

Computer and Information Sciences Division



The Computer and Information Science Division has a mission of being committed to developing and delivering quality, student-centred programs that provide students with the core knowledge and skills to meet the needs of stakeholders in the rapidly evolving computer science, information systems and technology sectors in the UAE. The Division's portfolio provides local and global perspectives, develops analytical skills and employability, encourages lifelong learning and promotes effective and ethical leadership and management practices. This mission is informed by and supports the goal to achieve accreditation from ABET.

The Division's programs are continuously reviewed to ensure that the skills students acquire in the classroom and the equipment they use are at the cutting edge of technology and industry-appropriate. As a result, graduates are in high demand from leading industry employers looking for talented people who have both the technical and inter-personal skills they need to enhance their business.

This exciting field provides excellent career prospects for graduates in education, government, private enterprise, internet development, database designs, programming and other areas within the constantly growing computing, networking, security and forensics, information management, multimedia technology, interactive learning, software development and applications industries.

Bachelor of Applied Science in Business Information Technology

The Bachelor of Applied Science (BAS) is a one-year bachelor degree completion for those students who have completed a relevant qualifying HCT Higher Diploma or equivalent. The BAS in Business Information Technology is to produce students with advanced skills,

knowledge, and practice of information technology in order to prepare them as IT specialists with a focus on business applications.

		Course Credits
Business Information Technology Core Courses		
Required Credits: 20		
ITEC N410	Current Technologies	4
ITEC N411	Management of Information Systems	4
ITEC N454	Internet Multimedia and Interactivity	4
ITEC N457	Advanced Database Architecture	4
ITEC N459	Project Management	4
ITEC N410	Current Technologies	4
ITEC N411	Management of Information Systems	4
ITEC N454	Internet Multimedia and Interactivity	4
ITEC N457	Advanced Database Architecture	4
ITEC N459	Project Management	4
Business Information Technology Course Options		
See program chair for available course options		
Required Credits: 28		

<i>Total Required Credits</i>	48	<i>Minimum Duration of Study</i>	1
<i>Maximum Duration of Study</i>	3	<i>Program Code</i>	BITEBP
<i>Cost Recovery Program</i>	No	<i>Major Code</i>	BITE

Bachelor of Applied Science in Computer Network Technology

The Bachelor of Applied Science (BAS) is a one-year bachelor degree completion for those students who have completed a relevant qualifying HCT Higher Diploma or equivalent. The BAS in Computer Network Technology is to produce students with advanced skills,

knowledge, and practice of information technology in order to prepare them as IT specialists with a focus on networking.

		Course Credits
Computer Network Technology Core Courses		
Required Credits: 20		
ITEC N415	Applied Research Skills	4
ITEC N490	Advanced Routing	12
ITEC N492	Advanced Switching	8

Computer Network Technology Course Options See program chair for available course options	
Required Credits: 24	

<i>Total Required Credits</i>	48	<i>Minimum Duration of Study</i>	1
<i>Maximum Duration of Study</i>	3	<i>Program Code</i>	CNETBP
<i>Cost Recovery Program</i>	No	<i>Major Code</i>	CNET

Bachelor of Applied Science in Information Management

The Bachelor of Applied Science (BAS) is a one-year bachelor degree completion for those students who have completed a relevant qualifying HCT Higher Diploma or equivalent. The BAS in Information Management is to produce students with advanced skills, knowledge,

and practice of information technology in order to prepare them as IT specialists with a focus on office and information systems.

