

NORTH MAHARASHTRA UNIVERSITY, JALGAON – 425 001

SYLLABUS for Master of Computer Application (MCA) (With Effect from June-2014)

Semester- I

CA-101 Computer Organization & Architecture

CA-102 Database Management System (DBMS)

CA-103 Mathematical Foundations of Computer Science

CA-104 C++ Programming

CA-105 System Programming

CA-Lab-I Lab on C++ Programming

CA-Lab-II Lab on DBMS

Semester- II

CA-201 Object Oriented Analysis and Design (OOAD)

CA-202 Data Structures and Algorithms

CA-203 Operating Systems

CA-204 Linux Operating System

CA-205 Computer Networks

CA-Lab-III Lab on Data Structures

CA-Lab-IV Lab on Linux Operating System

Semester- III

CA-301 Accounting and Management Control

CA-302 Design and Analysis of Algorithms

CA-303 Automata Theory and Computability

CA-304 Artificial Intelligence

CA-305 Java Programming

CA-Lab-V Lab on Design and Analysis of Algorithm

CA-Lab-VI Lab on JAVA Programming

Semester-IV

CA-401 Software Engineering Methodologies

CA-402 Internet Computing - I

CA-403 Network Programming

CA-404 Computer Graphics

CA-405 Optimization Algorithms

CA-Lab-VII Lab on Computer Graphics & Internet Computing -I

CA-Lab-VIII Lab on Linux Socket Programming

Semester –V

CA-501 Compiler Construction

CA-502 Cloud Computing

CA-503 Internet Computing -II

CA-504 Visual C++ Programming

CA-505 Natural Language Processing

CA-Lab-IX Lab on Visual C++ Programming

CA-Lab-X Lab on Internet Computing -II

Semester-VI

CA-601 Full time Industrial Training

Career Opportunities

The career opportunities after M.C.A. are quite huge. Many major national and multinational firms take in aspirants who have accomplished their graduation in these fields. The top IT firms such as Microsoft, Google, Yahoo, Rediff, Wipro, TCS, Infosys, Accenture, Capgemini etc. offer aspirants very attractive packages. Jobs for professionals in these fields can also be got with management consultancy organizations, Government organizations, Banks, Educational Institutions, Research Organizations and other organizations that use computers and computer-aided systems are but not limited to:

Programmer or Software Engineer

Computer Engineer

Web Designer

Hardware Designer/Engineer

Systems Engineer

System integrator

System Administration

Technical Support

Support Engineer

Technical Writer

Consultant

Management

Administration

IT Sales and Marketing

IT Officer

Computer Scientist

Professor

Research Staff Member

Systems Analyst

Logic Designer

Computer Scientist