UAEU جامعة الإمارات العربية المتحدة United Arab Emirates University

Undergraduate Program Catalog 2021-2022

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College of Business and Economics

Department of Accounting and Finance

Bachelor of Accounting

Description

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

Program Objectives

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

Program Learning Outcomes

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

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

Degree Requirements: Total Credit Hours: 120

			Course Credits
General Education (Req. CH:33)			
Cluster 1: Skills for the Future (Req. Ch:15)			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3
Area 2: English Communication			
			(Required Credit Hours:3)
ESPU	104	Introduction to Academic English For Business	3
Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3
Area 4: Critical Thinking			
			(Required Credit Hours:3)
CSBP	119	Algorithms and Problem Solving	3
PHI	180	Critical Thinking	3
Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	115 *	Calculus for Business & Economics	3
		* Also counts towards the Major	
			Course Credits
Cluster 2: The Human Community (Req. Ch:12)			
Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
PHI	101	Introduction to Philosophy	3

Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)
ECON	105 *	Principles of Microeconomics	3
		* Also counts towards the Major	

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

			Course Credits

Cluster 3: The Natural World (Req. Ch:6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
ARAG	205	Introduction to Fish & Animal Science	3
ARAG	220	Natural Resources	3
BION	100	Biology and its Modern Application	3
CHEM	181	Chemistry in the Modern World	3
FDSC	250	Contemporary Food Science & Nutrition	3
GEOL	110	Planet Earth	3
PHED	201	Physical Fitness and Wellness	3
PHYS	101	Conceptual Physics	3
PHYS	100	Astronomy	3

Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3

			Course Credits

College of Business

Required Courses			
			(Required Credit Hours:51)
ACCT	100	Principles of Financial Accounting	3

ACCT	225	Fundamental of Cost & Management Accounting	3
ECON	125	Principles of Macroeconomics	3
ESPU	240	Business Writing in English	3
FINC	240	Principles of Financial Management	3
MGMT	200	Fundamentals of Management	3
MGMT	415	Strategic Management	3
MIST	200	Foundation of MIS & Technologies	3
MKTG	200	Principles of Marketing	3
PRVT	2652	Business Law (E)	3
SCML	200	Supply Chain Management & Operations	3
STAT	130	Statistics for Business	3
PHIL	120	Principles of Professional Ethics	3
GBUS	460 *	Internship	12
		* The internship is conducted over 12 Weeks in the last semester (after a four week preparation session). No courses are allowed to be registered during the internship	

Course Credits

Accounting

Major Requirements			
			(Required Credit Hours:21)
ACCT	235	Intermediate Accounting I	3
ACCT	245	Intermediate Accounting II	3
ACCT	315	Principles of Auditing	3
ACCT	351	Cost and Managerial Accounting	3
ACCT	422	Accounting Information Systems	3
ACCT	451	Advanced Accounting	3
ACCT	455	Comprehensive Accounting Seminar	3

Financial Accounting Stream (Must take at least 2 courses from this stream + 1 from this stream or any other stream)			
			(Required Credit Hours:9)
ACCT	324	International Accounting	3
ACCT	311	Islamic Accounting	3
ACCT	413	Advanced Auditing	3

Managerial Accounting Stream (Must take at least 2 courses from this stream + 1 from this stream or any other stream)			
			(Required Credit Hours:9)
ACCT	353	Internal Auditing	3
ACCT	423	Advanced Accounting Information Systems	3
ACCT	452	Advanced Managerial Accounting	3

General Stream (May take any 3 courses from the 3 streams including this stream)			
			(Required Credit Hours:9)
ACCT	334	Governmental Accounting	3
ACCT	352	Oil and Gas Accounting	3
ACCT	453	Accounting Theory	3

Free Electives			
			(Required Credit Hours:6)

Bachelor of Finance and Banking

Description

The Bachelor of Finance and Banking offered by the Department of Economics and Finance prepares students for a challenging and rewarding career in an evolving business environment, where the know-how of all finance tools and techniques is a must. The finance major includes topics such as: Principles of Finance, Investment Analysis, Portfolio Management, Financial Derivatives, Corporate Finance, Islamic Finance and Banking, and much more, with emphasis placed on practical applications and real-life problem solving. Our program of study prepares graduates for decision-making positions in corporations and financial services firms such as banks, brokerage firms, investment companies and financial advisory houses.

Program Objectives

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

Program Learning Outcomes

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

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

Degree Requirements: Total Credit Hours: 120

			Course Credits
General Education (Req. CH:33)			
Cluster 1: Skills for the Future (Req. Ch:15)			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3
Area 2: English Communication			

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

Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3

Area 4: Critical Thinking			
			(Required Credit Hours:3)
CSBP	119	Algorithms and Problem Solving	3
PHI	180	Critical Thinking	3

Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	115 *	Calculus for Business & Economics	3
		* Also counts towards the Major	

			Course Credits

Cluster 2: The Human Community (Req. Ch:12)

Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
PHI	101	Introduction to Philosophy	3

Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)
ECON	105 *	Principles of Microeconomics	3
		* Also counts towards the Major	

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

Area 4: Islamic Culture

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

Course Credits

Cluster 3: The Natural World (Req. Ch:6)

Area 1: Natural Sciences

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

Area 2: Sustainability

			(Required Credit Hours:3)
GESU	121	Sustainability	3

Course Credits

College of Business

Required Courses

			(Required Credit Hours:51)
ACCT	100	Principles of Financial Accounting	3
ACCT	225	Fundamental of Cost & Management Accounting	3
ECON	125	Principles of Macroeconomics	3
ESPU	240	Business Writing in English	3
FINC	240	Principles of Financial Management	3
MGMT	200	Fundamentals of Management	3
MGMT	415	Strategic Management	3
MIST	200	Foundation of MIS & Technologies	3
MKTG	200	Principles of Marketing	3
PRVT	2652	Business Law (E)	3

SCML	200	Supply Chain Management & Operations	3
STAT	130	Statistics for Business	3
PHIL	120	Principles of Professional Ethics	3
GBUS	460 *	Internship	12
		* The internship is conducted over 12 Weeks in the last semester (after a four week preparation session). No courses are allowed to be registered during the internship	

Course Credits

Finance and Banking Program Requirements

Required Courses			
			(Required Credit Hours:21)
ECON	215	Money and Banking	3
FINC	261	Financial Institutions & Risk Management	3
FINC	341	Corporate Finance	3
FINC	377	Investment	3
FINC	434	Financial Statement Analysis and Business Valuation	3
FINC	348	International Finance	3
FINC	475	Derivatives Securities	3

Elective Courses			
			(Required Credit Hours:9)
ECON	212	Theory of Macroeconomics	3
ECON	231	Econometrics	3
FINC	344	Islamic Finance and Banking	3
FINC	472	Portfolio Management	3
FINC	463	Case Studies in Finance	3
FINC	474	Selected Topics in Finance	3

Free Electives			
			(Required Credit Hours:6)

Department of Innovation in Government and Society

Bachelor of Economics

Description

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

Program Objectives

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

Program Learning Outcomes

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

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

Degree Requirements: Total Credit Hours: 120

			Course Credits

General Education (Req. CH:33)
Cluster 1: Skills for the Future (Req. Ch:15)

Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3

Area 2: English Communication			
			(Required Credit Hours:3)
ESPU	104	Introduction to Academic English For Business	3

Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3

Area 4: Critical Thinking			
			(Required Credit Hours:3)
CSBP	119	Algorithms and Problem Solving	3
PHI	180	Critical Thinking	3

Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	115 *	Calculus for Business & Economics	3
		* Also counts towards the Major	

			Course Credits

Cluster 2: The Human Community (Req. Ch:12)

Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
PHI	101	Introduction to Philosophy	3

Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)
ECON	105 *	Principles of Microeconomics	3
		* Also counts towards the Major	

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

			Course Credits

Cluster 3: The Natural World (Req. Ch:6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
ARAG	205	Introduction to Fish & Animal Science	3
ARAG	220	Natural Resources	3
BION	100	Biology and its Modern Application	3
CHEM	181	Chemistry in the Modern World	3
FDSC	250	Contemporary Food Science & Nutrition	3
GEOL	110	Planet Earth	3
PHED	201	Physical Fitness and Wellness	3
PHYS	100	Astronomy	3
PHYS	101	Conceptual Physics	3

Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3

			Course Credits
Colleges of Business			
Required Courses			
			(Required Credit Hours:51)
ACCT	100	Principles of Financial Accounting	3
ACCT	225	Fundamental of Cost & Management Accounting	3
ECON	125	Principles of Macroeconomics	3
ESPU	240	Business Writing in English	3
FINC	240	Principles of Financial Management	3
MGMT	200	Fundamentals of Management	3
MIST	200	Foundation of MIS & Technologies	3
MKTG	200	Principles of Marketing	3
MGMT	415	Strategic Management	3
PRVT	2652	Business Law (E)	3
SCML	200	Supply Chain Management & Operations	3
STAT	130	Statistics for Business	3
PHIL	120	Principles of Professional Ethics	3
GBUS	460 *	Internship	12
		* The internship is conducted over 12 Weeks in the last semester (after a four week preparation session). No courses are allowed to be registered during the internship	

			Course Credits
Economics Program Requirements			
Required Courses			
			(Required Credit Hours:18)
ECON	211	Theory of Microeconomics	3
ECON	212	Theory of Macroeconomics	3
ECON	215	Money and Banking	3
ECON	231	Econometrics	3
ECON	344	Public Economics	3
ECON	433	Applied Economics of the Middle East	3

Elective Courses

			(Required Credit Hours:12)
ECON	236	Project Economics	3
ECON	237	Environmental and Energy Economics	3
ECON	239	Competition and Business Strategy	3
ECON	333	Economic Development and Institutions	3
ECON	338	International Economics and Globalization	3
FINC	344	Islamic Finance and Banking	3
ECON	432	Research Methods in Economics	3
ECON	441	Labor and HR Economics	3
ECON	455	Selected Topics In Economics	3

Free Electives			
			(Required Credit Hours:6)

Department of Analytics in the Digital Era

Bachelor of Science in Statistics and Data Analytics

Description

The undergraduate B.Sc. program in Statistics and Data Analytics at UAEU introduces the concepts, methods, and tools of collecting, processing, and analyzing data. The objective is to discover hidden patterns in data and generate actionable insights. Building on the fundamental concepts of probability and statistical inference (i.e., estimation & hypothesis testing), the program provides the fundamental background, as well as the modern techniques for statistics and data analytics. Two distinctive features of the program are: the emphasis on real-world applications; and the enrichment of lecture materials through practical experience with state-of-the-art computer software and modeling languages.

Program Objectives

1. Knowledge and skills in statistical, analytical and mathematical modeling, computing, and problem solving.
2. Critical thinking, research, and analytics skills to gather data and information and solve problems involving big and/or complex data.
3. Effective study & communication skills.
4. Work productively in teams.
5. Independence and ethical and social awareness at the local and global level.

Program Learning Outcomes

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

1. Demonstrate a comprehensive knowledge of concepts of statistics and data analytics, and the application of the concepts for problem solving using real-world data.
2. Integrate modeling and computational skills in statistical and data analytics, for developing comprehensive solutions to data-driven problems.
3. Effectively communicate to specialized and non-specialized audiences, orally, visually, and in writing, the results and interpretation of statistical and computational analyses.
4. Apply teamwork skills and creativity, and demonstrate autonomy and responsibility, in undertaken tasks and projects.
5. Demonstrate independence and ethical awareness towards issues in statistics and data analytics, such as data ownership, security and sensitivity of data, privacy concerns in data analysis, and transparency and re-producibility.

Degree Requirements: Total Credit Hours: 121

			Course Credits
General Education (req. CH:33) **Cluster 1: Skills for the Future (Req. Ch:15)**			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3
Area 2: English Communication			
			(Required Credit Hours:3)

ESPU	104	Introduction to Academic English For Business	3

Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3

Area 4: Critical Thinking			
			(Required Credit Hours:3)
CSBP	119	Algorithms and Problem Solving	3

Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	105 *	Calculus I	3
		* Also counts towards the Major	

Course Credits

Cluster 2: The Human Community (Req. Ch:12)

Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
PHI	101	Introduction to Philosophy	3

Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)
ECON	105 *	Principles of Microeconomics	3
		* Also counts towards the Major	

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

			Course Credits
Cluster 3: The Natural World (Req. Ch:6)			
Area 1: Natural Sciences			
			(Required Credit Hours:3)
ARAG	205	Introduction to Fish & Animal Science	3
ARAG	220	Natural Resources	3
BION	100	Biology and its Modern Application	3
CHEM	181	Chemistry in the Modern World	3
FDSC	250	Contemporary Food Science & Nutrition	3
GEOL	110	Planet Earth	3
PHED	201	Physical Fitness and Wellness	3
PHYS	100	Astronomy	3
PHYS	101	Conceptual Physics	3
Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3

			Course Credits
Research Learning Line			
Required Courses			
			(Required Credit Hours:9)
STAT	102	Business Statistics I	3
STAT	202	Business Statistics II	3
GBUS	300	Research Methods in Business and Economics	3

			Course Credits
Learning in Action			
Required Courses			
			(Required Credit Hours:18)
GBUS	201	Personal Development: Leadership and Team Competencies	3
GBUS	301	Personal Development: Career Preparation and Orientation	3
ENTR	415 *	Developing an Entrepreneurial Venture	12
		or	

GBUS	460 **	Internship	12
		* Students should take either ENTR 415 or GBUS 460	
		** The internship is conducted over 12 Weeks in the last semester (after a four week preparation session). No courses are allowed to be registered during the internship	

			Course Credits

Business Core Requirements

Required Courses			
			(Required Credit Hours:6)
BANA	200	Managing with Analytics	3
GBUS	250	Digital Economy	3

			Course Credits

Business Analytics Core Requirements

Required Courses			
			(Required Credit Hours:6)
BANA	250	Business Intelligence	3
BANA	310	Data Management and Organization	3

			Course Credits

Statistics Core Requirements

Required Courses			
			(Required Credit Hours:34)
MATH	110	Calculus II	3
MATH	140	Linear Algebra I	3
STAT	230	Principles of Probability	3
STAT	240	Data Exploration and Analysis	3
STAT	300	Introduction to Statistical Inference	3
STAT	330	Survey Methods	3
STAT	360	Applied Regression	3
STAT	380	Statistical Machine Learning	3
STAT	400	Applied Multivariate Analysis	3
STAT	470	Introduction to Statistical Computing	3
CSBP	123	Introduction to Programming	4

			Course Credits
Concentrations			
Students should select one concentration for total of 15 credit hours			
			(Required Credit Hours:15)

			Course Credits
Statistics Concentration			
Required Courses			
			(Required Credit Hours:9)
STAT	430	Categorical Data Analysis	3
STAT	460	Bayesian Statistics	3
STAT	480	Capstone in Statistics and Data Analytics	3
Elective Courses			
			(Required Credit Hours:6)
STAT	250	Statistical Graphics	3
STAT	370	Mathematical Statistics	3
STAT	420	Applied Time Series	3
STAT	475	Selected Topics in Statistics and Data Analytics	3

			Course Credits
Analytics for Business Concentration			
Required Courses			
			(Required Credit Hours:9)
BANA	380	Business Analytics	3
BANA	400	Business Analytics Applications	3
STAT	482	Capstone in Analytics for Business	3
Elective Courses			
			(Required Credit Hours:6)
BANA	410	Text Analytics	3
BANA	420	Graph Analytics	3
BANA	430	Applied Optimization	3

Minor in Statistics and Data Analysis

Description

This Minor in Statistics and Data Analytics aims to provide students from majors other than statistics with training in applied statistics and data analytics. The minor aims to equip students with core knowledge and competencies in probability, statistical methods, regression, and data visualization along with a variety of elective courses in statistics and data analytics. These elective courses will allow students to focus on statistical techniques and applications of their interest. The minor will enhance the students' analytical, quantitative, and data analysis skills which will improve their job prospects and better prepare them for graduate studies and research.

Admission Requirements

- Student must have successfully completed at least 30 CH.
- The student must a have a Cumulative GPA of 2.5 or higher at the time of application.
- The student must have successfully completed MATH 105 or its equivalent.
- The student must have successfully completed one of the following courses: STAT 130, STAT 202, STAT 210, STAT 235, STAT 280 or any equivalent course.
- Targeted students: All students except those with a major in Statistics and Data Analytics

Program Objectives

1. Students will be able to demonstrate knowledge and skills in basic and inferential statistical methods and modeling, and probability theory.
2. Students will be able to demonstrate critical thinking and analytics skills when solving real-life problems and conducting research.
3. Students will be able to demonstrate the ability to analyze data using statistical software and analytic algorithms.
4. Students will be able to demonstrate effective communication skills that facilitate the effective presentation of the statistical findings and analysis results.

Program Learning Outcomes

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

1. Develop knowledge of statistical and data analytics theory.
2. Apply common inferential and modelling techniques in analyzing data from various fields.
3. Utilize statistical and data visualization software effectively to acquire, manipulate, and analyze data.
4. Interpret and communicate the results of statistical analysis effectively in various formats.

Degree Requirements: Total Credit Hours: 18

			Course Credits
Statistics and Data Analytics			
Required Courses			
			(Required Credit Hours:12)
STAT	230	Principles of Probability	3
STAT	240	Data Exploration and Analysis	3
STAT	360	Applied Regression	3
BANA	200	Managing with Analytics	3

			Course Credits
Elective Courses			
Select any two courses from the following list:			
			(Required Credit Hours:6)
BANA	250	Business Intelligence	3
STAT	330	Survey Methods	3
STAT	380	Statistical Machine Learning	3
STAT	400	Applied Multivariate Analysis	3
STAT	430	Categorical Data Analysis	3
STAT	475	Selected Topics in Statistics and Data Analytics	3

Department of Innovation, Technology and Entrepreneurship

Bachelor of Business Administration

Description

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

Program Objectives

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

Program Learning Outcomes

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

1. Communicate effectively orally, using technologies to support the oral presentation of information where appropriate.
2. Communicate effectively in writing, select and use information technology where appropriate.
3. Apply appropriate technologies and techniques to the collection and analysis of information and derive appropriate conclusions for business problems.
4. Research, critically evaluate and interpret information to accurately identify business problems and suggest solutions.
5. Demonstrate autonomy and responsibility in their work.
6. Apply teamwork skills and creativity in leadership and direction, appropriate to the context and level at which they are operating.
7. Demonstrate ethical reasoning in relation to business issues.
8. Develop an awareness of the civic responsibilities of business.
9. Demonstrate a comprehensive knowledge of key concepts across the breadth of business administration topics.
10. 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: Total Credit Hours: 120

			Course Credits
General Education (Req. CH:33) **Cluster 1: Skills for the Future (Req. Ch:15)**			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3
Area 2: English Communication			
			(Required Credit Hours:3)
ESPU	104	Introduction to Academic English For Business	3
Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3
Area 4: Critical Thinking			
			(Required Credit Hours:3)
CSBP	119	Algorithms and Problem Solving	3
PHI	180	Critical Thinking	3
Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	115 *	Calculus for Business & Economics	3
		* Also counts towards the Major	

			Course Credits
Cluster 2: The Human Community (Req. Ch:12)			
Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
ART	101	Arts and Society I	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
PHI	101	Introduction to Philosophy	3

Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)
ECON	105 *	Principles of Microeconomics	3
		* Also counts towards the Major	

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

Course Credits

Cluster 3: The Natural World (Req. Ch:6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
ARAG	205	Introduction to Fish & Animal Science	3
ARAG	220	Natural Resources	3
BION	100	Biology and its Modern Application	3
CHEM	181	Chemistry in the Modern World	3
FDSC	250	Contemporary Food Science & Nutrition	3
GEOL	110	Planet Earth	3
PHED	201	Physical Fitness and Wellness	3
PHYS	100	Astronomy	3
PHYS	101	Conceptual Physics	3

Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3

Course Credits

College of Business

Required Courses			
			(Required Credit Hours:51)
ACCT	100	Principles of Financial Accounting	3

ACCT	225	Fundamental of Cost & Management Accounting	3
ECON	125	Principles of Macroeconomics	3
ESPU	240	Business Writing in English	3
FINC	240	Principles of Financial Management	3
MGMT	200	Fundamentals of Management	3
MGMT	415	Strategic Management	3
MIST	200	Foundation of MIS & Technologies	3
MKTG	200	Principles of Marketing	3
PRVT	2652	Business Law (E)	3
SCML	200	Supply Chain Management & Operations	3
STAT	130	Statistics for Business	3
PHIL	120	Principles of Professional Ethics	3
GBUS	460 *	Internship	12
		* The internship is conducted over 12 Weeks in the last semester (after a four week preparation session). No courses are allowed to be registered during the internship	

Course Credits

Entrepreneurship Concentration

Required Courses			
			(Required Credit Hours:15)
ENTR	415	Developing an Entrepreneurial Venture	12
ENTR	330	Social Entrepreneurship	3
		or	
ENTR	460 *	International Entrepreneurship	3
		* Student should eaither take ENTR 330 or ENTR 460	

Course Credits

Human Resources Development and Management Concentration

Required Courses			
			(Required Credit Hours:15)
HRMD	310	Organizational Behavior	3
HRMD	320	Human Resources Management	3
HRMD	330	Staffing Organizations	3
HRMD	410	Human Resources Performance Management	3
HRMD	420	Compensation & Benefits Management	3

			Course Credits

Marketing Concentration

Required Courses			
			(Required Credit Hours:15)
MKTG	310	Marketing Research	3
MKTG	320	Consumer Behavior	3
MKTG	330	Services Marketing	3
MKTG	340	International Marketing	3
MKTG	420	Strategic Marketing Management	3
			Course Credits

Supply Chain Management and Logistics Concentration

Required Courses			
			(Required Credit Hours:15)
SCML	310	Supply Chain & Logistics Modeling	3
SCML	320	Procurement & Supply Management	3
SCML	330	Logistics & Transportation Management	3
SCML	410	Global Supply Chain & Logistics	3
SCML	460	Supply Chain Applications Strategy	3
			Course Credits

Elective Courses for all Concentrations

Elective courses must come from concentrations outside of the declared major.			
			(Required Credit Hours:15)
ENTR	310	Innovation and Creativity	3
ENTR	320	Entrepreneurship	3
HRMD	310	Organizational Behavior	3
HRMD	320	Human Resources Management	3
MIST	215	Computer Application in Business	3
MIST	280	E-Business Strategy, Architecture & Design	3
MKTG	310	Marketing Research	3
MKTG	320	Consumer Behavior	3
SCML	310	Supply Chain & Logistics Modeling	3
SCML	320	Procurement & Supply Management	3

Free Electives			
			(Required Credit Hours:6)

Minor in Entrepreneurship

Description

The Minor in Entrepreneurship functions as a type of 'undergraduate MBA', allowing students from across all university Colleges to learn how to apply their various skills to a business setting, and develop a business idea. It is an 18 credit hour programme consisting of two components. Firstly, students will be required to complete two 3 credit hour General Education courses: (1) GEIE 222 Fundamentals of Innovation and Entrepreneurship (or equivalent for Colleges of IT and Agriculture): and (2) GEIT112 Fourth Industrial Revolution; both of which must be passed with a minimum grade of C and include English language labs. The second component is a 12-credit hour progressive course, ENTR415 "Developing an Entrepreneurial Venture". In this course, students will learn the processes involved in creating an innovative business. They will achieve this through a series of "design sprints", ending with a Demo Day.

Admission Requirements

- Min grade requirement: GPA of at least 2.0 with a min. grade of C in GEIE222 and GEIT112
- Pre-requisite: GEIE222 and GEIT112
- Targeted students: All students except those with a major in Business Administration

Program Objectives

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

Program Learning Outcomes

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

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

Degree Requirements: Total Credit Hours: 18

			Course Credits
Entrepreneurship Requirements			
Required Courses			(Required Credit Hours:18)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3
GEIT	112	Fourth Industrial Revolution	3
ENTR	415	Developing an Entrepreneurial Venture	12

College of Education

Department of Curriculum & Instruction

Bachelor of Education in Early Childhood Education

Description

This program provides students with the knowledge, skills and dispositions to become highly qualified educators who at the early child hood educational level. The study plan includes a combination of academic and professional coursework with field experience in the classroom that prepares graduates for teaching in the real world.

Program Objectives

1. Understand the child development and learning and provide all children with learning environments that are healthy, respectful, supportive, and challenging.
2. Demonstrate an understanding of the value of diverse characteristics of families and communities and create respectful relationships with them in shaping children's development and learning.
3. Apply effective assessment strategies and tools in partnership with families and other professionals to positively influence children's development and learning.
4. Use a wide array of developmentally appropriate approaches, instructional strategies, and tools to connect with children and families and positively influence each child's development and learning.
5. Integrate multiple areas of knowledge in planning, implementing and evaluating individually, culturally, and developmentally appropriate, meaningful and inclusive early childhood curriculum.
6. Use reflection to make decisions and take actions based on professional and ethical standards related to early childhood practice and collaboratively participate in ongoing learning to inform their practice.
7. Develop the knowledge, skills and professional dispositions necessary to promote the development and learning of young children across the entire developmental period of early childhood and in the variety of settings that offer early education

Program Learning Outcomes

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

1. Apply knowledge of child development and learning principles to provide children with healthy, respectful, and challenging learning environments.
2. Build respectful partnerships with children's families and their communities and communicate with them effectively, both orally and in writing.
3. Apply effective assessment strategies and tools in partnership with families and other professionals.
4. Use a wide array of developmentally appropriate approaches and instructional strategies in partnership with families.
5. Integrate multiple areas of knowledge in planning, implementing and evaluating developmentally appropriate and inclusive early childhood curriculum.
6. Make decisions and take actions based on professional and ethical standards and develop reasoned and creative solutions.

7. Develop the knowledge, skills and professional dispositions and maintain responsibility for self-development and life-long learning to promote the development and learning of young children.
8. Apply a student-centered learning approach, by developing the student as a communicator, a thinker and a problem solver.
9. Develop research skills necessary for integrating knowledge and concepts through effectively using information derived from a variety of sources.

Degree Requirements: Total Credit Hours: 126

			Course Credits
General Education (Req. CH:33)			
Cluster 1: Skills for the Future (Req. Ch:15)			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3
Area 2: English Communication			
			(Required Credit Hours:3)
ESPU	103	Introduction to Academic English For Education	3
Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3
Area 4: Critical Thinking			
			(Required Credit Hours:3)
PHI	180	Critical Thinking	3
Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	120	Contemporary Applications of Math	3
STAT	101	Statistics in the Modern World	3
			Course Credits
Cluster 2: The Human Community (Req. Ch:12)			
Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3

PHI	101	Introduction to Philosophy	3
ARCH	366	History and Theories of Contemporary Architecture	3

Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)
PSY	313 *	Educational Psychology	3
		* Also counts towards the Major	

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

Course Credits

Cluster 3: The Natural World (Req. Ch: 6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
ARAG	205	Introduction to Fish & Animal Science	3
ARAG	220	Natural Resources	3
BION	100	Biology and its Modern Application	3
CHEM	181	Chemistry in the Modern World	3
FDSC	250	Contemporary Food Science & Nutrition	3
GEOL	110	Planet Earth	3
PHED	201	Physical Fitness and Wellness	3
PHYS	100	Astronomy	3
PHYS	101	Conceptual Physics	3

Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3

Course Credits

Early Childhood Education

Required Courses			
			(Required Credit Hours:60)
CURR	101	Educational Technology	3
CURR	103	Early Childhood Development & Learning	3
CURR	211	Planning & Implementation of ECE Curriculum	3
CURR	212	Language Development and Emergent Literacy_AR	3
CURR	311	Creative Arts for Young Children	3
CURR	312	Development of Religious and Social Concepts in ECE	3
CURR	314	Family, Community, Culture & ECE	3
CURR	317	Child Health and Care	3
CURR	319	Science Education for Young Child	3
CURR	320	Math Education for Young Child	3
CURR	324	Children's Play	3
CURR	414	Early Childhood Learning Environments	3
CURR	416	Assessment in ECE	3
FOED	350	Educational Research	3
SPED	101	Education of Exceptional Children	3
FOED	102	Professional Ethics in Education	3
CURR	425	Capstone Experience in ECE_AR	3
CURR	465 *	Student Teaching in ECE	9
		* The internship is conducted in the last semester. Capstone Course CURR 425 (3 Cr. Hrs.) should be taken during the internship semester	
Supporting Required Courses Outside of ECED			
			(Required Credit Hours:30)
ARB	210	Phonetics	3
GEO	432	Geography of the UAE	3
HIS	212	History of the UAE	3
ISLM	201	Fiqh of Worship	3
ISLM	114	Recitation & Cantillation	3
MATH	305	Mathematics For Teachers I	3
MATH	335	Mathematics for Teachers II	3
NSCI	260	Natural Sciences I (Phys&Chem)	3
SOC	316	Folklore in UAE Society	3
LNG	220	Phonetics	3

Elective Courses			
			(Required Credit Hours:3)
CURR	411	Special Topic in ECE	3
FOED	101	Learning Communities	3
SPED	321	Gifted and Talented	3

Department of Physical Education

Bachelor of Education in Health and Physical Education

Description

The Department of Physical Education at UAEU is committed to preparing students as successful teachers of health and physical education for all grades (K-12). Through their training in this program, students will make a valuable contribution to their society by serving as role models and lifestyle educators. Students will develop many competencies in a variety of movement skills, and in physical fitness as well as being capable of analyzing, synthesizing, and applying scientific knowledge to the practice of health and physical education. The Bachelor of Education in Health and Physical Education (HPE) at United Arab Emirates University can achieve this by enhancing the knowledge, skills, and dispositions of undergraduate HPE students.

Program Objectives

1. Teachers who possess and apply scientific knowledge in their area of specialization.
2. Highly-qualified HPE teachers to meet both the Ministry of Education and Abu-Dhabi Education Council needs and requirements.
3. HPE graduates who actively participate in various community health and physical activity programs.
4. HPE teachers who can serve as role models and demonstrate knowledge of health, physical education, and wellness.
5. Teachers who enthusiastically develop and execute research using various assessment methods that are technology-based to effectively measure and investigate health and wellness of individuals and society.

Program Learning Outcomes

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

1. Recognizing and locating major concepts, theories, and research in the field of HPE (ILOs 3 and 1, CF 2, NASPE Standard 1, and AAHE 1).
2. Understanding the structure and functions of body systems during physical exercise (ILO 1, CF 2, NASPE Standard 1, and AAHE 1).
3. Critically analyzing various technology applications in HPE settings to enhance teaching, learning, and professional growth (ILO 5, CF 7).
4. Using various assessment techniques in HPE settings and research. (ILOs 2, 4, Skill: QFE).
5. Demonstrating competence in physical fitness and movement skills which can be effectively utilized in teaching (ILO 1, CF 5, and NASPE Standard 3).
6. Recognizing individuals with different abilities and understanding the impact of such differences on teaching and learning (ILO 1, CF 3, NASPE Standard 3, and AAHE 4).

7. Collaborating and communicating effectively with peers and students in school and community settings (ILO 6, CF 6, NASPE Standard 3 Advanced, and AAHE 7 & 8).
8. Developing creative and effective approaches to manage HPE classroom settings (ILO 5, CF 8, NASPE Standard 6, and AAHE 8).

