



JECRCTM
UNIVERSITY
BUILD YOUR WORLD

Faculty of IT & Computer Application




Scheme

Master of Computer Applications (MCA)

Specialization in Cloud Computing in Association with Microsoft

Academic Programme - July 2021-22



Semester – I

| Course Code | Course Name | L (Hr.) | T (Hr.) | P (Hr.) | Credits | Type | Click on Icon to View Syllabus |
|-------------|--|---------|---------|---------|---------|------|--|
| MCA201 | Programming in Java | 4 | 0 | 0 | 4 | CORE | |
| MCA203 | Data Structures and Algorithms | 3 | 1 | 0 | 4 | F | |
| MCA205 | Project Lab in Java | 0 | 0 | 2 | 1 | CORE | |
| MCA206 | Data Structures Lab -I | 0 | 0 | 2 | 1 | F | |
| MCA207 | Computer Programming Lab | 0 | 0 | 2 | 1 | F | |
| MSA001 | Microsoft Certified: Azure Fundamentals | 2 | 0 | 0 | 3 | CORE |  2microsoft-certified-azure-data-fundamer |
| MSA002 | Microsoft Certified: Azure AI Fundamentals | 0 | 0 | 2 | 1 | CORE |  4microsoft-certified-azure-ai-fundamental |
| MSA003 | Microsoft Certified: Azure Data Fundamentals Microsoft Certified: Security, Compliance, and Identity Fundamentals | 3 | 0 | 0 | 3 | CORE |  3microsoft-certified-security-compliance-ar |
| | Communication Skills | 2 | 0 | 2 | 3 | ID | |
| | Open Elective -I | 3 | 0 | 0 | 3 | GE | |
| | Total | 18 | 1 | 8 | 23 | | |

Semester – II

| Course Code | Course Name | L (Hr.) | T (Hr.) | P (Hr.) | Credits | Type | Click on Icon to View Syllabus |
|-------------|---|---------|---------|---------|---------|------|--|
| MCA208 | Programming in Python | 3 | 0 | 0 | 3 | CORE | |
| MCA209 | Data Structures Lab Using JAVA-II | 0 | 0 | 2 | 1 | F | |
| MCA210 | Advance Database Management System | 3 | 0 | 0 | 3 | CORE | |
| MCA211 | Project Lab in Python | 0 | 0 | 2 | 1 | CORE | |
| MCA212 | Project Lab in Advance Database Management Systems | 0 | 0 | 2 | 1 | CORE | |
| MCA213 | Minor Project | 0 | 0 | 4 | 2 | CORE | |
| MSA004 | Microsoft Certified: Azure Data Scientist Associate | 3 | 0 | 0 | 3 | CORE |  6microsoft-certified-azure-data-scientist-associate |
| MSA005 | Microsoft Certified: Azure Developer Associate | 3 | 0 | 0 | 3 | CORE |  5microsoft-certified-azure-developer-associate |
| | Life Skills-I (Aptitude) | 1 | 0 | 0 | 1 | F | |
| | Life Skills-I Lab | 0 | 0 | 2 | 1 | F | |
| | Open Elective -II | 3 | 0 | 0 | 3 | GE | |
| | Total | 15 | 0 | 8 | 22 | | |

Semester – III

| Course Code | Course Name | L (Hr.) | T (Hr.) | P (Hr.) | Credits | Type | Click on Icon to View Syllabus |
|-------------|---|-----------|----------|----------|-----------|------|---|
| MCA214 | Statistical Computing Using R | 2 | 0 | 0 | 2 | CORE | |
| MCA215 | Internet Security and Cryptography | 3 | 0 | 0 | 3 | CORE | |
| MCA216 | Project Lab in Statistical Computing Using R | 0 | 0 | 2 | 1 | CORE | |
| MSA006 | Microsoft Certified: Azure Data Engineer Associate | 4 | 0 | 0 | 4 | CORE |  8microsoft-certified-azure-security-engine |
| MSA007 | Microsoft Certified: Azure Database Administrator Associate | 3 | 0 | 2 | 4 | CORE |  7microsoft-certified-azure-database-admi |
| | Life Skills-II (Personality Development) | 1 | 0 | 0 | 1 | F | |
| | Life Skills-II -Lab | 0 | 0 | 2 | 1 | F | |
| | Open Elective -III | 3 | 0 | 0 | 3 | GE | |
| | Total | 16 | 0 | 6 | 19 | | |

Semester – IV

| Course Code | Course Name | L (Hr.) | P (Hr.) | Credits | Type |
|-------------|--|---------|---------|---------|------|
| MCA218 | Industrial Training/Internship/Dissertation Project Presentation | 0 | 0 | 16 | CORE |

List of Elective Courses

| Elective-II/IV | | Elective-I/III | |
|----------------|--|----------------|---|
| Course Code | Course name | Course Code | Course name |
| MCA219 | Programming in ASP.Net | MCA241 | Data warehousing and Data Mining |
| MCA220 | Programming in R | MCA242 | Data Science and Analytics |
| MCA221 | Programming in C# | MCA243 | Distributed Computing |
| MCA222 | Professional Java | MCA244 | Big Data Analytics |
| MCA223 | MEAN Fullstack Development | MCA245 | Cloud Computing |
| MCA224 | Programming Using Ruby On Rails | MCA246 | Introduction to Salesforce |
| MCA225 | Programming Using Scala | MCA247 | Big Data Analytics using Hadoop |
| MCA226 | Design & Analysis of Algorithms | MCA248 | System and Network Administrator |
| MCA227 | Machine Learning | MCA249 | Artificial Intelligence and Expert System |
| MCA228 | Programming in ASP.Net Lab | MCA250 | Compiler Design |
| MCA229 | Programming in R Lab | MCA251 | Advance Computer Network |
| MCA230 | Programming in C# Lab | MCA252 | Theory of Computation |
| MCA231 | Professional Java Lab | MCA253 | Robotics Process Automation |
| MCA232 | MEAN Fullstack Development Lab | MCA254 | Advance Computer Architecture |
| MCA233 | Programming Using Ruby On Rails Lab | MCA255 | Agile Software Development |
| MCA234 | Programming Using Scala Lab | MCA256 | Introduction to Blockchain |
| MCA235 | Design & Analysis of Algorithms Lab | MCA257 | Software Project Management |
| MCA236 | Machine Learning Lab | | |
| MCA237 | Introduction to Linux System | | |
| MCA238 | Linux Server Administration and | | |
| MCA239 | Software Development Using OpenShift | | |
| MCA240 | Network Virtualization Using OpenStack | | |
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