effectively both orally and in writing.
- Work effectively independently and in teams
- Conform to safety, ethical and professional standards of chemistry and biochemistry.

## Degree Requirements

Required Credit Hours: minimum 120 hours

General Education (Req. CH:39)

Cluster 1: Values to	Live by - Islam (3 hours)	
ISLM100	<u>Islamic Culture</u>	

Cluster 1: Values to Live By - Ethics (3 hours)		
PHI121	Fundamentals of Environmental Ethics	
PHI122	International Ethics	
PHI226	Human Rights Theory	
PHIL120	Principles of Professional Ethics	

Cluster 2: Skills	for Life - English Communication Skills (3 hours)	
ESPU102	Introduction to Academic English For Science	

Cluster 2: Skills for Life - Information Literacy (3 hours)		
GEIL101	Information Literacy	
Cluster 2: Skills for Lif	e - Thinking Skills (3 hours)	

Cluster 2: Skills for Life - Thinking Skills (3 hours)		
HSS110	Scientific Research Skills	
CSBP119	Algorithms and Problem Solving	
PSY105	Creative & Innovative Thinking Skills	
PHI180	Critical Thinking <sup>1</sup>	

 $1: \mbox{IBLC}$  - Inquiry based learning courses must be taken within first 30 credit hours

Cluster 3: The Human Com	nunity - Emirates Society (3 hours)	
HSS105	Emirates Studies	

Cluster 3: The Human Community - Humanities/Fine Arts (3 hours)

ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History	
HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	Introduction to Literature	
LNG100	Introduction to Linguistics	
LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	

TRS200	Introduction to Translation

Cluster 3: The Human Community - Social and Behavioral Sciences (3 hours)		
AGRB210	Introduction to Agribusiness	
ECON110	Principles of Economics	
HSR140	Introduction to Society & Behavior	
HSR150	Introduction to Government Policy & Urban Structures	
PSY100	Introduction to Psychology	
SOC260	<u>Folklore</u>	
SWK200	Introduction to Social Welfare	

Cluster 3: The Hum	an Community - The Global Experience (3 hours)	
AGRB360	Global Agri-food Trade	

ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	
GEO200	World Regional Geography	
HIS120	Arab & Islamic Civilization	
HIS121	World History: Origins to 1500	
HIS125	Contemporary Civilization	
PSG250	Principles of International Relations	

Cluster 4: The Natural Worl	d - Mathematics (3 hours)	
MATH105	Calculus I <sup>2</sup>	

2 : Also counts towards the Major

CHEM111	General Chemistry I	
PHYS105	General Physics I <sup>3</sup>	

 ${\bf 3}$  : Also counts towards the Major

Cluster 5: Cap	stone Experience (3 hours)	
BCHM345	Experimental Biochemistry	
BCHM471	Protein Structure and Function <sup>4</sup>	

4 : Also counts towards the Major

## Biochemistry Major

Required Courses (45 hours)		
BCHM362	Biochemistry II	
BCHM481	Special Topics Biochemistry I	

BCHM482	Special Topics Biochemistry II	
BIOC230	General Microbiology	
BIOL270	General Genetics	
BIOM399	Molecular Biology	
BIOM489	Molecular Biology Techniques	
CHEM112	General Chemistry II	
CHEM115	General Chemistry Lab	
CHEM211	Professional & Transferable Skills	
CHEM221	Analytical Chemistry	
CHEM231	<u>Inorganic Chemistry I</u>	
CHEM241	Organic Chemistry I	
CHEM242	Organic Chemistry II	

CHEM245	Organic Chemistry Lab I	
CHEM251	Physical Chemistry I	
CHEM355	Physical Chemistry Lab I	
CHEM361	Biochemistry	
CHEM419	Internship <sup>5</sup>	

5 : The internship is conducted over half a semester (8 weeks) during the third year of study. Offered condensed courses should the other half of the semester

Supporting Required Courses Non-Biochemistry (15 hours)	
BIOC100	Basic Biology I
ENG310	Writing for Research
CSBP112	Introduction To Programming
MATH110	<u>Calculus II</u>

