

Bachelor of Science (B.Sc. Information Technology)

Degree Duration : 3 Years (6 Semesters)

Intake Capacity : 60

The B.Sc. Information Technology programme is with an aim to make the students employable and impart industry oriented training. The main objectives of the course are to think analytically, creatively and critically in developing robust, extensible and highly maintainable technological solutions to simple and complex problems. Also to apply their knowledge and skills to be employed and excel in IT professional careers and/or to continue their education in IT and/or related post graduate programmes. Furthermore, to be capable of managing complex IT projects with consideration of the human, financial and environmental factors.

Eligibility:

- (a) A candidate for being eligible for admission to the degree course of Bachelor of Science-Information Technology, shall have passed XII standard examination of the Maharashtra Board of Higher Secondary Education or it's equivalent with Mathematic and Statistics as one of the subject and should have secured not less than 45% marks in aggregate for open category and 40% marks in aggregate in case of Reserved category candidates.
- (b) Candidate who have passed Diploma (Three years after S.S.C. – Xth Std.) in Information Technology/ Computer Technology/ Computer Engineering/Computer Science/ Electrical, Electronics and Video Engineering and Allied Branches/Mechanical and Allied Branches/ Civil and Allied branches are eligible for direct admission to the Second Year of the B.Sc. (I.T.) degree course.

Admission will be on merit, based on order of preference as follows:

1. Aggregate Marks at H.S.C. or equivalent.
2. Marks in Mathematics or Statistics.

(Ref. Circular of University of Mumbai/No.UG./283 of 2007, Dated 16th June, 2007)

Subjects:

FY Old Syllabus (Mentioned in Table) and FY New Syllabus link is:

<https://mu.ac.in/syllabus-of-nep-2020/syllabus-of-nep-2020-ug-programme>

| Semester I | | Semester II | |
|------------|---|-------------|---|
| USIT101 | Programming Principles with C | USIT201 | Object Oriented Programming with C++ |
| USIT1P1 | Programming Principles with C Practical | USIT2P1 | Object Oriented Programming with C++ Practical |
| USIT102 | Digital Logic and Applications | USIT202 | Fundamentals of Microprocessor and Microcontrollers |
| USIT1P2 | Digital Logic and applications Practical | USIT2P2 | Fundamentals of Microprocessor and Microcontrollers Practical |
| USIT103 | Fundamentals of Database Management Systems | USIT203 | Web Applications Development |
| USIT1P3 | Fundamentals of Database Management Systems Practical | USIT2P3 | Web Applications Development Practical |

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|---------|--|---------|-----------------------------|
| USIT104 | Computational Logic and Discrete Structure | USIT204 | Numerical Methods |
| USIT1P4 | Computational Logic and Discrete structure Practical | USIT2P4 | Numerical Methods Practical |
| USIT105 | Technical Communication Skills | USIT205 | Green IT |
| USIT1P5 | Technical Communication Skills Practical | USIT2P5 | PL/SQL Practical |

| Semester III | | Semester IV | |
|--------------|---------------------------------------|-------------|--|
| USIT301 | Python Programming | USIT401 | Core Java |
| USIT3P1 | Python Programming Practical | USIT4P1 | Core Java Practical |
| USIT302 | Data Structures | USIT402 | Introduction to Embedded Systems |
| USIT3P2 | Data Structures Practical | USIT4P2 | Introduction to Embedded Systems Practical |
| USIT303 | Computer Networks | USIT403 | Computer Oriented Statistical Techniques |
| USIT3P3 | Computer Networks Practical | USIT4P3 | Computer Oriented Statistical Techniques Practical |
| USIT304 | Database Management Systems | USIT404 | Software Engineering |
| USIT3P4 | Database Management Systems Practical | USIT4P4 | Software Engineering Practical |
| USIT305 | Applied Mathematics | USIT405 | Computer Graphics and Animation |
| USIT3P5 | Mobile Programming Practical | USIT4P5 | Computer Graphics and Animation Practical |

| Semester V | | Semester VI | |
|--------------------------------|------------------------------------|-------------|--|
| USIT501 | Software Project Management | USIT601 | Software Quality Assurance |
| USIT5P1 | Project Dissertation | USIT6P1 | Project Implementation |
| USIT502 | Internet of Things | USIT602 | Security in Computing |
| USIT5P2 | Internet of Things Practical | USIT6P2 | Security in Computing Practical |
| USIT503 | Advanced Web Programming | USIT603 | Business Intelligence |
| USIT5P3 | Advanced Web Programming Practical | USIT6P3 | Business Intelligence Practical |
| Discipline Specific Elective I | | | |
| USIT504 | Linux System Administration | USIT604 | Principles of Geographic Information Systems |
| USIT5P5 | Linux Administration Practical | USIT6P5 | Principles of Geographic Information Systems Practical |

| Discipline Specific Elective II | | | |
|---------------------------------|---------------------------|---------|-----------------------------|
| USIT505 | Enterprise Java | USIT605 | IT Service Management |
| USIT5P6 | Enterprise Java Practical | USIT6P6 | Advanced Mobile Programming |

Career Options After BSc Information Technology

Information Technology as a subject and its application in real-life business situations are considered the most sought-after courses both at graduation and post-graduation scenarios. Let us look at some career options after BSc Computer Science.

1. WEB Developer
2. Data Scientist
3. Cloud Engineer
4. Software Tester
5. Information System Manager
6. System Analyst
7. Project Head
8. Android Developer
9. Technical Support Assistant
10. Database Administrator
11. Software Engineer
12. Cyber Law Consultant
13. GIS (Geographic Information Systems) Engineer
14. Online Tutoring and many more

As per technology advances, Career opportunities also increasing in this field. This is evergreen field.