		Course Credits
Information Management Technology Core Courses		
Required Credits: 32		
ITEC N411	Management of Information Systems	4
ITEC N412	Web-based Design and Development	4
ITEC N415	Applied Research Skills	4
ITEC N454	Internet Multimedia and Interactivity	4
ITEC N459	Project Management	4
ITEC N462	Marketing and Information Management	4
ITEC N463	Applications Development	4
ITEC N466	Information Management Project	4
Information Management Course Options		
See program chair for available course options		
Required Credits: 16		

<i>Total Required Credits</i>	48	<i>Minimum Duration of Study</i>	1
<i>Maximum Duration of Study</i>	3	<i>Program Code</i>	IMGTBP
<i>Cost Recovery Program</i>	No	<i>Major Code</i>	IMGT

Bachelor of Applied Science in Information Systems (Business Solutions)

This major is designed to produce graduates who can successfully align information technology and business processes and who have the skills to provide creative solutions to business challenges. Students are encouraged to explore and manage effective and efficient use of Information Systems, both for innovation and for enabling enterprise wide solutions. It provides

a sound background in advanced problem-solving, information analysis and project management preparing students for immediate entry into the management of business information systems in organizations.

		Course Credits			Course Credits
Computer and Information Science Core Courses			IS and IT Technology Requirement		
Required Credits: 48			See program chair for available courses		
CIS 1003	Information Systems in Organizations and Society	3	Select 1 2000 level course		3
CIS 1103	Hardware and Networking	3	Select 1 4000 level course		3
CIS 1203	Web Technologies	3			
CIS 1303	Data and Information Management	3			
CIS 1403	Fundamentals of Programming	3			
CIS 1503	Introduction to Multimedia	3			
CIS 2003	Statistics and Probability	3			
CIS 2103	Principles of Information Assurance, Security and Privacy	3			
CIS 2303	Systems Analysis and Design	3			
CIS 2403	Object Oriented Programming	3			
CIS 3103	Project Management	3			
CIS 4103	Emerging Technologies	3			
CIS 4203	Information Technology Strategy and Governance	3			
CIS 4803	Work Related Learning	3			
CIS 4906	Capstone Project (Integrative & Consultancy Focused)	6			
			Business Solutions Core Courses		
			Required Credits: 27		
			CIB 2003	Technology based Marketing	3
			CIB 3003	Human Resource Management and Systems	3
			CIB 3103	Object Oriented Analysis & Design	3
			CIB 3203	Accounting For Managers	3
			CIB 3303	E-Business Principles	3
			CIB 3403	Advanced Database Technologies	3
			CIB 4003	E Business Applications Development	3
			CIB 4103	Business Finance	3
			BUS 4573	Customer Relationship Management	3
			Liberal Studies		
			Required Credits: 39		
			A. Communication		12
			B. Mathematics		3
			C. Art and Humanities		6
			D. Social and Behavioral Studies		9
			E. Physical and Biological Sciences		6
			F. Global Studies		3
<i>Total Required Credits</i>		120	<i>Minimum Duration of Study</i>		1
<i>Maximum Duration of Study</i>		6	<i>Program Code</i>		OITAB
<i>Cost Recovery Program</i>		No	<i>Major Code</i>		CTBSAB

Bachelor of Applied Science in Information Systems (Security and Forensics)

This major focuses on providing future graduates with multiple skills and a strong foundation in the field of information security. It provides technical and managerial skills for assessing risk, securing information assets, identifying and responding to attacks, conducting forensic investigation and recovering from incidents and disasters. The major prepares students to work as:

requirement security specialists; security practitioners, managers & consultants; forensic investigators and IT auditors. Graduates will be able to work at all levels of Information Security, including policy, security system design, implementation and forensic investigation.