PHYS110

**General Physics II** 

Elective Courses - Upon the approval of the Department, the student may select a total of 18 Credit Hours from a specific minor. (18 hours)

Free Elective (3 hours)

## **Bachelor of Science in Chemistry**

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**

- To provide students with a strong foundation in all of the major sub-disciplines of chemistry.
- To train students to use modern lab techniques safely and effectively.
- To develop students' transferable skills in areas such as communication and teamwork.
- To develop students' appreciation of the role of chemistry and scientific research in modern life.
- 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:

- Demonstrate knowledge of major concepts, theoretical principles and experimental findings in chemistry.
- Conduct chemistry laboratory experiments and analyze results.
- Retrieve and use chemical information from scientific literature.
- Solve practical and theoretical problems and think critically.
- Communicate effectively both orally and in writing.
- Work effectively independently and in teams.
- Demonstrate compliance with safety, ethical and professional standards of chemistry.

# Degree Requirements

Required Credit Hours: minimum 120 hours

General Education (Req. CH:39)

Cluster 1: Values to	Live By - Islam (3 hours)	
ISLM100	<u>Islamic Culture</u>	

Cluster 1: Values to Live By - Ethics (3 hours)		
PHI121	Fundamentals of Environmental Ethics	
PHI122	International Ethics	
PHI226	Human Rights Theory	
PHIL120	Principles of Professional Ethics	

Cluster 2: Skills	for Life - English Communication Skills (3 hours)	
ESPU102	Introduction to Academic English For Science	

Cluster 2: Skills for Life - Information Literacy (3 hours)		
GEIL101	Information Literacy	
Cluster 2: Skills for Life - Thinking Skills (3 hours)		

Cluster 2: Skills for Life - Thinking Skills (3 hours)		
HSS110	Scientific Research Skills	
CSBP119	Algorithms and Problem Solving	
PSY105	Creative & Innovative Thinking Skills	
PHI180	Critical Thinking <sup>1</sup>	

 $1: \mbox{IBLC}$  - Inquiry based learning courses must be taken within first 30 credit hours

Cluster 3: The Human Com	nunity - Emirates Society (3 hours)	
HSS105	Emirates Studies	

Cluster 3: The Human Community - Humanities/Fine Arts (3 hours)

ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History	
HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	Introduction to Literature	
LNG100	Introduction to Linguistics	
LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	

Cluster 3: The Human Community - Social and Behavioral Sciences (3 hours)		
AGRB210	Introduction to Agribusiness	
ECON110	Principles of Economics	
HSR140	Introduction to Society & Behavior	
HSR150	Introduction to Government Policy & Urban Structures	
PSY100	Introduction to Psychology	
SOC260	<u>Folklore</u>	
SWK200	Introduction to Social Welfare	

Cluster 3: The Hum	an Community - The Global Experience (3 hours)	
AGRB360	Global Agri-food Trade	

ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	
GEO200	World Regional Geography	
HIS120	Arab & Islamic Civilization	
HIS121	World History: Origins to 1500	
HIS125	Contemporary Civilization	
PSG250	Principles of International Relations	

Cluster 4: The Natural Wo	rld - Mathematics (3 hours)	
MATH105	Calculus I <sup>2</sup>	

 ${\bf 2}$  : Also counts towards the Major

Cluster 4: The Natural World - Natural Sciences (6 hours)

CHEM111	General Chemistry I	
PHYS105	General Physics I <sup>3</sup>	

3 : Also counts towards the Major

Cluster 5: Capsto	ne Experience (3 hours)	
CHEM418	Research Project <sup>4</sup>	
4 : Also counts towards the Major		

## Chemistry Major (Req. CH:60)

Required Courses (42 hours)		
CHEM112	General Chemistry II	
CHEM115	General Chemistry Lab	
CHEM221	Analytical Chemistry	