Degree Requirements: Total Credit Hours: 126

			Course Credits
I - General Education (Req. CH:33)			
Cluster 1: Skills for the Future (Req. Ch:15)			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3
Area 2: English Communication			
			(Required Credit Hours:3)
ESPU	103	Introduction to Academic English For Education	3
Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3
Area 4: Critical Thinking			
			(Required Credit Hours:3)
PHI	180	Critical Thinking	3
Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
STAT	101	Statistics in the Modern World	3
			Course Credits
Cluster 2: The Human Community (Req. Ch:12)			
Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
PHI	101	Introduction to Philosophy	3
ARCH	366	History and Theories of Contemporary Architecture	3

Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)
PSY	313	Educational Psychology	3

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

Course Credits

Cluster 3: The Natural World (Req. Ch: 6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
ARAG	205	Introduction to Fish & Animal Science	3
ARAG	220	Natural Resources	3
BION	100	Biology and its Modern Application	3
CHEM	181	Chemistry in the Modern World	3
FDSC	250	Contemporary Food Science & Nutrition	3
GEOL	110	Planet Earth	3
PHED	201	Physical Fitness and Wellness	3
PHYS	100	Astronomy	3
PHYS	101	Conceptual Physics	3

Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3

Course Credits

II - Professional Requirements (Req: CH:51)

A - Compulsory Professional Requirements			
			(Required Credit Hours:39)
CURR	101	Educational Technology	3
FOED	102	Professional Ethics in Education	3

FOED	350	Educational Research	3
PHED	200	Foundations of Health and Physical Education	3
PHED	205	Adapted Physical Education	3
PHED	206	School and Community Health	3
PHED	305	Health and Physical Education Curriculum	3
PHED	310	Health and PE Teaching Methods for Elementary Education	3
PHED	312	Evaluation and Assessment in Health and Physical Education	3
PHED	314	Biomechanics	3
PHED	401	Health and PE Teaching Methods for Secondary Education	3
PHED	402	Exercise Psychology	3
PHED	406	Aerobic Fitness	3

B - Elective Professional Requirements			
			(Required Credit Hours:3)
FOED	101	Learning Communities	3
PHED	311	Health & Movement	3
SPED	321	Gifted and Talented	3
PHED	403	Sport Sociology	3

C - Field Experiences			
			(Required Credit Hours:9)
PHED	409 *	Student Teaching in Health and Physical Education	9
		* The internship is conducted in the last semester. Capstone Course PHED 408 (3 Cr. Hrs.) should be taken during the internship semester	

Course Credits

III - Academic Major Requirements (Req. CH:42)

A - Academic Major Requirements			
			(Required Credit Hours:39)
PHED	202	Invasion Games	2
PHED	203	Swimming	2
PHED	204	Human Anatomy and Physiology	4
PHED	207	Exercise Physiology	3
PHED	208	Motor Learning	3
PHED	209	Track and Field	2

PHED	302	Physical Fitness Conditioning	3
PHED	306	Personal Health and Wellness	3
PHED	308	CPR and First Aid	3
PHED	309	Individual and Dual Sports	2
PHED	315	Child and Health Development	3
PHED	407	Health, Physical Activity, and Nutrition	3
PHED	408	Capstone Experiences in Health and Physical Education	3
PSY	304	Developmental Psychology	3

B - Elective Major Requirements			
			(Required Credit Hours:3)
PHED	400	Sport Management	3
PHED	404	Techniques of Coaching	3
PHED	405	Martial Arts	3

Department of Special Education

Bachelor of Education in Special Education

Description

Special Education means specially designed instruction to meet the unique needs of individuals with special needs. The B.A. in Special Education is designed for students interested in providing services to individuals with special needs. This program provides students with the knowledge, skills and dispositions to become highly qualified special educators who can help students with special needs achieve a higher level of personal self-sufficiency and success in school and in the community. The Special Education Program is accredited by the Commission for Academic Accreditation (CAA), the UAE Federal Government Quality Assurance Agency for Higher Education. 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 Special Education. These concentration tracks include mild/moderate disabilities, Sensory Impairments, Severe Disabilities and gifted and talented.

Program Objectives

1. Acquire thorough knowledge of the philosophical, historical, and legal foundation of Special Education.
2. Understand the diverse educational strengths and needs of all students with special needs.
3. Acquire knowledge of the unique strategies, instructional approaches, and assessment which will promote maximum learning and social and emotional growth in all students with special needs.
4. Establish a learning environment that supports the learning of all students.
5. Understand the cultural and social contexts in which students with special needs live and learn.

6. Gain communication skills needed to manage the complexities of teaching for learning in all educational settings.
7. Have commitment to high standards of ethical practices and professionalism.
8. Understand collaborative relationships and its value in fostering communication among schools, homes and the communities.

Program Learning Outcomes

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

1. Acquire thorough knowledge of the philosophical, historical, and legal foundation of the education of exceptional children.
2. Use multiple assessment data in making educational decisions for students with exceptionalities.
3. Locate and critically use relevant, meaningful, and evidence-based instructional and assistive technologies that will promote maximum learning and social and emotional growth in students with exceptionalities.
4. Establish a research-based responsive learning environment for students with exceptionalities.
5. Examine the cultural and social contexts in which students with exceptionalities live and learn.
6. Assess language development and communication skills of children with exceptionalities using research-based practices.
7. Use effective communication skills (oral and writing) and diverse collaborative models to promote the well-being of individuals with exceptionalities across a wide range of settings.
8. Manage consistently and sensitively ethical practices and professionalism in the area of Special Education.
9. Design research-based and appropriate learning experiences for students with exceptionalities in academic subject matter content of the general curriculum.

Degree Requirements: Total Credit Hours: 126

			Course Credits
General Education (Req. CH:33) **Cluster 1: Skills for the Future (Req. Ch:15)**			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3
Area 2: English Communication			
			(Required Credit Hours:3)
ESPU	103	Introduction to Academic English For Education	3
Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3
Area 4: Critical Thinking			
			(Required Credit Hours:3)
PHI	180	Critical Thinking	3

Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	120	Contemporary Applications of Math	3
STAT	101	Statistics in the Modern World	3

	Course Credits

Cluster 2: The Human Community (Req. Ch:12)

Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
PHI	101	Introduction to Philosophy	3

Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)
PSY	313 *	Educational Psychology	3
		* Also counts towards the Major	

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

	Course Credits

Cluster 3: The Natural World (Req. Ch: 6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
ARAG	205	Introduction to Fish & Animal Science	3
ARAG	220	Natural Resources	3
BION	100	Biology and its Modern Application	3
CHEM	181	Chemistry in the Modern World	3

FDSC	250	Contemporary Food Science & Nutrition	3
GEOL	110	Planet Earth	3
PHED	201	Physical Fitness and Wellness	3
PHYS	100	Astronomy	3
PHYS	101	Conceptual Physics	3

Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3

			Course Credits

College of Education

Required Courses			
			(Required Credit Hours:18)
CURR	101	Educational Technology	3
CURR	102	Principles of Curriculum & Instruction	3
FOED	101	Learning Communities	3
FOED	350	Educational Research	3
SPED	101	Education of Exceptional Children	3
FOED	102	Professional Ethics in Education	3
			Course Credits

Special Education Major

Required Courses			
			(Required Credit Hours:30)
SPED	210	Assessment in Special Education	3
SPED	211	Technology Applications in Special Education	3
SPED	220	Classroom Behavior Management	3
SPED	221	Collaboration (Home, School & Community)	3
SPED	222	Language & Communication Disorders	3
SPED	313	Early Intervention in Special Education	3
SPED	314	Differentiating Instruction	3
SPED	321	Gifted and Talented	3
SPED	332	Introduction to Rehabilitation	3
SPED	500	Practical Experiences in Special Education_AR	3

Supporting Required Courses Outside of SPED			
			(Required Credit Hours:18)
ENG	300	Critical Reading in the Disciplines	3
ENG	310	Writing for Research	3
HIS	373	Hist. of Arab World from 1500	3
MATH	305	Mathematics For Teachers I	3
PSY	100	Introduction to Psychology	3
PSY	414	Introduction to Health Psychology	3

Course Credits

Major Specialization Concentration

1- Mild/Mod Disabilities			
			(Required Credit Hours:21)
SPED	312	Individuals with Mild/Moderate Disabilities	3
SPED	361	Teaching Children with Mild/Moderate Disabilities	3
SPED	415	Education Diagnosis/ Remediation of Literacy/Math Disabilities	3
SPED	541	Capstone Experience in SPED/Mild/Mod Disabilities_AR	3
SPED	561 *	Student Teaching in SPED/Mild and Moderate Disabilities_AR	9
		* The internship is conducted in the last semester. Capstone Course SPED 541 (3 Cr. Hrs.) should be taken during the internship semester	

2- Gifted and Talented			
			(Required Credit Hours:21)
SPED	331	Curriculum & Materials for the Gifted	3
SPED	326	Educating Gifted and Talented Students in the Regular Classroom	3
SPED	416	Research Seminar for Gifted & Talented	3
SPED	544	Capstone Experience in SPED/Gifted & Talented_AR	3
SPED	564 *	Student Teaching in SPED/Gifted & Talented_AR	9
		* The internship is conducted in the last semester. Capstone Course SPED 544 (3 Cr. Hrs.) should be taken during the internship semester	

3- Sensory Impairments			
			(Required Credit Hours:21)
SPED	315	Individuals with Sensory Impairments	3
SPED	322	Teaching Students with Visual Impairments	3
SPED	412	Teaching Students with Hearing Impairments	3

SPED	542	Capston Experience in SPED/Sensory Impairments_AR	3
SPED	562 *	Student Teaching in SPED/Sensory Impairments_AR	9
		* The internship is conducted in the last semester. Capstone Course SPED 542 (3 Cr. Hrs.) should be taken during the internship semester	

4- Severe Disabilities			
			(Required Credit Hours:21)
SPED	330	Individuals with Severe Disabilities	3
SPED	324	Functional Curriculum for Students with Sever Disabilities	3
SPED	413	Teaching Students with Sever Disabilities	3
SPED	543	Capstone Experience in SPED/Sever Disabilities_AR	3
SPED	563 *	Student Teaching in Sever Disabilities_AR	9
		* The internship is conducted in the last semester. Capstone Course SPED 543 (3 Cr. Hrs.) should be taken during the internship semester	

Free Electives			
			(Required Credit Hours:6)

College of Engineering

Department of Architectural Engineering

Bachelor of Science in Architectural Engineering

Description

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

Program Objectives

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

Program Learning Outcomes

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

1. identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. communicate effectively with a range of audiences.
4. recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. acquire and apply new knowledge as needed, using appropriate learning strategies.

Degree Requirements: Total Credit Hours: 147

			Course Credits
General Education (Req. CH:33) **Cluster 1: Skills for the Future (Req. Ch:15)**			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3
Area 2: English Communication			
			(Required Credit Hours:3)
ESPU	107	Introduction to Academic English For Engineering	3
Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3
Area 4: Critical Thinking			
			(Required Credit Hours:3)
ARCH	585 *	Design and Critical Thinking in Architectural Engineering	3
		* Also counts towards the Major	
Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	1110 *	Calculus I for Engineering	3
		* Also counts towards the Major	
			Course Credits
Cluster 2: The Human Community (Req. Ch:12)			
Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
ARCH	366 *	History and Theories of Contemporary Architecture	3
		* Also counts towards the Major	
Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)
GENG	315 *	Engineering Economics	3
		* Also counts towards the Major	

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

Course Credits

Cluster 3: The Natural World (Req. Ch: 6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
CHEM	111 *	General Chemistry I	3
		* Also counts towards the Major	

Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3

Course Credits

College of Engineering

Required Courses			
			(Required Credit Hours:26)
CHEM	175	Chemistry Lab I for Engineering	1
GENG	220	Engineering Thermodynamics	3
MATH	1120	Calculus II for Engineering	3
MATH	2210	Differential Equations for Engineering	3
MATH	2220	Linear Algebra for Engineering	3
STAT	210	Probability and Statistics	3
PHYS	135	General Physics Lab I	1
PHYS	110	General Physics II	3
PHYS	140	General Physics Lab II	1
GENG	215	Engineering Ethics	2
PHYS	105	General Physics I	3

Course Credits

Architectural Engineering

Required Courses			(Required Credit Hours:73)
ARCH	302	Introduction to Architectural Engineering	3
ARCH	313	Analysis and Design Principles for Building Structures	3
ARCH	316	Building Construction Systems	3
ARCH	320	Introductory Building Design Studio	3
ARCH	326	Building Construction Methods and Equipment	3
ARCH	335	Intermediate Building Design Studio	3
ARCH	341	Building Electrical Circuits	2
ARCH	342	Building Acoustics and Illumination	3
ARCH	345	Building Engineering Systems	3
ARCH	425	Advanced Building Construction Systems	3
ARCH	430	Integrated Building Design Studio	3
ARCH	433	Environmental Systems & Control	3
ARCH	440	Construction Project Management	3
ARCH	422	Structural Design for Buildings	3
ARCH	450	Construction Project Planning and Control	3
CIVL	240	Statics	3
CIVL	345	Fluid Mechanics for Civil and Architectural Engineering	3
CIVL	358	Surveying for Architectural Engineering	2
MECH	305	Mechanics of Materials	3
ARCH	590	Capstone Engineering Design Project	3
ARCH	495 *	Professional Practical Training	15
		* The internship is conducted over a full semester (before the last study year). No courses are allowed to be registered during the internship	

Architecture Elective Courses			(Required Credit Hours:9)
ARCH	501	Advanced Building Design Studio	3
ARCH	503	Building Construction Detailing	3
ARCH	509	Modeling and Simulation	3
ARCH	526	Specification and Quantity Surveying	3
ARCH	530	Selected Topics In Architecture Engineering	3

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

Math and Science Electives			
			(Required Credit Hours:6)
BIOC	100	Basic Biology I	3
BIOE	240	Principles of Environmental Science	3
GEOL	100	Physical Geology	3
MATH	205	Set Theory and Logic	3
MATH	260	Foundation of Geometry	3

Department of Chemical & Petroleum Engineering

Bachelor of Science in Chemical Engineering

Description

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

Program Objectives

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

Program Learning Outcomes

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

1. Identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics

2. Apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. Communicate effectively with a range of audiences.
4. Recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. Function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. Develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. Acquire and apply new knowledge as needed, using appropriate learning strategies.

Degree Requirements: Total Credit Hours: 147

			Course Credits
General Education (Req. CH:33) **Cluster 1: Skills for the Future (Req. Ch:15)**			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3
Area 2: English Communication			
			(Required Credit Hours:3)
ESPU	107	Introduction to Academic English For Engineering	3
Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3
Area 4: Critical Thinking			
			(Required Credit Hours:3)
CHME	585 *	Design and Critical Thinking in Chemical Engineering	3
		* Also counts towards the Major	
Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	1110 *	Calculus I for Engineering	3
		* Also counts towards the Major	
			Course Credits
Cluster 2: The Human Community (Req. Ch:12)			
Area 1: Humanities and Fine Arts			

			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
PHI	101	Introduction to Philosophy	3

Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)
GENG	315 *	Engineering Economics	3
		* Also counts towards the Major	

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

Course Credits

Cluster 3: The Natural World (Req. Ch: 6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
CHEM	111 *	General Chemistry I	3
		* Also counts towards the Major	

Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3

Course Credits

College of Engineering

Required Courses			
			(Required Credit Hours:29)
CHEM	175	Chemistry Lab I for Engineering	1
MATH	1120	Calculus II for Engineering	3

MATH	2210	Differential Equations for Engineering	3
MATH	2220	Linear Algebra for Engineering	3
STAT	210	Probability and Statistics	3
GENG	230	Computer Programming	3
GENG	215	Engineering Ethics	2
GENG	220	Engineering Thermodynamics	3
PHYS	135	General Physics Lab I	1
PHYS	105	General Physics I	3
PHYS	110	General Physics II	3
PHYS	140	General Physics Lab II	1

			Course Credits

Chemical Engineering

Required Courses			
			(Required Credit Hours:73)
CHEM	113	General Chemistry II for Science Students	3
CHEM	282	Organic Chemistry for Non-Majors	3
CHEM	351	Physical Chemistry II	3
CHEM	355	Physical Chemistry Lab I	1
CHEM	377	Instrumental Analysis for Chemical Engineering	1
CHME	300	Introduction to Chemical Engineering	3
CHME	310	Computer Applications in Chemical Engineering	2
CHME	322	Chemical Engineering Thermodynamics	3
CHME	330	Chemical Engineering Fluid Mechanics	3
CHME	390	Engineering and Strength of Materials	3
CHME	411	Reactor Design	3
CHME	413	Heat Transfer	3
CHME	415	Fluid Mechanics and Heat Transfer lab	1
CHME	421	Mass Transfer	3
CHME	422	Unit Operation	3
CHME	506	Process Modeling & Simulation	3
CHME	508	Process Control	3
CHME	510	Process and Plant Design	3

CHME	517	Mass Transfer Operations	3
CHME	417	Mass Transfer and Reactor Design Lab	1
CHME	590	Capstone Engineering Design Project	3
CHME	528	Unit Operation and Process Control Lab	1
CHME	357	Fundamentals of Biochemical Engineering	3
CHME	495 *	Industrial Training	15
		* The internship is conducted in summer semester for 8 weeks after completing 96 CH and all ERU courses	

Course Credits

Elective Courses (Req. CH: 12)

CHME Elective Courses
(Student to select three courses only from the list below)

(Required Credit Hours:9)

CHME	433	Water Desalination	3
CHME	441	Industrial & Wastewater Treatment	3
CHME	442	Corrosion	3
CHME	444	Renewable Energy Sources	3
CHME	452	Biochemical Treatment	3
CHME	453	Biofuels Technology	3
CHME	454	Biochemical Separation	3
CHME	570	Special Topics in Chemical Engineering	3
CHME	575	Independent Studies in Chemical Engineering	3
CHME	461	Natural Gas Processing	3
CHME	462	Petroleum Refining Engineering	3
CHME	463	Petrochemical Technology	3
CHME	464	Polymer Engineering	3
PETE	424	Safety & Environment Impact	3

CHEM Elective courses
(Student to select one course only from the list below)

(Required Credit Hours:3)

CHEM	231	Inorganic Chemistry I	3
CHEM	283	Biochemistry for Non-Majors	3
CHEM	453	Electrochemistry	3

Bachelor of Science in Petroleum Engineering

Description

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

Program Objectives

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

Program Learning Outcomes

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

1. Identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. Apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. Communicate effectively with a range of audiences
4. Recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. Function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. Develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. Acquire and apply new knowledge as needed, using appropriate learning strategies

Degree Requirements: Total Credit Hours: 147

			Course Credits
General Education (Req. CH:33) **Cluster 1: Skills for the Future (Req. Ch:15)**			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3
Area 2: English Communication			

			(Required Credit Hours:3)
ESPU	107	Introduction to Academic English For Engineering	3

Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3

Area 4: Critical Thinking			
			(Required Credit Hours:3)
PETE	585 *	Design and Critical Thinking in Petroleum Engineering	3
		* Also counts towards the Major	

Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	1110 *	Calculus I for Engineering	3
		* Also counts towards the Major	

			Course Credits

Cluster 2: The Human Community (Req. Ch:12)

Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
PHI	101	Introduction to Philosophy	3

Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)
GENG	315 *	Engineering Economics	3
		* Also counts towards the Major	

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

Area 4: Islamic Culture

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

Course Credits

Cluster 3: The Natural World (Req. Ch: 6)

Area 1: Natural Sciences

			(Required Credit Hours:3)
CHEM	111 *	General Chemistry I	3

Area 2: Sustainability

			(Required Credit Hours:3)
GESU	121	Sustainability	3

Course Credits

College of Engineering

Required Courses

			(Required Credit Hours:29)
CHEM	175	Chemistry Lab I for Engineering	1
GENG	215	Engineering Ethics	2
GENG	220	Engineering Thermodynamics	3
MATH	1120	Calculus II for Engineering	3
MATH	2220	Linear Algebra for Engineering	3
MATH	2210	Differential Equations for Engineering	3
STAT	210	Probability and Statistics	3
GENG	230	Computer Programming	3
PHYS	105	General Physics I	3
PHYS	110	General Physics II	3
PHYS	135	General Physics Lab I	1
PHYS	140	General Physics Lab II	1

Course Credits

Petroleum Engineering

Required Courses

			(Required Credit Hours:73)
GEOL	100	Physical Geology	3

CHEM	282	Organic Chemistry for Non-Majors	3
CHME	330	Chemical Engineering Fluid Mechanics	3
CHME	390	Engineering and Strength of Materials	3
PETE	290	Introduction to Petroleum Engineering	1
PETE	305	Reservoir Rock & Fluid Properties	3
PETE	308	Drilling Engineering I	3
PETE	315	Reservoir Rock & Fluid Properties lab	2
PETE	320	Reservoir Mechanics	3
PETE	362	Data Analysis in Petroleum Engineering	1
PETE	403	Well Logging	3
PETE	407	Drilling Engineering ll	2
PETE	409	Natural Gas Engineering	3
PETE	413	Applied Reservoir Geology	3
PETE	419	Well Performance	3
PETE	422	Reservoir Simulation	3
PETE	507	Well Testing	3
PETE	512	Petroleum Production Operations	3
PETE	519	Secondary Recovery Methods	3
PETE	520	Fluid Flow in Porous Media Lab	1
PETE	542	Petroleum Property Evaluation	3
PETE	590	Capstone Engineering Design Project	3
PETE	495 *	Industrial Training	15
		* The internship is conducted over a full semester (before the last study year). No courses are allowed to be registered during the internship	

Elective Courses			
			(Required Credit Hours:12)
CHME	442	Corrosion	3
PETE	410	Independent Studies	3
PETE	424	Safety & Environment Impact	3
PETE	443	Transport & Storage of Petroleum	3
PETE	526	Separation & Treatment Petrol Fluid	3
PETE	547	Applied Reservoir Simulation	3

PETE	557	Enhanced Oil Recovery	3
PETE	570	Special Topics in Petroleum Engineering	3

Department of Civil & Environmental Engineering

Bachelor of Science in Civil Engineering

Description

Civil and Environmental Engineering is a broad field of engineering that deals with planning, design, construction and maintenance of structures, bridges and public works as they relate to earth, water and air, or civilization and their processes. Civil Engineering profession dominates every aspect of our life in one way or the other. The current economic prosperity in the UAE is based, to a great extent, on the excellent infrastructure and civic works developed by Civil Engineers. Civil Engineering is the oldest engineering discipline after Military Engineering. It deals with structures, bridges, construction management, highways, traffic, geotechnical, water supply and distribution networks, sewer and disaster mitigation. Environmental Engineering focuses on the quality and sustainability of the three main environmental elements; soil, water and air. The Department is keen to always provide the highest possible quality of higher education, scientific research, and community service. The Civil Engineering undergraduate program in the College of Engineering at the United Arab Emirates University is accredited by the Engineering Accreditation Commission of ABET.

Program Objectives

1. Be committed to ethical standards, workplace safety measures and develop high level of awareness of social, economic, and environmental issues relevant to the civil engineering profession.
2. Successfully deal with real life civil engineering problems and achieve practical, effective and optimum solutions based on sound science and engineering knowledge.
3. Efficiently design, manage, execute and/or evaluate a civil engineering system/component to satisfy client needs per design specifications and/or requirements.
4. Effectively use modern engineering tools and technical communication in different aspects of professional practices.
5. Develop their knowledge, creativity and leadership and skills to cope with the rapidly evolving technologies.

Program Learning Outcomes

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

1. Identify, formulate, and solve complex civil engineering problems by applying principles of engineering, science, and mathematics.
2. Apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. Communicate effectively with a range of audiences.
4. Recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of civil engineering solutions in global, economic, environmental, and societal contexts.
5. Function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. Develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.

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

Degree Requirements: Total Credit Hours: 147

			Course Credits
General Education (Req. CH:33) **Cluster 1: Skills for the Future (Req. Ch:15)**			
Cluster 1: Values to Live By - Islam			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3
Area 2: English Communication			
			(Required Credit Hours:3)
ESPU	107	Introduction to Academic English For Engineering	3
Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3
Area 4: Critical Thinking			
			(Required Credit Hours:3)
CIVL	585 *	Design and Critical Thinking in Civil Engineering	3
		* Also counts towards the major	
Area 3: Emirates Society			
			(Required Credit Hours:3)
HSS	105	Emirates Studies	3
			Course Credits
Cluster 2: The Human Community (Req. Ch:12)			
Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
PHI	101	Introduction to Philosophy	3
Area 2: Social and Behavioral Sciences			

			(Required Credit Hours:3)
GENG	315 *	Engineering Economics	3
		* Also counts towards the Major	

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	1110 *	Calculus I for Engineering	3
		* Also counts towards the Major	

Cluster 3: The Natural World (Req. Ch: 6)			
			(Required Credit Hours:6)
CHEM	111 *	General Chemistry I	3
		* Also counts towards the Major	

Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3

			Course Credits

College of Engineering

Required Courses			
			(Required Credit Hours:32)
CHEM	175	Chemistry Lab I for Engineering	1
GENG	220	Engineering Thermodynamics	3
GENG	215	Engineering Ethics	2
MATH	1120	Calculus II for Engineering	3
MATH	2210	Differential Equations for Engineering	3
MATH	2220	Linear Algebra for Engineering	3
CHEM	2706	Materials Science	3
GENG	230	Computer Programming	3
STAT	210	Probability and Statistics	3
PHYS	105	General Physics I	3

PHYS	110	General Physics II	3
PHYS	135	General Physics Lab I	1
PHYS	140	General Physics Lab II	1

Course Credits

Civil Engineering

Required Courses

(Required Credit Hours:73)

BIOL	250	Basic Microbiology	3
CIVL	240	Statics	3
MECH	305	Mechanics of Materials	3
CIVL	270	Introduction to Environmental Engineering	2
CIVL	220	Computer Aided Drawing (CIVL)	2
CIVL	310	Structural Analysis	3
CIVL	330	Transportation Engineering	3
CIVL	335	Surveying	3
CIVL	340	Soil Mechanics	3
CIVL	345	Fluid Mechanics for Civil and Architectural Engineering	3
CIVL	360	Concrete Technology	3
CIVL	365	Reinforced Concrete Design I	3
CIVL	375	Water & Wastewater Technology	3
CIVL	400	Water Resources	3
CIVL	412	Reinforced Concrete Design II	3
CIVL	417	Structural Steel Design	3
CIVL	433	Highway Engineering	3
CIVL	442	Foundation Engineering	3
CIVL	445	Construction Management	3
CIVL	590	Capstone Engineering Design Project	3
CIVL	495 *	Industrial Training	15
		* The internship is conducted over a full semester (before the last study year). No courses are allowed to be registered during the internship	

Course Credits

Civil Engineering Specialization Tracks

A student must complete 9 credit hours from the following baskets (not necessarily from the same basket)

(Required Credit Hours:9)

Geotechnical and Construction Management
(Student can take 0 to 9 credit hours from this basket)

(Required Credit Hours: 0 - 9)

CIVL	540	Special Topics in Construction Management	3
CIVL	541	Special Topics in Soil Mechanics & Foundation Engineering	3
CIVL	547	Advanced Construction Management	3
CIVL	548	Advanced Geotechnical Engineering	3

Structural Engineering
(Student can take 0 to 9 credit hours from this basket)

(Required Credit Hours: 0 - 9)

CIVL	510	Special Topics in Structural Engineering	3
CIVL	515	Advanced Concrete Technology	3
CIVL	517	Matrix Structural Analysis	3
CIVL	552	Advanced Steel Design	3

Surveying and Transportation Engineering
(Student can take 0 to 9 credit hours from this basket)

(Required Credit Hours: 0 - 9)

CIVL	530	Special Topics in Transportation Engineering	3
CIVL	531	Topographic Surveying	3
CIVL	534	Computer Aided Mapping	3
CIVL	538	Advanced Highway Engineering	3
CIVL	539	Traffic Engineering	3

Water Resources and Environmental Engineering
(Student can take 0 to 9 credit hours from this basket)

(Required Credit Hours: 0 - 9)

CIVL	520	Special Topics in Water Resources & Environmental Engineering	3
CIVL	522	Advanced Environmental Engineering	3
CIVL	524	Geo-environmental Engineering	3
CIVL	525	Hydrology	3

Department of Electrical Engineering

Bachelor of Science in Communication Engineering

Description

The Communication Engineering program is dealing with the development and operation of communications technology including telecommunications. The Communication Engineering program is designed to provide students with a strong foundation in communication engineering through lectures and laboratory work. Graduates are prepared for responsible engineering positions in design, development, research, applications, and operation in the fields of communication and telecommunication. The curriculum is built around strong basic courses in mathematics, physics and engineering science. This is followed by a set of core courses covering the breadth of the program such as circuits, electronics, electromagnetics, digital logic, signals and systems, control, microprocessors, and fundamentals of communication systems. The Communication Engineering undergraduate program in the College of Engineering at the United Arab Emirates University is accredited by the Engineering Accreditation Commission of ABET.

Program Objectives

1. PEO-1: Have distinguished careers in communication engineering and related fields and perform leadership roles to serve the industry and the community.
2. PEO-2: Achieve industry goals related to communication engineering by using innovative ideas and adopting emerging technologies.
3. PEO-3: Incorporate teamwork, communication, and interpersonal skills to be productive in multidisciplinary environments with awareness of ethical and social responsibilities.
4. PEO-4: Continue to develop their knowledge and skills through, graduate studies, continuing education, and training.

Program Learning Outcomes

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

1. identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. communicate effectively with a range of audiences.
4. recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. acquire and apply new knowledge as needed, using appropriate learning strategies.

Degree Requirements: Total Credit Hours: 147

			Course Credits
General Education (Req. CH:33) **Cluster 1: Skills for the Future (Req. Ch:15)**			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3
Area 2: English Communication			
			(Required Credit Hours:3)
ESPU	107	Introduction to Academic English For Engineering	3
Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3
Area 4: Critical Thinking			
			(Required Credit Hours:3)
ELEC	585 *	Design and Critical Thinking in Electrical Engineering	3
		* Also counts towards the Major	
Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	1110 *	Calculus I for Engineering	3
		* Also counts towards the Major	
			Course Credits
Cluster 2: The Human Community (Req. Ch:12)			
Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
PHI	101	Introduction to Philosophy	3
Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)

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

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

			Course Credits

Cluster 3: The Natural World (Req. Ch: 6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
CHEM	111 *	General Chemistry I	3
		* Also counts towards the Major	

Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3

			Course Credits

College of Engineering

Required Courses			
			(Required Credit Hours:29)
CHEM	175	Chemistry Lab I for Engineering	1
GENG	215	Engineering Ethics	2
GENG	220	Engineering Thermodynamics	3
MATH	1120	Calculus II for Engineering	3
MATH	2210	Differential Equations for Engineering	3
MATH	2220	Linear Algebra for Engineering	3
CHEM	2706	Materials Science	3
STAT	210	Probability and Statistics	3
PHYS	105	General Physics I	3
PHYS	135	General Physics Lab I	1

PHYS	110	General Physics II	3
PHYS	140	General Physics Lab II	1

			Course Credits

Communication Engineering

Required Courses			(Required Credit Hours:73)
ECOM	320	Probability and Random Processes	3
ECOM	360	Fundamentals of Communication Systems	3
ECOM	402	Communication Systems Lab	1
ECOM	412	Electromagnetic Waves	3
ECOM	422	Digital Communication Systems	3
ECOM	432	Data Communications & Networks	3
ECOM	442	Data Communications & Networks Lab	1
ECOM	451	Digital Signal Processing	3
ECOM	461	Digital Signal Processing Lab	1
GENG	230	Computer Programming	3
ELEC	305	Electric Circuits I	3
ELEC	310	Electric Circuits I lab	1
ELEC	315	Fundamentals of Microelec Devices	3
ELEC	325	Engineering Electromagnetics	3
ELEC	335	Digital Logic Design	3
ELEC	345	Digital Logic Design Lab	1
ELEC	360	Signals & Systems	3
ELEC	370	Electronic Circuits	3
ELEC	375	Electronic Circuits Lab	1
ELEC	380	Analytical Methods for Electrical Engineering	3
ELEC	451	Microprocessors	3
ELEC	461	Microprocessors Lab	1
ELEC	462	Computer Architecture & Organization	3
ELEC	590	Capstone Engineering Design Project	3
ELEC	495 *	Industrial Training	15
		* The internship is conducted over a full semester (before the last study year). No courses are allowed to be registered during the internship	

Elective Courses			
			(Required Credit Hours:12)
ECOM	532	Antenna Engineering	3
ECOM	542	Wireless Communications	3
ECOM	561	Information Theory & Coding	3
ECOM	562	Satellite Communications Systems	3
ECOM	571	Communication Circuits	3
ECOM	580	Special Topics in Communications	3
ELEC	431	Control Systems	3

Bachelor of Science in Electrical Engineering

Description

The Electrical Engineering program is designed to provide students with a strong foundation in Electrical Engineering through lectures and laboratory work. Graduates are prepared for responsible engineering positions in design, development, research, applications, and operation in all fields related to Electrical Engineering. The curriculum is built around strong basic courses in mathematics, physics and engineering science. This is followed by a set of core courses covering the breadth of the program, such as circuits, electronics, electromagnetics, digital logic, signals and systems, control, microprocessors, electric energy conversion, power systems, and computer programming. The Electrical Engineering undergraduate program in the College of Engineering at the United Arab Emirates University is accredited by the Engineering Accreditation Commission of ABET.