		Course Credits			Course Credits
Computer and Information Science Core Courses			IS and IT Technology Requirement		
Required Credits: 45			See program chair for available courses		
CIS 1003	Information Systems in Organizations and Society	3	Select 1 2000 level course		3
CIS 1103	Hardware and Networking	3	Select 1 4000 level course		3
CIS 1203	Web Technologies	3			
CIS 1303	Data and Information Management	3			
CIS 1403	Fundamentals of Programming	3			Course Credits
CIS 1503	Introduction to Multimedia	3			
CIS 2003	Statistics and Probability	3			
CIS 2103	Principles of Information Assurance, Security and Privacy	3			
CIS 2303	Systems Analysis and Design	3			
CIS 3103	Project Management	3			
CIS 4103	Emerging Technologies	3			
CIS 4203	Information Technology Strategy and Governance	3			
CIS 4803	Work Related Learning	3			
CIS 4906	Capstone Project (Integrative & Consultancy Focused)	6			
			Security and Forensics Core Courses		
			Required Credits: 30		
	CSF 2103	Intrusion Detection and Ethical Hacking			3
	CSF 3003	Cyber Law and Ethics			3
	CSF 3103	Incidence Response and Disaster Recovery			3
	CSF 3303	Operating System Administration and Security			3
	CSF 3403	Computer Forensics and Investigation			3
	CSF 3603	Cryptography and Network Security			3
	CSF 4003	Security and Risk Management			3
	CSF 4103	Web Application and E-Commerce Security			3
	CSF 4203	Telecommunications and WAN Security			3
	CIN 2003	Enterprise Network Services			3
			Liberal Studies		
			Required Credits: 39		
	A. Communication				12
	B. Mathematics				3
	C. Art and Humanities				6
	D. Social and Behavioral Studies				9
	E. Physical and Biological Sciences				6
	F. Global Studies				3
Total Required Credits		120	Minimum Duration of Study		1
Maximum Duration of Study		6	Program Code		OITAB
Cost Recovery Program		No	Major Code		CTSFAB

Bachelor of Applied Science in Information Technology (Applications Development)

This major is designed to produce graduates with the development skills required to create cutting edge applications on multiple platforms. The major offers knowledge and skills in current software development methodologies using state of the art tools. It integrates enterprise systems development, database technologies

and mobile platforms. Graduates of this program will be able to work as enterprise system developers, system architects, project managers, and mobile application developers.

		Course Credits			Course Credits
Computer and Information Science Core Courses			IS and IT Technology Requirement		
Required Credits: 48			Required Credits: 6		
CIS 1003	Information Systems in Organizations and Society	3	Select 1 2000 level course		3
CIS 1103	Hardware and Networking	3	Select 1 4000 level course		3
CIS 1203	Web Technologies	3			
CIS 1303	Data and Information Management	3			
CIS 1403	Fundamentals of Programming	3			
CIS 1503	Introduction to Multimedia	3			
CIS 2003	Statistics and Probability	3			
CIS 2103	Principles of Information Assurance, Security and Privacy	3			
CIS 2303	Systems Analysis and Design	3			
CIS 2403	Object Oriented Programming	3			
CIS 3003	Human Computer Interaction	3			
CIS 3103	Project Management	3			
CIS 4103	Emerging Technologies	3			
CIS 4803	Work Related Learning	3			
CIS 4906	Capstone Project (Integrative & Consultancy Focused)	6			
					Course Credits
			Applications Development Core Courses		
			Required Credits: 27		
			CIA 2503	Web Applications Development	3
			CIA 3103	Database Design and Administration	3
			CIA 3303	Principles of Mobile Applications	3
			CIA 4103	Data Driven Web Technologies	3
			CIA 4203	Enterprise Database Applications	3
			CIA 4003	Advanced Mobile Applications	3
			CIA 4503	Advanced Object Oriented Programming	3
			CIB 3103	Object Oriented Analysis & Design	3
			CSF 3303	Operating System Administration and Security	3
					Course Credits
			Liberal Studies		
			Required Credits: 39		
			A. Communication		12
			B. Mathematics		3
			C. Art and Humanities		6
			D. Social and Behavioral Studies		9
			E. Physical and Biological Sciences		6
			F. Global Studies		3

<i>Total Required Credits</i>	120	<i>Minimum Duration of Study</i>	4
<i>Maximum Duration of Study</i>	6	<i>Program Code</i>	OITAB
<i>Cost Recovery Program</i>	No	<i>Major Code</i>	CTADAB