CHEM231	Inorganic Chemistry I	
CHEM241	Organic Chemistry I	
CHEM242	Organic Chemistry II	
CHEM245	Organic Chemistry Lab I	
CHEM251	Physical Chemistry I	
CHEM321	<u>Instrumental Analysis I</u>	
CHEM331	Inorganic Chemistry II	
CHEM337	Practical Inorganic Chemistry	
CHEM345	Organic Chemistry Lab II	
CHEM351	Physical Chemistry II	
CHEM355	Physical Chemistry Lab I	
CHEM356	Physical Chemistry Lab II	

CHEM361	<u>Biochemistry</u>	
CHEM419	Internship 5	

5 : The internship is conducted over half a semester (8 weeks) during the third year of study. Offered condensed courses should the other half of the semester

Suppporting requi	red Courses Non-Chemistry (15 hours)	
BIOC100	Basic Biology I	
ENG310	Writing for Research	
CSBP112	Introduction To Programming	
MATH110	<u>Calculus II</u>	
PHYS110	General Physics II	

Chemistry Elec	tive Courses (3 hours)	
CHEM417	Advanced Laboratory Techniques	

CHEM421	<u>Instrumental Analysis II</u>	
CHEM431	Inorganic Chemistry III	
CHEM445	Spectroscopic Identification of Chemical Compounds	
CHEM451	Physical Chemistry III	
CHEM452	Electrochemistry	

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. (21 hours)

## **Department of Geology**

## **Bachelor of Science in Geology**

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**

- To serve the national interest by graduating students capable to work in the different domains of geosciences.
- Prepare the students with sufficient knowledge of fundamental principles geosciences
- 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:

- Apply knowledge of basic theoretical concepts and practical models of geosystems.
- Conduct laboratory experiments and analyze results.
- Collect, competently record, and interpret diverse field data: including material sampling, processing and data interpretation to answer basic questions about terrains and their histories.
- Solve problems relevant to the geological disciplines, including assessment of terrains for their material, mineral, water and hydrocarbon resource potential and geohazards.
- Prepare map, geophysical and lithological logs and interpret photographic and digital terrain imagery.
- Accomplish self-management and co-operation in teamwork within the frame of basic safety precautions in the field and laboratory.
- Communicate professionally through both oral presentation and in writing of scientific documents.

- Demonstrate competence in search and review of the scientific literature.
- 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.
- Apply the guidelines of the profession in respect to scientific integrity and ethics in accordance with current practices.

#### Degree Requirements

Required Credit Hours: minimum 120 hours

General Education (Req. CH:39)

Cluster 1: Values to I	_ive By - Islam (3 hours)	
ISLM100	<u>Islamic Culture</u>	

Cluster 1: Values to Live By - Ethics (3 hours)		
PHI121	Fundamentals of Environmental Ethics	
PHI122	<u>International Ethics</u>	
PHI226	Human Rights Theory	
PHIL120	Principles of Professional Ethics	

Cluster 2: Skills for Life - English Communication Skills (3 hours)		
ESPU102	Introduction to Academic English For Science	

Cluster 2: Skills for Life - Information Literacy (3 hours)

GEIL101 Information Literacy

Cluster 2: Skills for Life - Thinking Skills (3 hours)		
HSS110	Scientific Research Skills	
CSBP119	Algorithms and Problem Solving	
PHI180	Critical Thinking 1	
PSY105	Creative & Innovative Thinking Skills	

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

# Cluster 3: The Human Community - Emirates Society (3 hours)

HSS105	Emirates Studies
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Cluster 3: The H	luman Community - Humanities/Fine Arts (3 hours)	
ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History	
HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	Introduction to Literature	
LNG100	<u>Introduction to Linguistics</u>	
LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
PHI101	Introduction to Philosophy	

PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	
TRS200	Introduction to Translation	

Cluster 3: The H	Human Community - Social and Behavioral Sciences (3 hours)	
AGRB210	Introduction to Agribusiness	
ECON110	Principles of Economics	
HSR140	Introduction to Society & Behavior	
HSR150	Introduction to Government Policy & Urban Structures	
PSY100	Introduction to Psychology	
SOC260	<u>Folklore</u>	
SWK200	Introduction to Social Welfare	

