

Sultanate of Oman
Ministry of Higher Education
Directorate General For
The Colleges of Applied Sciences
Academic Programmes Department



سلطنة عمان
وزارة التعليم العالي
المديرية العامة لكليات العلوم التطبيقية
دائرة البرامج الأكاديمية

Study Plans
For
COLLEGES OF
APPLIED
SCIENCES

June 2010



BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY)

STUDY PLANS



BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY)

Computer Networks Major

Semester 1

Course Code & No	Course Title	Credit Hours	Contact Hours		Extra Practice	Prerequisites
			Theory	Practice		
ENGL 1111	English for Academic Purposes (1)	4	0	10	0	
INFT 1101	IT Fundamental	3	2	2	0	COMP5001
COMM 1201	Introduction to Communications	3	3	0	0	
ARAB1100	Arabic Language Skills	3	3	0	0	
MATH 1005	Mathematics for IT	2	1	2	0	MATH5002
Total		15	9	14	0	

Semester 2

Course Code & No	Course Title	Credit Hours	Contact Hours		Extra Practice	Prerequisites
			Theory	Practice		
ENGL1222	English for Academic Purposes (2)	4	0	10	0	ENGL 1111
SFDV1000	Introduction to Dynamic Web Development	3	2	2	0	
INFT 1002	Foundations of Digital Technology	3	2	2	0	
SFDV1003	Programming Fundamentals	3	2	2	0	
ECON 3402	Omani Economy	2	2	0	0	
Total		15	8	16	0	

Semester 3

Course Code & No	Course Title	Credit Hours	Contact Hours		Extra Practice	Prerequisites
			Theory	Practice		
SFDV 2001	Web Development	3	2	2	0	SFDV1000
SFDV 2002	Principles of Information Systems	3	2	2	2	INFT 1002
SFDV 2013	Programming	3	2	2	2	SFDV1003
ENGL 2111	English for Academic Purposes (3)	3	0	8	0	ENGL1222
MATH1022	Introduction to Discrete Mathematics	3	2	2	0	
Total		15	8	16	4	



Computer Networks Major

Semester 4

Course Code & No	Course Title	Credit Hours	Contact Hours		Extra Practice	Prerequisites
			Theory	Practice		
SFDV 3001	Data Structures (1)	3	2	2	0	SFDV 2013 MATH 1022
SFDV 2005	Introduction to Computer Organisation	3	2	2	0	
NETW 2101	Networks (1)	3	2	2	0	
ENGL 2244	English for Specific Purposes (Information Technology)	3	0	8	0	ENGL2111
SFDV 3002	Introduction to Databases	3	2	2	0	SFDV2002
Total		15	8	16	0	

Semester 5

Course Code & No	Course Title	Credit Hours	Contact Hours		Extra Practice	Prerequisites
			Theory	Practice		
SFDV 2014	Application Software Development	3	2	2	0	SFDV 2013
SFDV 3003	Systems Analysis and Design	3	2	2	0	SFDV3002
NETW 3005	Operating Systems	3	2	2	0	
MATH 3001	Discrete Mathematics	3	2	2	0	MATH1022
BUSN3404	Entrepreneurship	3	3	0	0	
	Major Elective (1)	3				
Total		18				

Semester 6

Course Code & No	Course Title	Credit Hours	Contact Hours		Extra Practice	Prerequisites
			Theory	Practice		
NETW 3000	Introduction to Security	3	2	2	0	
NETW3001	Networks (2)	3	2	2		NETW 2101
NETW 4009	Innovation in Network and Security	3	2	2	0	NETW 2101
RESR 2000	Introduction to Research Methods	3	3	0	0	
	Major Elective (2)	3				
Total		15				



Computer Networks Major

Semester 7

Course Code & No	Course Title	Credit Hours	Contact Hours		Extra Practice	Prerequisites
			Theory	Practice		
NETW 4001	Network Technology	3	2	2	0	NETW 2101
NETW 4002	Network Management	3	2	2	0	NETW 2101
COMM3233	Interpersonal Skills	2	2	0	0	
	Major Elective (3)	3				
	Major Elective (4)	3				
	Non-IT Elective (2)	3				
Total		17				

Semester 8

Course Code & No	Course Title	Credit Hours	Contact Hours		Extra Practice	Prerequisites
			Theory	Practice		
NETW 4003	Internetworking	3	2	2	0	NETW4002
ISLM4410	Islamic Culture	3	3	0	0	
NETW 4004	Wireless Networking	3	2	2	0	NETW 2101
	Major Elective (5)	3				
	Major Elective (6)	3				
	Non-IT Elective (2)	3				
Total		18				



