

**Advance Diploma
Networking Specialization Plan
TOTAL CREDITS = 36**

Year 3						
S#	Code	Course Name	Prerequisite	Type	Credit Hour	Sem
1	ITNT301	Scaling Networks	ITNT201 - Network Fundamentals I	MR	3	Semester 1
2	MATH2200	Discrete Structures	MATH1200 - Calculus I	DR	3	
3	ITNT302	Network Management	ITSY202 - Network OS Administration & Security	MR	3	
4	ENGL3100	Public Speaking	ENGL2100 - Technical Communication	CR	3	
5		Major Elective 1		ME	3	
6	ITNT303	Computer System Architecture	ITNT202 - Logic Design	MR	3	Semester 2
7	ITSY304	Network Perimeter Security	ITSY201 - Fundamentals of Computer Security + ITNT201 - Routing & Switching Essentials	MR	3	
8	ITNT304	Cloud Computing	ITNT201 - Routing & Switching Essentials	MR	3	
9	ITNT305	Distributed Computing	ITNT103 - Computer Hardware + ITSE203 - Object Oriented Programming	MR	3	
10	MATH311	Probability and Statistics for Information Technology	MATH1102 – Pure Math	DR	3	
11	ITNT306	Wireless Communication	ITNT201 - Routing & Switching Essentials	MR	3	Semester 3
12		Major Elective 2		ME	3	

Student will take 2 Major Electives from the following list:

S#	Code	Course Name	Prerequisite	Credit Hr
1	ITSE301	Mobile Application Development	ITSE203 - Object Oriented Programming + ITIS103 - Web Technologies	3
2	ITNT307	Data Communication	ITNT201 - Routing & Switching Essentials	3
3	ITNT308	Business Continuity and Risk Management	ITNT302 - Network Management	3
4	ITSE202	Introduction to Software Engineering	None	3
5	ITSY307	Intrusion Detection & Prevention Systems	None	3
6	ITNT309	Internet of Things Fundamentals	ITSE203 - Object Oriented Programming	3

NOTE:-

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

Advance Diploma
Information Security Specialization Plan
TOTAL CREDITS = 36

Year 3						
S#	Code	Course Name	Prerequisite	Type	Credit Hour	Sem
1	ITSY301	Introduction to Cryptography	None	MR	3	Semester 1
2	ITSY302	Network Security Assessment	ITSY201 - Fundamentals of Computer Security	MR	3	
3	ITNT301	Scaling Networks	ITNT201 - Routing & Switching Essentials	MR	3	
4		Major Elective 1		ME	3	
5	ENGL3100	Public Speaking	ENGL2100 - Technical Communication	CR	3	
6	ITSY303	Web Applications Security	ITDB201 - Web Application Development I OR ITSY201 - Fundamentals of Computer Security	MR	3	Semester 2
7	ITSY304	Network Perimeter Security	ITSY201 - Fundamentals of Computer Security + ITNT201 - Routing & Switching Essentials	MR	3	
8	ITNT403	Linux Administration I	ITSE102 - Introduction to Operating Systems	MR	3	
9		Major Elective 2		ME	3	
10	MATH311	Probability and Statistics for Information Technology	MATH1102 – Pure Math	DR	3	
11	ITSY305	Ethical Hacking	ITSY302 - Network Security Assessment	MR	3	Semester 3
12	MATH2200	Discrete Structures	MATH1200 - Calculus I	DR	3	

Student will take 2 Major Electives from the following list:

S#	Code	Course Name	Prerequisite	Credit Hr
1	ITSY306	Secure Application Development	ITSE203 - Object Oriented Programming	3
2	ITSY307	Intrusion Detection & Prevention Systems	None	3
3	ITSY308	E-Commerce Security	ITSY301 - Introduction to Cryptography	3
4	ITSE301	Mobile Application Development	ITSE203 - Object Oriented Programming + ITIS103 - Web Technologies	3
5	ITSE305	Computer Organization	ITSE101 - Programming I + MATH2200 - Discrete Structures	3
6	ITNT302	Network Management	ITSY202 - Network OS Administration & Security	3
7	ITNT405	Server Administration	ITSY202 - Network OS Administration & Security	3
8	ITNT309	Internet of Things Fundamentals	ITSE203 - Object Oriented Programming	3