Bachelor of Applied Science in Information Technology (Instructional Technology and Training Management)

This major is designed to produce graduates with the knowledge and skills to analyze, design, develop, implement, and evaluate technology-driven learning environments for corporate and learning institution contexts. It prepares students to employ cutting-edge technologies to enhance the learning process and accommodate individual learning preferences. The major will prepare students to work effectively in the corporate sector, build training programs,

create corporate staff development strategies, plan and acquire resources. This major provides students with the essential knowledge and skills to become effective trainers of technology and use technology to train. Graduates will be able to work as consultants, educational technology specialists, training managers, staff development managers, and corporate trainers.

			Course Credits
Computer and Information Science Core Courses			
Required Credits: 48			
CIS 1003	Information Systems in Organizations and Society	3	
CIS 1103	Hardware and Networking	3	
CIS 1203	Web Technologies	3	
CIS 1303	Data and Information Management	3	
CIS 1403	Fundamentals of Programming	3	
CIS 1503	Introduction to Multimedia	3	
CIS 2003	Statistics and Probability	3	
CIS 2103	Principles of Information Assurance, Security and Privacy	3	
CIS 2303	Systems Analysis and Design	3	
CIS 2403	Object Oriented Programming	3	
CIS 3003	Human Computer Interaction	3	
CIS 3103	Project Management	3	
CIS 4103	Emerging Technologies	3	
CIS 4803	Work Related Learning	3	
CIS 4906	Capstone Project (Integrative & Consultancy Focused)	6	
			Course Credits
IS and IT Technology Requirement			
See program chair for available courses			
Required Credits: 6			
Select 1 2000 level course			3
Select 1 4000 level course			3
			Course Credits
Instructional Technology and Training Management Core Courses			
Required Credits: 27			
CTT 2003	Principles of Learning for Instructional Technology	3	
CTT 3103	Learning Environment Design, Support and Administration	3	
CTT 3303	Assistive Technology	3	
CTT 3403	Instructional Design for Computer Based Training	3	
CTT 4003	Distance and Online Education	3	
CTT 4103	Customer Relationship Management	3	
CTT 4203	Staff Development and Corporate Training Strategies	3	
CTT 4303	Technology Based Assessment Design and Administration	3	
CSF 3303	Operating System Administration and Security	3	
			Course Credits
Liberal Studies			
Required Credits: 39			
A. Communication			12
B. Mathematics			3
C. Art and Humanities			6
D. Social and Behavioral Studies			9
E. Physical and Biological Sciences			6
F. Global Studies			3

Total Required Credits	120	Minimum Duration of Study	4
Maximum Duration of Study	6	Program Code	OITAB
Cost Recovery Program	No	Major Code	CTITBP

Bachelor of Applied Science in Information Technology (Interactive Multimedia Technologies)

This major is designed to produce graduates with professional skills built on a sound foundation in the fields of interactivity and multimedia powered by information technology. The Interactive Multimedia major educates students, through a hands-on approach, to become leaders and innovators in a new and interactive society based on interactive arts, multimedia, web & interface design, game design &

development. It stresses creative content development and communication through interaction, with the goal of seeking innovative ways of connecting individuals to ideas and information. The major prepares students to work as 2D & 3D graphic artists, animation experts, interactive multimedia developers, game designers & developers, and simulation specialists.