Computer Networks Major

Major Electives

Course Code & No	Course Title	Prerequisite
SFDV 3005	Artificial Intelligence	SFDV3004
SFDV 3004	Data Structures (2)	SFDV 3001
NETW3006	Advanced Operating Systems	NETW3005
SFDV 3011	Advanced Web Development	SFDV2001
SFDV 4005	Distributed Data Management	SFDV3003
SFDV 3006	Concurrent Programming	SFDV2104
SFDV 3012	Computer Graphics	SFDV3004
SFDV 3007	Advanced Database Design	SFDV3003
SFDV 3008	Database Development	SFDV3003
SFDV 4001	Object Oriented Programming and User-interfaces	SFDV 3004
SFDV 4002	Software Project Management	SFDV 3003
NETW 4005	Computer Security A	NETW 2101
NETW 4006	Network Security A	NETW 2101



BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY)

Software Development Major

Semester 1

Course Code & No	Course Title	Credit Hours	Contact Hours		Extra Practice	Prerequisites
			Theory	Practice		
ENGL 1111	English for Academic Purposes (1)	4	0	10	0	
INFT 1101	IT Fundamental	3	2	2	0	COMP5001
COMM 1201	Introduction to Communications	3	3	0	0	
ARAB1100	Arabic Language Skills	3	3	0	0	
MATH 1005	Mathematics for IT	2	1	2	0	MATH5002
Total		15	9	14		

Semester 2

Course Code & No	Course Title	Credit Hours	Contact Hours		Extra Practice	Prerequisites
			Theory	Practice		
ENGL1222	English for Academic Purposes (2)	4	0	10	0	ENGL 1111
SFDV1000	Introduction to Dynamic Web Development	3	2	2	0	
INFT 1002	Foundations of Digital Technology	3	2	2	0	
SFDV1003	Programming Fundamentals	3	2	2	0	
ECON 3402	Omani Economy	2	2	0	0	
Total		15	8	16	0	

Semester 3

Course Code & No	Course Title	Credit Hours	Contact Hours		Extra Practice	Prerequisites
			Theory	Practice		
SFDV 2001	Web Development	3	2	2	0	SFDV1000
SFDV 2002	Principles of Information Systems	3	2	2	2	INFT 1002
SFDV 2013	Programming	3	2	2	2	SFDV1003
ENGL 2111	English for Academic Purposes (3)	3	0	8	0	ENGL1222
MATH1022	Introduction to Discrete Mathematics	3	2	2	0	
Total		15	8	16	4	



Software Development Major

Semester 4

Course Code & No	Course Title	Credit Hours	Contact Hours		Extra Practice	Prerequisites
			Theory	Practice		
SFDV 3001	Data Structures (1)	3	2	2	0	SFDV 2013 MATH 1022
SFDV 2005	Introduction to Computer Organisation	3	2	2	0	
NETW 2101	Networks (1)	3	2	2	0	
ENGL 2244	English for Specific Purposes (Information Technology)	3	0	8	0	ENGL2111
SFDV 3002	Introduction to Databases	3	2	2	0	SFDV2002
Total		15	8	16	0	

Semester 5

Course Code & No	Course Title	Credit Hours	Contact Hours		Extra Practice	Prerequisites
			Theory	Practice		
SFDV 2014	Application Software Development	3	2	2	0	SFDV 2013
SFDV 3003	Systems Analysis and Design	3	2	2	0	SFDV3002
NETW 3005	Operating Systems	3	2	2	0	
MATH 3001	Discrete Mathematics	3	1	2	0	MATH1022
BUSN3404	Entrepreneurship	3	3	0	0	
	Major Elective (1)	3				
Total		18				

Semester 6

Course Code & No	Course Title	Credit Hours	Contact Hours		Extra Practice	Prerequisites
			Theory	Practice		
SFDV3004	Data Structures (2)	3	2	2	0	SFDV 3001
SFDV 4009	Innovation in Software Development	3	2	2	0	SFDV 2014
NETW 3000	Introduction to Security	3	2	2	0	
RESR 2000	Introduction to Research Methods	3	3	0	0	
	Major Elective (2)	3				
Total		15				