Program Objectives

1. PEO-1: Have distinguished careers in electrical engineering and related fields and perform leadership roles to serve the industry and the community.
2. PEO-2: Achieve industry goals related to electrical engineering by using innovative ideas and adopting emerging technologies.
3. PEO-3: Incorporate teamwork, communication, and interpersonal skills to be productive in multidisciplinary environments with awareness of ethical and social responsibilities.
4. PEO-4: Continue to develop their knowledge and skills through, graduate studies, continuing education, and training.

Program Learning Outcomes

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

1. identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. communicate effectively with a range of audiences.
4. recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.

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

Degree Requirements: Total Credit Hours: 147

			Course Credits
General Education (Req. CH:33)			
Cluster 1: Skills for the Future (Req. Ch:15)			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3
Area 2: English Communication			
			(Required Credit Hours:3)
ESPU	107	Introduction to Academic English For Engineering	3
Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3
Area 4: Critical Thinking			
			(Required Credit Hours:3)
ELEC	585 *	Design and Critical Thinking in Electrical Engineering	3
		* Also counts towards the Major	
Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	1110 *	Calculus I for Engineering	3
		* Also counts towards the Major	
			Course Credits
Cluster 2: The Human Community (Req. Ch:12)			
Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	120	Introduction to Heritage & Culture	3

HSR	130	Introduction to Language & Communication	3
PHI	101	Introduction to Philosophy	3

Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)
GENG	315 *	Engineering Economics	3
		* Also counts towards the Major	

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

Course Credits

Cluster 3: The Natural World (Req. Ch: 6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
CHEM	111 *	General Chemistry I	3
		* Also counts towards the Major	

Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3

Course Credits

College of Engineering

Required Courses			
			(Required Credit Hours:29)
CHEM	175	Chemistry Lab I for Engineering	1
CHEM	2706	Materials Science	3
GENG	215	Engineering Ethics	2
GENG	220	Engineering Thermodynamics	3
MATH	1120	Calculus II for Engineering	3
MATH	2210	Differential Equations for Engineering	3

MATH	2220	Linear Algebra for Engineering	3
STAT	210	Probability and Statistics	3
PHYS	105	General Physics I	3
PHYS	110	General Physics II	3
PHYS	135	General Physics Lab I	1
PHYS	140	General Physics Lab II	1

			Course Credits

Electrical Engineering

Required Courses			
			(Required Credit Hours:73)
ECOM	360	Fundamentals of Communication Systems	3
ECOM	432	Data Communications & Networks	3
ECOM	442	Data Communications & Networks Lab	1
GENG	230	Computer Programming	3
ELEC	305	Electric Circuits I	3
ELEC	310	Electric Circuits I lab	1
ELEC	315	Fundamentals of Microelec Devices	3
ELEC	320	Electric Circuits II	3
ELEC	325	Engineering Electromagnetics	3
ELEC	335	Digital Logic Design	3
ELEC	345	Digital Logic Design Lab	1
ELEC	360	Signals & Systems	3
ELEC	370	Electronic Circuits	3
ELEC	375	Electronic Circuits Lab	1
ELEC	411	Electric Energy Conversion	3
ELEC	431	Control Systems	3
ELEC	433	Instrument & Control Lab	1
ELEC	451	Microprocessors	3
ELEC	461	Microprocessors Lab	1
ELEC	462	Computer Architecture & Organization	3
ELEC	472	Power Systems	3
ELEC	481	Electric Energy Conversion Lab	1

ELEC	380	Analytical Methods for Electrical Engineering	3
ELEC	590	Capstone Engineering Design Project	3
ELEC	495 *	Industrial Training	15
		* The internship is conducted over a full semester (before the last study year). No courses are allowed to be registered during the internship	

Elective Courses			
			(Required Credit Hours:12)
ECOM	451	Digital Signal Processing	3
ELEC	512	Digital Electronics	3
ELEC	521	Advanced Control Systems	3
ELEC	522	Industrial Automation	3
ELEC	530	Special Topics in Power & Control Engineering	3
ELEC	531	Power Systems Analysis	3
ELEC	533	Very Large Scale Integrated Circuits (VLSI)	3
ELEC	534	Power System Distribution	3
ELEC	551	Digital Image Processing	3
ELEC	561	Java Programming Applications	3
ELEC	562	Embedded System Design	3
ELEC	570	Special Topics Computer Engineering	3
ELEC	580	Special Topics in Electronic Engineering	3
ELEC	582	Analog Integrated Circuit Design	3
ELEC	592	Power Electronics	3
ECOM	412	Electromagnetic Waves	3

Department of Mechanical Engineering

Bachelor of Science in Aerospace Engineering

Description

The Aerospace Engineering (AERO) program is a multidisciplinary engineering theme aiming to graduate engineers with strong technical background in aerospace engineering and aviation industry while addressing the impact of the industry on the society, economy and environment. The program involves different aspects of aeronautics and astronautics. It emphasizes the following themes: • Aerodynamics, fluid mechanics, aircraft propulsion, aeroelasticity and flight loads. • Aircraft structures, materials and manufacturing. • Aircraft design, flight mechanics, flight performance, aircraft dynamics, stability and control. • Space environment and missions, attitude control and telecommunications, orbital mechanics, spacecraft engineering design and integration, and spacecraft propulsion. • Aviation regulations and certification, aviation management, airport operation, aviation security awareness. The program's objective is to generate well-educated and qualified graduates who are able to support, develop and expand the aerospace industry within the United Arab Emirates and the region.

Program Objectives

1. Efficiently use state-of-the-art engineering tools and technical communications in different aspects of professional practices
2. Develop their knowledge, creativity and leadership skills to cope with the rapidly evolving aerospace engineering technologies
3. Be committed to ethical and professional standards and develop high level of awareness of social, economic, and environmental issues relevant to Aerospace Engineering Sciences.
4. Efficiently design, manage, execute and/or evaluate aerospace engineering systems components to satisfy client/market needs per design specifications and/or requirements.

Program Learning Outcomes

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

1. Identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. Apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. Communicate effectively with a range of audiences
4. Recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. Function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. Develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. Acquire and apply new knowledge as needed, using appropriate learning strategies

Degree Requirements: Total Credit Hours: 132

			Course Credits
General Education (Req. CH:33) **Cluster 1: Skills for the Future (Req. Ch:15)**			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3
Area 2: English Communication			
			(Required Credit Hours:3)
ESPU	107	Introduction to Academic English For Engineering	3
Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3
Area 4: Critical Thinking			
			(Required Credit Hours:3)
AERO	585 *	Design and Critical Thinking in Aerospace Engineering	3
		* Students must finish at least 96 hrs and all 300-level courses before taking this course AERO 585. Also counts toward major	
Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	1110 *	Calculus I for Engineering	3
		* Also counts towards the Major	
			Course Credits
Cluster 2: The Human Community (Req. Ch:12)			
Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
PHI	101	Introduction to Philosophy	3
Area 2: Social and Behavioral Sciences			

			(Required Credit Hours:3)
GENG	315 *	Engineering Economics	3
		* Also counts towards the Major	

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

			Course Credits

Cluster 3: The Natural World (Req. Ch: 6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
CHEM	111 *	General Chemistry I	3
		* Also counts towards the Major	

Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3

			Course Credits

Required Courses (Req. CH: 90)

College of Engineering Required Courses			
			(Required Credit Hours:32)
GENG	215	Engineering Ethics	2
GENG	220	Engineering Thermodynamics	3
CHEM	175	Chemistry Lab I for Engineering	1
MATH	1120	Calculus II for Engineering	3
MATH	2210	Differential Equations for Engineering	3
MATH	2220	Linear Algebra for Engineering	3
MECH	390	Engineering Materials	3
PHYS	105	General Physics I	3
PHYS	110	General Physics II	3

PHYS	140	General Physics Lab II	1
PHYS	135	General Physics Lab I	1
STAT	210	Probability and Statistics	3
GENG	230	Computer Programming	3

Aerospace Engineering Core Courses			
			(Required Credit Hours:58)
ELEC	372	Electro-Mechanical Devices	2
CIVL	240	Statics	3
MECH	305	Mechanics of Materials	3
MECH	310	Dynamics	3
MECH	315	Geometric Modeling	2
MECH	350	Introduction to Mechatronics	3
MECH	409	Dynamic Systems & Control	3
PHYS	200	Introduction to Space Sciences	3
PHYS	270	Celestial Mechanics	3
AERO	200	Aircraft Operations and Flight Mechanics	3
AERO	215	Thermofluids	3
AERO	220	Aerospace Lab 1	1
AERO	300	Aerodynamics 1	3
AERO	305	Aircraft Propulsion	3
AERO	310	Aircraft Structures 1	3
AERO	315	Aerospace Manufacturing Processes	3
AERO	350	Aerospace Lab 2	1
AERO	402	Aerodynamics 2	3
AERO	411	Flight Dynamics, Stability and Control	3
AERO	450	Aerospace Lab 3	1
AERO	496	Aircraft Design	3
AERO	590	Capstone Engineering Design Project	3
AERO	495 *	Industrial Training	0
		* The internship is conducted over a full semester (Fall, Spring or Summer). No courses are allowed to be registered during the internship. Students must finish at least 96 hrs and all 300-level courses before taking this AERO 495	

			Course Credits
Elective Courses (Req. CH: 9)			
A student must successfully complete 9 credit hours (3 courses) from the following course baskets with 3 credit hours (1 course only) from the Space Science Electives basket.			
			(Required Credit Hours:9)

			Course Credits
Aerospace Engineering Electives Baskets (Req. CH: 6) **(A student must successfully complete 6 credit hours (any 2 courses) from the following elective baskets)**			
Astronautics Electives Basket			
			(Required Credit Hours:6)
AERO	505	Spacecraft Propulsion	3
AERO	506	Spacecraft Engineering Design	3
Aviation Studies Electives Basket			
			(Required Credit Hours:3)
AERO	515	Aviation Regulations and Certifications	3
Aerodynamics and Flight Mechanics Electives Basket			
			(Required Credit Hours:6)
AERO	500	Computational Fluid Dynamics	3
AERO	501	Selected Topics in Aerospace Engineering	3
Aerospace Structures and Manufacturing Electives Basket			
			(Required Credit Hours:3)
AERO	511	Aircraft Structures 2	3

			Course Credits
Space Science Electives Basket (Req. CH: 3)			
A student must successfully complete 3 credit hours (any 1 course) from the following courses			
			(Required Credit Hours:3)
PHYS	310	Space Missions	3
PHYS	410	Space Applications I	3
PHYS	420	Space Applications II	3

Bachelor of Science in Mechanical Engineering

Description

Mechanical engineering is one of the broadest and oldest branches of engineering and can require work that ranges from the design and manufacture of very fine and sensitive instruments with micro and nano scales, to the design and fabrication of huge power plants. The ME program emphasizes a fundamental approach to engineering in which the student learns to identify needs, define problems and apply basic principles and techniques to obtain a solution. This philosophy is incorporated in the classroom lectures, laboratory activities, design projects and research. ME graduates are expected to deal with moving devices and complex systems. Students learn about materials, design, manufacturing, solid and fluid mechanics, thermodynamics, heat transfer, control, and instrumentation, to understand mechanical systems. Specialized ME subjects include energy conversion, energy management, air conditioning, 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

1. Our graduates will be be creative and self-motivated engineers, able to mentor others and to achieve advancements in their areas.
2. Our graduates will be qualified to achieve the goals of industry which will be recognized through the periodic promotions, leadership, reputation and additional responsibilities.
3. Our graduates will be expected to disseminate and implement codes of ethics and professional practice guidelines in resolving ethical dilemmas in their workplace.
4. Our graduates will possess the entrepreneurial abilities that qualify them to lead diverse and healthy economy and create a culture of innovation in their workplace.

Program Learning Outcomes

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

1. identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. communicate effectively with a range of audiences
4. recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. acquire and apply new knowledge as needed, using appropriate learning strategies

Degree Requirements: Total Credit Hours: 147

			Course Credits
General Education (Req. CH:33) **Cluster 1: Skills for the Future (Req. Ch:15)**			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3
Area 2: English Communication			
			(Required Credit Hours:3)
ESPU	107	Introduction to Academic English For Engineering	3
Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3
Area 4: Critical Thinking			
			(Required Credit Hours:3)
MECH	585 *	Design and Critical Thinking in Mechanical Engineering	3
		* Also counts towards the Major	
Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	1110 *	Calculus I for Engineering	3
		* Also counts towards the Major	
			Course Credits
Cluster 2: The Human Community (Req. Ch:12)			
Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
PHI	101	Introduction to Philosophy	3
Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)

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

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

			Course Credits

Cluster 3: The Natural World (Req. Ch: 6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
CHEM	111 *	General Chemistry I	3
		* Also counts towards the Major	

Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3

			Course Credits

College of Engineering

Required Courses			
			(Required Credit Hours:32)
CHEM	175	Chemistry Lab I for Engineering	1
GENG	215	Engineering Ethics	2
GENG	220	Engineering Thermodynamics	3
MATH	1120	Calculus II for Engineering	3
MATH	2210	Differential Equations for Engineering	3
MATH	2220	Linear Algebra for Engineering	3
MECH	390	Engineering Materials	3
GENG	230	Computer Programming	3
STAT	210	Probability and Statistics	3
PHYS	135	General Physics Lab I	1

PHYS	110	General Physics II	3
PHYS	140	General Physics Lab II	1
PHYS	105	General Physics I	3

			Course Credits

Mechanical Engineering

Required Courses			
			(Required Credit Hours:73)
MECH	200	Introduction to Engineering Drawing and Workshop	1
MECH	210	Measurement and Instrumentation lab	1
MECH	240	Introduction to Computing Lab in ME	1
ELEC	372	Electro-Mechanical Devices	2
CIVL	240	Statics	3
MECH	305	Mechanics of Materials	3
MECH	306	Manufacturing Processes	3
MECH	310	Dynamics	3
MECH	311	Applied Thermodynamics	3
MECH	315	Geometric Modeling	2
MECH	340	Fluid Mechanics	3
MECH	348	Fluid Mechanics Lab	1
MECH	350	Introduction to Mechatronics	3
MECH	384	Mathematics for Mechanical Engineering	3
MECH	433	Introduction to Computer Aided Manufacturing	2
MECH	407	Machine Design I	3
MECH	409	Dynamic Systems & Control	3
MECH	411	Heat Transfer	3
MECH	412	Machine Design II	3
MECH	417	Kinematics Design of Machinery	3
MECH	426	Thermofluid System Design & Analysis	3
MECH	430	Thermal Engineering Lab	1
MECH	440	Design and Manufacturing Lab	1
MECH	450	Dynamic Systems and Control Lab	1
MECH	495 *	Industrial Training	15

MECH	590	Capstone Engineering Design Project	3
		* The internship is conducted over a full semester (before the last study year). No courses are allowed to be registered during the internship	

Course Credits

Elective Mechanical Engineering Specialization Requirements

A student must successfully complete 9 credit hours (3 courses) from any of the following 5 groups.

(Required Credit Hours:9)

Bioengineering

(Required Credit Hours:9)

MECH	520	Selected Topics in Bioengineering	3
MECH	521	Biomechanics	3
MECH	522	Bioinstrumentation	3
MECH	525	Introduction to Bioengineering	3

Design and Manufacturing

(Required Credit Hours:9)

MECH	540	Selected Topics in Design & Manufacturing	3
MECH	541	Non-conventional Manufacturing	3
MECH	545	Maintenance Engineering	3
MECH	547	Intermediate Mechanics of Material	3

Thermo-Fluids

(Required Credit Hours:9)

MECH	510	Selected Topics in Thermal Sciences	3
MECH	513	Air Conditioning Systems	3
MECH	514	Heat Engines	3
MECH	516	Energy Management	3
MECH	517	Turbomachinery	3

Mechatronics and Control

(Required Credit Hours:9)

MECH	530	Selected Topics in Mechatronics	3
MECH	531	Introduction to Robotics	3
MECH	532	Design of Mechatronics Systems	3

MECH	533	Mechanical Vibration	3

Aerospace			
			(Required Credit Hours:9)
MECH	550	Introduction to Aerospace Engineering	3
MECH	551	Foundations of Aerodynamics	3
MECH	552	Aircraft Structures	3
MECH	553	Flight Dynamics, Stability and Control	3
MECH	554	Aerospace Propulsion	3

Minor in Mechatronics Engineering

Description

The objective of this minor is to provide the student an introduction to Mechatronics Engineering with emphasis on solutions to engineering problems. The minor provides a foundation in computer design, embedded systems, dynamics, control systems, vibrations, automation, and the design of Mechatronics systems.

Admission Requirements

- Min grade requirement: None
- Pre-requisite: Aerospace Engineering Courses
- Targeted students: Students in Mechanical Engineering or Electrical Engineering

Program Objectives

1. Augment the Electrical/Mechanical engineering student's ability with in depth knowledge in Mechatronics
2. Contribute to the UAE regional economic development

Program Learning Outcomes

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

1. Developed an understanding of the operation and design of Mechatronics systems
2. Gained skills in solving engineering kinematics, kinetics and vibration problems
3. Gained programming skills and an understanding of logic, electronics and automation

Degree Requirements:	Total Credit Hours: 18
	Course Credits

Minor in Mechatronics Engineering for Electrical Engineering (EE) Major (Req. CH:18)

Required courses for EE Major			
			(Required Credit Hours:6)
ELEC	431	Control Systems	3
MECH	310	Dynamics	3

Elective Courses for EE Major (Choose any two of the following EE Courses:)			
			(Required Credit Hours:6)
ELEC	521	Advanced Control Systems	3
ELEC	522	Industrial Automation	3
ELEC	562	Embedded System Design	3

Elective Courses for EE Major (Choose any two of the following ME Courses:)			
			(Required Credit Hours:6)
MECH	530	Selected Topics in Mechatronics	3
MECH	532	Design of Mechatronics Systems	3
MECH	533	Mechanical Vibration	3

Course Credits

Minor in Mechatronics Engineering for Mechanical Engineering (ME) MajorME (CH:18)

Required courses for ME Major			
			(Required Credit Hours:6)
MECH	350	Introduction to Mechatronics	3
ELEC	335	Digital Logic Design	3

Elective Courses for ME Major (Choose any two of the following ME courses:)			
			(Required Credit Hours:6)
MECH	530	Selected Topics in Mechatronics	3
MECH	531	Introduction to Robotics	3
MECH	532	Design of Mechatronics Systems	3

Elective Courses for ME Major (Choose any two of the following EE courses:)			
			(Required Credit Hours:6)
ELEC	370	Electronic Circuits	3
ELEC	522	Industrial Automation	3
ELEC	562	Embedded System Design	3

Minor in Aerospace Engineering

Description

Aerospace Engineering is considered to be a natural extension of Mechanical Engineering and pursuing the minor in this area will hence give the chance to ME students to have some good knowledge in this vital area that will enable them to effectively engage in Aerospace Engineering industry both in UAE and abroad. The Aerospace industry is booming in UAE in general and in Al Ain in specific. This is why it becomes necessary to have qualified national graduates in Mechanical Engineering who are equipped with good foundations in Aerospace Engineering. Evidence on this is the interest shown recently by one of the main industrial companies in the area of Aerospace Engineering in UAE, namely Mubadala/Strata, where they approached UAE University and showed interest and willingness to support a minor program in Aerospace Engineering at the Mechanical Engineering Department.

Admission Requirements

- Min grade requirement: None
- Pre-requisite: None
- Targeted students: Students in Mechanical Engineering

Program Objectives

1. To develop engineers who are broad-based in aerospace technical knowledge and aerospace engineering applications.
2. To produce graduates who are able to solve problems and/or design products and services which are of importance to the aerospace industry in UAE.
3. To produce graduates who have specific technical skills and soft skills (communication skills, collaboration skills, problem solving skills, and work ethic) necessary to the aerospace industry.

Program Learning Outcomes

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

1. To apply knowledge of mathematics, calculus based sciences and engineering to aerospace engineering.
2. To design aerospace engineering related thermal and mechanical systems, component or processes to meet desired needs.
3. To identify, formulate and solve aerospace engineering problems.
4. To use modern engineering techniques, skills and computing tools necessary for aerospace engineering practice.

Degree Requirements: Total Credit Hours: 18

Course Credits

Aerospace Engineering

Required Courses			
			(Required Credit Hours:15)
MECH	550	Introduction to Aerospace Engineering	3
MECH	551	Foundations of Aerodynamics	3
MECH	552	Aircraft Structures	3
MECH	553	Flight Dynamics, Stability and Control	3
MECH	554	Aerospace Propulsion	3

Course Credits

Elective Courses
(Student should select one course from the following groups)

Group-1			
			(Required Credit Hours:3)
MECH	540	Selected Topics in Design & Manufacturing	3
MECH	541	Non-conventional Manufacturing	3
MECH	542	Introduction to Composites Design & Manufacturing	3
MECH	543	Introduction to Rapid Tooling	3
MECH	545	Maintenance Engineering	3
MECH	547	Intermediate Mechanics of Material	3

Group-2			
			(Required Credit Hours:3)
MECH	510	Selected Topics in Thermal Sciences	3
MECH	512	Intermediate Heat Transfer	3
MECH	513	Air Conditioning Systems	3
MECH	514	Heat Engines	3
MECH	516	Energy Management	3
MECH	517	Turbomachinery	3

Group-3			
			(Required Credit Hours:3)
MECH	506	Control Engineering	3
MECH	530	Selected Topics in Mechatronics	3
MECH	531	Introduction to Robotics	3
MECH	532	Design of Mechatronics Systems	3

MECH	533	Mechanical Vibration	3

College of Agriculture and Veterinary Medicine

Department of Food Science

Bachelor of Science in Food Science

Description

Food Science is concerned with the application of science and technology to the manufacturing, production, processing, packaging and distribution of safe and high quality nutritious food. The Food Science Bachelor Program is accredited by the Institute of Food Technologists (IFT), USA. Students joining this program will undergo a professional training in the five core disciplines of Food Science: Food Chemistry & Analysis, Food Safety & Microbiology, Food Processing & Engineering, Applied Food Science, and Success Skills. Graduates from this program are able to perform physicochemical analyses of foods, describe the quality and safety characteristics, and apply different processing technologies to produce and ensure safe and high quality food.

Program Objectives

1. To provide students with advanced knowledge in food science and related fields.
2. To train students to conduct basic and applied research that provides fundamental and applied knowledge about food science, and addresses the needs of the food technology profession and food industry stakeholders.
3. To train students to attain high level of competent and abilities including multiple task operation and communication skills.
4. Equip graduates with competencies in organization & team work and thoughts of ethical, social issues and respect for diversity.
5. Provide students with enhanced understanding of the national and global food sector and prepare them to work successfully in the wide range of governmental and non-governmental food control & legislation authorities and in industrial and commercial settings within the food sector.
6. Equip students with competencies in critical thinking, life-long learning and leadership.

Program Learning Outcomes

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

1. Explain the basic principles of Food Science and its multidisciplinary scope.
2. Describe the physical, chemical, and biological properties of food and their effects on food safety and sensory and nutritional quality.
3. Apply analytical techniques to characterize composition and to identify physical, chemical, and biological changes in foods.
4. Explain the effects of food processing, engineering, preservation, packaging, and storage on food safety and quality.
5. Identify the importance of food laws and regulations in ensuring safety and quality of foods.
6. Conduct applied research, and use statistical tools in experimental design and data analysis.
7. Apply acquired knowledge to real world situations in food systems, components, products, and processes.
8. Apply critical thinking and continued learning to professional problems.
9. Communicate effectively in both oral and written forms.
10. Develop organizational, team work, and leadership skills.
11. Demonstrate professional skills and thoughts of ethical, social, integrity and respect for diversity.
12. Demonstrate preparedness for continued reflective practice and lifelong learning relevant to careers in food science.

Degree Requirements: Total Credit Hours: 120

			Course Credits
General Education (Req. CH:33) **Cluster 1: Skills for the Future (Req. Ch:15)**			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3
Area 2: English Communication			
			(Required Credit Hours:3)
ESPU	106	Introduction to Academic English For Food & Agriculture	3
Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3
Area 4: Critical Thinking			
			(Required Credit Hours:3)
PHI	180	Critical Thinking	3
Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	105 *	Calculus I	3
		* Also counts towards the Major	
			Course Credits
Cluster 2: The Human Community (Req. Ch:12)			
Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
PHI	101	Introduction to Philosophy	3
Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)

AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
GEO	200	World Regional Geography	3
GEHP	111	Happiness and Wellbeing	3

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3
			Course Credits

Cluster 3: The Natural World (Req. Ch:6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
BIOC	100 *	Basic Biology I	3
		* Also counts towards the Major	

Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3
			Course Credits

Food Science

Required Courses			
			(Required Credit Hours:66)
ARAG	323	Post-Harvest Physiology of Plant and Animal Systems	3
BIOE	230	Microbiology	3
CHEM	111	General Chemistry I	3
CHEM	112	General Chemistry II	2
CHEM	115	General Chemistry Lab	1
CHEM	282	Organic Chemistry for Non-Majors	3
CHEM	283	Biochemistry for Non-Majors	3

FDSC	260	Principles of Food Science	3
FDSC	309	Sensory evaluation	3
FDSC	319	Food packaging	3
FDSC	347	Food Process Engineering I	3
FDSC	350	Food Chemistry	3
FDSC	351	Food Plant Sanitation	3
FDSC	355	Food Processing	3
FDSC	453	Quality Control and Assurance	3
FDSC	454	Food Laws	2
FDSC	470	Current Issues in Food Science	2
STAT	235	Statistics for Biology	3
NUTR	301	Human Nutrition	2
FDSC	340	Food Microbiology	3
FDSC	450	Food Analysis	3
PHYS	105	General Physics I	3
FDSC	480	Senior Project	3
FDSC	425 *	Internship	3
		* The internship is conducted over half a semester (8 weeks) during the last study year. Offered condensed courses should be taken during the other half of the semester	
Elective Courses			
			(Required Credit Hours:15)
FDSC	465	Food Safety Management	3
FDSC	357	Technology of Muscle Foods	3
FDSC	363	Fruit and Vegetable Technology	3
FDSC	378	Cereal Technology	3
FDSC	402	Technical Problem Solving in Food Industry	3
FDSC	455	Food Inspection	3
FDSC	460	Hazard Analysis Critical Control Point (HACCP)	3
FDSC	458	Dairy Product Technology	3
FDSC	466	Food Product Development	3
FDSC	477	Oil and Fat Technology	3
Free Electives			
			(Required Credit Hours:6)

Department of Integrative Agriculture

Bachelor of Science in Agricultural Resource Management

Description

The Bachelor's Degree program in Agricultural Resource Management emphasizes the application of agricultural sciences and business and economic principles to the issues confronting agricultural and food producers, consumers, and institutions. Students will have an opportunity to pursue a rigorous program of study in agricultural sciences, economics, business and resources management, and agricultural extension 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 supply and demand for food and agriculture products. They will specialize in managing the country's agricultural resources and offer solutions to environmental challenges. Students will learn economic principles, strategies, planning and evaluation for both marketing and management of farms and agribusiness by examining the efficient allocation of the country's scarce resources and profit maximization for producers.

Program Objectives

1. Graduates demonstrate knowledge and skills in the agricultural sciences.
2. Prepare graduates for future challenges and professionally manage the country's agricultural resources
3. Develop the student's ability to communicate effectively within the area of agricultural resource management
4. Prepare graduates to pursue advanced studies in agricultural resource management and related areas

Program Learning Outcomes

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

1. Demonstrate basic knowledge in agriculture sciences and agricultural education and extension
2. Apply critical thinking skills to current and future issues in agriculture and resources
3. Utilize economic theories and quantitative techniques for post graduate studies and careers in agricultural resources management
4. Communicate effectively, both written and orally, within the agricultural and natural resource context
5. Utilize research methods to solve problems within the agriculture sector
6. Identify, evaluate, and effectively disseminate agricultural information to the stakeholders

Degree Requirements: Total Credit Hours: 120

			Course Credits
General Education (Req. CH:33) **Cluster 1: Skills for the Future (Req. Ch:15)**			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
AGRB	352 *	Agribusiness Entrepreneurship	3
		* Also counts towards the Major	
Area 2: English Communication			

			(Required Credit Hours:3)
ESPU	106	Introduction to Academic English For Food & Agriculture	3

Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3

Area 4: Critical Thinking			
			(Required Credit Hours:3)
PHI	180	Critical Thinking	3

Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	105 *	Calculus I	3
		* Also counts towards the Major	

			Course Credits

Cluster 2: The Human Community (Req. Ch:12)

Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
PHI	101	Introduction to Philosophy	3

Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)
AGRB	210 *	Introduction to Agribusiness	3
		* Also counts towards the Major	

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)

ISLM	100	Islamic Culture	3

Course Credits

Cluster 3: The Natural World (Req. Ch: 6)

Area 1: Natural Sciences

(Required Credit Hours:3)

BIOC	100 *	Basic Biology I	3

* Also counts towards the Major

Area 2: Sustainability

(Required Credit Hours:3)

GESU	121	Sustainability	3

Course Credits

Agribusiness

Required Courses

(Required Credit Hours:63)

AGRB	200	Agricultural Economics	3
AGRB	220	Introduction to Agricultural Extension	3
AGRB	300	Marketing Management for Agribusiness	3
AGRB	444	Farm Management	3
AGRB	391	Applications Of Quantitative Research Techniques to Social Sciences	3
ECON	125	Principles of Macroeconomics	3
ECON	231	Econometrics	3
STAT	130	Statistics for Business	3
AGRB	422	Agricultural and Food Policy	3
AGRB	450	Agribusiness Senior Seminar	2
ARAG	200	Principles of Soil and Water	3
ARAG	307	Introduction to Horticulture	2
AGRB	365	Economics of Food Security and Sustainability	3
ARAG	330	Principles of Animal Sciences	3
AGRB	333	Applied Agricultural Education and Extension	3
AGRB	335	Computer and IT Applications in Agriculture	3
AGRB	480	Senior Project	4
AGRB	360	Global Agri-food Trade	3

PHYS	105	General Physics I	3
FDSC	250	Contemporary Food Science & Nutrition	3
AGRB	410 *	Internship	4
		* The internship is conducted after completion of 90 Credit Hours following one of the following 3 options: Option1: 2 days/week for a complete semester (16 weeks). Courses can be registered in the other days of the week Option 2: 3 days/week for 3/4 of a semester (12 weeks). Courses can be registered in the other days of the week Option 3: 4 days/week for half a semester (8 weeks). Option3: Condensed courses can be taken in the remaining 8 weeks of the semester	

Elective Courses			
		(Required Credit Hours:18)	
AGRB	392	Introduction to Resource & Environmental Economics	3
AGRB	395	Contemporary Food Sustainability and Nutrition	3
ARAG	443	Irrigation, Drainage and Water Management	3
ARAG	452	Palms and Dates	3
AGRB	445	Feasibility Studies of Food and Agriculture Projects	3
AGRB	341	E-Commerce & Agri-food Industries	3
AGRB	371	Linear Programming for Agribusiness	3
AGRB	374	Fundamentals of Production Economic	3
AGRB	377	Principles of Economic Development	3
ARAG	220	Natural Resources	3
ARAG	305	Principles of Organic Horticulture	3

Free Electives			
		(Required Credit Hours:6)	

Bachelor of Science in Marine Fisheries and Animal Science

Description

The consumption of animal products is strongly increasing worldwide. Young, creative experts in animal production sciences are in great demand to support the intensification of animal production while maintaining high product quality, public health and environmental sustainability. The Bachelor program in Marine Fisheries and Animal Science encourages students to excel in a wide range of animal science specializations that are highly relevant to food security in arid lands. Students are provided with up-to-date theoretical information, and receive intensive practical training in well-equipped laboratories, on our experimental stations, and through internship opportunities. Graduates of this program are ready to build their careers in, e.g. aquaculture, fisheries management, poultry and domestic livestock production, or in the sport animal business.

