

# Master of Computer Applications (MCA)

First Semester	Second Semester	Elective-I	Elective-II
101 Problem Solving using C 102 Discrete Mathematics & Graph Theory 103 Digital Electronics & Computer Organization 104 Introduction to Unix 105 Introduction to Web Technologies 106 C Programming Laboratory 107 Unix Programming Laboratory 108 Web Programming Laboratory	201 Data Structures 202 Object Oriented Programming using C++ 203 Operating Systems 204 Probability, Statistics and Queuing 205 Database Management Systems 206 Data Structures Using C Laboratory 207 Database Laboratory 208 OOP with C++ Laboratory	<ul style="list-style-type: none"> <li>• UNIX system Programming</li> <li>• Advanced Topics in DBMS</li> <li>• Management Information System</li> <li>• Operations Research</li> <li>• Principles of User Interface Design</li> <li>• Systems Programming</li> </ul>	<ul style="list-style-type: none"> <li>• Advanced Computer Networks</li> <li>• Data Warehousing &amp; Data Mining</li> <li>• Mobile Computing &amp; Wireless Communications</li> <li>• Software Testing &amp; Practices</li> <li>• Theory of Computation (FAFL)</li> </ul>
Third Semester	Fourth Semester	Elective-III	Elective-IV
301 Computer Networks 302 Programming using Java 303 Software Engineering 304 Computer Graphics with Open GL 305 Elective-I 306 Java Programming Laboratory 307 CG Laboratory using Open GL 308 Network Laboratory	401 Analysis and Design of Algorithms 402 Advanced Java Programming 403 Advanced Web Programming 404 Elective-II 405 Elective-III 406 ADA Laboratory 407 Advanced Java Programming Lab 408 Mini Project –I	<ul style="list-style-type: none"> <li>• Cryptography &amp; Network Security</li> <li>• Network Management</li> <li>• NOSQL</li> <li>• Software Architectures</li> <li>• Enterprise Resource Planning (ERP)</li> </ul>	<ul style="list-style-type: none"> <li>• Mobile and Adhoc Sensor Networks</li> <li>• Parallel Computing</li> <li>• Multimedia systems</li> <li>• Pattern Recognition</li> <li>• Services Oriented Architecture</li> <li>• Compiler Design</li> </ul>
Fifth Semester	Sixth Semester	Elective-V	Elective-VI
501 Object-Oriented Modelling & Desig Patterns 502 System Simulation & Modelling 503 Programming using C#.NET 504 Elective II 505 Elective III 506 Software Design Laboratory 507 Net Laboratory 508 Mini Project –II	601 Project Work	<ul style="list-style-type: none"> <li>• Cloud Computing</li> <li>• Web2.0 and Rich Internet Applications</li> <li>• Information Retrieval &amp; Search Engines</li> <li>• Fuzzy Logic</li> <li>• Computer System Performance Analysis</li> <li>• Building Enterprise Applications</li> </ul>	<ul style="list-style-type: none"> <li>• Project Work</li> </ul>

## Career Scope

Information Technology or IT is one of the fastest industries in the world. With information gaining immensely in value, technology is a prerequisite to making this usable. With more and more organisations adopting technology by the day, IT is an industry that is showing great prospects for a long time to come. IT courses in Teachers' Academy provide you with the right skills and exposure to leverage the opportunity that the industry throws open

## Career Opportunities

•Application Programmer •System Programmer •Software Engineer •Systems Designer •Network Administrator •Date base Administrator •Software Tester