Software Development Major

Semester 7

Course Code & No	Course Title	Credit Hours	Contact Hours		Extra Practice	Prerequisites
			Theory	Practice		
SFDV 4003	Software Engineering Project A	3	2	2	0	SFDV3004
SFDV 4001	Object Oriented Programming and User-interfaces	3	2	2	0	SFDV3004
COMM3233	Interpersonal Skills	2	2	0	0	
	Major Elective (3)	3				
	Major Elective (4)	3				
	Non-IT Elective (1)	3				
Total		17				

Semester 8

Course Code & No	Course Title	Credit Hours	Contact Hours		Extra Practice	Prerequisites
			Theory	Practice		
SFDV 4004	Software Engineering Project B	3	2	2	0	SFDV4001
ISLM4410	Islamic Culture	3	3	0	0	
SFDV 4002	Software Project Management	3	2	2	0	SFDV3003
	Major Elective (5)	3				
	Major Elective (6)	3				
	Non-IT Elective (2)	3				
Total		18				



Software Development Major

Major Electives

Course Code & No	Course Title	Prerequisite
SFDV 3005	Artificial Intelligence	SFDV3004
NETW3006	Advanced Operating Systems	NETW3005
SFDV 3011	Advanced Web Development	SFDV2001
SFDV 4005	Distributed Data Management	SFDV3003
SFDV 3006	Concurrent Programming	SFDV2104
SFDV 3012	Computer Graphics	SFDV3004
SFDV 3007	Advanced Database Design	SFDV3003
SFDV 3008	Database Development	SFDV3003
NETW 4005	Computer Security A	NETW 2101
NETW 4006	Network Security A	NETW 2101
NETW 4001	Network Technology	NETW 2101
NETW 4002	Network Management	NETW 2101
NETW 4004	Wireless Networking	NETW 2101



BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY)

Information Technology Security Major

Semester 1

Course Code & No	Course Title	Credit Hours	Contact Hours		Extra Practice	Prerequisites
			Theory	Practice		
ENGL 1111	English for Academic Purposes (1)	4	0	10	0	
INFT 1101	IT Fundamental	3	2	2	0	COMP5001
COMM 1201	Introduction to Communications	3	3	0	0	
ARAB1100	Arabic Language Skills	3	3	0	0	
MATH 1005	Mathematics for IT	2	1	2	0	MATH5002
Total		15	9	14		

Semester 2

Course Code & No	Course Title	Credit Hours	Contact Hours		Extra Practice	Prerequisites
			Theory	Practice		
ENGL1222	English for Academic Purposes (2)	4	0	10	0	ENGL 1111
SFDV1000	Introduction to Dynamic Web Development	3	2	2	0	
INFT 1002	Foundations of Digital Technology	3	2	2	0	
SFDV1003	Programming Fundamentals	3	2	2	0	
ECON 3402	Omani Economy	2	2	0	0	
Total		15	8	16	0	

Semester 3

Course Code & No	Course Title	Credit Hours	Contact Hours		Extra Practice	Prerequisites
			Theory	Practice		
SFDV 2001	Web Development	3	2	2	0	SFDV1000
SFDV 2002	Principles of Information Systems	3	2	2	2	INFT 1002
SFDV 2013	Programming	3	2	2	2	SFDV1003
ENGL 2111	English for Academic Purposes (3)	3	0	8	0	ENGL1222
MATH1022	Introduction to Discrete Mathematics	3	2	2	0	
Total		15	8	16	4	



Information Technology Security Major

Semester 4

Course Code & No	Course Title	Credit Hours	Contact Hours		Extra Practice	Prerequisites
			Theory	Practice		
SFDV 3001	Data Structures (1)	3	2	2	0	SFDV 2013 MATH 1022
SFDV 2005	Introduction to Computer Organisation	3	2	2	0	
NETW 2101	Networks (1)	3	2	2	0	
ENGL 2244	English for Specific Purposes (Information Technology)	3	0	8	0	ENGL2111
SFDV 3002	Introduction to Databases	3	2	2	0	SFDV2002
Total		15	8	16	0	

Semester 5

Course Code & No	Course Title	Credit Hours	Contact Hours		Extra Practice	Prerequisites
			Theory	Practice		
SFDV 2014	Application Software Development	3	2	2	0	SFDV 2013
SFDV 3003	Systems Analysis and Design	3	2	2	0	SFDV3002
NETW 3005	Operating Systems	3	2	2	0	
MATH 3001	Discrete Mathematics	3	2	2	0	MATH1022
BUSN3404	Entrepreneurship	3	3	0	0	
	Major Elective (1)	3				
Total		18				