Program Objectives

1. Provide students with fundamental scientific knowledge on production and protection of domestic animals and fish in the arid environment.
2. Develop student's skills to produce a wide range of animal products in a resource-efficient manner in arid environments.
3. Enhance student's ability to sustain natural resources of the country and the region, and improve the quality of the environment.
4. Provide students with important and new agricultural knowledge related to the UAE and the Arab world.
5. Develop student's awareness of using modern scientific methods and technology transfer.
6. Develop student's professional skills and ethics, and foster positive attitudes.

Program Learning Outcomes

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

1. Discuss the basic concepts of animal production and marine fisheries.
2. Explain the basic characteristics of domestic animals and their husbandry in the arid environments.
3. Explain populations of marine animals, and develop concepts for their sustainable use for food production.
4. Employ technical skills for sustainably managing natural resources in fisheries and agricultural projects.
5. Utilize and improve animal breeds with particular tolerance to stresses prevailing in arid environments.
6. Manage livestock in intensive and extensive production systems.
7. Improve and conserve germplasm through modern breeding technologies.
8. Apply sustainable agricultural principles and safe environmental practices.
9. Minimize the negative impact of fisheries and animal production on the environment.
10. Maintain and protect native farm animal genotypes along with knowledge on traditional production systems, as cultural heritage and valuable source of information and genetic diversity.
11. Demonstrate the understanding of the animal production and fisheries sector in the UAE and the Arab world.
12. Discuss the similarity and integration of the Arab World in terms of the environment and natural resources.
13. Conduct research using appropriate statistical methods for data analysis.
14. Utilize library and research skills for organizing and applying information for decision making.
15. Demonstrate knowledge about design, execute, and evaluate technology transfer programs.
16. Demonstrate communication skills necessary for leadership roles, team work, and scientific rational discussion.

17. Respect and value the living resources that serve our food production, and employ appropriate ethical standards to animal production systems and research approaches.
18. Think critically, creatively and employ appropriate ethical standards to animal production systems and research approaches
19. Engage in life-long learning.

Degree Requirements: Total Credit Hours: 120

			Course Credits
General Education (Req. Ch:33)			
Cluster 1: Skills for the Future (Req. Ch:15)			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3
Area 2: English Communication			
			(Required Credit Hours:3)
ESPU	106	Introduction to Academic English For Food & Agriculture	3
Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3
Area 4: Critical Thinking			
			(Required Credit Hours:3)
PHI	180	Critical Thinking	3
Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	105 *	Calculus I	3
		* Also counts towards the Major	
			Course Credits
Cluster 2: The Human Community (Req. Ch:12)			
Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3

PHI	101	Introduction to Philosophy	3

Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)
AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
GEO	200	World Regional Geography	3
GEHP	111	Happiness and Wellbeing	3

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

			Course Credits

Cluster 3: The Natural World (Req. Ch: 6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
BIOC	100 *	Basic Biology I	3
		* Also counts towards the Major	

Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3

			Course Credits

Marine Fisheries and Animal Science

Required Courses			
			(Required Credit Hours:54)
ARAG	205	Introduction to Fish & Animal Science	3

ARAG	220	Natural Resources	3
ARAG	230	Principles of Fisheries Management	3
ARAG	310	Agricultural Technology Transfer	3
ARAG	314	Animal Breeding & Biotechnology	3
ARAG	316	Animal Nutrition	3
ARAG	319	Anatomy & Physiology of Animals	3
ARAG	335	Production Medicine	3
ARAG	434	Reproductive Physiology	3
ARAG	440	Seminar in Animal Science	1
BIOL	210	Animal Biology	3
BIOL	270	General Genetics	2
CHEM	111	General Chemistry I	3
CHEM	282	Organic Chemistry for Non-Majors	3
CHEM	283	Biochemistry for Non-Majors	3
STAT	235	Statistics for Biology	3
ARAG	485	Senior Project	3
PHYS	105	General Physics I	3
ARAG	445 *	Internship	3
		* The internship is conducted on 2 days/week during a semester in the last study year. Courses can be registered in the other days of the week	

Course Credits

Elective Specialization Courses

Student must take 3 courses from the list below

(Required Credit Hours:9)

AGRB	352	Agribusiness Entrepreneurship	3
ARAG	323	Post-Harvest Physiology of Plant and Animal Systems	3
ARAG	329	Organic Animal Production	3
ARAG	450	Advanced Animal Nutrition	3
ARAG	459	Issues in Animal Protein Production	3

Course Credits

Marine Fisheries Concentration (Req. Ch: 18)

Required Courses

			(Required Credit Hours:12)
ARAG	325	Fisheries Management and Conservation	3
ARAG	326	Mariculture	3
ARAG	424	Fish Breeding and Propagation	3
ARAG	425	Shellfish and Molluscan Aquaculture	3

Elective Courses			
			(Required Credit Hours:6)
ARAG	426	Aquatic Ecology	3
ARAG	428	Animal Welfare	3
ARAG	430	Fisheries Stock Assessment	3
ARAG	433	Fish Nutrition	3
ARAG	459	Issues in Animal Protein Production	3
BIOE	230	Microbiology	3
FDSC	319	Food packaging	3

			Course Credits

Animal Science Concentration (Req. Ch: 18)

Required Courses			
			(Required Credit Hours:12)
ARAG	318	Camel Management	3
ARAG	322	Introductory Poultry Production	3
ARAG	432	Sheep and Goat Production	3
ARAG	435	Egg Production	3
Elective Courses			
			(Required Credit Hours:6)
ARAG	304	Range and Pasture Management	3
ARAG	339	Management of Sport Animals	3
ARAG	423	Dairy Cattle Management	3
ARAG	428	Animal Welfare	3
ARAG	436	Poultry Meat Production	3
BIOE	230	Microbiology	3
Free Electives			
			(Required Credit Hours:6)

Bachelor of Science in Horticulture

Description

The horticultural sector is experiencing a remarkable growth in the UAE and other Gulf countries. New modern production sites emerged in many places, and formerly empty urban areas were transformed into vivid green landscapes. Experts able to develop resource-saving plant production concepts, and to properly evaluate prospects and risks pertaining to biotechnological and chemical innovations in the horticultural sector are highly demanded. The Bachelor in Horticulture offers a diverse curriculum that combines theoretical knowledge with intensive practical training in cutting edge research laboratories, on experimental farms, and through off-campus internship experiences. The program encourages students to develop their talents and special interests, and supports them on their way to become creative experts in various fields of horticultural sciences, such as organic farming, plant protection, greenhouse and nursery management, landscaping, applied biotechnology, and several more.

Program Objectives

1. Provide students with fundamental scientific information on production and protection of horticultural plants in the arid environment.
2. Develop student's skills to successfully grow a diversity of horticultural plants in a resource-efficient manner in arid environments.
3. Enhance student's ability to sustain natural resources of the country and the region, and improve the quality of the environment.
4. Provide students with new knowledge on agricultural technologies related to the UAE and the Arab world.
5. Develop student's awareness of using modern scientific methods in agriculture and horticulture and technology transfer for field applications.
6. Demonstrate student's professional skills and ethics, to foster positive attitudes.

Program Learning Outcomes

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

1. Explain the basic characteristics of horticultural plants and cultural practices in the arid environments.
2. Produce efficiently, safe horticultural crops with an understanding of the natural resources and the environment.
3. Use horticultural plants and plant products for functional and aesthetic purposes in the arid environment.
4. Discuss the principles and theories of integrating basic and applied aspects of modern technologies in the production and protection of horticultural plants.
5. Employ technical skills for managing horticultural projects and natural resources.
6. Select horticultural plants to enhance tolerance to stresses in arid environment.
7. Implement technologies for improving horticultural plant productivity, quality, and protection methods.
8. Improve germplasm to develop modern breeding technologies.
9. Apply sustainable horticultural principles and safe environmental practices.
10. Minimize the negative impact of cultural practices on the environment.
11. Develop skills to maintain and protect native and exotic plant species for the purposes of beautifying the environment and commercially producing horticultural crops.
12. Explain the main characteristics of the UAE society in relation to farming and adoption of technologies as a part of the Arab World.
13. Discuss the similarity and integration of the Arab world in terms of the environment and natural resources.
14. Conduct research using statistical methods and data analysis to establish significance of technology applications.

15. Demonstrate the ability to apply the knowledge learned in coursework and during the internship experience.
16. Design, execute, and evaluate technology transfer programs.
17. Demonstrate communication skills necessary for leadership roles, and teamwork.
18. Demonstrate critical thinking and creativity skills in learning process and applications.

Degree Requirements: Total Credit Hours: 120

			Course Credits
General Education (Req. Ch:33)			
Cluster 1: Skills for the Future (Req. Ch:15)			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3
Area 2: English Communication			
			(Required Credit Hours:3)
ESPU	106	Introduction to Academic English For Food & Agriculture	3
Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3
Area 4: Critical Thinking			
			(Required Credit Hours:3)
PHI	180	Critical Thinking	3
Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	105 *	Calculus I	3
		* Also counts towards the Major	
			Course Credits
Cluster 2: The Human Community (Req. Ch:12)			
Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3

PHI	101	Introduction to Philosophy	3

Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)
AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
GEO	200	World Regional Geography	3
GEHP	111	Happiness and Wellbeing	3

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

			Course Credits

Cluster 3: The Natural World (Req. Ch: 6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
BIOC	100 *	Basic Biology I	3
		* Also counts towards the Major	

Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3

			Course Credits

Horticulture

Required Courses			
			(Required Credit Hours:54)
ARAG	200	Principles of Soil and Water	3

ARAG	220	Natural Resources	3
ARAG	242	Principles of Plant Protection	3
ARAG	307	Introduction to Horticulture	2
ARAG	308	Soil Fertility and Fertilizer	3
ARAG	310	Agricultural Technology Transfer	3
ARAG	311	Plant Propagation	2
ARAG	327	Plant Physiology and Environmental Stress	3
ARAG	443	Irrigation, Drainage and Water Management	3
ARAG	465	Salt and Drought Tolerant Plants	2
BIOL	215	Plant Biology	3
BIOL	225	Practical Plant Biology	1
BIOL	270	General Genetics	2
CHEM	111	General Chemistry I	3
CHEM	282	Organic Chemistry for Non-Majors	3
CHEM	283	Biochemistry for Non-Majors	3
STAT	235	Statistics for Biology	3
PHYS	105	General Physics I	3
ARAG	485	Senior Project	3
ARAG	445 *	Internship	3
		* The internship is conducted on 2 days/week during a semester in the last study year. Courses can be registered in the other days of the week	

Supporting Elective Courses			
		(Required Credit Hours:9)	
ARAG	323	Post-Harvest Physiology of Plant and Animal Systems	3
ARAG	401	Sustainable Agriculture in Arid Lands	3
ARAG	414	Plant Breeding and Horticultural Biotechnology	3
ARAG	437	Disease and Insect Pests	3
ARAG	439	Pesticides	3
AGRB	352	Agribusiness Entrepreneurship	3
BIOE	230	Microbiology	3

	Course Credits
Environment Horticulture Concentration (Req. Ch: 18)	

Required Courses			
			(Required Credit Hours:12)
ARAG	402	Woody Plants in the Landscape	3
ARAG	451	Landscape Management for Arid Lands	3
ARAG	453	Indoor Plants and Flower Arrangements	3
ARAG	454	Landscape Design	3

Elective Courses			
			(Required Credit Hours:6)
ARAG	313	Urban Tree Management	3
ARAG	321	Floriculture Crop Production	3
ARAG	408	Survey of Plant Communities in Arid Lands	3
ARAG	455	Nursery and Greenhouse Operations	3
ARAG	456	Turfgrass Management	3

Course Credits

Crop Production and Organic Farming Concentration (Req. Ch: 18)

Required Courses			
			(Required Credit Hours:12)
ARAG	305	Principles of Organic Horticulture	3
ARAG	404	Vegetable Production in Arid Lands	3
ARAG	407	Design of Organic Production System	3
ARAG	452	Palms and Dates	3

Elective Courses			
			(Required Credit Hours:6)
ARAG	320	World Herbs and Vegetables	3
ARAG	376	Soil Processes in Organic Farming	3
ARAG	410	Fruit Production in Arid Lands	3
ARAG	412	Specialty Crops	3
ARAG	442	Protected Agriculture	3
ARAG	456	Turfgrass Management	3

Free Electives			
			(Required Credit Hours:6)

Department of Veterinary

Bachelor of Veterinary Medicine

Description

The bachelor of veterinary medicine program is the only one of its kind in the UAE. The program is five year long, after which, graduates will be qualified veterinarians. The student will receive veterinary basic sciences education and intensive clinical training sorted by animal species and specialized discipline.

Program Objectives

1. To enable the veterinary students to acquire knowledge, practical skills, and experience needed for a qualified veterinarian.
2. To enforce evidence base veterinary medicine and problem oriented problem solving methods.
3. To graduate veterinarians capable of providing superior animal health care, including disease investigation and prevention, at the individual and herd or flock level.
4. To meet the growing national needs for qualified veterinarians in the public and private sectors.
5. To demonstrate the achievement of the PLOs by the graduation time and enable graduates pursue higher academic degrees in veterinary medical sciences or other related sciences.

Program Learning Outcomes

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

1. Implement appropriate health care regimen for individual animals of different species.
2. Monitor the health and production of animals at the herd or flock level.
3. Apply high standards of public health and food safety.
4. Recognize veterinary diseases and the optimal treatment and prevention methods.
5. Conduct disease epidemiological investigation and veterinary research using appropriate research methods, ethics procedures, and statistical analysis.
6. Communicate technical information effectively with clients, fellow professionals and intended audience.
7. Synthesize information from different resources and use information technology to find up-to-date information and manage data.

Degree Requirements: Total Credit Hours: 152

			Course Credits
General Education (Req. Ch:33) **Cluster 1: Skills for the Future (Req. Ch:15)**			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3
Area 2: English Communication			
			(Required Credit Hours:3)
ESPU	106	Introduction to Academic English For Food & Agriculture	3

Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3

Area 4: Critical Thinking			
			(Required Credit Hours:3)
PHI	180	Critical Thinking	3

Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	105 *	Calculus I	3
		* Also counts towards the Major	

Course Credits

Cluster 2: The Human Community (Req. Ch:12)

Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
PHI	101	Introduction to Philosophy	3

Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)
AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
GEO	200	World Regional Geography	3
GEHP	111	Happiness and Wellbeing	3

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

Course Credits

Cluster 3: The Natural World (Req. Ch: 6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
BIOC	100 *	Basic Biology I	3
		* Also counts towards the Major	

Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3

Course Credits

Veterinary Science

Required Courses			
			(Required Credit Hours:107)
ARAG	316	Animal Nutrition	3
ARAG	475	Molecular Biology Genetics	3
CHEM	111	General Chemistry I	3
CHEM	282	Organic Chemistry for Non-Majors	3
CHEM	283	Biochemistry for Non-Majors	3
STAT	235	Statistics for Biology	3
VMED	100	Animal Anatomy I	3
VMED	120	Animal Husbandry	3
VMED	210	Animal Physiology	3
VMED	250	Immunity and Infection (Microbiology) I	3
VMED	260	Neuroscience	3
VMED	270	Presentation of Selected Clinical Cases	1
VMED	300	Pharmacology and Toxicology	3
VMED	310	Parasitology	3
VMED	320	Pathology	4

VMED	340	Clinical pathology and propaedeutic	3
VMED	350	Infectious Diseases	3
VMED	360	Camels and Equine Medicine	3
VMED	370	Histology	3
VMED	380	Case Studies I	1
VMED	390	Training in meat inspection (Slaughter House)	1
VMED	395	Training in Camels & Equine Sport Medicine (Animal Hospital)	1
VMED	400	Preventive medicine	2
VMED	410	Surgery	4
VMED	420	Anesthesiology	2
VMED	430	Case Studies II	1
VMED	440	Sheep and goat medicine	3
VMED	450	Theriogenology	3
VMED	460	Companion Animal Medicine	2
VMED	490	Training in Clinical Surgery (Animal Hospital)	1
VMED	495	Training in Sheep &Goats Med & Surgery (Animal Hospital)	1
VMED	510	Opthalmology and Dermatology	2
VMED	520	Diagnostic imagining	2
VMED	530	Seminar in Veterinary Science	1
VMED	150	Animal Anatomy II	4
VMED	280	Immunity and Infection II	3
VMED	385	Meat Hygiene	2
PHYS	105	General Physics I	3
VMED	580	Senior project	3
VMED	590 *	Internship in Animal Hospital	9
		* The internship is conducted in the last semester. 5 Cr. Hrs. of relevant courses (as shown in the study plan) should be taken during the internship semester	

Elective Courses			
		(Required Credit Hours:12)	
FDSC	280	Food Hygiene	3
ARAG	470	Camels and Equine Nutrition	3
VMED	240	Animal Welfare and Ethics	3

VMED	110	Introduction to Veterinary Medicine	3
VMED	445	Large animals (Cattle & Dairy Cattle)	3
VMED	330	Poultry Medicine	3
VMED	455	Clinical Pharmacology	3
VMED	470	Falcon Medicine	2
VMED	475	Exotic and Laboratory Animal Medicine	1

College of Humanities and Social Sciences

Department of Arabic Language & Literature

Bachelor of Arts in Arabic Language and Literature

Description

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

Program Objectives

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

Program Learning Outcomes

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

1. Form the structure of the word according to dictionaries and Morphological rules.
2. Mention verbal changes, meters and meanings.
3. Control vocabulary use grammatically according to language standards.
4. Shape linguistic structures correctly according to grammatical rules.
5. Demonstrate knowledge of modern linguistic theories in the analysis of the structures and detecting their implications.
6. Explain literary text and revealing meaning, purpose and images.
7. Show the most important critical issues addressed by the old critics.
8. Demonstrate knowledge of modern theories of criticism.
9. Listen the most important sources of literary heritage, rhetoric, criticism and their authors.
10. know famous (the figures) poets, writers and their ages and literary production.
11. Read the text correctly without linguistic or stylistic errors.
12. Express orally an accurate expression of the meanings and purposes of the texts.
13. Criticize the text objectively.
14. Analyze text in literary and Scientific way.

15. Explain the literary image revealing the elements of its aesthetic values.
16. Specify the subject of the search to allow Innovation and creativity
17. Specify the method and the plan that suit search subject .
18. Use the Library and Network in obtaining sources and the preparation of the scientific subject
19. Discuss opinions and views rationally and scientifically.
20. Write search in a way that demonstrates scientific thinking and linguistic aesthetics.
21. Provide evidences of the impact of our Arabic creativity in human heritage
22. Express writings that shows the richness of language and its ability to deal with modern age.
23. Demonstrate pride of nation, faith, and richness of Arabic and Islamic culture and Heritage.
24. Collaborate with others to accomplish the scientific goals of team work research

Degree Requirements: Total Credit Hours: 120

			Course Credits
General Education (Req. CH:33) **Cluster 1: Skills for the Future (Req. Ch:15)**			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3
Area 2: English Communication			
			(Required Credit Hours:3)
ESPU	1014	Introduction to Academic English for Humanities and SS	3
Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3
Area 4: Critical Thinking			
			(Required Credit Hours:3)
PHI	180	Critical Thinking	3
Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	120	Contemporary Applications of Math	3
STAT	101	Statistics in the Modern World	3
			Course Credits
Cluster 2: The Human Community (Req. Ch:12)			
Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3

ARCH	366	History and Theories of Contemporary Architecture	3
HSR	130	Introduction to Language & Communication	3
HSR	120	Introduction to Heritage & Culture	3
MSC	200	Introduction to Mass Media	3
PHI	101	Introduction to Philosophy	3
PHI	226	Human Rights Theory	3
PHIL	120	Principles of Professional Ethics	3
TRS	200	Introduction to Translation	3

Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)
AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
GEHP	111	Happiness and Wellbeing	3

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

			Course Credits

Cluster 3: The Natural World (Req. Ch:6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
ARAG	205	Introduction to Fish & Animal Science	3
ARAG	220	Natural Resources	3
BION	100	Biology and its Modern Application	3
CHEM	181	Chemistry in the Modern World	3
FDSC	250	Contemporary Food Science & Nutrition	3

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

Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3

Course Credits

Arabic Language and Literature Major (Req CH:45)

Required Courses			
			(Required Credit Hours:24)
ARB	100	Styles of Literary Expression	3
ARB	110	Introduction to Syntax & Morphology	3
ARB	120	Arabic Rhetoric I	3
ARB	130	Literary Texts Analysis	3
ARB	160	General Linguistics	3
ARB	406	Research Methods in Language & Literature	3
ARB	430	Modern Literature Criticism	3
ARB	485	Integrated Capstone	3

Course Credits

Concentrations - Student must choose Language or Literature

Language Required Courses			
			(Required Credit Hours:12)
ARB	210	Phonetics	3
ARB	311	Syntax II	3
ARB	321	Semantics & Arabic Lexicology	3
ARB	413	Arabic Linguistics	3

Literature Required Courses			
			(Required Credit Hours:12)
ARB	250	Abbasid Literature I	3
ARB	343	Pre_Islamic & Islamic Literature	3

ARB	444	Modern Arabic Literature	3
ARB	450	Comparative Literature	3

Elective Courses for Both Concentrations			
			(Required Credit Hours:9)
ARB	220	Prosody	3
ARB	230	Traditional Literary Criticism	3
ARB	240	Arabic Rhetoric II	3
ARB	260	Emirati Literature	3
ARB	270	Modern Arabic Gulf Literature	3
ARB	301	Abbasid Literature II	3
ARB	381	Arabic Library / Heritage	3
ARB	401	Philology	3
ARB	416	Andalusian & Maghribi Literature	3
ARB	424	Late Medieval Literature	3
ARB	436	Ex. in Syntax & Morphology	3
ARB	440	Research in the Critical & Rhetorical H	3

Course Credits

Minors (Req. CH:36)

Minor (1)

(Required Credit Hours:18)

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

(Required Credit Hours:18)

Course Credits

Free Elective

Free Elective

(Required Credit Hours:6)

Minor in Writing (Interdisciplinary in Arabic)

Description

This Minor helps graduates to work at media institutions, where they practice writing essays, reports and other types of writing to T.V., newspapers. etc. This Minor also develop graduates' skills and expertise, then prepare them to work in cultural associations and centers, where they put their theoretical experience in practice.

Admission Requirements

- Min grade requirement: None
- Pre-requisite: Approval of department chair
- Targeted students: All students.

Program Objectives

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

Program Learning Outcomes

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

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

Degree Requirements: Total Credit Hours: 18

			Course Credits
Students must take these courses			
Required Courses			(Required Credit Hours:18)
ARB	105	Creative Writing	3
ARB	205	Writing and Technology	3
ARB	305	Professional Writing	3
ARB	405	Training Practicum	3
MSC	235 *	Principles of the Writing for Media	3
TRS	200 **	Introduction to Translation	3
		* Mass Communication students take ARB 130	
		** Translation students take ARB 130	

Minor in Women and Culture (Arabic)

Description

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

Admission Requirements

- Min grade requirement: None
- Pre-requisite: Approval of department chair
- Targeted students: All students.

Program Objectives

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

Program Learning Outcomes

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

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

Degree Requirements: Total Credit Hours: 18

			Course Credits
Students must take these courses			
Required Courses			(Required Credit Hours:18)
ARB	115	Womens Literary Theory	3
ARB	215	Womens Studies & Arabic Literature	3
ARB	315	Modern Women's Literature	3
ARB	415	Seminar & Research in Women Studies	3
LNG	465	Women and Language	3
MSC	487	Women and Media	3

Department of Cognitive Sciences

Bachelor of Arts in Linguistics

Description

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

Program Objectives

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

Program Learning Outcomes

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

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

Degree Requirements: Total Credit Hours: 120

			Course Credits
General Education (Req. Ch: 33) **Cluster 1: Skills for the Future (Req. Ch: 15)**			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3

Area 2: English Communication			
			(Required Credit Hours:3)
ESPU	1014	Introduction to Academic English for Humanities and SS	3

Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3

Area 4: Critical Thinking			
			(Required Credit Hours:3)
PHI	180	Critical Thinking	3

Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	120	Contemporary Applications of Math	3
STAT	101	Statistics in the Modern World	3

			Course Credits

Cluster 2: The Human Community (Req. Ch:12)

Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
MSC	200	Introduction to Mass Media	3
PHI	101	Introduction to Philosophy	3
PHI	226	Human Rights Theory	3
PHIL	120	Principles of Professional Ethics	3
TRS	200	Introduction to Translation	3

Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)
AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3

HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
GEO	200	World Regional Geography	3
GEHP	111	Happiness and Wellbeing	3

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

Course Credits

Cluster 3: The Natural World (Req. Ch:6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
ARAG	205	Introduction to Fish & Animal Science	3
ARAG	220	Natural Resources	3
BION	100	Biology and its Modern Application	3
CHEM	181	Chemistry in the Modern World	3
FDSC	250	Contemporary Food Science & Nutrition	3
GEOL	110	Planet Earth	3
PHED	201	Physical Fitness and Wellness	3
PHYS	100	Astronomy	3
PHYS	101	Conceptual Physics	3

Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3

Course Credits

Linguistics Major (Req. CH:42)

Required Courses			
			(Required Credit Hours:33)
LNG	100	Introduction to Linguistics	3

LNG	220	Phonetics	3
LNG	231	Phonology I	3
LNG	241	Syntax I	3
LNG	250	Morphology	3
LNG	331	Phonology II	3
LNG	341	Syntax ll	3
LNG	342	Semantics	3
LNG	480	Field Methods in Linguistics	3
LNG	490	Senior Capstone	3
LNG	489	Integrated Capstone	3

Course Credits

Elective Courses (Req. CH:9)

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

Variation and Change			
			(Required Credit Hours:3)
LNG	362	Contrastive Linguistics	3
LNG	370	Historical Linguistics	3
LNG	410	Sociolinguistics	3
LNG	415	Current Topics in Language Variation & Change	3

Representation, Meaning & Mind			
			(Required Credit Hours:3)
LNG	321	Language & Computer Technology	3
LNG	420	Computational Linguistics	3
LNG	450	Psycholinguistics	3
LNG	475	Current Topics in Language Rept Meaning & Mind	3
PHI	333	Philosophy of Language	3

Arabic linguistics			
			(Required Credit Hours:3)
LNG	290	Linguistic Structure of Arabic	3
LNG	390	Arabic Syntax	3
LNG	470	Current Topics in Arabic Linguistics	3

LNG	485	Neuroscience of Arabic	3

Course Credits

Minors (Req. CH: 36)

Minor (1)

(Required Credit Hours:18)

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

(Required Credit Hours:18)

Course Credits

Free Electives (Req. Ch: 9)

Free Electives

(Required Credit Hours:9)

Bachelor of Arts in Psychology

Description

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

Program Objectives

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

Program Learning Outcomes

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

1. Describe key concepts, principles, and main themes in psychology.
2. Apply scientific reasoning to interpret psychological phenomena.
3. Conduct basic psychological research individually and in teams.
4. Apply updated ethical standards to evaluate psychological science and practice.

5. Demonstrate effective writing and presenting skills for different purposes.
6. Analyze psychological information and data using variety of sources and statistical software.
7. Communicate efficiently psychological reports and information to concerned parties.

Degree Requirements: Total Credit Hours: 120

			Course Credits
General Education (Req. Ch: 33) **Cluster 1: Skills for the Future (Req. Ch:15)**			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3
Area 2: English Communication			
			(Required Credit Hours:3)
ESPU	1014	Introduction to Academic English for Humanities and SS	3
Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3
Area 4: Critical Thinking			
			(Required Credit Hours:3)
PHI	180	Critical Thinking	3
Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
STAT	180 *	Psychological Statistics I	3
		* Also counts towards the Major	
			Course Credits
Cluster 2: The Human Community (Req. Ch:12)			
Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	130	Introduction to Language & Communication	3
HSR	120	Introduction to Heritage & Culture	3
MSC	200	Introduction to Mass Media	3

PHI	101	Introduction to Philosophy	3
PHI	226	Human Rights Theory	3
PHIL	120	Principles of Professional Ethics	3
TRS	200	Introduction to Translation	3

Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)
AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
GEO	200	World Regional Geography	3
GEHP	111	Happiness and Wellbeing	3

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

			Course Credits

Cluster 3: The Natural World (Req. Ch:6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
ARAG	205	Introduction to Fish & Animal Science	3
ARAG	220	Natural Resources	3
BION	100	Biology and its Modern Application	3
CHEM	181	Chemistry in the Modern World	3
FDSC	250	Contemporary Food Science & Nutrition	3
GEOL	110	Planet Earth	3
PHED	201	Physical Fitness and Wellness	3
PHYS	100	Astronomy	3
PHYS	101	Conceptual Physics	3

Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3

			Course Credits
Psychology Major (Req. Ch: 48)			
Required Courses			
			(Required Credit Hours:39)
PSY	100	Introduction to Psychology	3
PSY	201	Research Methods in Psychology	3
PSY	202	Introduction to Behavioral Neuroscience	3
PSY	205	Social Psychology	3
PSY	303	Psychological Tests & Measurements	3
PSY	304	Developmental Psychology	3
PSY	305	Cognitive Psychology	3
PSY	306	Abnormal Psychology	3
PSY	401	Clinical Psychology	3
PSY	403	Experimental Psychology	3
PSY	452 *	Practicum	6
		or	
PSY	454 **	Research Project/Internship	6
PSY	485	Integrated Capstone	3
		* Student can take this course over a complete semester. No courses are allowed to be registered when taking this course	
		** OR student can take this course over a complete semester. A maximum of 6 Cr. Hrs. of courses can be registered in addition to the this course.	

Elective Courses - At least two must be PSY 4XX level			
			(Required Credit Hours:9)
PSY	312	Psychology of Learning	3
PSY	313	Educational Psychology	3
PSY	314	Sensation and Perception	3
PSY	315	Industrial Organizational Psychology	3
PSY	316	School Psychology	3
PSY	317	Psychology of Personality	3

PSY	413	Counseling Psychology	3
PSY	414	Introduction to Health Psychology	3
PSY	416	Differential Psychology	3
PSY	417	Neuropsychology	3
PSY	419	Seminar in Psychology	3
STAT	280	Psychological Statistics II	3

Course Credits

Minors (Req. CH: 36)

Minor (1)

(Required Credit Hours:18)

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

(Required Credit Hours:18)

Course Credits

Free Electives (Req. Ch: 3)

Free Electives

(Required Credit Hours:3)

Minor in Citizenship

Description

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

Admission Requirements

- Min grade requirement: None
- Pre-requisite: Approval of department chair
- Targeted students: All students except Political Science

Program Objectives

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

Program Learning Outcomes

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

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

Degree Requirements: Total Credit Hours: 18

Citizenship

			Course Credits
Required Courses			(Required Credit Hours:9)
PHI	225	Citizenship & Civil Society	3
PHI	226	Human Rights Theory	3
PSG	120	Government & Politics of UAE	3
Elective Option One			(Required Credit Hours:3)
PHI	314	Contemporary Islamic Political Philosophy	3
PSG	261	Political Thought	3
Elective Option Two			(Required Credit Hours:6)
PHI	314	Contemporary Islamic Political Philosophy	3
PHI	315	Technology and Culture	3
PHI	320	Ethics in Business Governance	3
PHI	270	Philosophy of Education	3
SOC	314	Political Sociology	3

Minor in Cognitive Science

Description

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

Admission Requirements

- Min grade requirement: None
- Pre-requisite: Approval of department chair
- Targeted students: All students

Program Objectives

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

Program Learning Outcomes

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

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

Degree Requirements: Total Credit Hours: 18

			Course Credits
Cognitive Science: Primary Specializations			
Required Courses for non Psychology Majors			
			(Required Credit Hours:12)
PSY	202	Introduction to Behavioral Neuroscience	3
PSY	305	Cognitive Psychology	3
PSY	417	Neuropsychology	3
PHI	440	Cognitive Science	3

Required Courses for non Philosophy Majors			
			(Required Credit Hours:12)
PHI	200	Logic	3
PHI	322	Epistemology	3
PHI	323	Philosophy of Mind	3
PHI	440	Cognitive Science	3

Required Courses for non Linguistics Majors			
			(Required Credit Hours:12)
LNG	241	Syntax I	3
LNG	450	Psycholinguistics	3
LNG	460	Linguistic Theory and Aphasia	3
PHI	440	Cognitive Science	3

Required Courses for non IT Majors			
			(Required Credit Hours:12)
CSBP	119	Algorithms and Problem Solving	3
CSBP	219	Object Oriented Programming	3
CSBP	316	Human Computer Interaction	3
PHI	440	Cognitive Science	3

Required Courses for non Biology Majors			
			(Required Credit Hours:12)
BIOC	100	Basic Biology I	3
BIOL	222	Introduction to Cognitive Neuroscience	3
BIOE	457	Animal Behavior	3
PHI	440	Cognitive Science	3

Course Credits

Secondary Specialization Courses

Students must select two courses from a different specialization stream used as the Primary Specialization
(Required Credit Hours:6)

Minor in Aphasia

Description

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

Admission Requirements

- Min grade requirement: None
- Pre-requisite: Approval of department chair
- Targeted students: All students

Program Objectives

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

Program Learning Outcomes

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

1. Describe speech motor control and the effects of brain damage in a variety of neurological disorders focusing on aphasia.
2. Identify the communicative features of aphasia within the broader context of neurological disorders and diseases.
3. Summarize a range of intervention processes and management approaches in aphasia.
4. Apply basic problem solving skills in the clinical treatment of people with aphasia.

