

Btec
Networking Specialization Plan
TOTAL CREDITS = 36

Year 4						
S#	Code	Course Name	Prerequisite	Type	Credit Hour	Sem
1	ITNT 401	Connecting Networks (Network-IV)	ITNT 301- Scaling Networks	MR	3	Semester 1
2	ITNT 402	Converged Networks	ITNT 301- Scaling Networks	MR	3	
3	ITIS304	Research Methodology	MATH311 - Probability and Statistics for Information Technology	DR	3	
4	ITNT 403	Linux System Administration I	ITSE 102-Introduction to Operating Systems	MR	3	
5	ITNT414	B-tech Project I	ITNT301- Scaling Networks	MR	3	
6		College Elective		CE	3	Semester 2
7		Major Elective 1		ME	3	
8	PHIL4101	Oman Civilization	None	CR	3	
9	ITNT406	Linux System Administration II	ITNT 403- Linux System Administration I	MR	3	
10	ITNT407	B-tech Project II	ITNT 414- B-tech Project I AND ITNT 401 Connecting Networks (Network-IV)	MR	3	
11		Major Elective 2		ME	3	Semester 3
12	PHIL3201	Formal Arabic Communication	None	CR	3	

Student will take 2 Major Electives from the following list:

S#	Code	Course Name	Prerequisite	Credit Hr
1	ITNT408	Cyber security Operations	None	3
2	ITNT 405	TCP/IP Programming	ITNT 305- Distributed Computing	3
3	ITNT 404	Server Administration	ITSY202 - Network OS Administration & Security	3

Student will take 1 College Elective from the following list:

S#	Code	Course Name	Prerequisite	Credit Hr
1	BAMG1100	Introduction to Business	None	3
2	BAAC1102	Principle of Accounting	None	3
3	ITIS401	Human Computer Interaction	None	3

NOTE:-

Type	Description
CR	College Requirement
MR	Major Requirement
DR	Department Requirement
CE	College Elective
ME	Major Elective

Btec
Information Security Specialization Plan
TOTAL CREDITS = 36

Year 4						
S#	Code	Course Name	Prerequisite	Type	Credit Hour	Sem
1	ITSY414	B-TECH Project - I	ITSY303- Web Applications Security or ITSY305- Ethical Hacking	MR	3	Semester 1
2	ITSY 402	Introduction to Digital Forensics	ITSY 302- Network Security Assessment	MR	3	
3	PHIL3200	Formal Arabic Communication	None	CR	3	
4		Major Elective 1		ME	3	
5	ITNT 406	Linux Administration - II	ITNT 403- Linux System Administration I	MR	3	
6	PHIL4101	Oman Civilization	None	CR	3	Semester 2
7	ITSY 403	Database Security	ITDB202 - Structured Query Language	MR	3	
8	ITSY 404	B-TECH Project - II	ITSY 414- B-TECH Project - I	MR	3	
9		Major Elective 2		ME	3	
10	ITSY 405	Network Security Management	ITSY 304- Network Perimeter Security	MR	3	
11		College Elective		CE	3	Semester 3
12	ITIS304	Research Methodology	MATH311 - Probability and Statistics for Information Technology	DR	3	

Student will take 2 Major Electives from the following list:

S#	Code	Course Name	Prerequisite	Credit Hr
1	ITSY 406	Distributed Systems Technology	ITSY202 - Network OS Administration & Security	3
2	ITSY 407	Mobile Application Security	ITSE301- Mobile Application Development	3
3	ITSY 408	Python for Penetration Testing	ITSY305- Ethical Hacking	3
4	ITSY 409	Incident Response & Disaster Recovery	ITSY 402 Introduction to Digital Forensics	3
5	ITSY 410	Biometric Systems	None	3
6	ITNT306	Wireless Communication	ITNT201 - Routing & Switching Essentials	3
7	ITSY 412	Malware Analysis	ITSY305- Ethical Hacking	3
8	ITNT 401	Connecting Networks (Network-IV)	ITNT 301- Scaling Networks	3

Student will take 1 College Elective from the following list:

S#	Code	Course Name	Prerequisite	Credit Hr
1	BAMG1100	Introduction to Business	None	3
2	BAAC1102	Principle of Accounting	None	3
3	ITIS401	Human Computer Interaction	None	3

NOTE:-

Type	Description
CR	College Requirement
MR	Major Requirement
DR	Department Requirement
CE	College Elective
ME	Major Elective