Semester 6

Course Code & No	Course Title	Credit Hours	Contact Hours		Extra Practice	Prerequisites
			Theory	Practice		
NETW 3000	Introduction to Security	3	2	2	0	
NETW3001	Networks (2)	3	2	2		NETW 2101
NETW 4009	Innovation in Network and Security	3	2	2	0	NETW 2101
RESR 2000	Introduction to Research Methods	3	3	0	0	
	Major Elective (2)	3				
Total		15				



Information Technology Security Major

Semester 7

Course Code & No	Course Title	Credit Hours	Contact Hours		Extra Practice	Prerequisites
			Theory	Practice		
NETW 4005	Computer Security A	3	2	2	0	NETW 2101
NETW 4006	Network Security A	3	2	2	0	NETW 2101
COMM3233	Interpersonal Skills	2	2	0	0	
	Major Elective (3)	3				
	Major Elective (4)	3				
	Non-IT Elective (1)	3				
Total		17				

Semester 8

Course Code & No	Course Title	Credit Hours	Contact Hours		Extra Practice	Prerequisites
			Theory	Practice		
NETW 4007	Computer Security B	3	2	2	0	NETW4005
ISLM4410	Islamic Culture	3	3	0	0	
NETW 4008	Network Security B	3	2	2	0	NETW4006
	Major Elective (5)	3				
	Major Elective (6)	3				
	Non-IT Elective (2)	3				
Total		18				



Information Technology Security Major

Major Electives

Course Code & No	Course Title	Prerequisite
SFDV 3005	Artificial Intelligence	SFDV3004
NETW3006	Advanced Operating Systems	NETW3005
SFDV 3004	Data Structures (2)	SFDV 3001
SFDV 3011	Advanced Web Development	SFDV2001
SFDV 4005	Distributed Data Management	SFDV3003
SFDV 3006	Concurrent Programming	SFDV2104
SFDV 3012	Computer Graphics	SFDV3004
SFDV 3007	Advanced Database Design	SFDV3003
SFDV 3008	Database Development	SFDV3003
SFDV 4001	Object Oriented Programming and User-interfaces	SFDV 3004
SFDV 4002	Software Project Management	SFDV 3003
NETW 4001	Network Technology	NETW 2101
NETW 4002	Network Management	NETW 2101
NETW 4004	Wireless Networking	NETW 2101



BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY)

Data Management Major

Semester 1

Course Code & No	Course Title	Credit Hours	Contact Hours		Extra Practice	Prerequisites
			Theory	Practice		
ENGL 1111	English for Academic Purposes (1)	4	0	10	0	
INFT 1101	IT Fundamental	3	2	2	0	COMP5001
COMM 1201	Introduction to Communications	3	3	0	0	
ARAB1100	Arabic Language Skills	3	3	0	0	
MATH 1005	Mathematics for IT	2	1	2	0	MATH5002
Total		15	9	14		

Semester 2

Course Code & No	Course Title	Credit Hours	Contact Hours		Extra Practice	Prerequisites
			Theory	Practice		
ENGL1222	English for Academic Purposes (2)	4	0	10	0	ENGL 1111
SFDV1000	Introduction to Dynamic Web Development	3	2	2	0	
INFT 1002	Foundations of Digital Technology	3	2	2	0	
SFDV1003	Programming Fundamentals	3	2	2	0	
ECON 3402	Omani Economy	2	2	0	0	
Total		15	8	16	0	

Semester 3

Course Code & No	Course Title	Credit Hours	Contact Hours		Extra Practice	Prerequisites
			Theory	Practice		
SFDV 2001	Web Development	3	2	2	0	SFDV1000
SFDV 2002	Principles of Information Systems	3	2	2	2	INFT 1002
SFDV 2013	Programming	3	2	2	2	SFDV1003
ENGL 2111	English for Academic Purposes (3)	3	0	8	0	ENGL1222
MATH1022	Introduction to Discrete Mathematics	3	2	2	0	
Total		15	8	16	4	



Data Management Major

Semester 4

Course Code & No	Course Title	Credit Hours	Contact Hours		Extra Practice	Prerequisites
			Theory	Practice		
SFDV 3001	Data Structures (1)	3	2	2	0	SFDV 2013 MATH 1022
SFDV 2005	Introduction to Computer Organisation	3	2	2	0	
NETW 2101	Networks (1)	3	2	2	0	
ENGL 2244	English for Specific Purposes (Information Technology)	3	0	8	0	ENGL2111
SFDV 3002	Introduction to Databases	3	2	2	0	SFDV2002
Total		15	8	16	0	