Degree Requirements: Total Credit Hours: 18

			Course Credits
Aphasia			
Required Courses			
			(Required Credit Hours:15)
LNG	450	Psycholinguistics	3
LNG	460	Linguistic Theory and Aphasia	3
LNG	455	Practicum	3
SLP	106	Introduction to Speech and Language Disorders	3
LNG	485	Neuroscience of Arabic	3
Elective Courses			
			(Required Credit Hours:3)

PSY	202	Introduction to Behavioral Neuroscience	3
PSY	304	Developmental Psychology	3
PSY	305	Cognitive Psychology	3
PSY	314	Sensation and Perception	3

Department of Geography and Urban Sustainability

Bachelor of Arts in Geography

Description

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

Program Objectives

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

Program Learning Outcomes

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

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

Degree Requirements: Total Credit Hours: 120

Course Credits

General Education (Req. CH:33)
Cluster 1: Skills for the Future (Req. Ch:15)

Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3

Area 2: English Communication			
			(Required Credit Hours:3)
ESPU	1014	Introduction to Academic English for Humanities and SS	3

Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3

Area 4: Critical Thinking			
			(Required Credit Hours:3)
PHI	180	Critical Thinking	3

Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	120	Contemporary Applications of Math	3
STAT	101	Statistics in the Modern World	3

Course Credits

Cluster 2: The Human Community (Req. Ch:12)

Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
MSC	200	Introduction to Mass Media	3
PHI	101	Introduction to Philosophy	3
PHI	226	Human Rights Theory	3
PHIL	120	Principles of Professional Ethics	3
TRS	200	Introduction to Translation	3

Area 2: Social and Behavioral Sciences

			(Required Credit Hours:3)
AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
GEHP	111	Happiness and Wellbeing	3

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

			Course Credits

Cluster 3: The Natural World (Req. Ch:6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
GEO	201 *	Physical Geography	3
		* Also counts towards the Major	

Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3

			Course Credits

Geography Major (Req. CH:39)

Required Courses			
			(Required Credit Hours:15)
GEO	210	Human Geography	3
GEO	220	Principles of Cartography	3
GEO	221	Geographic Information Systems I	3
GEO	200	World Regional Geography	3
GEO	485	Integrated Capstone	3

			Course Credits
Students should take one of the following Concentration: **1: Environmental Geography Concentration (Req. Ch: 24)**			
Required Courses			
			(Required Credit Hours:15)
GEO	211	Remote Sensing	3
GEO	413	Geomorphology	3
GEO	452	Climatology	3
GEO	462	Current Environmental Issues	3
GEO	400 *	Practicum	3
		or	
GEO	410 **	Research Seminar in Geography	3
		* Student can either take this course over a complete semester. No courses are allowed to be registered when taking this course.	
		** OR student can take this course over a complete semester. Other courses can be registered with this course	
Elective Courses			
			(Required Credit Hours:9)
GEO	231	Economic Geography	3
GEO	341	Geography of Population	3
GEO	402	Land Use	3
GEO	411	Oceanography	3
GEO	412	Geography of Arid Lands	3
GEO	431	Natural Hazards	3
GEO	443	Geography of Transportation	3

			Course Credits
2: Geoinformatics Concentration (Req. Ch:24)			
Required Courses			
			(Required Credit Hours:15)
GEO	211	Remote Sensing	3
GEO	334	Spatial Analysis	3
GEO	420	Cartography II	3
GEO	422	Geographic Information Systems II	3

GEO	400 *	Practicum	3
		or	
GEO	410 **	Research Seminar in Geography	3
		* Student can either take this course over a complete semester. No courses are allowed to be registered when taking this course.	
		** OR student can take this course over a complete semester. Other courses can be registered with this course	

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

	Course Credits

3: Urban Planning Concentration (Req. Ch:24)

Required Courses			
			(Required Credit Hours:15)
GEO	334	Spatial Analysis	3
GEO	372	Planning Theory and Practice	3
GEO	402	Land Use	3
GEO	438	Regional & Urban Planning	3
GEO	481 *	Urban Planning Internship	3
		* The internship is conducted over a complete semester. No courses are allowed to be registered during the internship	

Elective Courses			
			(Required Credit Hours:9)
GEO	232	Urban Economics	3
GEO	345	Urban Demography	3
GEO	370	Transit Oriented Development (TOD)	3
GEO	440	GIS for Urban & Regional Planning	3

GEO	463	Tourism Policy and Planning	3
GEO	472	Politics and Planning	3

Course Credits

Minors (Req. CH: 36)

Minor (1)

(Required Credit Hours:18)

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

(Required Credit Hours:18)

Course Credits

Free Electives (Req. CH: 12)

Free Electives

(Required Credit Hours:12)

Minor in Geoinformatics

Description

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

Admission Requirements

- Min grade requirement: GPA: 3.0
- Pre-requisite: Approval of department chair
- Targeted students: All students.

Program Objectives

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

Program Learning Outcomes

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

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

Degree Requirements: Total Credit Hours: 18

			Course Credits
Geoinformatics			
Required Courses			
			(Required Credit Hours:6)
GEO	220	Principles of Cartography	3
GEO	221	Geographic Information Systems I	3
Elective Courses			
			(Required Credit Hours:12)
GEO	430	GIS for Transportation	3
GEO	440	GIS for Urban & Regional Planning	3
GEO	450	GIS for Coastal Management	3
GEO	460	GIS for Petroleum	3
GEO	470	GIS for Environment	3
GEO	480	GIS for Project Management	3
GEO	490	SIS for Planetary Surfaces	3

Department of Government and Society

Bachelor of Arts in Political Science

Description

The Department of Political Science offers a B.A. program 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 program provides students with the theory and practice that enable them to explore the subdivisions of the discipline: Political Thought, Comparative Politics, International Relations, and Public Policy. The program offers students quality education that provides them with the required knowledge and skills to lead them to exciting careers in federal and local government, research centers, international organizations, and media, or to pursue graduate studies in political science.

Program Objectives

1. Provide students with solid knowledge in the field of political science.
2. Equip students with competencies necessary for successful careers in politics.
3. Prepare students to pursue graduate studies in political science.
4. Foster responsible citizenship.

Program Learning Outcomes

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

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

Degree Requirements: Total Credit Hours: 120

			Course Credits
General Education (Req. Ch:33) **Cluster 1: Skills for the Future (Req. Ch:15)**			
Area 1: Innovation and Entrepreneurship			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3
Area 2: English Communication			(Required Credit Hours:3)
ESPU	1014	Introduction to Academic English for Humanities and SS	3

Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3

Area 4: Critical Thinking			
			(Required Credit Hours:3)
PHI	180	Critical Thinking	3

Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	120	Contemporary Applications of Math	3
STAT	101	Statistics in the Modern World	3

Course Credits

Cluster 2: The Human Community (Req. Ch:12)

Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
MSC	200	Introduction to Mass Media	3
PHI	101	Introduction to Philosophy	3
PHI	226	Human Rights Theory	3
PHIL	120	Principles of Professional Ethics	3
TRS	200	Introduction to Translation	3

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

Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)
AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3

HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
GEO	200	World Regional Geography	3
GEHP	111	Happiness and Wellbeing	3

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

Course Credits

Cluster 3: The Natural World (Req. Ch:6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
ARAG	205	Introduction to Fish & Animal Science	3
ARAG	220	Natural Resources	3
BION	100	Biology and its Modern Application	3
CHEM	181	Chemistry in the Modern World	3
FDSC	250	Contemporary Food Science & Nutrition	3
GEOL	110	Planet Earth	3
PHED	201	Physical Fitness and Wellness	3
PHYS	100	Astronomy	3
PHYS	101	Conceptual Physics	3

Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3

Course Credits

Political Science Major (Req. Ch: 45)

Required Courses			
			(Required Credit Hours:27)
PSG	110	Fundamentals of Political Science	3
PSG	120	Government & Politics of UAE	3
PSG	242	Methods of Research in PSG	3
PSG	250	Principles of International Relations	3

PSG	261	Political Thought	3
PSG	270	Comparative Political Systems	3
PSG	430	Special Topics	3
PSG	485	Integrated Capstone	3
PSG	440 *	Internship	3
		* The internship is conducted over a complete semester. No courses are allowed to be registered during the internship	

Course Credits

Concentration Requirements (Req CH:18)

Students should take one of the following concentrations:

(Required Credit Hours:18)

Course Credits

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

Required Courses

(Required Credit Hours:12)

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

Elective Courses

(Required Credit Hours:6)

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

Course Credits

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

Required Courses

(Required Credit Hours:12)

ECON	105	Principles of Microeconomics	3
PSG	130	Introduction to Public Administration	3

PSG	331	Local Governments & Local Administrations	3
PSG	425	Public Policy	3

Elective	
	(Required Credit Hours:6)

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

Course Credits

Minors (Req. CH: 36)

Minor (1)	
	(Required Credit Hours:18)

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

Course Credits

Free Electives (Req. CH: 6)

Free Electives	
	(Required Credit Hours:6)

Minor in Political Science

Description

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

Admission Requirements

- Min grade requirement: GPA 3.0 and Pass PSG 110 (with min. grade of B)
- Pre-requisite: Approved by department chair
- Targeted students: All students except Political Science.

Program Objectives

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

Program Learning Outcomes

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

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

Degree Requirements: Total Credit Hours: 18

			Course Credits
Political Science			
Required Courses			
			(Required Credit Hours:9)
PSG	110	Fundamentals of Political Science	3
PSG	120	Government & Politics of UAE	3
PSG	130	Introduction to Public Administration	3
Elective Courses Students must choose three of these courses:			
			(Required Credit Hours:9)
PSG	250	Principles of International Relations	3
PSG	270	Comparative Political Systems	3

PSG	315	International Political Economy	3
PSG	321	Gulf & Arabic Peninsula Affairs	3
PSG	415	Public Governance	3
PSG	425	Public Policy	3

Minor in Family Studies

Description

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

Admission Requirements

- Min grade requirement: None
- Pre-requisite: Approval of department chair
- Targeted students: All students except Sociology

Program Objectives

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

Program Learning Outcomes

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

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

Degree Requirements: Total Credit Hours: 18

			Course Credits
Family Studies			
Required Courses			
			(Required Credit Hours:12)
SOC	101	Introduction to Sociology	3
SOC	190	Social Problems	3
SOC	313	Sociology of the Family	3

CURR	314	Family, Community, Culture & ECE	3

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

Department of Language and Literature

Bachelor of Arts in English Literature

Description

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

Program Objectives

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

Program Learning Outcomes

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

1. Use appropriate terminology to identify key features of literary texts, genres, periods, techniques or devices.
2. Critique literary texts with reference to formal or aesthetic properties as well as to socio-historical rootedness and function.
3. Communicate appropriately and successfully, orally and in writing, on specialist as well as non-specialist subject matter, in a variety of academic or non-academic contexts.

4. Demonstrate willingness and ability to undertake further studies in literature or related disciplines, or to assume positions of responsibility in the world of work or civic engagement.
5. Apply generic skills and competences developed in the course of the program, such as critical thinking, problem-solving or team-work, in the world of work or civic engagement.
6. Undertake research with competent and proper use of printed as well as electronic resources, and of quantitative as well as qualitative methods.

Degree Requirements: Total Credit Hours: 120

			Course Credits
General Education (Req. CH:33)			
Cluster 1: Skills for the Future (Req. Ch:15)			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3
Area 2: English Communication			
			(Required Credit Hours:3)
ESPU	1014	Introduction to Academic English for Humanities and SS	3
Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3
Area 4: Critical Thinking			
			(Required Credit Hours:3)
PHI	180	Critical Thinking	3
Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	120	Contemporary Applications of Math	3
STAT	101	Statistics in the Modern World	3
			Course Credits
Cluster 2: The Human Community (Req. Ch:12)			
Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	120	Introduction to Heritage & Culture	3

HSR	130	Introduction to Language & Communication	3
MSC	200	Introduction to Mass Media	3
PHI	101	Introduction to Philosophy	3
PHI	226	Human Rights Theory	3
PHIL	120	Principles of Professional Ethics	3
TRS	200	Introduction to Translation	3

Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)
AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
GEO	200	World Regional Geography	3
GEHP	111	Happiness and Wellbeing	3

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

			Course Credits

Cluster 3: The Natural World (Req. Ch:6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
ARAG	205	Introduction to Fish & Animal Science	3
ARAG	220	Natural Resources	3
BION	100	Biology and its Modern Application	3
CHEM	181	Chemistry in the Modern World	3
FDSC	250	Contemporary Food Science & Nutrition	3
GEOL	110	Planet Earth	3

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

Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3

			Course Credits

English Literature Major (Req. Ch: 51)

Required Courses			
			(Required Credit Hours:39)
ENG	250	English Grammar & Usage	3
ENG	310	Writing for Research	3
LIT	150	Introduction to Literature	3
LIT	220	Survey of British Literature	3
LIT	240	Survey of American Literature	3
LIT	300	Methods of Research in Literary Study	3
LIT	320	Elizabethan & 17th Century Literature	3
LIT	355	Digital Humanities Basics	3
LIT	410	Criticism and Theory	3
LIT	420	Senior Seminar Major writer	3
ENG	489	Integrated Capstone	3
LIT	490 *	Internship	6
		* The internship is conducted in the last semester. No courses can be registered during this semester	

Elective Courses			
			(Required Credit Hours:12)
LIT	330	Romantic & Victorian Literature	3
LIT	335	20th Century British Literature	3
LIT	340	19th Century American Literature	3
LIT	345	20th Century American Literature	3
LIT	365	Modern World Literature	3
LIT	370	Anglophone Literature Outside UK & US	3

LIT	385	Children's Literature	3

Course Credits

Minors (Req. CH:36)

Minor (1)

(Required Credit Hours:18)

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

(Required Credit Hours:18)

Bachelor of Arts in Translation Studies

Description

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

Program Objectives

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

Program Learning Outcomes

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

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

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

Degree Requirements: Total Credit Hours: 120

			Course Credits
General Education (Req. CH:33)			
Cluster 1: Skills for the Future (Req. Ch:15)			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3
Area 2: English Communication			
			(Required Credit Hours:3)
ESPU	1014	Introduction to Academic English for Humanities and SS	3
Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3
Area 4: Critical Thinking			
			(Required Credit Hours:3)
PHI	180	Critical Thinking	3
Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	120	Contemporary Applications of Math	3
STAT	101	Statistics in the Modern World	3
			Course Credits
Cluster 2: The Human Community (Req. Ch:12)			
Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	130	Introduction to Language & Communication	3
HSR	120	Introduction to Heritage & Culture	3
MSC	200	Introduction to Mass Media	3
PHI	101	Introduction to Philosophy	3

PHI	226	Human Rights Theory	3
PHIL	120	Principles of Professional Ethics	3
TRS	200	Introduction to Translation	3

Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)
AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
GEO	200	World Regional Geography	3
GEHP	111	Happiness and Wellbeing	3

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

			Course Credits

Cluster 3: The Natural World (Req. Ch:6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
ARAG	205	Introduction to Fish & Animal Science	3
ARAG	220	Natural Resources	3
BION	100	Biology and its Modern Application	3
CHEM	181	Chemistry in the Modern World	3
FDSC	250	Contemporary Food Science & Nutrition	3
GEOL	110	Planet Earth	3
PHED	201	Physical Fitness and Wellness	3
PHYS	100	Astronomy	3
PHYS	101	Conceptual Physics	3

Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3

Course Credits

Translation Studies Major (Req. CH:42)

Required Courses			
			(Required Credit Hours:33)
ENG	250	English Grammar & Usage	3
ENG	310	Writing for Research	3
ENG	450	Public Speaking and Debate	3
TRS	200	Introduction to Translation	3
TRS	350	Translation of English Texts	3
TRS	360	Translation of Arabic texts	3
TRS	340	Translating Literary Texts	3
TRS	430	Advanced Written Translation	3
ENG	300	Critical Reading in the Disciplines	3
TRS	485	Integrated Capstone	3
TRS	452 *	Practicum / Oral	3
		* The internship is conducted over a complete semester. No courses are allowed to be registered during the internship	

Elective Courses			
			(Required Credit Hours:9)
ARB	110	Introduction to Syntax & Morphology	3
ENG	312	Cultural Literacy: English in the World	3
LIT	200	Writing About literature	3
TRS	310	Contrastive Analysis of Arabic/English	3
TRS	312	Community Interpreting	3
TRS	370	Modern Media Translation	3
TRS	412	Translation of Scientific/Legal Text	3
TRS	433	Translation of Business Correspondence & Promotional Materials	3

Course Credits

Minors (Req. CH:36)
Minor (1)
(Required Credit Hours:18)
Minor (2) (Students can either take Minor (2) or 18 credit hours from any free elective courses.)
(Required Credit Hours:18)
Course Credits
Free Electives (Req. CH:9)
Free Electives
(Required Credit Hours:9)

Minor in Korean Language

Description

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

Admission Requirements

- Min grade requirement: None
- Pre-requisite: Approval of department chair
- Targeted students: All students.

Program Objectives

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

Program Learning Outcomes

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

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

Degree Requirements: Total Credit Hours: 18

Korean Language

			Course Credits
Core Courses			
			(Required Credit Hours:12)
KOR	100	Korean I for Beginners	3
KOR	102	Korean II for Beginners	3
KOR	202	Intermediate Korean	3
KOR	301	Advanced Korean	3
Elective Courses			
			(Required Credit Hours:6)
KOR	302	Korean Language and Culture	3
KOR	401	Reading and Writing (Korean)	3
KOR	411	Introduction to Translation (Korean)	3
KOR	416	Transation of Short Texts into Korean	3

Minor in French Language

Description

The Minor in French Language is an 18-credit hour program. It aims to equip students with basic written and oral skills in the French language in a range of contexts. Students will have the ability to analyze and translate short texts from English and Arabic into French and vice versa. By the end of the courses, students should have acquired the skills necessary to take an exam set by the Chamber of Commerce & Industry of Paris to gain the Diplôme de Français Professional B1.

Admission Requirements

- Min grade requirement: None
- Pre-requisite: Approval of department chair
- Targeted students: All students

Program Objectives

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

Program Learning Outcomes

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

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

Degree Requirements: Total Credit Hours: 18

			Course Credits
French Language			
Required Courses			
			(Required Credit Hours:12)
FCH	260	Listening & Speaking	3
FCH	270	French Language & Culture I	3
FCH	272	French Language & Culture II	3
FCH	321	Reading & Writing I	3

			Course Credits
Elective Clusters: Student must choose a cluster and complete both courses			
Cluster One			
			(Required Credit Hours:6)
FCH	303	Advanced Listening & Speaking	3
FCH	401	Advanced Reading & Writing	3
Cluster Two			
			(Required Credit Hours:6)
FCH	411	Introduction to Translation FR	3
FCH	442	Translation of Texts from & to French	3

Minor in German Language

Description

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

Admission Requirements

- Min grade requirement: None
- Pre-requisite: Approval of department chair
- Targeted students: All students

Program Objectives

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

Program Learning Outcomes

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

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

Degree Requirements: Total Credit Hours: 18

			Course Credits
German Language			
Required Courses			
			(Required Credit Hours:12)
GER	100	German I for Beginners	3
GER	102	German II for Beginners	3
GER	202	Intermediate German	3
GER	301	Advanced German	3
Elective Courses			
			(Required Credit Hours:6)
GER	302	German Language and Culture	3

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

Minor in Spanish Language

Description

The Minor in Spanish Language is a 2 year-long program composed of 18-credit hours. This minor aims to equip students with beginner written and oral skills in the Spanish language in a range of contexts. Students will acquire the ability to speak, listen to, read and write about familiar everyday topics applicable to the Spanish-speaking world. Upon completion of 6 courses, Spanish students should have acquired the skills necessary to sit the official international exam DELE A2 set by the Instituto Cervantes, an entity internationally recognized as the guarding body of the Spanish language in the world.

Admission Requirements

- Min grade requirement: None
- Pre-requisite: Approval of department chair
- Targeted students: All students

Program Objectives

1. To enable students to listen, speak, read and write Spanish at intermediate level, upon successful completion of A1, A2 in the course of 2 years.
2. To prepare students to successfully interact within culture, media, heritage, literature, art, history and civilization from Spanish-speaking countries around the world.

Program Learning Outcomes

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

1. Conduct simple and familiar conversations in Spanish.
2. Produce simple spoken Spanish based on familiar everyday topics, demonstrating understanding of Spanish pronunciation.
3. Demonstrate the ability to read and write texts about everyday situations using simple and complex sentences on familiar topics or topics of personal interest.
4. Apply basic Spanish grammatical rules to produce correct sentences in various contexts.
5. Interpret key cultural aspects of the Spanish-speaking countries within a variety of fields such as art, history, media, music, and cuisine.

Degree Requirements: Total Credit Hours: 18

			Course Credits
Spanish Language			
Required Courses			
			(Required Credit Hours:18)
SPN	100	Spanish (1) for Beginners	3
SPN	102	Spanish Language and Culture (1)	3

SPN	202	Spanish (2) for Beginners	3
SPN	301	Intermediate Spanish	3
SPN	311	Spanish Language and Culture (2)	3
SPN	401	Spanish Reading and Writing	3

Minor in Chinese Language

Description

The Minor in Chinese Language is an 18-credit hour program. It aims to provide university students in various disciplines an opportunity to learn Chinese language and culture through well-constructed courses tailed to the purpose. The establishment of the minor degree in Chinese language is also a response to the growing interest in China and Chinese language in the UAE with the emergence of China in economy and international affairs. The program will cover a two-year period to enable students to have good command of Chinese language for them to do further study, travel, and venture business with Chinese in China.

Admission Requirements

- Min grade requirement: None
- Pre-requisite: Approval of department chair
- Targeted students: All students

Program Objectives

1. To enable students to listen, speak, read and write Chinese at beginning, intermediate and advanced levels (Level 1 to Level 4 of the HSK) (Chinese proficiency test for speakers of other language).
2. To acquire a solid foundation in the study of Chinese literature and Culture
3. To gain working knowledge of Chinese Language to prepare students for graduate study in China-related fields, to work in contexts where the language and culture are pertinent.

Program Learning Outcomes

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

1. Demonstrate abilities in comprehending daily conversations and audio input in Standard Modern Chinese.
2. Demonstrate abilities in comprehending written materials on various topics in Standard Modern Chinese.
3. Apply basic Chinese grammatical rules in speaking Standard Modern Chinese effectively with vocabularies appropriate to the context.
4. Apply basic Chinese grammatical rules in writing correct sentences in various topics.
5. Demonstrate proficiency in burgeoning Chinese language in global business and international communications.
6. Demonstrate understanding of the unique Chinese social and traditional elements of communication with special attention paid to business, economics and translation.

Degree Requirements:			Total Credit Hours: 18
			Course Credits
Chinese Language			
Required Courses			
			(Required Credit Hours:12)
CHIN	101	Beginning Chinese I	3
CHIN	102	Beginning Chinese II	3
CHIN	201	Intermediate Chinese I	3
CHIN	202	Intermediate Chinese II	3
			Course Credits
Elective Courses			
Students should take two course from the list below			
			(Required Credit Hours:6)
CHIN	301	Introduction to Chinese Culture (in English)	3
CHIN	302	Business Chinese	3
CHIN	401	Advanced Chinese	3
CHIN	402	Chinese Language and Culture	3

Minor in Business Translation

Description

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

Admission Requirements

- Min grade requirement: None
- Pre-requisite: Approval of department chair
- Targeted students: All students

Program Objectives

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

Program Learning Outcomes

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

1. Explain basic concepts in translation and business.
2. Contrast English and Arabic constructions on the semantic, syntactic and pragmatic levels for the purpose of translation.
3. Identify various types of business correspondence and promotional texts.

4. Write standard business letters in English and Arabic.
5. Translate business letters between English and Arabic.
6. Write different genres of promotional texts used in the media.
7. Translate promotional texts between English and Arabic.

Degree Requirements: Total Credit Hours: 18

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

Minor in English Language and Literacy

Description

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

Admission Requirements

- Min grade requirement: None
- Pre- requisite: Approval of department chair
- Targeted students: All students except English Literature and Translation Studies

Program Objectives

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

Program Learning Outcomes

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

1. Demonstrate comprehension and appropriate use of core university-level vocabulary

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

Degree Requirements: Total Credit Hours: 18

			Course Credits
English Language and Literacy Minor			
Required Courses			
			(Required Credit Hours:15)
ENG	210	College Reading and Writing	3
ENG	250	English Grammar & Usage	3
ENG	300	Critical Reading in the Disciplines	3
ENG	310	Writing for Research	3
ENG	312	Cultural Literacy: English in the World	3
Elective Courses			
			(Required Credit Hours:3)
ENG	450	Public Speaking and Debate	3
ENG	454	Practicum: Writing for the Workplace	3
EWR	480	Practicum Writing	3

Minor in Creative and Professional Writing in English

Description

Technical and Professional Writing is part of our effort to collapse the better and more relevant aspects of the Writing Minor into the Language Minor (see proposed amendments to the Minor below). The idea is to help springboard students into professional life in ways that enhance verbal and text-based literacies and prepare them for the kinds of discursive and communicative acts they will likely encounter in their professions. The requirement of two 400-level courses in a Minor was, we felt, off-putting to potential Minors. 450 and 452 will stand as options to each other in the Minor—while both include elements of both textual and verbal literacy, each has its own focus, which allows students to choose this vital 400-level requirement according to their interests or strengths.

Admission Requirements

- Min grade requirement: None
- Pre-requisite: Approval of department chair
- Targeted students: All students except English Literature and Translation Studies

Program Objectives

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

Program Learning Outcomes

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

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

Degree Requirements:

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

Minor in Drama

Description

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

Admission Requirements

- Min grade requirement: None
- Pre-requisite: Approval of department chair
- Targeted students: All students

Program Objectives

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

Program Learning Outcomes

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

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

Degree Requirements: Total Credit Hours: 18

			Course Credits
Drama			
Required Courses			
			(Required Credit Hours:18)
DRA	260	Practical Introduction to Theatre TA	3
DRA	265	Approaches to Drama TA	3
DRA	365	Drama in Education TA	3
DRA	370	Playwriting & Performance in Arabic	3
DRA	360	Fundamentals of Stage Prod TA	3
DRA	460	Practicum Drama TA	3

Minor in Film Studies

Description

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

Admission Requirements

- Min grade requirement: None
- Pre-requisite: Approval of department chair
- Targeted students: All students

Program Objectives

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

Program Learning Outcomes

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

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

Degree Requirements: Total Credit Hours: 18

Core Courses: Students must take these courses

			Course Credits
Required Courses			(Required Credit Hours:15)
FIL	240	Introduction to Film & Visual Studies TA	3
FIL	245	Film & Culture World Cinema TA	3
FIL	340	Developing Ideas for Film	3
FIL	345	Principles of Screenwriting TA	3
MSC	485	Practicum in Digital Production	3

Elective Courses			(Required Credit Hours:3)
FIL	350	Cinema in the Arab World TA	3
MSC	487	Women and Media	3
FIL	312	Animation Filmmaking	3

Department of Media and Creative Industries

Bachelor of Arts in Mass Communication

Description

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

Program Objectives

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

Program Learning Outcomes

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

1. Apply professional writing requirements for print, broadcast, public relations, and online media. They will also develop competence in the production and operation of convergent media.
2. Demonstrate critical thinking abilities as applied to academic as well as professional arenas.
3. Acquire independent learning experiences by drawing on a rich and broadly based liberal arts education through research and analysis of social issues and prescribing appropriate solutions to problems.
4. Discuss the principles of professional and mass communication ethics and how they inform the work of the media professional in the Arab and Islamic contexts.
5. Explain the importance of diverse perspectives in solving societal problems.
6. Develop organizational, team work, and leadership skills.
7. Communicate effectively in both oral and written forms with various audiences.