Cluster 3: The Hum	nan Community - The Global Experience (3 hours)	
AGRB360	Global Agri-food Trade	
ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	
GEO200	World Regional Geography	
HIS120	Arab & Islamic Civilization	
HIS121	World History: Origins to 1500	
HIS125	Contemporary Civilization	
PSG250	Principles of International Relations	

Cluster 4: The Natural Wor	d - Mathematics (3 hours)	
MATH105	Calculus I <sup>2</sup>	

 ${\bf 2}$  : Also counts towards the Major

Cluster 4: The Natural	World - Natural Sciences (6 hours)	
CHEM111	General Chemistry I	
PHYS105	General Physics I <sup>3</sup>	

 ${\bf 3}$  : Also counts towards the Major

Cluster 5: Capstone	e Experience (4 hours)	
GEOL499	Field Geology <sup>4</sup>	

4 : Also counts towards the Major

## Geology Major

Required Courses (27 hours)		
GEOL105	Physical Geology	
GEOA290	Structure Geology & Tectonics	

GEOA320	<u>Mineralogy</u>	
GEOA325	Sedimentology & Stratigraphy	
GEOA372	Geophysics	
GEOA458	Geology Of UAE	
GEOL500	Internship <sup>5</sup>	

5 : The internship is conducted over half a semester (8 weeks) during the third year of study. Offered condensed courses should the other half of the semester

Supporting Requi	red Courses Non-Geology (12 hours)	
CHEM112	General Chemistry II	
CHEM115	General Chemistry Lab	
CSBP112	Introduction To Programming	
MATH110	<u>Calculus II</u>	

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# Applied Geology Track

Required Courses (20 hours)		
BIOC100	Basic Biology I	
GEOA250	<u>Paleontology</u>	
GEOA322	Igneous & Metamorphic Petrology	
GEOA358	Hydrogeology	
GEOA412	Remote Sensing and GIS	
GEOA461	Geochemistry	

Track Elective (	Track Elective Courses (3 hours)	
GEOA414	Environmental Geology	

GEOA452	Economic Geology	
GEOA462	Hydro Geochemistry	
GEOA490	Mineral Exploration	
GEOA495	Selected Topics	
GEOP453	Petroleum and Subsurface Geology	

# Petroleum Geology Track

Required Cour	Required Courses (20 hours)	
CHEM241	Organic Chemistry I	
GEOP413	<u>Petrophysics</u>	
GEOP420	Basin Analysis	
GEOP453	Petroleum and Subsurface Geology	

GEOP463	Geophysical Exploration	
GEOP469	Petroleum Geochemistry	
GEOP499	Research Project	

Track Elective	Track Elective Courses (3 hours)	
GEOA414	Environmental Geology	
GEOP495	Selected Topics	
GEOP322	Igneous & Metamorphic Petrology	
GEOP431	Seismic Stratigraphy	
PETE403	Well Logging	

### Required Minor

Upon the approval of the Department, the student may select a total of 18 Credit Hours from a specific minor (18 hours)

## **Department of Mathematical Sciences**

### **Bachelor of Science in Mathematics**

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**

- 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.
- Foster within each student an aesthetic appreciation for the logical foundation of mathematics.
- Emphasize problem solving strategies in all courses in order to develop each student's capacity for independent use of the contents of the course.
- Foster the development of each student's communication skills.
- 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:

- Demonstrate knowledge of important concepts and results representing the breadth of mathematical sciences.
- Solve mathematical problems in rigorous, logically deductive, and critical way ranging from formal proofs to computational approaches.
- Employ technology to assist in solving and investigating mathematical problems and presenting corresponding results.
- Formulate real-life and interdisciplinary problems mathematically.

- Structure mathematical arguments in a clear well-organized and logical way.
- Communicate mathematical ideas effectively through presentations and reports.
- Work efficiently in groups on mathematical projects.
- Search mathematical literature in order to acquire new knowledge and attempt new projects to motivate long-life learning.
- Prepare a job portfolio demonstrating various professional career competences (ethics, technology,
   communication, group work, critical thinking, and self-learning).