Semester 5

Course Code & No	Course Title	Credit Hours	Contact Hours		Extra Practice	Prerequisites
			Theory	Practice		
SFDV 2014	Application Software Development	3	2	2	0	SFDV 2013
SFDV 3003	Systems Analysis and Design	3	2	2	0	SFDV3002
NETW 3005	Operating Systems	3	2	2	0	
MATH 3001	Discrete Mathematics	3	2	2	0	MATH1022
BUSN3404	Entrepreneurship	3	3	0	0	
	Major Elective (1)	3				
Total		18				

Semester 6

Course Code & No	Course Title	Credit Hours	Contact Hours		Extra Practice	Prerequisites
			Theory	Practice		
SFDV3004	Data Structures (2)	3	2	2	0	SFDV 3001
SFDV 4009	Innovation in Software Development	3	2	2	0	SFDV 2014
NETW 3000	Introduction to Security	3	2	2	0	
RESR 2000	Introduction to Research Methods	3	3	0	0	
	Major Elective (2)	3				
Total		15				



Data Management Major

Semester 7

Course Code & No	Course Title	Credit Hours	Contact Hours		Extra Practice	Prerequisites
			Theory	Practice		
SFDV 3007	Advanced Database Design	3	2	2	0	SFDV 3003
SFDV3011	Advanced Web Development	3	2	2	0	SFDV 2001
COMM3233	Interpersonal Skills	2	2	0	0	
	Major Elective (3)	3				
	Major Elective (4)	3				
	Non-IT Elective (1)	3				
Total		17				

Semester 8

Course Code & No	Course Title	Credit Hours	Contact Hours		Extra Practice	Prerequisites
			Theory	Practice		
SFDV 3008	Database Development	3	2	2	0	SFDV 3003
ISLM4410	Islamic Culture	3	3	0	0	
SFDV 4005	Distributed Data Management	3	2	2	0	SFDV 3003
	Major Elective (5)	3				
	Major Elective (6)	3				
	Non-IT Elective (2)	3				
Total		18				



Data Management Major

Major Electives

Course Code & No	Course Title	Prerequisite
SFDV 3005	Artificial Intelligence	SFDV3004
NETW3006	Advanced Operating Systems	NETW3005
SFDV 3006	Concurrent Programming	SFDV2104
SFDV 3012	Computer Graphics	SFDV3004
NETW 4005	Computer Security A	NETW 2101
NETW 4006	Network Security A	NETW 2101
SFDV 4001	Object Oriented Programming and User-interfaces	SFDV 3004
SFDV 4002	Software Project Management	SFDV 3003
NETW 4001	Network Technology	NETW 2101
NETW 4002	Network Management	NETW 2101
NETW 4004	Wireless Networking	NETW 2101



ELECTIVE COURSES



*** Elective Courses for Non-IBA Students**

Course Code & No	Course Title	Credit Hours	Prerequisite
BUSN 3403	Business Communication & Public Relations	3	
MRKT4401	International Marketing	3	MRKT 2401
MANG4401	Strategic Management	3	MANG2401
MANG3401	International Human Resource Management	3	MANG 2401
MANG2401	Introduction to Management	3	
MAKT2401	Marketing	3	

*** Elective Courses for Non-IT Students**

Course Code & No	Course Title	Credit Hours	Prerequisite
INFT 1002	Foundations of digital technology	3	
SFDV 1000	Introduction to Web Development	3	
SFDV 2001	Web Development	3	SFDV 1000
SFDV 2002	Principles of Information Systems	3	INFT 1002

*** Elective Courses for Non-Des. Students**

Course Code & No	Course Title	Credit Hours	Prerequisite
DESN2302	Design Portfolio	3	
DESN2308	Drawing Skills	3	
DESN2306	History, Culture, Context (1)	3	
DESN1303	Computers for Design (1)	3	
DESN3308	Illustration	3	
DESN3310	Photography	3	

*** Elective Courses for Non-CS Students**

Course Code & No	Course Title	Credit Hours	Prerequisite
COMM1203	Introduction to Public Relations	3	
COMM1204	Introduction to Journalism	3	
COMM2201	Interpersonal Communication	3	
COMM2203	Popular Culture	3	
MEDA2201	Image and Sound	3	
COMM3202	Visual Communication	3	