Degree Requirements: Total Credit Hours: 120

			Course Credits
General Education (Req. Ch: 33)			
Cluster 1: Skills for the Future (Req. Ch:15)			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3
Area 2: English Communication			
			(Required Credit Hours:3)
ESPU	1014	Introduction to Academic English for Humanities and SS	3
Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3
Area 4: Critical Thinking			
			(Required Credit Hours:3)
PHI	180	Critical Thinking	3
Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	120	Contemporary Applications of Math	3
STAT	101	Statistics in the Modern World	3
			Course Credits
Cluster 2: The Human Community (Req. Ch:12)			
Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
LIT	150	Introduction to Literature	3
PHI	101	Introduction to Philosophy	3
PHI	226	Human Rights Theory	3
PHIL	120	Principles of Professional Ethics	3

TRS	200	Introduction to Translation	3

Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)
AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
GEO	200	World Regional Geography	3
GEHP	111	Happiness and Wellbeing	3

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

			Course Credits

Cluster 3: The Natural World (Req. Ch:6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
ARAG	205	Introduction to Fish & Animal Science	3
ARAG	220	Natural Resources	3
BION	100	Biology and its Modern Application	3
CHEM	181	Chemistry in the Modern World	3
FDSC	250	Contemporary Food Science & Nutrition	3
GEOL	110	Planet Earth	3
PHED	201	Physical Fitness and Wellness	3
PHYS	100	Astronomy	3
PHYS	101	Conceptual Physics	3

Area 2: Sustainability			
			(Required Credit Hours:3)

GESU	121	Sustainability	3
			Course Credits

Mass Communication Major (Req Ch: 45)

Required Courses			
			(Required Credit Hours:27)
MSC	203	Principles of Visual Communication	3
MSC	211	Principles of Oral Communication	3
MSC	235	Principles of the Writing for Media	3
MSC	370	Communication Theories	3
MSC	480	Contemporary Issues in Mass Communications	3
PUBL	421	Press Law and Ethics	3
MSC	484	Integrated Capstone	3
MSC	490 *	Practicum	6
		* The internship is conducted over a complete semester. No courses are allowed to be registered during the internship	
			Course Credits

Concentration Requirements (Req CH:18)

Students should take one of the following Concentration:			
			(Required Credit Hours:18)
			Course Credits

1: Journalism Concentration (Req. CH:18)

Required Courses			
			(Required Credit Hours:18)
MSC	264	News Writing	3
MSC	356	News Reporting	3
MSC	390	News Editing (lab)	3
MSC	396	Communication Research Methods	3
MSC	401	Computer Assisted Reporting	3
MSC	450	Newspaper& Magazine Production	3
			Course Credits

2: Public Relations and Advertising Concentration

Required Courses			
			(Required Credit Hours:15)
MSC	243	Public Relations & Advertising Principles	3
MSC	342	Writing for Public Relations	3

MSC	396	Communication Research Methods	3
MSC	452	Public Relations & Advertising Campaigns	3
MSC	462	Designing Media Messages	3

Course Credits

3: Radio Broadcasting Concentration

Required Courses			
			(Required Credit Hours:15)
MSC	316	Broadcast Management	3
MSC	352	Writing for Broadcast	3
MSC	396	Communication Research Methods	3
MSC	420	Radio Production I	3
MSC	460	Radio Production II	3

Course Credits

4: Television Broadcasting Concentration

Required Courses			
			(Required Credit Hours:15)
MSC	257	Television Production I	3
MSC	316	Broadcast Management	3
MSC	352	Writing for Broadcast	3
MSC	355	Television Production II	3
MSC	396	Communication Research Methods	3

Course Credits

Elective Courses

Elective Courses for Public Relations and Advertising, Radio Broadcasting and Television Broadcasting Concentrations			
			(Required Credit Hours:3)
MSC	200	Introduction to Mass Media	3
MSC	240	World and Arab Media	3
MSC	250	Photojournalism	3
MSC	381	Translation for Communication	3
MSC	391	Communication in Modern Societies	3
MSC	411	Case Studies in Public Relations	3
MSC	412	Public Opinion	3

MSC	422	Organizational Communication	3

Course Credits

Minors (Req. CH:36)

Minor (1)

(Required Credit Hours:18)

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

(Required Credit Hours:18)

Course Credits

Free Electives (Req. CH:6)

Free Electives

(Required Credit Hours:6)

Minor in Fine Arts

Description

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

Admission Requirements

- Min grade requirement: None
- Pre-requisite: Approval of department chair
- Targeted students: All students except Public Relations and Advertising Concentration in Mass Communication

Program Learning Outcomes

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

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

Degree Requirements:			Total Credit Hours: 18
			Course Credits
Fine Arts			
Required Courses			
			(Required Credit Hours:15)
ART	201	Drawing I	3
ART	301	Painting I	3
ART	302	3-D Design	3
ART	303	Digital Photography	3
MSC	462	Designing Media Messages	3

Elective Courses (Students must take one of the following courses:)			
			(Required Credit Hours:3)
ART	101	Arts and Society I	3
ART	102	Arts and Society II	3
ART	382	Introduction to Art Criticism	3

Minor in Television Studies

Description

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

Admission Requirements

- Min grade requirement: GPA 2.5
- Pre-requisite: Approval of department chair
- Targeted students: All students except Television Broadcasting Concentration in Mass Communication

Program Objectives

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

Program Learning Outcomes

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

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

Degree Requirements: Total Credit Hours: 18

Television Studies

			Course Credits
Required Courses			
			(Required Credit Hours:12)
MSC	203 *	Principles of Visual Communication	3
MSC	257	Television Production I	3
MSC	352	Writing for Broadcast	3
MSC	485	Practicum in Digital Production	3
		* Students on the PR or Journalism Studies tracks of the Mass Communication Program take MSC 200 instead	
Elective Courses			
			(Required Credit Hours:6)
MSC	250	Photojournalism	3
MSC	316 *	Broadcast Management	3
MSC	355 *	Television Production II	3
MSC	396 **	Communication Research Methods	3
MSC	462	Designing Media Messages	3
		* Students in PR Track of Mass Communication should take these two courses only	
		** Not for students of Mass Communication	

Minor in Journalism

Description

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

Admission Requirements

- Min grade requirement: GPA 2.5
- Pre-requisite: Approval of department chair
- Targeted students: All students except Mass Communication

Program Objectives

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

Program Learning Outcomes

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

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

Degree Requirements: Total Credit Hours: 18

			Course Credits
Journalism			
Required Courses			(Required Credit Hours:12)
MSC	235	Principles of the Writing for Media	3
MSC	264	News Writing	3
MSC	356	News Reporting	3

MSC	390	News Editing (lab)	3

Elective Courses: Students must chose two of these courses:			
			(Required Credit Hours:6)
MSC	342	Writing for Public Relations	3
MSC	396	Communication Research Methods	3
MSC	401	Computer Assisted Reporting	3
MSC	450	Newspaper& Magazine Production	3
PUBL	421	Press Law and Ethics	3

Minor in Leadership and Communication

Description

The ability to communicate effectively is a critical asset for leaders in today's competitive and well-connected world. The minor in leadership and communication is an interdisciplinary program that covers a wide 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.

Admission Requirements

- Min grade requirement: GPA 2.7
- Pre-requisite: Approval of department chair
- Targeted students: All students except Mass Communication and Political SC.(Government, Policy and Administration Concentration) and Psychology.

Program Objectives

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

Program Learning Outcomes

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

1. Describe basic concepts and theories related to the study of communication, management and leadership.
2. Analyze the complex inter-relationship among the various components of leadership and society and key concepts associated with each.

3. Use the language and vocabulary of marketing to create a simple marketing plan and apply marketing concepts to the successful running of an enterprise.
4. Apply the basics of effective communication and have ample opportunity to practice and improve students' communication skills.
5. Demonstrate competency in research, writing, presentation and Management skills.
6. Criticize UAE societal issues and propose effective solutions using psychological principles and management and communication skills.
7. Apply some leadership's theories in practice within the UAE society.
8. Apply decision making skills to issues related to UAE society.

Degree Requirements: Total Credit Hours: 18

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

Department of Social Wellbeing

Bachelor of Social Work

Description

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

Program Objectives

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

Program Learning Outcomes

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

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

Degree Requirements: Total Credit Hours: 120

			Course Credits
General Education (Req. Ch: 33) **Cluster 1: Skills for the Future (Req. Ch:15)**			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3
Area 2: English Communication			
			(Required Credit Hours:3)
ESPU	1014	Introduction to Academic English for Humanities and SS	3
Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3
Area 4: Critical Thinking			
			(Required Credit Hours:3)
PHI	180	Critical Thinking	3
Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
STAT	101	Statistics in the Modern World	3
MATH	120	Contemporary Applications of Math	3

			Course Credits
Cluster 2: The Human Community (Req. Ch:12)			
Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
MSC	200	Introduction to Mass Media	3
PHI	101	Introduction to Philosophy	3
PHI	226	Human Rights Theory	3
PHIL	120	Principles of Professional Ethics	3

TRS	200	Introduction to Translation	3

Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)
AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
GEO	200	World Regional Geography	3
GEHP	111	Happiness and Wellbeing	3

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

			Course Credits

Cluster 3: The Natural World (Req. Ch:6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
ARAG	205	Introduction to Fish & Animal Science	3
ARAG	220	Natural Resources	3
BION	100	Biology and its Modern Application	3
CHEM	181	Chemistry in the Modern World	3
FDSC	250	Contemporary Food Science & Nutrition	3
GEOL	110	Planet Earth	3
PHED	201	Physical Fitness and Wellness	3
PHYS	100	Astronomy	3
PHYS	101	Conceptual Physics	3

Area 2: Sustainability

			(Required Credit Hours:3)
GESU	121	Sustainability	3
			Course Credits

Social Work Major (Req. Ch: 66)

Required Courses			
			(Required Credit Hours:66)
SWK	200	Introduction to Social Welfare	3
SWK	210	Introduction to Humanitarian Social Work	3
SWK	220	Social Policy & Services	3
SWK	230	Human Behavior in Social Environments	3
SWK	240	Social Work Research Methods	4
SWK	250	Social Work Practice I: Individuals	3
SWK	251	Social Work Practice I: Skills	1
SWK	320	Social Policy Research	3
SWK	350	Social Work Practice II: Families	3
SWK	351	Social Work Practice II: Skills	1
SWK	355	Social Work Leadership	3
SWK	360	Social Work Practice III	3
SWK	361	Social Work Practice III: Skills	1
SWK	375	Social Work & Mental Health	3
SWK	376	Social Work and Special Populations	3
SWK	380	Social Work & Islam	3
SWK	385	Social Work & Substance Abuse	3
SWK	466	Field Seminar	3
SWK	499	Special Topics In Social Work	3
SWK	465 *	Social Work Practicum I	4
SWK	365	Social Work & Humanitarian Relief	3
SWK	470 **	Field Practicum II	4
SWK	485	Capstone Integrated	3
		* The internship is conducted over 2 semesters. A maximum of 6 Cr. Hrs. of courses can be registered during each of the 2 semesters	
		** The internship is conducted over 2 semesters. A maximum of 6 Cr. Hrs. of courses can be registered during each of the 2 semesters	
			Course Credits

Minors (Req. CH: 18)	
Required Minor	
	(Required Credit Hours:18)

	Course Credits
Free Electives (Req. Ch: 3)	
Free Electives	
	(Required Credit Hours:3)

Department of Tourism and Heritage

Bachelor of Arts in Tourism Studies

Description

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

Program Objectives

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

Program Learning Outcomes

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

1. Identify the facilities, resources, products, stakeholders and operational organizations in different sectors of the tourism industry as well as describe their structures and characteristics.
2. Demonstrate ethical reasoning in relation to tourism issues.
3. Identify the necessary resources of developing tourism products and analyze the factors affecting the successfulness of tourism products.
4. Analyze the current and upcoming trends of the tourism product development in the local, regional and international level.

5. Identify the influence of tourists and the tourism industry on cultural and heritage assets, societies and environments.
6. Synthesize the cultural, heritage, environmental and leisure tourism resources and facilities for sustainable development of a destination.
7. Examine materials, reports and statistics related to tourism, cultural and heritage study and sustainable development.
8. Communicate effectively in both oral and written form to various audience.

Degree Requirements: Total Credit Hours: 120

			Course Credits
General Education (Req. CH:33)			
Cluster 1: Skills for the Future (Req. Ch:15)			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3
Area 2: English Communication			
			(Required Credit Hours:3)
ESPU	1014	Introduction to Academic English for Humanities and SS	3
Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3
Area 4: Critical Thinking			
			(Required Credit Hours:3)
PHI	180	Critical Thinking	3
Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	120	Contemporary Applications of Math	3
STAT	101	Statistics in the Modern World	3
			Course Credits
Cluster 2: The Human Community (Req. Ch:12)			
Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	120	Introduction to Heritage & Culture	3

HSR	130	Introduction to Language & Communication	3
MSC	200	Introduction to Mass Media	3
PHI	101	Introduction to Philosophy	3
PHI	226	Human Rights Theory	3
PHIL	120	Principles of Professional Ethics	3
TRS	200	Introduction to Translation	3

Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)
AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
GEO	200	World Regional Geography	3
GEHP	111	Happiness and Wellbeing	3

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3
			Course Credits

Cluster 3: The Natural World (Req. Ch:6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
ARAG	205	Introduction to Fish & Animal Science	3
ARAG	220	Natural Resources	3
BION	100	Biology and its Modern Application	3
CHEM	181	Chemistry in the Modern World	3
FDSC	250	Contemporary Food Science & Nutrition	3
GEOL	110	Planet Earth	3
PHED	201	Physical Fitness and Wellness	3

PHYS	100	Astronomy	3
PHYS	101	Conceptual Physics	3
Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3

Course Credits

Tourism Major (Req Ch: 42)

Required Courses			
			(Required Credit Hours:24)
HIS	372	Arch. of UAE & A. Gulf States	3
TOR	101	Introduction to Tourism	3
TOR	202	Fundamentals of Heritage Management	3
TOR	205	Introduction to Cultural Tourism	3
TOR	222	Principles of Tour Guidance	3
TOR	421	Intensive Research in Tourism	3
TOR	485	Integrated Capstone	3
TOR	440 *	Internship in Tourism & Architecture	3
		* The internship is conducted over a complete semester. No courses are allowed to be registered during the internship	

Course Credits

Elective Courses

Cluster 1: Theoretical/Survey - Students must take two courses from this cluster, one of which must be at the 400 level			
			(Required Credit Hours:6)
GEO	432	Geography of the UAE	3
GEO	461	Geography of Tourism	3
PSG	120	Government & Politics of UAE	3
PSG	250	Principles of International Relations	3
TOR	263	Tourism Resources in the UAE	3
TOR	350	Tourism and the Environment	3
TOR	403	Tourism and Society	3
TOR	404	Sustainable Tourism Development & Planning	3

Cluster 2: Heritage - Students must take two courses from this cluster, one of which must be an art course			
			(Required Credit Hours:6)
HIS	121	World History: Origins to 1500	3
HIS	133	Introduction to Art History	3
HIS	215	Ancient History & Archaeology of Near East	3
HIS	217	Material Culture of Islamic World	3
HIS	310	Introduction to Archaeology & Museum Studies	3
HIS	381	UAE Architectural Heritage	3
HIS	471	Modern and Contemporary History of the Arab Gulf	3
TOR	322	Gulf art and design	3

Cluster 3: Tourism and Heritage Operation - Students must take two courses, one of which must be enterprise or management			
			(Required Credit Hours:6)
MGMT	200	Fundamentals of Management	3
MKTG	200	Principles of Marketing	3
MSC	243	Public Relations & Advertising Principles	3
TOR	140	Introduction to Museology	3
TOR	416	Travel Writing & New Technologies	3

Course Credits

Minors Req. CH: 36)

Minor (1)			
			(Required Credit Hours:18)

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

Course Credits

Free Electives (Req. Ch: 9)

Free Electives			
			(Required Credit Hours:9)

Minor in Cultural Resource Management

Description

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

Admission Requirements

- Min grade requirement: None
- Pre-requisite: Approval of department chair
- Targeted students: All students except History and Tourism Studies

Program Objectives

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

Program Learning Outcomes

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

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

Degree Requirements: Total Credit Hours: 18

			Course Credits
Cultural Resource Management			
Required Courses			
			(Required Credit Hours:15)
HIS	132	Fundamentals of Archeology	3
HIS	312	Historical Preservation	3
HIS	318	History of the Arabian Gulf	3
HIS	372	Arch. of UAE & A. Gulf States	3
HIS	381	UAE Architectural Heritage	3
Elective Courses			
			(Required Credit Hours:3)

HIS	217	Material Culture of Islamic World	3
HIS	440	Oral History	3
MGMT	200	Fundamentals of Management	3
MSC	235	Principles of the Writing for Media	3

Minor in Tourism

Description

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

Admission Requirements

- Min grade requirement: None
- Pre-requisite: Approval of department chair
- Targeted students: All students

Program Objectives

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

Program Learning Outcomes

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

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

Degree Requirements: Total Credit Hours: 18

Course Credits

Tourism

Core Courses (Students must take these courses)			
			(Required Credit Hours:12)
TOR	101	Introduction to Tourism	3
TOR	263	Tourism Resources in the UAE	3
TOR	403	Tourism and Society	3
HIS	381	UAE Architectural Heritage	3

Elective Courses (Choose two of the following courses one of which must be at the 300 level or above)			
			(Required Credit Hours:6)
HIS	215	Ancient History & Archaeology of Near East	3
HIS	217	Material Culture of Islamic World	3
HIS	310	Introduction to Archaeology & Museum Studies	3
TOR	350	Tourism and the Environment	3
GEO	461	Geography of Tourism	3
MSC	452	Public Relations & Advertising Campaigns	3

College of Information Technology

Department of Information Systems and Security

Bachelor of Science in Information Security

Description

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

Program Objectives

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

Program Learning Outcomes

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

1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program’s discipline.
3. Communicate effectively in a variety of professional contexts.
4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
5. Function effectively as a member or leader of a team engaged in activities appropriate to the program’s discipline.
6. Apply security principles and practices to maintain operations in the presence of risks and threats.

Degree Requirements: Total Credit Hours: 130

			Course Credits

General Education (Req. CH:33)
Cluster 1: Skills for the Future (Req. Ch:15)

Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
ITBP	418 *	Entrepreneurship in Information Technology	3
		* Also counts towards the Major	

Area 2: English Communication			
			(Required Credit Hours:3)
ESPU	1081	Introduction to Academic English for Information Technology I	3

Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3

Area 4: Critical Thinking			
			(Required Credit Hours:3)
CSBP	119 *	Algorithms and Problem Solving	3
		* Also counts towards the Major	

Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	105 *	Calculus I	3
		* Area 5: Quantitative Reasoning	

			Course Credits

Cluster 2: The Human Community (Req. Ch:12)

Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
PHI	101	Introduction to Philosophy	3

Area 2: Social and Behavioral Sciences

			(Required Credit Hours:3)
AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
GEO	200	World Regional Geography	3
GEHP	111	Happiness and Wellbeing	3

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

			Course Credits

Cluster 3: The Natural World (Req. Ch: 6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
PHYS	105 *	General Physics I	3
		* * Also counts towards the Major	

Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3

			Course Credits

College of Information Technology

College Requirements			
			(Required Credit Hours:45)
CENG	202	Discrete Mathematics	3
CENG	205	Digital Design & Computer Organization	3
CSBP	319	Data Structures	3
CSBP	219	Object Oriented Programming	3

CSBP	315	Operating Systems Fundamentals	3
MATH	110	Calculus II	3
STAT	210	Probability and Statistics	3
BIOC	100 *	Basic Biology I	3
CHEM	111	General Chemistry I	3
ITBP	480	Senior Graduation Project I	3
ITBP	481	Senior Graduation Project II	3
ITBP	370	Professional Responsibility in Information Technology	3
ITBP	495 **	Internship	12
		* * Either CHEM 111 or BIOC 100 should be taken	
		** The internship is conducted in the last semester. No courses are allowed to be registered during the internship	

Major Requirements			
			(Required Credit Hours:46)
CSBP	320	Data Mining	3
CSBP	121	Programming Lab I	1
CENG	210	Communication & Networks Fundamentals	3
CSBP	221	Programming Lab II	1
ITBP	301	Security Principles & Practice	3
CSBP	340	Database Systems	3
ISEC	311	Network Security I	3
ISEC	312	Cryptography	3
ISEC	321	Network Security II	3
ISEC	322	Design and Analysis of Security Protocols	3
ISEC	323	Secure Software Design and Engineering	3
ISEC	324	Cryptography Lab	1
ISEC	411	Privacy and Anonymity	3
ISEC	412	Digital Forensics	3
ISEC	413	Security Architecture and Mechanisms	3
ISEC	414	Network Security Lab	1
ISEC	421	Risk Analysis and Management	2
ISEC	422	Security Policy, Laws, and Governance	3
ISEC	423	Systems Security Lab	1

Major Electives (Students should select two course from the list below.			
			(Required Credit Hours:6)
ISEC	416	Information Security Management	3
ISEC	417	Database Security	3
ISEC	424	Hardware-Oriented Security and Trust	3
ISEC	428	Special Topics in Information Security	3
ITBP	280	Information Technology Project Management Exhibition	3

Bachelor of Science in Information Technology

Description

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

Program Objectives

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

Program Learning Outcomes

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

1. Analyze a complex computing problem, and to apply principles of computing and other relevant disciplines to identify solutions.
2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program’s discipline.
3. Communicate effectively in a variety of professional contexts.
4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
5. Function effectively as a member or leader of a team engaged in activities appropriate to the program’s discipline.
6. Use systemic approaches to select, develop, apply, integrate, and administer secure computing technologies to accomplish user goals. [IT]

Degree Requirements: Total Credit Hours: 130

			Course Credits

General Education (Req. CH:33)
Cluster 1: Skills for the Future (Req. Ch:15)

Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
ITBP	418 *	Entrepreneurship in Information Technology	3
		* Also counts towards the Major	

Area 2: English Communication			
			(Required Credit Hours:3)
ESPU	1081	Introduction to Academic English for Information Technology I	3

Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3

Area 4: Critical Thinking			
			(Required Credit Hours:3)
CSBP	119	Algorithms and Problem Solving	3

Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	105 *	Calculus I	3
		* Also counts towards the Major	

			Course Credits

Cluster 2: The Human Community (Req. Ch:12)

Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
PHI	101	Introduction to Philosophy	3

Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)
AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
GEO	200	World Regional Geography	3
GEHP	111	Happiness and Wellbeing	3

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

			Course Credits

Cluster 3: The Natural World (Req. Ch: 6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
PHYS	105 *	General Physics I	3
		* Also counts towards the Major	

Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3

			Course Credits

College Requirements

Required Courses			
			(Required Credit Hours:45)
CSBP	219	Object Oriented Programming	3
CSBP	315	Operating Systems Fundamentals	3

CSBP	319	Data Structures	3
STAT	210	Probability and Statistics	3
MATH	110	Calculus II	3
CENG	202	Discrete Mathematics	3
CENG	205	Digital Design & Computer Organization	3
ITBP	370	Professional Responsibility in Information Technology	3
ITBP	481	Senior Graduation Project II	3
ITBP	480	Senior Graduation Project I	3
BIOC	100 *	Basic Biology I	3
		or	
CHEM	111	General Chemistry I	3
ITBP	495 **	Internship	12
		* Either BIOC 100 or CHEM 111 should be taken	
		** The internship is conducted in the last semester. No courses are allowed to be registered during the internship	

			Course Credits
Major Requirement			
Required Courses			
			(Required Credit Hours:37)
CSBP	121	Programming Lab I	1
CSBP	221	Programming Lab II	1
CSBP	316	Human Computer Interaction	3
CSBP	340	Database Systems	3
CSBP	301	Artificial Intelligence	3
CSBP	320	Data Mining	3
CENG	210	Communication & Networks Fundamentals	3
CENG	530	Computer Network Protocols	3
CENG	529	Networking Lab	1
ITBP	280	Information Technology Project Management Exhibition	3
ITBP	301	Security Principles & Practice	3
ITBP	321	Web Application Development Lab	1
ITBP	322	Web and Mobile Systems	3
ITBP	323	Systems Integration and Administration	3

ITBP	324	Cloud Computing Fundamentals	3
			Course Credits

Major Electives

Students can choose three of the following courses based on what is being offered and demand.			
			(Required Credit Hours:9)
CSBP	483	Mobile Web Content and Development	3
ISEC	411	Privacy and Anonymity	3
ITBP	410	The Internet of Things	3
ITBP	420	Data Analytics	3
ITBP	421	Big Data Analytics	3
ITBP	430	Mobile Computing	3

Free Elective			
			(Required Credit Hours:6)

Department of Computer Science and Software Engineering

Bachelor of Science in Computer Science

Description

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

Program Objectives

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

Program Learning Outcomes

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

1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
3. Communicate effectively in a variety of professional contexts.
4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
5. Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.
6. Apply computer science theory and software development fundamentals to produce computing-based solutions.

Degree Requirements: Total Credit Hours: 130

			Course Credits
General Education (Req. CH:33) **Cluster 1: Skills for the Future (Req. Ch:15)**			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
ITBP	418 *	Entrepreneurship in Information Technology	3
		* Also counts towards the Major	
Area 2: English Communication			
			(Required Credit Hours:3)
ESPU	1081	Introduction to Academic English for Information Technology I	3
Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3
Area 4: Critical Thinking			
			(Required Credit Hours:3)
CSBP	119 *	Algorithms and Problem Solving	3
		* Also counts towards the Major	
Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	105 *	Calculus I	3
		* Also counts towards the Major	
			Course Credits
Cluster 2: The Human Community (Req. Ch:12)			

Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
PHI	101	Introduction to Philosophy	3

Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)
AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
GEO	200	World Regional Geography	3
GEHP	111	Happiness and Wellbeing	3

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

			Course Credits

Cluster 3: The Natural World (Req. Ch: 6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
PHYS	105 *	General Physics I	3
		* Also counts towards the Major	

Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3

			Course Credits
College of Information Technology			
College Requirements			
			(Required Credit Hours:45)
CENG	202	Discrete Mathematics	3
CENG	205	Digital Design & Computer Organization	3
CSBP	319	Data Structures	3
CSBP	219	Object Oriented Programming	3
CSBP	315	Operating Systems Fundamentals	3
MATH	110	Calculus II	3
STAT	210	Probability and Statistics	3
BIOC	100 *	Basic Biology I	3
CHEM	111	General Chemistry I	3
ITBP	370	Professional Responsibility in Information Technology	3
ITBP	480	Senior Graduation Project I	3
ITBP	481	Senior Graduation Project II	3
ITBP	495 **	Internship	12
		* Either CHEM 111 or BIOC 100 should be taken	
		** The internship is conducted in the last semester. No courses are allowed to be registered during the internship	
Major Requirements			
			(Required Credit Hours:40)
CSBP	121	Programming Lab I	1
CENG	210	Communication & Networks Fundamentals	3
CSBP	221	Programming Lab II	1
ITBP	301	Security Principles & Practice	3
CSBP	316	Human Computer Interaction	3
ITBP	321	Web Application Development Lab	1
CSBP	340	Database Systems	3
CSBP	301	Artificial Intelligence	3

CSBP	400	Modeling & Simulation	3
CSBP	411	Machine Learning	3
MATH	140	Linear Algebra I	3
CSBP	421	Smart Computer Graphics	3
CSBP	461	Internet Computing	3
PHYS	135	General Physics Lab I	1
SWEB	450	Analysis of Algorithms	3
SWEB	300	Software Engineering Fundamentals	3

Major Electives			
			(Required Credit Hours:12)
CSBP	320	Data Mining	3
CSBP	431	Bioinformatics	3
CSBP	476	Robotics and Intelligent Systems	3
CSBP	483	Mobile Web Content and Development	3
CSBP	487	Computer Animation and Visualization	3
CSBP	491	Computational Intelligence for Data Management	3
CSBP	499	Special Topics in Computer Science	3
SWEB	451	Game Development	3

Minor in Artificial Intelligence

Description

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

Admission Requirements

- Min grade requirement: GPA 2.5 (Conditions apply in case capacity is exceeded)
- Pre-requisite: CSBP119
- Targeted students: All students except those in Computer Science Program

Program Objectives

1. The Artificial Intelligence Minor provides the students with the needed Artificial Intelligence knowledge and skills to serve the UAE in various disciplines. The objective of the program is to prepare graduates who are capable of serving the UAE government agencies and industry with a broad-based knowledge of Artificial Intelligence and to boost government performance at all levels.

Program Learning Outcomes

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

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

Degree Requirements: Total Credit Hours: 18

			Course Credits
Artificial Intelligence			
Required Courses			
			(Required Credit Hours:9)
CSBP	301	Artificial Intelligence	3
CSBP	219	Object Oriented Programming	3
CSBP	319	Data Structures	3

			Course Credits
Elective Courses			
Choose three of the following courses			
			(Required Credit Hours:9)
CSBP	411	Machine Learning	3
CSBP	476	Robotics and Intelligent Systems	3
CSBP	441	Applied Computer Vision	3
CSBP	491	Computational Intelligence for Data Management	3
CSBP	499	Special Topics in Computer Science	3

Department of Network Engineering

Bachelor of Science in Computer Engineering

Description

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

Program Objectives

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

Program Learning Outcomes

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

1. PLO-1. Identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. PLO-2. Apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. PLO-3. Communicate effectively with a range of audiences
4. PLO-4. Recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. PLO-5. Function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. PLO-6. Develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. PLO-7. Acquire and apply new knowledge as needed, using appropriate learning strategies

Degree Requirements: Total Credit Hours: 144

			Course Credits
General Education (Req. CH:33) **Cluster 1: Skills for the Future (Req. Ch:15)**			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
ITBP	418 *	Entrepreneurship in Information Technology	3
		* Also counts towards the Major	
Area 2: English Communication			
			(Required Credit Hours:3)
ESPU	1081	Introduction to Academic English for Information Technology I	3
Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3
Area 4: Critical Thinking			
			(Required Credit Hours:3)
CSBP	119 *	Algorithms and Problem Solving	3
		* Also counts towards the Major	
Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	105 *	Calculus I	3
		* Also counts towards the Major	

			Course Credits
Cluster 2: The Human Community (Req. Ch:12)			
Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
PHI	101	Introduction to Philosophy	3
Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)

AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
GEO	200	World Regional Geography	3
GEHP	111	Happiness and Wellbeing	3

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

			Course Credits

Cluster 3: The Natural World (Req. Ch: 6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
PHYS	105 *	General Physics I	3
		* Also counts towards the Major	

Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3

			Course Credits

College of Information Technology

College Requirements			
			(Required Credit Hours:45)
CENG	202	Discrete Mathematics	3
CENG	205	Digital Design & Computer Organization	3
CSBP	319	Data Structures	3
CSBP	219	Object Oriented Programming	3
MATH	110	Calculus II	3

CSBP	315	Operating Systems Fundamentals	3
STAT	210	Probability and Statistics	3
BIOC	100 *	Basic Biology I	3
CHEM	111	General Chemistry I	3
ITBP	370	Professional Responsibility in Information Technology	3
ITBP	480	Senior Graduation Project I	3
ITBP	481	Senior Graduation Project II	3
ITBP	495 *	Internship	12
		* Either BIOC 100 or CHEM 111 should be taken	
		* The internship is conducted in the last semester. No courses are allowed to be registered during the internship	

Major Requirements

(Required Credit Hours:47)

MATH	140	Linear Algebra I	3
MATH	275	Ordinary Differential Equations	3
CENG	221	Computer Architecture	3
CENG	329	Introduction to Embedded Systems Lab	1
CENG	201	Circuits Fundamentals	3
CENG	231	Circuits Lab	1
PHYS	231	Electronics Fundamentals	3
ITBP	301	Security Principles & Practice	3
ELEC	370	Electronic Circuits	3
ELEC	375	Electronic Circuits Lab	1
CENG	325	Digital Design lab	1
CENG	320	Signals and Systems I	3
CENG	328	Introduction to Embedded Systems	3
CENG	210	Communication & Networks Fundamentals	3
CENG	324	Digital System Design	3
SWEB	300	Software Engineering Fundamentals	3
CSBP	121	Programming Lab I	1
PHYS	135	General Physics Lab I	1
CSBP	221	Programming Lab II	1
PHYS	110	General Physics II	3

PHYS	140	General Physics Lab II	1

Major Electives (Thirteen (13) semester credit hours of Major Technical Electives (four courses and one lab) are required.)			
			(Required Credit Hours:13)
CENG	518	VLSI Design	3
CENG	513	Hardware Testing and Fault Tolerance	3
CENG	521	Hardware/Software Integration	3
CENG	530	Computer Network Protocols	3
CENG	531	Wireless Communication and Sensor Networks	3
CENG	532	Network Security	3
CENG	533	Advanced Network Services	3
CENG	529	Networking Lab	1
CENG	580	Selected Topics in Computer Engineering	3

Free Elective			
			(Required Credit Hours:6)

College of Law

Bachelor of Law

Description

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

1. Build and develop a solid scientific base of knowledge in all areas of public and private law among the students.
2. Create and enhance the professional practical aspect of the theoretical knowledge gained by students.
3. Enable students to conduct legal research in accordance with well-established scientific research methodologies.
4. Enable students to acquire professional skills and to efficiently use them in order to enhance their professional performance.
5. Develop the ethical aspects of students' unique personality which are necessary for the exercise of the legal profession.

Program Learning Outcomes

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

1. Explain the concepts and rules of law, Especially the UAE law.
2. Apply legal rules to the actual facts in a correct manner.
3. Interpret legal provisions in accordance with well-established rules of interpretation.
4. Conduct a scientific research in accordance with legal research methodologies.
5. Formulate memorandums and judicial decisions in a clear and correct language.
6. Deliver speeches to audience fluently and with proper language.
7. Use information technology accurately and efficiently in undertaking various duties.
8. Demonstrate self-management and independent learning skills with regard to the field of law.
9. Lead a team positively.
10. Comply with professional and ethical rules in performing the required tasks.