#### Degree Requirements

Required Credit Hours: minimum 120 hours

General Education (Req. CH:39)

ISLM100 <u>Islamic Culture</u>

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FOED102	Professional Ethics in Education	
PHI121	Fundamentals of Environmental Ethics	
PHI122	International Ethics	

PHI226	Human Rights Theory		
PHIL120	Principles of Professional Ethics		
Cluster 2: Skills	Cluster 2: Skills for Life - English Communication Skills (3 hours)		
ESPU102	Introduction to Academic English For Science		
Cluster 2: Skills for Life - Information Literacy (3 hours)			
GEIL101	Information Literacy		
Cluster 2: Skills for Life - Thinking Skills (3 hours)			
HSS110	Scientific Research Skills		
CSBP112	Introduction To Programming		
PSY105	Creative & Innovative Thinking Skills		
PHI180	Critical Thinking <sup>1</sup>		

## $1: \mbox{IBLC}$ - Inquiry based learning courses must be taken within first 30 credit hours

Cluster 3: The Human Comr	nunity - Emirates Society (3 hours)	
HSS105	Emirates Studies	

Cluster 3: The Human Community - Humanities/Fine Arts (3 hours)		
ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History	
HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	Introduction to Literature	
LNG100	Introduction to Linguistics	
LNG110	Language, Society & Culture	

MSC200	<u>Introduction to Mass Media</u>	
MSC240	World and Arab Media	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	
TRS200	Introduction to Translation	

Cluster 3: The Human Community - Social and Behavioral Sciences (3 hours)		
PSY313	Educational Psychology <sup>2</sup>	

# 2 : Also counts towards the Major

Cluster 3: The Hum	an Community - The Global Experience (0 hours)	
AGRB360	Global Agri-food Trade	

ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	
GEO200	World Regional Geography	
HIS120	Arab & Islamic Civilization	
HIS121	World History: Origins to 1500	
HIS125	Contemporary Civilization	
PSG250	Principles of International Relations	

Cluster 4: The Natural World - Mathematics (3 hours)			
	MATH105	Calculus I <sup>3</sup>	

 ${\bf 3}$  : Also counts towards the Major

Cluster 4: The Natural World - Natural Sciences (6 hours)

PHYS105	General Physics I	
PHYS110	General Physics II <sup>4</sup>	

4: Both PHYS 110 and PHYS 105 counts towards the Major

Cluster 5: Capsto	one Experience (3 hours)	
MATH495	Research Project <sup>5</sup>	
5 : Also counts towards the Major		

## Mathematics Major (Req. CH:75)

Required Cour	ses (36 hours)	
MATH110	<u>Calculus II</u>	
MATH140	Linear Algebra I	
MATH210	<u>Calculus III</u>	

MATH215	Introduction to Analysis	
MATH275	Ordinary Differential Equations	
MATH310	Real Analysis	
MATH315	Complex Analysis I	
MATH320	Numerical Analysis I	
MATH340	Abstract Algebra 1	
MATH205	Set Theory and Logic	
MATH246	Number Theory	
MATH372	Partial Differential Equations	

Supporting Required Courses Non-Mathematics (15 hours)		
ENG310	Writing for Research	
CSBP112	Introduction To Programming	

STAT230	Principles of Probability	
MATH500	Internship <sup>6</sup>	

6 : The internship is conducted over half a semester (8 weeks) during the third year of study. Offered condensed courses should the other half of the semester

Supporting Elective Courses Non-Mathematics (12 hours)		
ARB100	Styles of Literary Expression	
ARB110	Introduction to Syntax & Morphology	
ENG250	English Grammar & Usage	
CSBP119	Algorithms and Problem Solving	
CSBP219	Object Oriented Programming	
STAT210	Probability and Statistics	
STAT340	Mathematical Statistics	

PHYS235	Waves and Optics	
PHYS262	Classical Mechanics	

Mathematics Elective Courses (12 hours)		
MATH260	Foundation of Geometry	
MATH321	<u>Linear Programming</u>	
MATH341	Linear Algebra II	
MATH342	Graph Theory	
MATH344	Introduction to Cryptography and Coding Theory	
MATH374	Dynamical Systems and Applications	
MATH391	Financial Mathematics	
MATH413	Complex Analysis II	
MATH422	Numerical Analysis II	

