

## **MASTER OF COMPUTER APPLICATIONS (M.C.A.)**

### **Duration:**

**THREE Years - 6 Semesters**

### **Eligibility:**

**60% marks in graduation with mathematics as one of the subjects Plus  
Common Entrance Test and procedures conducted by Amrita University**

### **Semester 1**

**Discrete Structures and Linear Algebra  
English for Professional Communication  
Computer Organization and Architecture  
Computer Programming  
Database Management System  
Problem Solving Techniques  
Cultural Education**

### **Semester 2**

**Statistics and Numerical Methods  
Object Oriented Programming  
Data Structures  
Operating Systems  
Financial Accounting  
Java Programming**

### **Semester 3**

**Computer Networks  
Design and Analysis of Algorithms  
Internet Programming  
.net Technologies  
Operations Research  
Web Scripting**

### **Semester 4**

**Software Engineering  
Service Oriented Architecture  
Data Mining  
Elective I  
Elective II**

## ***Minor Project***

### **Semester 5**

***Design Patterns***

***Software Project Management***

***Computer Graphics***

***Elective III***

***Elective IV***

### **Semester 6**

***Major Project and Dissertation***

***Elective I/II***

***Advanced Computer Networks***

***Open Source Software***

***Agent Based Intelligent System***

***Advanced Databases***

***Structure and Interpretation of Computer Programs***

***Computational Intelligence***

***Network Management and System Administration***

***Cryptography***

***Embedded Systems***

***Natural Language Processing***

***Multimedia Systems***

***Semantic Web Technologies***

### ***Elective III/IV***

***Data Analytics and Business Intelligence***

***Mobile Communications***

***Software Quality Assurance***

***Information Security***

***Parallel Computer Architecture & Programming***

***Computer Language Engineering***

***Introduction to Bioinformatics***

***Wireless Communication and Networks***

***Management Information Systems***

***Agile Programming***

***Information Retrieval***

***Distributed Databases***

***Electives listed above are only indicative. Actual Offering will depend on the number of students registering for the courses and availability of faculty.***

***School Administration reserves the right to modify the subjects / curriculum / detailed syllabus as per the topical needs or changes in trends of the academic stream or industry requirements.***