Degree Requirements: Total Credit Hours: 130

			Course Credits
General Education (Req. CH:33) **Cluster 1: Skills for the Future (Req. Ch:15)**			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3
Area 2: English Communication			
			(Required Credit Hours:3)
ESPU	1052	English for Law I	3
Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3
Area 4: Critical Thinking			
			(Required Credit Hours:3)
LAW	115 *	Legal Research Methodology	3
		* Also counts towards the Major	
Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	120	Contemporary Applications of Math	3
STAT	101	Statistics in the Modern World	3
			Course Credits
Cluster 2: The Human Community (Req. Ch:12)			
Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
SHAR	112 *	Introduction to Islamic Law and its Sources	3
		* Also counts towards the Major	
Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)
SHAR	204 *	Personal Status (Marriage and Divorce)	3
		* Also counts towards the Major	

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

			Course Credits

Cluster 3: The Natural World (Req. Ch: 6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
ARAG	205	Introduction to Fish & Animal Science	3
ARAG	220	Natural Resources	3
BION	100	Biology and its Modern Application	3
CHEM	181	Chemistry in the Modern World	3
FDSC	250	Contemporary Food Science & Nutrition	3
GEOL	110	Planet Earth	3
PHED	201	Physical Fitness and Wellness	3
PHYS	100	Astronomy	3
PHYS	101	Conceptual Physics	3
VMED	110	Introduction to Veterinary Medicine	3

Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3

			Course Credits

Part 1: Major Requirements (97 Cr. Hrs)

Core Courses			
			(Required Credit Hours:84)
LW	111	Arabic For Specific Purposes	3
PRVT	113	Introduction to Law	3
PRVT	210	Sources of Obligation	3
PRVT	211	The Rules of Evidence	3

PRVT	227	Principles of Commercial Law	3
PRVT	302	Civil Procedures	3
PRVT	304	Labour Law	3
PRVT	307	The Rules of Obligations	3
PRVT	333	Selected Studies in Comparative Private Law-English	3
PRVT	338	Company Law	3
PRVT	406	The Law of Execution	3
PRVT	407	Private International Law	3
PRVT	408	Maritime and Aviation Law	3
PRVT	410	Nominated Contract (Sale, Lease & Construction)	3
PRVT	453	Commercial Papers & Banking	3
PRVT	455	Rights in Rem	3
PRVT	462	Intellectual Property Laws	3
PUBL	114	Constitutional Law	3
PUBL	206	Administrative Law	3
PUBL	207	Public International Law	3
PUBL	209	Penal Law- General	3
PUBL	226	Selected Studies in Comparative Public Law-English	3
PUBL	305	Penal Law Specific (1) Individual and Financial Crimes	3
PUBL	310	Public Finance and Tax Legislation	3
PUBL	335	Criminal Procedures Law	3
SHAR	327	Inheritance, Will & Mortmain	3
SHAR	329	Principles of Islamic Jurisprudence	3
SHAR	409	Islamic Criminal System	3

Course Credits

Part 2: Elective Courses (9 Cr. Hrs)

Arabic Group ((6 Cr. Hrs)
Students should take two courses from the list below

(Required Credit Hours:6)

PRVT	201	Consumer Protection Law	3
PUBL	306	Penal Law (Specific) 2 "Emerging Crimes"	3
PUBL	309	Public Employment	3

PUBL	401	International Human Rights Law	3
PRVT	339	Commercial Arbitration Law	3
PRVT	340	Securities Law	3
SHAR	212	Rules of Jurisprudence	3

English Group (3 Cr. Hrs) Students Should take one course from the list below			
			(Required Credit Hours:3)
PUBL	308	International Organizations-English	3
ECON	110	Principles of Economics	3

			Course Credits

Part 3: Training

Required Courses			
			(Required Credit Hours:4)
LAW	340	Internal Training	3
LAW	440 *	External Training	1
		* The internship is conducted over 6 weeks in any of last year semesters (including Summer). No courses are allowed to be registered during the internship	

College of Medicine and Health Sciences

Doctor of Medicine

Description

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

1. Medical Knowledge.
2. Interpersonal & Communication Skills.
3. Patient Care.
4. Practice based learning & Improvement.
5. Professionalism.
6. System based practice.

Program Learning Outcomes

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

1. Apply knowledge of established and evolving biomedical, clinical, epidemiological, and behavioral sciences to solve patient's medical problems.
2. Use communication skills that are effective in the exchange of information and collaboration with patients, their families, and health professionals.
3. Demonstrate their abilities in providing patient care that is compassionate, appropriate and effective for the treatment of health problems.
4. Reflect on patient care, appraising scientific evidence, and to continuously improve patient care based on self -evaluation and life-long learning.
5. Demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.
6. Demonstrate an awareness of and responsiveness to the larger context and system of health care.

Degree Requirements: Total Credit Hours: 342

			Course Credits
General Education (Req CH:46)			
Cluster 1: Values to Live By - Islam			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3
Cluster 1: Values to Live By - Ethics			
			(Required Credit Hours:2)
PCOM	226	Professional Practice and Communication 4	2
Cluster 2: Skills for Life - English Communication Skills			
			(Required Credit Hours:6)
PCOM	105	Professional Practice and Communication 1	3
PCOM	112	Professional Practice and Communication 2	3
Cluster 2: Skills for Life - Thinking Skills 2			
			(Required Credit Hours:2)
PCOM	219	Professional Practice and Communication 3	2
Cluster 3: The Human Community - Emirates Society			
			(Required Credit Hours:3)
HSS	105	Emirates Studies	3
Cluster 3: The Human Community - Social and Behavioral Sciences			
			(Required Credit Hours:6)
HEHA	450	Behavioral Sciences	6
Cluster 3: The Human Community - Humanities/Fine Arts			
			(Required Credit Hours:3)
LITM	102	Language and Literacy	3
Cluster 3: The Human Community - The Global Experience			
			(Required Credit Hours:4)
PHCM	560	Public Health and Community Medicine	4
Cluster 4: The Natural World - Mathematics			
			(Required Credit Hours:7)

MMAT	101	Numeracy and Information Technology	3
BSTA	110	Biostatistics and Epidemiology 1	2
BSTA	218	Biostatistics and Epidemiology 2	2

Cluster 4: The Natural World - Natural Sciences			
			(Required Credit Hours:6)
HBIO	106	Human Biology	3
MCHE	108	Biological Chemistry	3

Cluster 5: Capstone Experience			
			(Required Credit Hours:4)
ECCT	579	Internal Elective	4

Course Credits

Major Requirements

Required Courses			
			(Required Credit Hours:296)
MCHE	103	Chemistry for Medicine	3
HANA	104	Human Anatomy 1	3
CYHS	107	Cytology and Histology	3
PHYL	109	Human Physiology 1	4
HANA	111	Human Anatomy 2	3
EMBR	213	Human Embryology	3
HANA	214	Human Anatomy 3	3
MBIO	215	Molecular Biology	3
PHYL	216	Human Physiology 2	4
MGEN	217	Medical Genetics	3
HANA	220	Human Anatomy 4	4
MTAB	221	Cellular Communication and Metabolism	2
PHYL	222	Human Physiology 3	3
MCRO	223	Principles of Microbiology and Immunology	3
PATH	224	Pathology	3
PHAM	225	Pharmacology	3
MSCE	299	Pre-Medical Program Exam	24

INFE	310	Infection, Inflammation and Immunity	7
HONC	320	Mechanisms of Malignancies and Hematology	7
CDPM	330	Cardiovascular System	7
RESP	340	Respiratory System	7
WMEX	350	Renal and Urogenital Systems	6
CLSM	360	Clinical Skills and Professionalism 1	6
GAST	410	Gastrointestinal System	6
ENDO	420	Endocrine and Metabolism	6
MUSC	430	Musculoskeletal System	6
NEOR	440	Neuroscience and Special Senses	10
CLSM	460	Clinical Skills and Professionalism 2	6
OSCE	499	Pre-Clinical Program Exam	20
IMED	510	Internal Medicine I	8
SURG	520	Surgery I	8
PAED	530	Pediatrics I	8
OBGY	540	Obstetrics and Gynaecology	8
PSCH	550	Psychiatry and Behavioral Sciences	4
ECCT	570	External Elective	4
IMED	571	Internal Medicine II	4
IMED	572	Internal Medicine Selective	4
SURG	573	General Surgery	4
SURG	574	Surgery Specialty	4
PAED	575	Pediatrics II	4
FAMD	576	Family Medicine	4
EMED	578	Emergency Medicine	4
FIEE	599	Final Integrated Examination	60

Department of Nutrition and Health

Bachelor of Science in Dietetics

Description

The Coordinated Program in Dietetics (CPD) offered by the Department of Nutrition and Health (DNH), College of Medicine and Health Sciences aims to prepare graduates who are competent entry-level dietitians. The program mission is to prepare competent graduates who are highly-qualified entry-level dietitians, to improve the nutritional well-being and health of the UAE population. The program goals are (1) to prepare graduates to be competent, entry-level dietitians and (2) to prepare graduates who demonstrate leadership and a commitment to community service. The Coordinated Program in Dietetics at UAEU is accredited as a Foreign Dietitian Education Programs (FDE) by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy of Nutrition and Dietetics (AND), 120 South Riverside Plaza, Suite 2190, Chicago, IL 60606-6995, 1(312) 899-0040 ext. 5400; Website: http://www.eatright.org/ACEND/. The program prepares students to achieve the ACEND Core Knowledge and Competencies for an entry-level dietitian through academic courses and 1200 hours of supervised practice experience which includes 920 hours of supervised practice rotations in various training facilities. Effective January 1, 2024, the Commission on Dietetic Registration (CDR) will require a minimum of a master's degree to be eligible to take the credentialing exam to become a registered dietitian nutritionist (RDN). In order to be approved for registration examination eligibility with a bachelor's degree, an individual must meet all eligibility requirements and be submitted into CDR's Registration Eligibility Processing System (REPS) before 12:00 midnight Central Time, December 31, 2023.

Program Objectives

1. Goal # 1 Objectives:
2. a. 85% of students will complete the program requirements within 3.75 years from the time of enrollment in the CPD (150% of the time allowed)
3. b. At least 60% of graduates seeking employment will have obtained employment related to their major within 12 months of completing the program.
4. c. The Health Authorities in the UAE requires graduates of UAEU's Coordinated Program in Dietetics to complete an additional six-month practicum before being eligible to sit for the credentialing examination. 80% of graduates will take the UAE credentialing exam within twelve months of completing this practicum.
5. d. The Regulatory Health Authorities in the UAE require dietetics graduates to pass a licensing exam administered by the Department of Health- Abu Dhabi, Ministry of Health and Prevention or Dubai Health Authority. Over a 5-year period, 80% of graduates will pass the dietitian-licensing exam (Department of Health – Abu Dhabi or its equivalent) within one year following first attempt.
6. e. At least 85% of employers responding to surveys on a scale of 1-5 (5=excellent) will rate graduates as 3 (satisfactory) or better for knowledge, skills and competencies for entry-level practice.
7. f. At least 60% of the program graduates seeking employment will find a position in a clinical setting.
8. Goal #2 Objectives:
9. a. At least 50% of graduates will indicate on the alumni survey that they actively participate in community service activities during the past year.
10. b. Over a 5-year period, 60% of graduates will be active members of professional associations within 12 months post-graduation.
11. c. Over a 3-year period, at least 80% of employers responding to surveys on a scale of 1-5 (5=excellent) will rate graduates as 3 (satisfactory) or better for demonstration of leadership skills.
12. Outcomes of the program objectives:
13. Outcome data measuring achievement of program objectives are available on request.

Program Learning Outcomes

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

1. Explain the scientific basis of human nutrition and nutrition requirements in health and disease
2. Apply principles of medical nutrition therapy and the nutrition care process (NCP) using evidence-based guidelines in a variety of clinical settings.
3. Conduct a nutrition research project using appropriate research methods.
4. Demonstrate leadership skills, time management, work ethics and collaborative relationships with other health professionals and support personnel to deliver effective nutrition services.
5. Apply activities related to planning, implementing and evaluating nutrition services to improve nutrition and health of individuals, groups and communities.
6. Perform self-assessment for professional self-improvement by identifying knowledge and skills to acquire.
7. Perform management functions related to safety, security and sanitation that affect employees, customers, patients, facilities and food.

Degree Requirements: Total Credit Hours: 120

			Course Credits
General Education (Req. CH:33) **Cluster 1: Skills for the Future (Req. Ch:15)**			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3
Area 2: English Communication			
			(Required Credit Hours:3)
ESPU	106	Introduction to Academic English For Food & Agriculture	3
Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3
Area 4: Critical Thinking			
			(Required Credit Hours:3)
PHI	180	Critical Thinking	3
Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	105 *	Calculus I	3
		* Also counts towards the Major	
			Course Credits

Cluster 2: The Human Community (Req. Ch:12)

Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
PHI	101	Introduction to Philosophy	3

Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)
AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
GEO	200	World Regional Geography	3
GEHP	111	Happiness and Wellbeing	3

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

			Course Credits

Cluster 3: The Natural World (Req. Ch: 6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
BIOC	100 *	Basic Biology I	3
		* Also counts towards the Major	

Area 2: Sustainability			
			(Required Credit Hours:3)

GESU	121	Sustainability	3

			Course Credits
Coordinated Program in Dietetics			
Required Courses			
			(Required Credit Hours:75)
BIOL	270	General Genetics	2
BIOC	275	Genetics Laboratory	1
BIOE	230	Microbiology	3
CHEM	111	General Chemistry I	3
CHEM	112	General Chemistry II	2
CHEM	115	General Chemistry Lab	1
CHEM	282	Organic Chemistry for Non-Majors	3
CHEM	283	Biochemistry for Non-Majors	3
FDSC	250	Contemporary Food Science & Nutrition	3
FDSC	331	Fundamentals of Food Preparation	4
MGMT	200	Fundamentals of Management	3
NUTR	320	Macronutrient Nutrition and Metabolism	2
NUTR	321	Nutrition Assessment I	1
NUTR	330	Micronutrient Nutrition and Metabolism	2
NUTR	331	Nutrition Assessment II	1
NUTR	355	Nutrition Seminar	1
NUTR	352	Human Nutrition in Various Ages Stages	3
NUTR	371	Food Service Systems Management I	2
NUTR	372	Food Service Systems Management I SP	2
NUTR	377	Medical Nutrition Therapy I (CPD Program)	2
NUTR	378	Medical Nutrition Therapy I SP	1
NUTR	403	Nutrition Education and Communication (CPD Program)	2
NUTR	404	Nutrition Education and Communication (SP)	1
NUTR	484	Food Service Systems Management II	2
NUTR	485	Food Service Systems Management II (SP)	1
NUTR	486	Community Nutrition (CPD)	2
NUTR	487	Community Nutrition (SP)	1

NUTR	488	Medical Nutrition Therapy II (CPD)	2
NUTR	489	Medical Nutrition Therapy II (SP)	1
NUTR	481	Senior Project (CPD Program)	3
PHYL	101	Introductory Physiology	3
STAT	235	Statistics for Biology	3
PHYS	105	General Physics I	3
NUTR	490 *	Internship (CPD)	6
		* The internship is conducted over 24 weeks after finishing all course work. No courses are allowed to be registered during the internship	

Elective Courses			
			(Required Credit Hours:6)
FDSC	309	Sensory evaluation	3
FDSC	352	Food Safety	3
FDSC	355	Food Processing	3
NUTR	396	Sports Nutrition	3
NUTR	443	Meal Planning	3

Free Electives			
			(Required Credit Hours:6)

Bachelor of Science in Nutritional Science

Description

Nutritional Science provides the breadth of knowledge in nutrition, from basic sciences to research for nutrition. Graduates will get an understanding of the role of nutrition plays in disease prevention and promotion of health and get prepared to become productive professionals aiming at improving well-being and health of the community

Program Objectives

1. To provide knowledge, skills and professional values for a successful career in nutrition and potential entry into graduate education
2. To prepare graduates who demonstrate commitment to community service, leadership, communication, research skills, knowledge as well as ethical values.

Program Learning Outcomes

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

1. Explain scientific basis of human nutrition, nutritional requirements, nutritional epidemiology and research methods.
2. Implement nutritional assessment, nutrient analysis of foods and dietary planning to promote health and in support of healthy individuals and communities
3. Describe the food chain and its impact on food choices and practices in social and behavioral contexts.
4. Demonstrate ethical behavior and values of professional conduct, according to good clinical practices.
5. Formulate ideas and opinions concerning food and diet.
6. Evaluate appropriate theories and methods (dietary, research, statistical) for health promotion, education and nutrition-related investigations.
7. Effectively perform and interpret statistical analyses for decision-making purposes in the field of nutrition.
8. Demonstrate the ability to work efficiently and effectively in group.
9. Communicate effectively in oral and written forms with diverse audiences.

Degree Requirements: Total Credit Hours: 120

			Course Credits
General Education (Req. Ch:33) **Cluster 1: Skills for the Future (Req. Ch:15)**			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3
Area 2: English Communication			
			(Required Credit Hours:3)
ESPU	106	Introduction to Academic English For Food & Agriculture	3
Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3

Area 4: Critical Thinking			
			(Required Credit Hours:3)
PHI	180	Critical Thinking	3

Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	105 *	Calculus I	3
		* Also counts towards the Major	

Course Credits

Cluster 2: The Human Community (Req. Ch:12)

Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
PHI	101	Introduction to Philosophy	3

Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)
AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
GEO	200	World Regional Geography	3
GEHP	111	Happiness and Wellbeing	3

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)

ISLM	100	Islamic Culture	3

Course Credits

Cluster 3: The Natural World (Req. Ch: 6)

Area 1: Natural Sciences

(Required Credit Hours:6)

BIOC	100 *	Basic Biology I	3

* Also counts towards the Major

Area 2: Sustainability

(Required Credit Hours:3)

GESU	121	Sustainability	3

Course Credits

Nutritional Science

Required Courses

(Required Credit Hours:66)

BIOC	275	Genetics Laboratory	1
BIOE	230	Microbiology	3
BIOL	270	General Genetics	2
BIOM	229	Cell Biology I	2
CHEM	111	General Chemistry I	3
CHEM	112	General Chemistry II	2
CHEM	115	General Chemistry Lab	1
CHEM	282	Organic Chemistry for Non-Majors	3
CHEM	283	Biochemistry for Non-Majors	3
FDSC	250	Contemporary Food Science & Nutrition	3
PHYL	101	Introductory Physiology	3
PHYS	135	General Physics Lab I	1
STAT	235	Statistics for Biology	3
FDSC	330	Fundamentals of Food Science	3
NUTR	320	Macronutrient Nutrition and Metabolism	2
NUTR	321	Nutrition Assessment I	1
NUTR	330	Micronutrient Nutrition and Metabolism	2
NUTR	331	Nutrition Assessment II	1

NUTR	355	Nutrition Seminar	1
NUTR	352	Human Nutrition in Various Ages Stages	3
NUTR	360	Immunology and Nutrition	2
NUTR	375	Medical Nutrition Therapy I (NS Program)	3
NUTR	380	Food Service Systems Management (NS Program)	3
NUTR	401	Nutrition Education and Communication (NS Program)	3
NUTR	482	Community Nutrition (NS Program)	3
NUTR	480	Senior Research Project (NS Program)	3
PHYS	105	General Physics I	3
NUTR	491 *	Internship (NS)	3
		* The internship is conducted over a complete semester during the last study year. No courses are allowed to be registered during the internship	

Elective Courses			
			(Required Credit Hours:15)
FDSC	309	Sensory evaluation	3
NUTR	379	Functional Food and Health	3
NUTR	396	Sports Nutrition	3
NUTR	443	Meal Planning	3
NUTR	478	Medical Nutrition Therapy II (NS Program)	3
AGRB	360	Global Agri-food Trade	3
AGRB	395	Contemporary Food Sustainability and Nutrition	3
BIOM	399	Molecular Biology	2
PHYS	110	General Physics II	3

Free Electives			
			(Required Credit Hours:6)

Department of Speech Language Pathology

Bachelor of Science in Speech Language Pathology

Description

The Bachelor of Science in Speech-Language Pathology trains students on how to understand, diagnose and efficiently treat a number of speech and language disorders throughout the entire lifespan of human development from early childhood through the elder years. These include voice disorders, articulation problems, fluency problems, aphasia, phonological problems, and delays in speech or language. Program graduates gain a core theoretical understanding of a range of communication, swallowing, and related disorders, and discuss principles of assessing, treating, and managing people with communication and swallowing difficulties. Upon graduation, students will have developed a sufficient level of expertise for safe and competent management of a broad range of patients within a variety of clinical contexts.

Program Objectives

1. To provide students with specialist knowledge and practical skills needed to work as succesful Speech and Language Therapy practitioners.
2. To equip students with the vision and intellectual skills needed to originate, conduct and disseminate innovative specialist research within the area of language and communicative disorders.
3. To motivate students to develop a strong commitment to professional codes of ethical and legal standards.
4. To guide the students in applying the values of tolerance, respect and social solidarity required to practice within the multicultural populations of the UAE, the GCC and the global community.

Program Learning Outcomes

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

1. Outline the anatomical, physiological, psychological, linguistic, and cultural correlates of speech and language disorders.
2. Determine precise clinical diagnoses for patients with speech and language disorders across the developmental and acquired spectrum.
3. Develop ethical and effective patient-specific treatment plans through clinical reasoning and patient/client observation.
4. Implement evidence-based treatment for persons with speech and language disorders, utilizing clinical resources and patient/client monitoring.
5. Demonstrate high professional standards and communication skills that are effective in providing patient services, interacting with colleagues from other disciplines, educating families, and advocating for appropriate services within the health system.

Degree Requirements: Total Credit Hours: 120

			Course Credits
General Education (Req. Ch: 33) **Cluster 1: Skills for the Future (Req. Ch:15)**			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3
Area 2: English Communication			
			(Required Credit Hours:3)

ESPU	1014	Introduction to Academic English for Humanities and SS	3

Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3

Area 4: Critical Thinking			
			(Required Credit Hours:3)
PHI	180	Critical Thinking	3

Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
STAT	180 *	Psychological Statistics I	3
		* Also counts towards the Major	

Course Credits

Cluster 2: The Human Community (Req. Ch:12)

Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
MSC	200	Introduction to Mass Media	3
PHI	101	Introduction to Philosophy	3
PHI	226	Human Rights Theory	3
PHIL	120	Principles of Professional Ethics	3
TRS	200	Introduction to Translation	3

Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)
AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3

PSY	100	Introduction to Psychology	3
GEO	200	World Regional Geography	3
GEHP	111	Happiness and Wellbeing	3

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

			Course Credits

Cluster 3: The Natural World (Req. Ch:6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
BIOC	100 *	Basic Biology I	3
		* Also counts towards the Major	

Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3

			Course Credits

I. Core Courses (Req. CH: 18)

A. Foundation Courses			
			(Required Credit Hours:18)
LNG	100	Introduction to Linguistics	3
LNG	220	Phonetics	3
LNG	290	Linguistic Structure of Arabic	3
LNG	450	Psycholinguistics	3
PSY	305	Cognitive Psychology	3
PHYS	105	General Physics I	3

			Course Credits

B. Introductory Courses (Req. CH: 15)

B. Introductory Courses			
			(Required Credit Hours:15)
SLP	106	Introduction to Speech and Language Disorders	3
SLP	236	Neurology for Speech, Language & Hearing	3
SLP	246	Speech Physiology	3
SLP	276	Child Language Development	3
PSY	201	Research Methods in Psychology	3
			Course Credits

C. Pre-Clinical Components (Req. CH: 30)

C. Pre-Clinical Components			
			(Required Credit Hours:30)
SLP	256	Introduction to Audiology/Hearing Sciences	3
SLP	306	Early Childhood Language Disorders	3
SLP	286	Voice Disorders	3
SLP	316	Articulation and Phonological Disorders	3
SLP	326	Fluency Disorders	3
SLP	336	Deglutition and Dysphagia	3
SPED	346	Communication Disorders in School Age Children and Adolescents	3
SLP	356	Adult Neurologic Communication Disorders	3
SLP	366	Motor Speech Disorders	3
SLP	426	Augmentative and Alternative Communication	3
			Course Credits

II. Practical Clinical Training (Req. Ch: 24)

Required Courses			
			(Required Credit Hours:24)
SLP	406	Evaluation, Diagnosis & Report Writing	3
SLP	416	Medical Aspects of Speech Language Pathology	3
LNG	455	Practicum	3
SLP	456 *	Practicum 2: Clinical Methods & Therapy	6
SLP	466 **	Practicum 3: Advanced Clinical Method & Therapy	9
		* Internships to a minimum requirement of 200 Clinical Hours	
		** Internships to a minimum requirement of 300 Clinical Hours. All other major requirements must have been completed before taking this course and no other courses can be taken at the same time	

College of Science

Department of Biology

Bachelor of Science in Biology

Description

The program in Biology is designed to provide students with a strong foundation in biological sciences, after which they can major in one of two concentrations: cellular and molecular biology, or ecology and organismal biology. Students get good background in chemistry. 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 the two major areas. The program aims at graduating students who are prepared for the demands of professional life, intellectually competent and technically skillful, so they can participate in finding solutions to current major challenges of everyday life.

Program Objectives

1. Develop proficiency of basic concepts in cellular and molecular biology, ecology and environmental sciences, and general biology.
2. Foster teamwork and improve oral and communication skills.
3. Foster a student-oriented research program that results in professional publications.
4. Embrace student-oriented teaching methods that nurture critical thinking abilities and apply their knowledge to solve theoretical and empirical real-life problems.
5. Prepare students for future job market and careers.

Program Learning Outcomes

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

1. Assess up-to-date knowledge relating to principles, theories, and models of biological systems.
2. Evaluate practical, empirical, and theoretical problems in biology.
3. Analyze and communicate scientific information effectively and professionally.
4. Conduct safe and ethical biological lab and/or field experiments and interpret results.
5. Compare opinions on present and future global scientific challenges in line with the UAE national interests and job market.
6. Work effectively both independently and in a team.

Degree Requirements: Total Credit Hours: 120

			Course Credits
General Education (Req. Ch: 33)			
Cluster 1: Skills for the Future (Req. Ch:15)			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3
Area 2: English Communication			
			(Required Credit Hours:3)

ESPU	102	Introduction to Academic English For Science	3

Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3

Area 4: Critical Thinking			
			(Required Credit Hours:3)
CSBP	119	Algorithms and Problem Solving	3
PHI	180	Critical Thinking	3

Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	105 *	Calculus I	3
		* Also counts towards the Major	

Course Credits

Cluster 2: The Human Community (Req. Ch:12)

Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
PHI	101	Introduction to Philosophy	3

Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)
AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
GEO	200	World Regional Geography	3
GEHP	111	Happiness and Wellbeing	3

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

			Course Credits

Cluster 3: The Natural World (Req. Ch:6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
PHYS	105 *	General Physics I	3
		* Also counts towards the Major	

Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3

Specialization Requirements

Required Courses			
			(Required Credit Hours:30)
BIOC	100	Basic Biology I	3
BIOC	155	Biology Laboratory 1	1
BIOC	160	Basic Biology II	4
BIOC	165	Biology Laboratory 2	1
BIOC	250	Basic Ecology	3
BIOC	270	General Genetics	3
BIOC	275	Genetics Laboratory	1
BIOC	290	Cell and Molecular Biology	3
BIOC	490	Advanced Bio-applications	2
BIOC	480	Research Project	3
BIOL	500 *	Internship	6
		* The internship is conducted over half a semester (8 weeks) during the last year of study.	
Supporting Required Courses			

			(Required Credit Hours:24)
CHEM	111	General Chemistry I	3
CHEM	113	General Chemistry II for Science Students	3
CHEM	115	General Chemistry Lab	1
CHEM	241	Organic Chemistry I	3
CHEM	245	Organic Chemistry Lab I	1
MATH	110	Calculus II	3
STAT	235	Statistics for Biology	3
GEOL	100	Physical Geology	3
PHYS	135	General Physics Lab I	1
PHYS	110	General Physics II	3

			Course Credits

Ecology and Organismal Biology Concentration (Req. Ch: 27)

Required Course			
			(Required Credit Hours:3)
BIOE	250	Biodiversity and Evolution	3

Elective Courses (EOB) (Req. CH: 24) (A student must take 24 credits to fulfill the requirements for graduation. A minimum of 15 credits must be taken as specified from the list below. The other 9 credits can be taken from the same list or from courses in the CMB concentration.) (Level-2 Courses: (Student must take at least 3 CH from this level)			
			(Required Credit Hours:3)
BIOE	212	Biology of Invertebrates	3
BIOE	214	Biology of Vertebrates	3
BIOE	230	Microbiology	3

Level-3 Courses: (Student must take at least 6 CH from this level)			
			(Required Credit Hours:6)
BIOE	310	Insect Diversity, Ecology, and Systematics	3
BIOE	320	Population and Community Ecology	3
BIOE	330	Diversity and Biology of Fungi	3
BIOE	332	Biology of Parasites	3
BIOE	340	Biology and Diversity of Mammals	3
BIOE	350	Plant Anatomy and Physiology	3

BIOE	355	Animal Anatomy and Physiology	3
BIOE	360	Oceanography	3
BIOE	370	Botany	3
BIOE	380	Desert Ecology	3
BIOE	391	Field Ecology	3

Level-4 Courses: (Student must take at least 6 CH from this level)			
			(Required Credit Hours:6)
BIOE	435	Bacteriology	3
BIOE	436	Molecular Ecology	3
BIOE	450	Biology and Diversity of Birds	3
BIOE	454	Marine Biology	3
BIOE	457	Animal Behavior	3
BIOE	459	Conservation Biology	3

			Course Credits

Cellular and Molecular Biology Concentration (Req. Ch: 27)

Required Courses			
			(Required Credit Hours:3)
BIOM	335	Molecular Biology of Genes	3

Elective Courses (CMB) (Req. Ch: 15- 24) (A student must take 24 credits to fulfill the requirements for graduation. A minimum of 15 credits must be taken from the list below. The other 9 credits can be taken from the same list or from courses in the EOB concentration.)			
			(Required Credit Hours: 15 - 24)
BIOM	339	Virology	2
BIOM	350	Developmental Biology	3
BIOM	260	Introduction to Neurosciences	3
BIOM	370	Introductory Bioinformatics	3
BIOM	380	Genomics	3
BIOM	390	Introduction to Epigenetics	2
BIOM	420	Molecular Basis of Cell and Tissue Development	3
BIOM	430	Cellular Biochemistry	3
BIOM	433	Biotechnology & Genetic Engineering	3

BIOM	461	Tissue Culture	3
BIOM	462	Immunology	3
BIOM	470	Molecular Physiology	3
BIOM	481	Molecular Evolution	3
BIOM	489	Molecular Biology Techniques	1
BIOM	490	Biology of Diseases	3

Course Credits

Free Electives (Req. Ch: 6)

Free Elective
(Student must take any course with 3 Credit Hours)

(Required Credit Hours:6)

Minor in Ecological and Environmental Biology

Description

The minor serves to provide students with latest knowledge in environmental and ecological sciences and how to deal with current environmental problems.

Admission Requirements

- Min grade requirement: None
- Pre-requisite: None
- Targeted students: All students except those with a major in Biology.

Program Objectives

1. Develop appreciation to the vast and vital areas in ecology.
2. Familiarize students with the interaction of physical and biological components of the environment and how each component influences the other.
3. Explore the diversity of organisms globally and locally, and the adaptations of selected groups.

Program Learning Outcomes

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

1. Demonstrate a thorough understanding of the importance of biodiversity for ecosystem functioning.
2. Describe and assess the human impact on the environment.
3. Describe ecological principles as a tool to solve environmental problems.

Degree Requirements:			Total Credit Hours: 18
			Course Credits
Required Courses			
Student should take 6 courses from the following list:			
			(Required Credit Hours:18)
BIOE	240	Principles of Environmental Science	3
BIOC	250	Basic Ecology	3
BIOE	250	Biodiversity and Evolution	3
BIOE	380	Desert Ecology	3
BIOE	390	Wildlife & Rangeland Management	3
BIOE	360	Oceanography	3
BIOE	453	Environmental Toxicology	3
BIOE	457	Animal Behavior	3
BIOE	459	Conservation Biology	3

Department of Chemistry

Bachelor of Science in Biochemistry

Description

The B.Sc. in Biochemistry program provides students with a strong foundation in all areas of chemistry, with emphasis on biochemistry. Students also develop a good background in the related areas of molecular biology and microbiology. Students develop practical skills through laboratory courses utilizing state of the art equipment and internship training. Students also gain strong IT and communication skills and have the opportunity to become involved in biochemistry research. Graduates of the program are well prepared to take up positions in the chemical, pharmaceutical and biotechnology industries or pursue further studies at the graduate level.