MATH462	Introduction to Topology	
MATH471	Control Theory & Applications	
MATH470	Mathematical Modeling	
MATH313	Advanced Calculus	
MATH443	Abstract Algebra 2	

Free Electives (6 hours)

### **Department of Physics**

### **Bachelor of Science in Physics**

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**

- Knowledge of fundamental concepts and theories in various fields of physics.
- Disciplinary skills, abilities and competencies.
- 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:

- Explain qualitatively the basic concepts of physics.
- Express basic physical concepts mathematically
- Integrate the acquired knowledge of various physical disciplines
- Apply mathematical skills to solve physical problems correctly.
- Use skills in experimental physics to apply physical concepts.
- Demonstrate computational Physics solving skills and the capable use of information technology.
- Communicate effectively in both oral and written forms.
- Engage in research activities related to national interests.
- Work effectively, responsibly, and ethically in team-oriented projects.
- Think critically and logically.

# Degree Requirements

Required Credit Hours: minimum 120 hours

General Education (Req. CH:39)

Cluster 1: Values to	Live By - Islam (3 hours)	
ISLM100	<u>Islamic Culture</u>	

Cluster 1: Values to Live By - Ethics (3 hours)		
PHI121	Fundamentals of Environmental Ethics	
PHI122	International Ethics	
PHI226	Human Rights Theory	
PHIL120	Principles of Professional Ethics	

Cluster 2: Skills	for Life - English Communication Skills (3 hours)	
ESPU102	Introduction to Academic English For Science	

Cluster 2: S	lls for Life - Information Literacy (3 hours)	
GEIL101	Information Literacy	
Cluster 2: Skills for Life - Thinking Skills (3 hours)		

Cluster 2: Skills for Life - Thinking Skills (3 hours)		
HSS110	Scientific Research Skills	
CSBP119	Algorithms and Problem Solving	
PSY105	Creative & Innovative Thinking Skills	
PHI180	Critical Thinking <sup>1</sup>	

 $1: \mbox{IBLC}$  - Inquiry based learning courses must be taken within first 30 credit hours

Cluster 3: The Human Community - Emirates Society (3 hours)		
HSS105	Emirates Studies	

Cluster 3: The Human Community - Humanities/Fine Arts (3 hours)

ARCH340	History and Theory of Architecture	
HIS133	Introduction to Art History	
HSR120	Introduction to Heritage & Culture	
HSR130	Introduction to Language & Communication	
LIT150	Introduction to Literature	
LNG100	Introduction to Linguistics	
LNG110	Language, Society & Culture	
MSC200	Introduction to Mass Media	
MSC240	World and Arab Media	
PHI101	Introduction to Philosophy	
PHI270	Philosophy of Education	
PHI271	History and Philosophy of Science	

TRS200	Introduction to Translation

Cluster 3: The Human Community - S	Social and Behavioral Sciences (3 hours)
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PSY313 <u>Educational Psychology</u> <sup>2</sup>

 ${\bf 2}$  : Also counts towards the Major

# Cluster 3: The Human Community - The Global Experience (3 hours)

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AGRB360	Global Agri-food Trade	
ARCH346	Contemporary World Architecture	
BIOE240	Principles of Environmental Science	
GEO200	World Regional Geography	
HIS120	Arab & Islamic Civilization	
HIS121	World History: Origins to 1500	

HIS125	Contemporary Civilization	
PSG250	Principles of International Relations	

MATH105 <u>Calculus I</u> <sup>3</sup>

 ${\bf 3}$  : Also counts towards the Major

Cluster 4: The Natural V	World - Natural Sciences (6 hours)	
PHYS105	General Physics I	
PHYS110	General Physics II <sup>4</sup>	

