

PROGRAM STRUCTURE

Courses	Credit hours
7 core courses	19
8 elective courses	24
Total	43

a. Core Courses:

All students must take these courses.

Course Code	Course Title	Credit Hours
CSC 512	Algorithms Analysis and Design	3
CSC 524	Computer Networks	3
CSC 541	Advanced Software Engineering	3
CSC 581	Advanced Database Systems	3
CSC 595	Seminar and Discussions	2
CSC 597	Project 1	2
CSC 598	Project 2	3
Total		19

b. Elective Courses

List A: The department chooses three courses from the following list:

Course Code	Course Title	Credit Hours
CSC 519	Computer Security	3
CSC 543	Software Quality Management	3
CSC 551	Automata, Calculability and Formal Languages	3
CSC 562	Artificial Intelligence	3
CSC 572	Advanced Computer Graphics	3
CSC 587	Web Databases and Information Retrieval	3
CSC 588	Data Warehouse and Mining Systems	3

List B: The department chooses five courses from the following list:

Course Code	Course Title	Credit Hours
CSC 520	Networking in the TCP/IP Environment	3
CSC 523	Distributed Systems	3
CSC 525	Distributed Real-Time Systems	3
CSC 526	Parallel Processing	3
CSC 527	Design and Implementation of Real-Time systems	3

CSC 528	Interconnection Networks	3
CSC 529	Selected Topics in Computer Systems	3
CSC 530	High-Performance Computations	3
CSC 535	New Advances in Programming Languages	3
CSC 546	Designing Object-Oriented Software Systems	3
CSC 547	Software Measurements	3
CSC 548	Software Projects Management	3
CSC 549	Selected Topics in Software Engineering	3
CSC 558	Pattern Recognition and Image Processing	
CSC 561	Expert Systems and Knowledge Engineering Applications	3
CSC 563	Neural Networks and Machine Learning Applications	3
CSC 566	Advanced Applications of Pattern Recognition and Machine Learning	3
CSC 567	E-Business and its applications in Large Enterprises	3
CSC 569	Selected Topics in Artificial Intelligence	3
CSC 573	Numerical Algorithms and their Applications in Computer Science	3
CSC 574	Human-machine Communication and User-Interface Design	3
CSC 576	Graphics and Multimedia Applications	3
CSC 578	Advances in Multimedia Applications	3
CSC 579	Selected Topics in Computer Graphics	3
CSC 586	Hypermedia and Geographical Information Systems	3
CSC 589	Selected Topics in Database Systems	3
CSC 590	Selected Topics in Computer Applications	3
CEN 523	Fault-Tolerant Systems	3
CEN 545	Digital Image Processing	3

c. Program Schedule

First Semester

Course Code	Course Title	Credit Hours
CSC 512	Algorithms Analysis and Design	3
CSC 524	Computer Networks	3
CSC 541	Advanced Software Engineering	3
Total		9

Second Semester

Course Code	Course Title	Credit Hours
CSC 581	Advanced Database Systems	3
-	Course from List A	3
-	Course from List A	3
Total		9

Third Semester

Course Code	Course Title	Credit Hours
CSC 595	Seminar and Discussions	2
-	Course form List A	3
-	Course form List B	3
Total		8

Fourth Semester

Course Code	Course Title	Credit Hours
CSC 597	Project 1	2
-	Course from List B	3
-	Course from List B	3
Total		8

Fifth Semester

Course Code	Course Title	Credit Hours
CSC 598	Project 2	3
-	Course from List B	3
-	Course from List B	3

Total	9
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