

# MASTER OF COMPUTER APPLICATIONS (MCA)

## Syllabus

### Semester 1

Course Code	Title Of The Course
MCS-011	Problem Solving and Programming
MCS-012	Computer Organization and Assembly Language Programming
MCS-013	Discrete Mathematics
MCS-014	System Analysis & Design
MCS-015	Communication Skills
MCSL-016	Internet Concepts and Web Design
MCSL-017	C and Assembly Language Programming Lab

### Semester 2

Course Code	Title Of The Course
MCS-021	Data and File Structures
MCS-022	Operating System Concepts & Networking Management Systems
MCS-023	Introduction to Database Management Systems

MCS-024	Object-Oriented Technologies and Java Programming
MCSL-025	Lab (Based on MCS-021, 022,023 & 024)

### Semester 3

Course Code	Title Of The Course
MCS-031	Design and Analysis of Algorithms
MCS-032	Object-Oriented Analysis and Design
MCS-033	Advanced Discrete Mathematics
MCS-034	Software Engineering
MCS-035	Accountancy & Financial Management
MCSL-036	Lab (based on MCS-032, 034 and 035)

### Semester 4

Course Code	Title Of The Course
MCS-041	Operating Systems
MCS-042	Data Communication & Computer Networks
MCS-043	Advanced Database Management Systems
MCS-044	Mini Project
MCSL-045	Lab (UNIX & Oracle)

### Semester 5

<b>Course Code</b>	<b>Title Of The Course</b>
MCS-051	Advanced Internet Technologies
MCS-052	Principles of Management & Information System
MCS-053	Computer Graphics and Multimedia
MCSL-054	Lab (based on MCS-051 & 053)
MCSL-045	Lab (UNIX & Oracle)

### **Elective Courses**

<b>Course Code</b>	<b>Title Of The Course</b>
MCSE-003	Artificial Intelligence & Knowledge Management
MCSE-004	Numerical and Statistical Computing
MCSE-011	Parallel Computing

### **Semester 6**

<b>Course Code</b>	<b>Title Of The Course</b>
MCSP-060	Project