4 : Also counts towards the Major

Cluster 5: Capstone Experience (3 hours)			
	PHYS494	Research Project 5	

### 5 : Also counts towards the Major

# Physics Major

Required Courses (27 hours)		
PHYS135	General Physics Lab I	
PHYS140	General Physics Lab II	
PHYS205	<u>Intermediate Physics Lab I</u>	
PHYS220	<u>Thermal Physics</u>	
PHYS231	Electronics Fundamentals	
PHYS235	Waves and Optics	
PHYS250	Modern Physics	
PHYS262	<u>Classical Mechanics</u>	

PHYS335	Electromagnetic Theory	
PHYS500	Internship <sup>6</sup>	

<sup>6 :</sup> The internship is conducted over half a semester (8 weeks) during the third year of study. Offered condensed courses should the other half of the semester

### Students should take one of the following Tracks:

1: General Phy	ysics Track (15 hours)	
PHYS210	Intermediate Physics Lab II	
PHYS255	Mathematical Physics	
PHYS312	Statistical Physics	
PHYS355	Quantum Mechanics	
PHYS470	Solid State Physics	
PHYS483	<u>Introductory Nuclear Physics</u>	

2: Space Scier	nces Track (18 hours)	
PHYS200	Introduction to Space Sciences	
PHYS270	Celestial Mechanics	
PHYS310	Space Missions	
PHYS320	Spacecraft Instrument Science	
PHYS410	Space Applications I	
PHYS420	Space Applications II	

# Compulsory Supporting

Supporting Required Courses Non-Physics (18 hours)		
CHEM111	General Chemistry I	
CSBP112	Introduction To Programming	

MATH110	<u>Calculus II</u>	
MATH140	<u>Linear Algebra I</u>	
STAT210	Probability and Statistics	
MATH275	Ordinary Differential Equations	

# Elective Physics Courses (General Physics Track)

General Physics Track studer	nts should choose 9 credit hours from this basket (9 hours)	
PHYS330	<u>Computational Physics</u>	
PHYS345	<u>Laser Physics</u>	
PHYS385	Radiation Physics	
PHYS390	Introduction to Astrophysics	
PHYS430	Electromagnetic Theory II	

PHYS450	Quantum Mechanics II	
PHYS475	Semiconductor Physics	
PHYS495	Selected Topics	

### Elective Physics Courses (Space Sciences Track)

Space Sciences Track students should choose 6 credit hours from this basket (6 hours)		
PHYS390	Introduction to Astrophysics	
PHYS255	Mathematical Physics	
PHYS312	Statistical Physics	
PHYS385	Radiation Physics	
PHYS330	Computational Physics	
PHYS345	<u>Laser Physics</u>	

Supporting Elective Courses Non-Physics: the student may select a total of 6 Credit Hours (6 hours)		
GEOL105	Physical Geology	
MATH210	<u>Calculus III</u>	
BIOE240	Principles of Environmental Science	
CSBP400	Modeling & Simulation	
ENG310	Writing for Research	
CHME444	Renewable Energy Sources	
MGMT200	Fundamentals of Management	

Free Electives (6 hours)

# **College of Medicine and Health Sciences**

#### **Doctor of Medicine**

The College of Medicine and Health Sciences (CMHS) offers four- year M.D program. The pre- requisite for the program is successful completion of two- year Pre- Medical program offered by CMHS. The MD program integrates basic and clinical sciences through a wide variety of learning opportunities including problem based learning. The curriculum offers candidates some flexibility to undertake extra curricula activities for example in clinical electives abroad. The MD program will prepare graduates who will be skilled, knowledgeable, and compassionate and who can serve the community as a professional and ethical physician. The graduates will be life- long learners and committed to quality healthcare and practice medicine in a patient- centered and multi professional environment. The graduates will also be ready to take up advanced training in various specialties of Medicine.

#### **Program Objectives**

- Medical Knowledge.
- Interpersonal & Communication Skills.
- Patient Care.
- Practice based learning & Improvement.
- Professionalism.
- System based practice.