Software Engineering Specialization Plan**TOTAL CREDITS = 36**

Year 4						
S#	Code	Course Name	Prerequisite	Type	Credit Hour	Sem
1	ITSE402	Software Design, Integration and Testing	ITSE306- Object Oriented Analysis and Design	MR	3	Semester 1
2	ITSE408	Advanced Object Oriented Programming	ITSE203- Object Oriented Programming	MR	3	
3		Major Elective		ME	3	
4	PHIL4101	Oman Civilization	None	CR	3	
5	ITSE414	B-Tech Project I	ITSE306- Object Oriented Analysis and Design	MR	3	
6	ITSE407	Introduction to Artificial Intelligence	ITSE205- Data Structures and Algorithms	MR	3	Semester 2
7		Major Elective		ME	3	
8		College Elective		CE	3	
9	ITSE404	B-Tech Project II	ITSE414- B-Tech Project I	MR	3	
10	PHIL3201	Formal Arabic Communication	None	CR	3	
11	ITSE415	Applied Data Science	MATH311 - Probability and Statistics for Information Technology + ITSE101- Programming I	MR	3	Semester 3
12		Major Elective		ME	3	

Student will take 3 Major Electives from the following list:

S#	Code	Course Name	Prerequisite	Credit Hr
1	ITSE411	Advanced Computer Graphics and Game Design	ITSE304- Computer Graphics	3
2	ITDB304	Fundamentals of Big Data	ITDB101- Introduction to Database	3
3	ITSE403	Advanced Mobile Application Development	ITSE301- Mobile Application Development	3
4	ITNT403	Linux System Administration I	ITSE 102-Introduction to Operating Systems	3
5	ITSE405	Theory of Computation	MATH2200- Discrete Structures AND ITSE205- Data Structures and Algorithms	3
6	ITDB409	Introduction to Blockchain	None	3
7	ITIS403	Enterprise Resource Planning	BAMG1100- Introduction to Business	3

Student will take 1 College Elective from the following list:

S#	Code	Course Name	Prerequisite	Credit Hr
1	BAMG1100	Introduction to Business	None	3
2	BAAC1102	Principle of Accounting	None	3
3	ITIS401	Human Computer Interaction	None	3

NOTE:-

Type	Description
CR	College Requirement
MR	Major Requirement
DR	Department Requirement
CE	College Elective
ME	Major Elective

Btec
Database Systems Specialization Plan
TOTAL CREDITS = 36

Year 4						
S#	Code	Course Name	Prerequisite	Type	Credit Hour	Sem
1	PHIL4101	Oman Civilization	None	CR	3	Semester 1
2	ITDB414	B.Tech. Project I	ITSE202- Introduction to Software Engineering	MR	3	
3	ITDB401	Advanced Database Applications	ITDB301- Database Programming	MR	3	
4	ITDB403	Data Mining	ITDB303- Data Warehouse Design	MR	3	
5		Major Elective		ME	3	
6	ITDB404	Distributed Database Systems	ITDB302- Advanced Web Technologies	MR	3	Semester 2
7	PHIL3201	Formal Arabic Communication	None	CR	3	
8		College Elective		CE	3	
9	ITDB405	Big Data Analytics	ITDB304- Fundamentals of Big Data	MR	3	
10	ITDB406	B.Tech. Project II	ITDB414- B.Tech. Project I AND (ITDB302- Advanced Web Technologies OR ITDB405- Big Data Analytics OR ITDB401-Advanced Database Applications)	MR	3	
11		Major Elective		ME	3	Semester 3
12	ITDB407	Database Administration	ITDB301- Database Programming	MR	3	

Student will take 2 Major Electives from the following list:

S#	Code	Course Name	Prerequisite	Credit Hr
1	ITSE415	Applied Data Science	MATH311 - Probability and Statistics for Information Technology + ITSE101- Programming I	3
2	ITDB408	SQL Server	None	3
3	ITDB409	Introduction to Blockchain	None	3
4	ITSE408	Advanced Object-Oriented Programming	ITSE203- Object Oriented Programming	3
5	ITSE407	Introduction to Artificial Intelligence	ITSE205- Data Structures and Algorithms	3
6	ITNT403	Linux System Administration I	ITSE 102-Introduction to Operating Systems	3
7	ITDB402	Database Management and Security	ITDB301-- Database Programming	3

Student will take 1 College Elective from the following list:

S#	Code	Course Name	Prerequisite	Credit Hr
1	BAMG1100	Introduction to Business	None	3
2	BAAC1102	Principle of Accounting	None	3
3	ITIS401	Human Computer Interaction	None	3

NOTE:-

Type	Description
CR	College Requirement
MR	Major Requirement
DR	Department Requirement
CE	College Elective
ME	Major Elective