		Course Credits			Course Credits
Computer and Information Science Core Courses			IS and IT Technology Requirement		
Required Credits: 45			See program chair for available courses		
CIS 1003	Information Systems in Organizations and Society	3	Select 1 2000 level course		3
CIS 1103	Hardware and Networking	3	Select 1 4000 level course		3
CIS 1203	Web Technologies	3			
CIS 1303	Data and Information Management	3			
CIS 1403	Fundamentals of Programming	3			
CIS 1503	Introduction to Multimedia	3			
CIS 2003	Statistics and Probability	3			
CIS 2103	Principles of Information Assurance, Security and Privacy	3			
CIS 2303	Systems Analysis and Design	3			
CIS 3003	Human Computer Interaction	3			
CIS 3103	Project Management	3			
CIS 4103	Emerging Technologies	3			
CIS 4803	Work Related Learning	3			
CIS 4906	Capstone Project (Integrative & Consultancy Focused)	6			
			Interactive Multimedia Technologies Core Courses		
			Required Credits: 6		
			Required Credits: 30		
			CIM 2003	Graphic Design	3
			CIM 2103	Principles of Animation	3
			CIM 3103	Storyboarding and Animatics	3
			CIM 3203	Programming for Multimedia	3
			CIM 3303	2D 3D Animation	3
			CIM 4003	Multimedia Scripting	3
			CIM 4103	Web Authoring and Administration	3
			CIM 4203	Virtual Reality and Simulation	3
			CIM 4303	VFX, Audio, Editing and Composition	3
			CSF 3303	Operating System Administration and Security	3
			Liberal Studies		
			Required Credits: 39		
			A. Communication		12
			B. Mathematics		3
			C. Art and Humanities		6
			D. Social and Behavioral Studies		9
			E. Physical and Biological Sciences		6
			F. Global Studies		3

<i>Total Required Credits</i>	120	<i>Minimum Duration of Study</i>	4
<i>Maximum Duration of Study</i>	6	<i>Program Code</i>	OITAB
<i>Cost Recovery Program</i>	No	<i>Major Code</i>	CTIMAB

Bachelor of Applied Science in Information Technology (Networking)

This major is designed to produce graduates who can design, configure, implement and troubleshoot converged Campus and Enterprise networks. The major provides knowledge and skills to work in all levels of Local and Enterprise networks: edge technologies such as switched, wireless & mobile networks; LAN, WAN and core routing technologies; network security; and server administration. Graduates of this major

will be able to work as network engineers, network architects, infrastructure designers, project managers, and consultants.

		Course Credits			Course Credits
Information Systems and Technologies Core Courses			IS and IT Technology Requirement		
Required Credits: 45			Required Credits: 6		
CIS 1003	Information Systems in Organizations and Society	3	Select 1 2000 level course		3
CIS 1103	Hardware and Networking	3	Select 1 4000 level course		3
CIS 1203	Web Technologies	3			
CIS 1303	Data and Information Management	3			
CIS 1403	Fundamentals of Programming	3			
CIS 1503	Introduction to Multimedia	3			
CIS 2003	Statistics and Probability	3			
CIS 2103	Principles of Information Assurance, Security and Privacy	3			
CIS 2303	Systems Analysis and Design	3			
CIS 3003	Human Computer Interaction	3			
CIS 3103	Project Management	3			
CIS 4103	Emerging Technologies	3			
CIS 4803	Work Related Learning	3			
CIS 4906	Capstone Project (Integrative & Consultancy Focused)	6			
			Networking Core Courses		
			Required Credits: 36		
			CIN 2103	Networking Fundamentals	3
			CIN 2203	Routing Protocols	3
			CIN 3003	LAN Switching	3
			CIN 3103	Wireless Networks	3
			CIN 3203	WAN Technologies	3
			CIN 3303	Network Security	3
			CIN 4006	Advanced Routing	6
			CIN 4106	Advanced Switching	6
			CIN 2003	Enterprise Network Services	3
			CSF 3303	Operating System Administration and Security	3
			Liberal Studies		
			Required Credits: 39		
			A. Communication		12
			B. Mathematics		3
			C. Art and Humanities		6
			D. Social and Behavioral Studies		9
			E. Physical and Biological Sciences		6
			F. Global Studies		3

Total Required Credits	120	Minimum Duration of Study	4
Maximum Duration of Study	6	Program Code	OITAB
Cost Recovery Program	No	Major Code	CTNTAB