Program Objectives

1. To provide students with a strong foundation in chemistry and biochemistry.
2. To develop students' transferable skills in areas such as communication and teamwork.
3. To train students to use modern lab techniques safely and effectively.
4. To develop students' appreciation of the role of biochemistry and scientific research in modern life.
5. To prepare students for a successful career or further studies in chemistry and biochemistry.

Program Learning Outcomes

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

1. Demonstrate knowledge of major concepts, theoretical principles and experimental findings in chemistry, biochemistry and biology.
2. Conduct biochemistry laboratory experiments and analyze results.
3. Retrieve and use chemical and biochemical information from scientific literature.
4. Solve practical and theoretical problems in biochemistry and demonstrate critical thinking.
5. Communicate effectively both orally and in writing.
6. Work effectively independently and in teams
7. Conform to safety, ethical and professional standards of chemistry and biochemistry.

Degree Requirements: Total Credit Hours: 120

			Course Credits
General Education (Req. CH:33) **Cluster 1: Skills for the Future (Req. Ch:15)**			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3
Area 2: English Communication			
			(Required Credit Hours:3)
ESPU	102	Introduction to Academic English For Science	3
Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3
Area 4: Critical Thinking			
			(Required Credit Hours:3)
CSBP	119	Algorithms and Problem Solving	3
PHI	180	Critical Thinking	3
Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	105 *	Calculus I	3
		* Also counts towards the Major	
			Course Credits
Cluster 2: The Human Community (Req. Ch:12)			
Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)

HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
PHI	101	Introduction to Philosophy	3
Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)
AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
GEO	200	World Regional Geography	3
GEHP	111	Happiness and Wellbeing	3
Area 3: Emirates Society			
			(Required Credit Hours:3)
HSS	105	Emirates Studies	3
Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3
			Course Credits

Cluster 3: The Natural World (Req. Ch:6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
PHYS	105 *	General Physics I	3
		* Also counts towards the Major	
Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3
			Course Credits

Biochemistry Major (Req. CH:60)

Major Required Courses			
			(Required Credit Hours:51)
CHEM	113	General Chemistry II for Science Students	3
CHEM	115	General Chemistry Lab	1
CHEM	222	Analytical Chemistry	4
BIOC	214	General Biology Lab	1
BIOE	230	Microbiology	3
BIOC	270	General Genetics	3
CHEM	111	General Chemistry I	3
CHEM	241	Organic Chemistry I	3
CHEM	242	Organic Chemistry II	3
CHEM	245	Organic Chemistry Lab I	1
CHEM	251	Physical Chemistry I	3
BCHM	361	Biochemistry I	4
BCHM	362	Biochemistry II	3
BCHM	462	Clinical Biochemistry	3
BCHM	472	Protein Structure and Function	3
BCHM	418	Research Project	3
CHEM	419 *	Internship	6
BIOM	489	Molecular Biology Techniques	1
		* The internship is conducted over half a semester (8 weeks) during the last year of study.	
Major Elective			
			(Required Credit Hours:9)
CHEM	231	Inorganic Chemistry I	3
CHEM	423	Environmental Chemistry	3
CHEM	480	Research Project II	3
CHEM	422	Instrumental Analysis II	3
BIOM	445	Macromolecules Structure Function and Bioinformatics	3
BIOC	290	Cell and Molecular Biology	3
BCHM	483	Special Topics in Biochemistry I	3
BCHM	484	Special Topics in Biochemistry II	3
			Course Credits
Supporting Required Courses Non-Biochemistry (Req CH:21)			

Compulsory requirements			
			(Required Credit Hours:15)
BIOC	100	Basic Biology I	3
BIOC	205	Basic Biology II	3
ENG	310	Writing for Research	3
STAT	235	Statistics for Biology	3
CSBP	112	Introduction To Programming	3
Elective courses			
			(Required Credit Hours:6)
CHEM	355	Physical Chemistry Lab I	1
CHEM	321	Instrumental Analysis I	4
CHEM	422	Instrumental Analysis II	3
MATH	110	Calculus II	3
PHYS	110	General Physics II	3
Free Elective			
			(Required Credit Hours:6)

Bachelor of Science in Chemistry

Description

The B.Sc. in Chemistry program provides students with a strong foundation in the traditional branches of chemistry including analytical, organic, inorganic, and physical and biochemistry. The program also emphasizes development of IT and communication skills. Students develop practical skills through laboratory courses utilizing state of the art equipment. An internship placement provides students with training and preparation for the workplace. All students obtain experience in research through a project completed in their final year. Graduates of the program are well prepared to take up positions in the chemical and pharmaceutical industries or pursue further studies at the graduate level. The B.Sc. Chemistry program is accredited by the Canadian Society of Chemistry and the Royal Society of Chemistry.

Program Objectives

1. To provide students with a strong foundation in all of the major sub-disciplines of chemistry.
2. To train students to use modern lab techniques safely and effectively.
3. To develop students' transferable skills in areas such as communication and teamwork.
4. To develop students' appreciation of the role of chemistry and scientific research in modern life.
5. To prepare students for a successful career or further studies in chemistry.

Program Learning Outcomes

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

1. Demonstrate knowledge of major concepts, theoretical principles and experimental findings in chemistry.
2. Conduct chemistry laboratory experiments and analyze results.
3. Retrieve and use chemical information from scientific literature.

4. Solve practical and theoretical problems and think critically.
5. Communicate effectively both orally and in writing.
6. Work effectively independently and in teams.
7. Demonstrate compliance with safety, ethical and professional standards of chemistry.

Degree Requirements: Total Credit Hours: 120

			Course Credits
General Education (Req. CH:33)			
Cluster 1: Skills for the Future (Req. Ch:15)			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3
Area 2: English Communication			
			(Required Credit Hours:3)
ESPU	102	Introduction to Academic English For Science	3
Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3
Area 4: Critical Thinking			
			(Required Credit Hours:3)
CSBP	119	Algorithms and Problem Solving	3
PHI	180	Critical Thinking	3
Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	105 *	Calculus I	3
		* Also counts towards the Major	
			Course Credits
Cluster 2: The Human Community (Req. Ch:12)			
Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3

PHI	101	Introduction to Philosophy	3

Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)
AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
GEO	200	World Regional Geography	3
GEHP	111	Happiness and Wellbeing	3

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

	Course Credits

Cluster 3: The Natural World (Req. Ch:6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
PHYS	105 *	General Physics I	3
		* Also counts towards the Major	

Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3

	Course Credits

Compulsory Specialization Chemistry Courses (Req. CH: 54)

Major Required Courses			
			(Required Credit Hours:54)
CHEM	113	General Chemistry II for Science Students	3

CHEM	115	General Chemistry Lab	1
CHEM	222	Analytical Chemistry	4
CHEM	231	Inorganic Chemistry I	3
CHEM	241	Organic Chemistry I	3
CHEM	242	Organic Chemistry II	3
CHEM	245	Organic Chemistry Lab I	1
CHEM	251	Physical Chemistry I	3
CHEM	321	Instrumental Analysis I	4
CHEM	331	Inorganic Chemistry II	3
CHEM	337	Practical Inorganic Chemistry	1
CHEM	345	Organic Chemistry Lab II	1
CHEM	351	Physical Chemistry II	3
CHEM	355	Physical Chemistry Lab I	1
CHEM	356	Physical Chemistry Lab II	1
CHEM	332	Chemistry of Elements	3
BCHM	361	Biochemistry I	4
CHEM	111	General Chemistry I	3
CHEM	418	Research Project	3
CHEM	419 *	Internship	6
		* The internship is conducted over half a semester (8 weeks) during the last year of study.	

	Course Credits

Elective Specialization Chemistry Courses (Req. CH: 6)

Major Elective Courses			
			(Required Credit Hours:6)
CHEM	422	Instrumental Analysis II	3
CHEM	453	Electrochemistry	3
CHEM	441	Polymer and Petroleum Chemistry	3
CHEM	423	Environmental Chemistry	3
CHEM	442	Introduction to Medicinal Chemistry	3
CHEM	446	Spectroscopic Identification of Compounds	3
CHEM	454	Nuclear and Radiation Chemistry	3
CHEM	480	Research Project II	3

			Course Credits

Compulsory Supporting Required Courses (Non-Chemistry) (Req. CH: 15)

Supporting Required Course			
			(Required Credit Hours:15)
MATH	110	Calculus II	3
BIOC	100	Basic Biology I	3
PHYS	110	General Physics II	3
ENG	310	Writing for Research	3
CSBP	112	Introduction To Programming	3
			Course Credits

Elective Supporting Required Courses (Non Chemistry) (Req. CH: 6)

Supporting Elective Courses			
			(Required Credit Hours:6)
GEOL	100	Physical Geology	3
MATH	275	Ordinary Differential Equations	3
STAT	235	Statistics for Biology	3
PSY	313	Educational Psychology	3
PHYS	250	Modern Physics	3
			Course Credits

Free Elective Courses (Req. CH: 6)

Free Elective Courses			
			(Required Credit Hours:6)

Minor in Chemistry

Description

The department of chemistry offers a minor program in chemistry for students enrolled in any non-major chemistry programs. The program allows students to get a secondary area of specialization. The minor program in chemistry is designed to provide students with a strong foundation in chemistry and develop their knowledge and skills in problem solving and critical thinking.

Admission Requirements

- Min grade requirement: None
- Pre-requisite: None
- Targeted students: All students except those with a major in Chemistry.

Program Objectives

1. To provide students the essential knowledge and foundation in chemistry; enabling them to successful careers in chemistry related sectors.
2. To prepare students for graduate studies in chemistry related programs.

Program Learning Outcomes

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

1. Describe the fundamental concepts and theoretical principles in chemistry and demonstrate understanding for the basic ideas underlying various chemistry's subfields in analytical, inorganic, organic, physical and biochemistry (Knowledge skills).
2. Operate modern chemical instrumentation, perform chemical syntheses and carry out chemical experiments with confident and strict adherence to safety and hygiene practices (Cognitive Skills, Interpersonal Skills & Responsibility.)
3. Analyze and interpret data and report results correctly in oral and written forms (Communication).
4. Demonstrate knowledge of using the web-based methods to effectively search chemistry scientific literature (Information Technology).
5. Demonstrate knowledge and skills to solve theoretical and practical problems in chemistry (critical thinking).
6. Recognize the importance of chemistry in industrial, economic, environmental and social contexts (Knowledge).

Degree Requirements: Total Credit Hours: 18

			Course Credits
Chemistry Required Courses (Req. CH:18)			
Students should take 3 courses hours from the following lower courses			
			(Required Credit Hours:9)
CHEM	111	General Chemistry I	3
CHEM	112	General Chemistry II	2
CHEM	115	General Chemistry Lab	1
CHEM	222	Analytical Chemistry	4
CHEM	231	Inorganic Chemistry I	3
CHEM	241	Organic Chemistry I	3
CHEM	245	Organic Chemistry Lab I	1
CHEM	251	Physical Chemistry I	3
students should take 3 courses hours from the following upperr courses			
			(Required Credit Hours:9)
CHEM	321	Instrumental Analysis I	4
CHEM	331	Inorganic Chemistry II	3
CHEM	242	Organic Chemistry II	3
CHEM	345	Organic Chemistry Lab II	1

CHEM	351	Physical Chemistry II	3
CHEM	355	Physical Chemistry Lab I	1
BCHM	361	Biochemistry I	4

Department of Geosciences

Bachelor of Science in Geosciences

Description

The Geology Department offers a B.Sc. degree program in Geosciences. The program provides education in fundamental principles and applications of geosciences through theoretical, laboratory and field experience. Students gain a broad and versatile knowledge in the geosciences, providing them with qualifications and skills suitable for employment in governmental and private sectors concerned with terrain and environmental evaluation, energy and mineral resource, groundwater exploration, engineering geology, and research careers through higher degree studies. Students are engaged in research projects in their final year and participate in a range of Departmental research activities. Students are offered introductory work experience in private companies and public utilities and agencies through an internship program.

Program Objectives

1. Serve the national interest by graduating students capable of working in the diverse domains of geosciences
2. Prepare students for innovation and research through laboratory and field applications and participation in research projects, scientific competitions and conferences
3. Practice the ethics of the profession and recognize the geoscience impact on the society and the environment

Program Learning Outcomes

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

1. Explain basic theoretical concepts and practical models of geosystems.
2. Demonstrate competence in laboratory and field-related experiments, analyses and interpretation.
3. Solve geoscience problems relevant to the industry and society and develop competence in research.
4. Recognize team work and professional communication through both oral presentation and in writing.
5. Apply the profession ethics and the impact on the environment and climate.

Degree Requirements: Total Credit Hours: 120

Course Credits

General Education (Req. CH:33)
Cluster 1: Skills for the Future (Req. Ch:15)

Area 1: Innovation and Entrepreneurship

(Required Credit Hours:3)

GEIE	222	Fundamentals of Innovation and Entrepreneurship	3

Area 2: English Communication			
			(Required Credit Hours:3)
ESPU	102	Introduction to Academic English For Science	3

Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3

Area 4: Critical Thinking			
			(Required Credit Hours:3)
CSBP	119	Algorithms and Problem Solving	3
PHI	180	Critical Thinking	3

Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	105 *	Calculus I	3
		* Also counts towards the Major	

			Course Credits

Cluster 2: The Human Community (Req. Ch:12)

Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
PHI	101	Introduction to Philosophy	3

Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)
AGRB	210	Introduction to Agribusiness	3
ECON	110	Principles of Economics	3
HSR	140	Introduction to Society & Behavior	3
HSR	150	Introduction to Government Policy & Urban Structures	3
PSY	100	Introduction to Psychology	3
GEO	200	World Regional Geography	3

GEHP	111	Happiness and Wellbeing	3

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

Course Credits

Cluster 3: The Natural World (Req. Ch:6)

Area 1: Natural Science			
			(Required Credit Hours:3)
PHYS	105 *	General Physics I	3
		* Also counts towards the Major	

Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3

Course Credits

Non-Geoscience Supporting Compulsory Courses

Required Courses			
			(Required Credit Hours:18)
BIOC	100	Basic Biology I	3
MATH	110	Calculus II	3
PHYS	110	General Physics II	3
CHEM	111	General Chemistry I	3
CSBP	112	Introduction To Programming	3
STAT	210	Probability and Statistics	3

Course Credits

Geoscience Program

Program Required Courses			
			(Required Credit Hours:51)

GEOL	100	Physical Geology	3
GEOL	215	Mineralogy	3
GEOL	220	Structure Geology	3
GEOL	260	Paleontology	3
GEOL	300	Igneous and Metamorphic Rocks	3
GEOL	340	Sedimentation and sedimentary rocks	3
GEOL	370	Geophysics	3
GEOL	390	Stratigraphy	3
GEOL	400	Remote Sensing and GIS	3
GEOL	410	Geochemistry	3
GEOL	425	Hydrogeology	3
GEOL	430	Environmental Geoscience	3
GEOL	460	Petroleum Geoscience	3
GEOL	470	Research Project	3
GEOL	499	Field Geology	3
GEOL	500 *	Internship	6
		* The internship is conducted over half a semester (8 weeks) during the last year of study.	

Course Credits

Program Elective Courses

Student should take any 4 courses from the list below

(Required Credit Hours:12)

GEOL	345	Engineering Geology	3
GEOL	350	Economic Geology	3
GEOL	395	Seismic Methods	3
GEOL	398	Seismology and Plate Tectonics	3
GEOL	415	Petrophysics	3
GEOL	428	Space and Terrestrial Planets	3
GEOL	440	Nuclear Geoscience	3
GEOL	445	Geoinformatics	3
GEOL	475	Geology Of UAE	3

Course Credits

Free Elective Courses

Students should take any 2 courses	
	(Required Credit Hours:6)

Minor in Geology

Description

The department of geology offers a minor program in geology for science students enrolled in any non-major geology programs. The minor consists of 18 credit hours, at least 9 of which will be upper division work to be taken from a basket of courses. The minor is designed to provide the students with a strong foundation in fundamental principles of geology. The minor aims at developing knowledge and skills in problem solving and critical thinking.

Admission Requirements

- Min grade requirement: None
- Pre-requisite: None
- Targeted students: All students except those with a major in Geosciences.

Program Objectives

1. To establish themselves as effective professionals and experts in terms problem solving, creativity, and critical thinking.
2. To develop learning skills and synthesize knowledge in order to move to higher level of learning.

Program Learning Outcomes

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

1. Recognize and apply the core theories and principles of geology.
2. Demonstrate proficiency in the scientific concepts needed to solve geological problems.
3. Apply critical reasoning skills to model and solve geology related problems.

Degree Requirements: Total Credit Hours: 18

Geology Required Courses

Student should take 6 courses from the following list:			
			(Required Credit Hours:18)
CHEM	111	General Chemistry I	3
PHYS	105	General Physics I	3
PHYS	110	General Physics II	3
BIOC	100	Basic Biology I	3
GEOL	100	Physical Geology	3
GEOL	215	Mineralogy	3
GEOL	220	Structure Geology	3
GEOL	260	Paleontology	3

GEOL	300	Igneous and Metamorphic Rocks	3
GEOL	340	Sedimentation and sedimentary rocks	3
GEOL	370	Geophysics	3
GEOL	400	Remote Sensing and GIS	3
GEOL	410	Geochemistry	3
GEOL	425	Hydrogeology	3
GEOL	430	Environmental Geoscience	3
GEOL	460	Petroleum Geoscience	3
GEOA	462	Hydro Geochemistry	3
GEOL	463	Geophysical Exploration	3
GEOP	469	Petroleum Geochemistry	3

Department of Mathematical Sciences

Bachelor of Science in Mathematics

Description

The heart of the program consists of fundamental courses in the main areas of mathematics (numerical analysis, algebra, analysis), together with a variety of specialized, elective courses. It is complemented by supportive courses from other departments, in addition to the University general education requirements. Opportunities for internship and research are given, preparing students for the job market and for higher studies. With a pedagogy emphasizing students' learning outcomes and encouraging the use of technology, students are aided in developing quantitative skills and an ability to think clearly and critically about complex problems, while communicating results with precision.

Program Objectives

1. Have successful careers in a wide variety of their chosen fields to serve the educational institutions, the industry and the community.
2. To continue their professional development by pursuing further degrees and developing life-long learning skills and abilities.
3. To be engaged in and apply their expertise to vital societal issues such as sustainability, environmental protection, education, and leadership.

Program Learning Outcomes

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

1. Identify, formulate and solve mathematical problems by applying knowledge of mathematics.
2. Formulate or design a mathematical model, procedure or algorithm for real-life and interdisciplinary problems.
3. Exploit data, use mathematical arguments in a clear well-organized and logical way and employ technology to assist in solving problems and to draw conclusions.
4. Communicate mathematical ideas effectively through presentations and reports to a range of audiences.

5. Search mathematical literature to understand ethics and professional responsibilities and the impact of mathematical solutions in different contexts.
6. Work effectively on teams to accomplish common goals, plan tasks, meet deadlines, and analyze risk and uncertainty.
7.

Degree Requirements: Total Credit Hours: 120

			Course Credits
General Education (Req. CH:33)			
Cluster 1: Skills for the Future (Req. Ch:15)			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3
Area 2: English Communication			
			(Required Credit Hours:3)
ESPU	102	Introduction to Academic English For Science	3
Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3
Area 4: Critical Thinking			
			(Required Credit Hours:3)
CSBP	119	Algorithms and Problem Solving	3
PHI	180	Critical Thinking	3
Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	105 *	Calculus I	3
		* Also counts towards the Major	
			Course Credits
Cluster 2: The Human Community (Req. Ch:12)			
Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	120	Introduction to Heritage & Culture	3

HSR	130	Introduction to Language & Communication	3
PHI	101	Introduction to Philosophy	3

Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)
PSY	313 *	Educational Psychology	3
		* Also counts towards the Major	

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

Area 4: Islamic Culture			
			(Required Credit Hours:3)
ISLM	100	Islamic Culture	3

			Course Credits

Cluster 3: The Natural World (Req. Ch:6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
PHYS	105 *	General Physics I	3
		* Also counts towards the Major	

Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3

			Course Credits

Mathematics Major (Req. Ch: 87)

Required Courses			
			(Required Credit Hours:45)
MATH	110	Calculus II	3
MATH	140	Linear Algebra I	3
MATH	205	Set Theory and Logic	3
MATH	210	Calculus III	3
MATH	215	Introduction to Analysis	3

MATH	246	Number Theory	3
MATH	275	Ordinary Differential Equations	3
MATH	310	Real Analysis	3
MATH	315	Complex Analysis I	3
MATH	320	Numerical Analysis I	3
MATH	340	Abstract Algebra 1	3
MATH	372	Partial Differential Equations	3
MATH	495	Research Project	3
MATH	500 *	Internship	6
		* The internship is conducted over half a semester (8 weeks) during the last year of study.	
			Course Credits

Mathematics Elective Courses

Student should select 4 courses from the list below			
			(Required Credit Hours:12)
MATH	260	Foundation of Geometry	3
MATH	321	Linear Programming	3
MATH	341	Linear Algebra II	3
MATH	342	Graph Theory	3
MATH	344	Introduction to Cryptography and Coding Theory	3
MATH	374	Dynamical Systems and Applications	3
MATH	391	Financial Mathematics	3
MATH	413	Complex Analysis II	3
MATH	422	Numerical Analysis II	3
MATH	462	Introduction to Topology	3
MATH	471	Control Theory & Applications	3
MATH	470	Mathematical Modeling	3
MATH	313	Advanced Calculus	3
MATH	443	Abstract Algebra 2	3
			Course Credits

Supporting Required Courses Non-Mathematics

Required Courses			
			(Required Credit Hours:12)
ENG	310	Writing for Research	3

CSBP	112	Introduction To Programming	3
STAT	230	Principles of Probability	3
PHYS	110	General Physics II	3

Supporting Elective Courses Non-Mathematics			Course Credits
Students should select 4 courses from the list below			
			(Required Credit Hours:12)
ARB	100	Styles of Literary Expression	3
ARB	110	Introduction to Syntax & Morphology	3
ENG	250	English Grammar & Usage	3
CSBP	219	Object Oriented Programming	3
STAT	210	Probability and Statistics	3
STAT	370	Mathematical Statistics	3
PHYS	235	Waves and Optics	3
PHYS	262	Classical Mechanics	3
Free Electives			
			(Required Credit Hours:6)

Minor in Mathematics

Description

The department of Mathematical Sciences offers a minor program in Mathematics for students enrolled in colleges of science, Information Technology and Education. The minor consists of 18 credit hours (from the below basket of Math courses); where at least 9 of which will be upper division work to be taken (300 level). The Mathematics minor is designed to prepare students majoring in some other discipline with a background in mathematics that is both broad and deep.

Admission Requirements

- Min grade requirement: None
- Pre-requisite: None
- Targeted students: All students except those with a major in Mathematics.

Program Objectives

1. Establish themselves as skilled professionals and experts in terms of teamwork, communication, creativity and profession-ethics.
2. Continue their professional development by pursuing further degrees and developing life-long learning skills and abilities.

Program Learning Outcomes

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

1. Identify, formulate and solve mathematical problems by applying knowledge of mathematics.
2. Exploit data, use mathematical arguments in a clear well-organized and logical way and employ technology to assist in solving problems and to draw conclusions.
3. Communicate mathematical ideas effectively through presentations and reports with a range of audiences.

Degree Requirements: Total Credit Hours: 18

			Course Credits
Mathematics Required Courses			
Student should take 6 courses from the following list:			
			(Required Credit Hours:18)
MATH	140	Linear Algebra I	3
MATH	205	Set Theory and Logic	3
MATH	210	Calculus III	3
MATH	215	Introduction to Analysis	3
MATH	246	Number Theory	3
MATH	260	Foundation of Geometry	3
MATH	275	Ordinary Differential Equations	3
MATH	310	Real Analysis	3
MATH	315	Complex Analysis I	3
MATH	320	Numerical Analysis I	3
MATH	321	Linear Programming	3
MATH	340	Abstract Algebra 1	3
MATH	372	Partial Differential Equations	3

Department of Physics

Bachelor of Science in Physics

Description

The Department of Physics offers a rich and comprehensive program of study leading to the B.Sc. degree in Physics. The B.Sc. Physics students have an option to choose from two separate tracks, namely General Physics and Space Sciences, after taking a set of mandatory Physics courses. The General Physics track is offered as a standard Physics track, and the Space Sciences track focuses specifically on space-related Physics themes. The program aims at training and graduating specialists in physics to meet the work force needs in key areas of national interest. The program offers a well-designed and updated physics curriculum enabling the graduates to participate effectively in their work place or continue their postgraduate studies and conduct research. Physics students are required to take additional courses in mathematics, science, general education, and information technology to further develop their knowledge, background, and skills.

Program Objectives

1. To establish themselves as effective professionals and experts in terms of teamwork, communication, problem solving, creativity, and profession-ethics.
2. To continue their professional development by obtaining advanced degrees and developing life-long learning skills and abilities.
3. To be engaged in and apply their expertise to vital societal issues such as sustainability and environmental protection, occupational health and safety, resource management, and education and business consulting and leadership.

Program Learning Outcomes

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

1. Identify, formulate and solve scientific problems by applying knowledge of physics and mathematics.
2. Develop and conduct experiments, analyze and interpret data to draw conclusions
3. Design a system, component, or process to meet desired specifications in computational and experimental physics.
4. Communicate effectively in written and oral forms with a range of audiences.
5. Recognize professional and ethical responsibilities and the impact of physics solutions in global energy and environmental concerns.
6. Work effectively on teams to accomplish common goals, plan tasks, meet deadlines, and analyze risk and uncertainty.

Degree Requirements: Total Credit Hours: 120

			Course Credits
General Education (Req. CH:33) **Cluster 1: Skills for the Future (Req. Ch:15)**			
Area 1: Innovation and Entrepreneurship			
			(Required Credit Hours:3)
GEIE	222	Fundamentals of Innovation and Entrepreneurship	3
Area 2: English Communication			

			(Required Credit Hours:3)
ESPU	102	Introduction to Academic English For Science	3

Area 3: Fourth Industrial Revolution			
			(Required Credit Hours:3)
GEIT	112	Fourth Industrial Revolution	3

Area 4: Critical Thinking			
			(Required Credit Hours:3)
CSBP	119	Algorithms and Problem Solving	3
PHI	180	Critical Thinking	3

Area 5: Quantitative Reasoning			
			(Required Credit Hours:3)
MATH	105 *	Calculus I	3
		* Also counts towards the Major	

			Course Credits

Cluster 2: The Human Community (Req. Ch:12)

Area 1: Humanities and Fine Arts			
			(Required Credit Hours:3)
HIS	130	Sheikh Zayed: History, Foundation and Development	3
ARCH	366	History and Theories of Contemporary Architecture	3
HSR	120	Introduction to Heritage & Culture	3
HSR	130	Introduction to Language & Communication	3
PHI	101	Introduction to Philosophy	3

Area 2: Social and Behavioral Sciences			
			(Required Credit Hours:3)
PSY	313 *	Educational Psychology	3
		* Also counts towards the Major	

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

Area 4: Islamic Culture

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

Cluster 3: The Natural World (Req. Ch:6)

Area 1: Natural Sciences			
			(Required Credit Hours:3)
PHYS	105 *	General Physics I	3
		* Also counts towards the Major	

Area 2: Sustainability			
			(Required Credit Hours:3)
GESU	121	Sustainability	3
			Course Credits

Physics Major

Required Courses			
			(Required Credit Hours:33)
PHYS	135	General Physics Lab I	1
PHYS	140	General Physics Lab II	1
PHYS	205	Intermediate Physics Lab I	1
PHYS	220	Thermal Physics	3
PHYS	231	Electronics Fundamentals	3
PHYS	235	Waves and Optics	3
PHYS	250	Modern Physics	3
PHYS	262	Classical Mechanics	3
PHYS	335	Electromagnetic Theory	3
PHYS	110	General Physics II	3
PHYS	494	Research Project	3
PHYS	500 *	Internship	6
		* The internship is conducted over half a semester (8 weeks) during the last year of study.	
			Course Credits

Students should take one of the following Concentrations:

1: General Physics Concentration

			(Required Credit Hours:15)
PHYS	210	Intermediate Physics Lab II	1
PHYS	255	Mathematical Physics	3
PHYS	312	Statistical Physics	2
PHYS	355	Quantum Mechanics	3
PHYS	470	Solid State Physics	3
PHYS	483	Introductory Nuclear Physics	3

2: Space Sciences Concentration			
			(Required Credit Hours:18)
PHYS	200	Introduction to Space Sciences	3
PHYS	270	Celestial Mechanics	3
PHYS	310	Space Missions	3
PHYS	316	Spacecraft Instrument Science	3
PHYS	410	Space Applications I	3
PHYS	420	Space Applications II	3

Course Credits

Compulsory Supporting

Supporting Required Courses Non-Physics			
			(Required Credit Hours:18)
CHEM	111	General Chemistry I	3
CSBP	112	Introduction To Programming	3
MATH	110	Calculus II	3
MATH	140	Linear Algebra I	3
STAT	210	Probability and Statistics	3
MATH	275	Ordinary Differential Equations	3

Course Credits

Elective Physics Courses (General Physics Concentration)

General Physics Concentration students should choose 9 credit hours from this basket			
			(Required Credit Hours:9)
PHYS	330	Computational Physics	3
PHYS	345	Laser Physics	3
PHYS	385	Radiation Physics	3

PHYS	390	Introduction to Astrophysics	3
PHYS	430	Electromagnetic Theory II	3
PHYS	450	Quantum Mechanics II	3
PHYS	475	Semiconductor Physics	3
PHYS	495	Selected Topics	3

			Course Credits

Elective Physics Courses (Space Sciences Concentration)

Space Sciences Concentration students should choose 6 credit hours from this basket			
			(Required Credit Hours:6)
PHYS	390	Introduction to Astrophysics	3
PHYS	255	Mathematical Physics	3
PHYS	312	Statistical Physics	2
PHYS	385	Radiation Physics	3
PHYS	330	Computational Physics	3
PHYS	345	Laser Physics	3
PHYS	495	Selected Topics	3
Supporting Elective Courses Non-Physics : the student may select a total of 6 Credit Hours			
			(Required Credit Hours:6)
GEOL	100	Physical Geology	3
MATH	210	Calculus III	3
BIOE	240	Principles of Environmental Science	3
CSBP	400	Modeling & Simulation	3
ENG	310	Writing for Research	3
CHME	444	Renewable Energy Sources	3
MGMT	200	Fundamentals of Management	3
Free Electives			
			(Required Credit Hours:6)

Minor in Physics

Description

The department of physics offers a minor program in physics for science students enrolled in any non-major physics programs. The minor consists of 18 credit hours, at least 9 of which will be upper division work to be taken from a basket of courses. The minor is designed to provide the students with a strong foundation in fundamental principles of physics. The minor aims at developing knowledge and skills in problem solving and critical thinking

Admission Requirements

- Min grade requirement: None
- Pre-requisite: None
- Targeted students: All students except those with a major in Physics.

Program Objectives

1. To establish themselves as effective professionals and experts in terms problem solving, creativity, and critical thinking.
2. To develop learning skills and synthesize knowledge in order to move to higher level of learning.

Program Learning Outcomes

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

1. Recognize and apply the core theories and principles of physics.
2. Demonstrate proficiency in the mathematical concepts needed to solve physical problems.
3. Apply critical reasoning skills to model and solve physics related problems.

Degree Requirements: Total Credit Hours: 18

Physics Required Courses			Credit Hours
Student should take 6 courses from the following list:			
			(Required Credit Hours:18)
PHYS	220	Thermal Physics	3
PHYS	231	Electronics Fundamentals	3
PHYS	235	Waves and Optics	3
PHYS	250	Modern Physics	3
PHYS	255	Mathematical Physics	3
PHYS	262	Classical Mechanics	3
PHYS	330	Computational Physics	3
PHYS	345	Laser Physics	3
PHYS	390	Introduction to Astrophysics	3
PHYS	355	Quantum Mechanics	3
PHYS	335	Electromagnetic Theory	3