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Advance Diploma
Software Engineering Specialization Plan
TOTAL CREDITS = 36

Year 3						
S#	Code	Course Name	Prerequisite	Type	Credit Hour	Sem
1	ENGL3100	Public Speaking	ENGL2100 - Technical Communication	CR	3	Semester 1
2	MATH2200	Discrete Structures	MATH1200 - Calculus I	DR	3	
3	ITSE302	Advanced Web Technologies	ITDB201 - Web Application Development I	MR	3	
4	ITSY303	Web Applications Security	ITDB201 - Web Application Development I OR ITSY201 - Fundamentals of Computer Security	MR	3	
5		Major Elective		ME	3	
6	MATH311	Probability and Statistics for Information Technology	MATH1102 – Pure Math	DR	3	Semester 2
7	ITSE304	Computer Graphics	ITSE201 - Programming II	MR	3	
8	ITSE305	Computer Organization	ITSE101 - Programming I + MATH2200 - Discrete Structures	MR	3	
9	ITSE306	Object Oriented Analysis and Design	ITSE202 - Introduction to Software Engineering + ITSE203 - Object Oriented Programming	MR	3	
10		Major Elective		ME	3	
11	ITSE301	Mobile Application Development	ITSE203 - Object Oriented Programming + ITIS103 - Web Technologies	MR	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	ITSE303	Digital Image Processing	ITSE201 - Programming II + MATH2200 - Discrete Structures	3
2	ITDB302	Web Application Development II	ITIS103 - Web Technologies	3
3	ITSE307	Advanced Operating Systems	ITSE102 - Introduction to Operating Systems	3
4	ITSE308	Software Project Management	ITSE202 - Introduction to Software Engineering	3
5	ITSE309	Fundamentals of Robotics	ITSE203 - Object Oriented Programming OR ITDB302 - Web Application Development II OR ITSE302 - Advanced Web Technologies	3
6	ITNT309	Internet of Things Fundamentals	ITSE203 - Object Oriented Programming	3

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Advance Diploma
Database Systems Specialization Plan
TOTAL CREDITS = 36

Year 3						
S#	Code	Course Name	Prerequisite	Type	Credit Hour	Sem
1	ENGL3100	Public Speaking	ENGL2100 - Technical Communication	CR	3	Semester 1
2	MATH2200	Discrete Structures	MATH1200 - Calculus I	DR	3	
3	ITDB301	Database Programming	ITDB202 - Structured Query Language	MR	3	
4	ITDB302	Web Application Development II	ITIS103 - Web Technologies	MR	3	
5		Major Elective		ME	3	
6	ITDB303	Data Warehouse Design	ITDB101 - Introduction to Database	MR	3	Semester 2
7	ITSE302	Advanced Web Technologies	ITDB201 - Web Application Development I	MR	3	
8	ITSY303	Web Applications Security	ITDB201 - Web Application Development I OR ITSY201 - Fundamentals of Computer Security	MR	3	
9	MATH311	Probability & Statistics for Information Technology	MATH1102 – Pure Math	DR	3	
10		Major Elective		ME	3	
11	ITDB304	Fundamentals of Big Data	ITDB101 - Introduction to Database	MR	3	Semester 3
12	ITIS304	Research Methodology	MATH311 - Probability & Statistics for Information Technology	DR	3	

Student will take 2 Major Electives from the following list:

S#	Code	Course Name	Prerequisite	Credit Hr
1	ITDB305	Web Application Development Using Java Server Pages	ITDB101 - Introduction to Database + ITSE203 - Object Oriented Programming	3
2	ITSE304	Computer Graphics	ITSE201 - Programming II	3
3	ITSE303	Digital Image Processing	ITSE201 - Programming II + MATH2200 - Discrete Structures	3
4	ITSE308	Software Project Management	ITSE202 - Introduction to Software Engineering	3
5	ITSE305	Computer Organization	ITSE101 - Programming I + MATH2200 - Discrete Structures	3
6	ITSE301	Mobile Application Development	ITSE203 - Object Oriented Programming + ITIS103 - Web Technologies	3
7	ITSE309	Fundamentals of Robotics	ITSE203 - Object Oriented Programming OR ITDB302 - Web Application Development II OR ITSE302 - Advanced Web Technologies	3
8	ITNT309	Internet of Things Fundamentals	ITSE203 - Object Oriented Programming	3

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