Integrated M.S. Software Systems

The Integrated M.S. Software Systems programme is designed to prepare professionals employed in technical positions in a diverse spectrum of Information Technology industries, with an appropriately broad background for later advancement into technical or management positions.

Students in this programme develop knowledge and competencies in the foundations of computing, methods and techniques of systems engineering, effective communication, and the application of current best practices to understand and solve technological problems involving software systems.

The curriculum for the Integrated M.S. Software Systems programme has been benchmarked and redesigned recently, with a stronger set of foundation courses and discipline courses, and several electives.

Eligibility: Employed professionals in Information Technology industries with minimum one year relevant work experience, and holding a B.Sc. / B.C.A. degree or its equivalent, with adequate background in Mathematics. Employer consent with suitable Mentor availability will be additional requirements

Normal Duration: Eight Semesters

Option to exit with a B.S. degree after six semesters: The coursework for this integrated 8-semester M.S. Software Systems programme will align with the coursework of the B.S. Information Systems programme during the first four semesters. Thus, a student admitted to the 8-semester M.S. programme, may be permitted to exit with a B.S. Information Systems degree at the end of sixth semester, if he/she completes all the relevant course work (including electives) and project work requirements for the B.S. degree by then.

Programme Chart for Integrated (8-Semester) M.S. Software Systems

Year	First Semester	Second Semester
I	• Discrete Structure for Computer Science • Linear Algebra & Optimization • Computer Programming • Digital Electronics & Microprocessors	• Object Oriented Programming & Design • Systems Programming • Computer Organization & Architecture • Data Structures & Algorithms
II	• Probability & Statistics • Database Systems & Applications • Operating Systems • Elective	• Complier Design • Software Engineering • Computer Networks • Elective
III	• Object Oriented Analysis & Design • Data Warehousing • Electives (2)	• Data Mining • Electives (3)
IV	• Software Architectures • Electives (3)	• **Dissertation**

Pool of Electives

S.No.	Course Title
1.	Advanced Computer Networks
2.	Advanced Data Mining
3.	Advanced Operating Systems
4.	Cloud Computing
5.	Computer Graphics
6.	Data Storage Technologies & Networks
7.	Embedded System Design
8.	Multimedia Computing
9.	Network Programming
10.	Network Security
11.	Pervasive Computing
12.	Real Time Systems
13.	Software Development for Portable Devices
14.	Software for Embedded Systems
15.	Software Project Management
16.	Software Testing Methodologies
17.	Technical Communication

Note : This is the suggested semesterwise pattern of courses, subject to change if the situation warrants.