#### **Program Learning Outcomes**

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

- Apply knowledge of established and evolving biomedical, clinical, epidemiological, and behavioral sciences to solve patient's medical problems.
- Use communication skills that are effective in the exchange of information and collaboration with patients, their families, and health professionals.
- Demonstrate their abilities in providing patient care that is compassionate, appropriate and effective for the treatment of health problems.
- Reflect on patient care, appraising scientific evidence, and to continuously improve patient care based on self -evaluation and life-long learning.

- Demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.
- Demonstrate an awareness of and responsiveness to the larger context and system of health care.

#### **Degree Requirements**

Required Credit Hours: minimum 342 hours

General Education (Req CH:46)

Cluster 1: Valu	Cluster 1: Values to Live By - Islam (3 hours)	
ISLM100	<u>Islamic Culture</u>	
Cluster 1: Valu	ues to Live By - Ethics (2 hours)	
PCOM226	Professional Practice and Communication 4	
Cluster 2: Skill:	Cluster 2: Skills for Life - English Communication Skills (6 hours)	
PCOM105	Professional Practice and Communication 1	
PCOM112	Professional Practice and Communication 2	

Cluster 2: Skills for Life - Thinking Skills 2 (2 hours)		
PCOM219	Professional Practice and Communication 3	
Cluster 3: The	Human Community - Emirates Society (3 hours)	
HSS105	Emirates Studies	
Cluster 3: The	Cluster 3: The Human Community - Social and Behavioral Sciences (6 hours)	
HEHA450	Behavioral Sciences	
Cluster 3: The	Cluster 3: The Human Community - Humanities/Fine Arts (3 hours)	
LITM102	Language and Literacy	
Cluster 3: The Human Community - The Global Experience (4 hours)		
PHCM560	Public Health and Community Medicine	

Cluster 4: The	Cluster 4: The Natural World - Mathematics (7 hours)	
MMAT101	Numeracy and Information Technology	
BSTA110	Biostatistics and Epidemiology 1	
BSTA218	BSTA218 Biostatistics and Epidemiology 2	
Cluster 4: The Natural World - Natural Sciences (6 hours)		
HBIO106	Human Biology	
MCHE108	Biological Chemistry	
Cluster 5: Capstone Experience (4 hours)		
ECCT579	ECCT579 <u>Internal Elective</u>	

Required Cour	Required Courses (296 hours)	
MCHE103	Chemistry for Medicine	
HANA104	Human Anatomy 1	
CYHS107	Cytology and Histology	
PHYL109	Human Physiology 1	
HANA111	Human Anatomy 2	
EMBR213	Human Embryology	
HANA214	Human Anatomy 3	
MBIO215	Molecular Biology	
PHYL216	Human Physiology 2	
MGEN217	Medical Genetics	
HANA220	Human Anatomy 4	

MTAB221	Cellular Communication and Metabolism	
PHYL222	Human Physiology 3	
MCRO223	Principles of Microbiology and Immunology	
PATH224	<u>Pathology</u>	
PHAM225	<u>Pharmacology</u>	
MSCE299	Pre-Medical Program Exam	
INFE310	Infection, Inflammation and Immunity	
HONC320	Mechanisms of Malignancies and Hematology	
CDPM330	<u>Cardiovascular System</u>	
RESP340	Respiratory System	
WMEX350	Renal and Urogenital Systems	
CLSM360	Clinical Skills and Professionalism 1	

GAST410	Gastrointestinal System	
ENDO420	Endocrine and Metabolism	
MUSC430	Musculoskeletal System	
NEOR440	Neuroscience and Special Senses	
CLSM460	Clinical Skills and Professionalism 2	
OSCE499	Pre-Clinical Program Exam	
IMED510	Internal Medicine I	
SURG520	Surgery I	
PAED530	Pediatrics I	
OBGY540	Obstetrics and Gynaecology	
PSCH550	Psychiatry and Behavioral Sciences	
ECCT570	External Elective	

IMED571	Internal Medicine II	
IMED572	Internal Medicine Selective	
SURG573	General Surgery	
SURG574	Surgery Specialty	
PAED575	Pediatrics II	
FAMD576	Family Medicine	
EMED578	Emergency Medicine	
FIEE599	Final Integrated Examination	