Bachelor of Science (B.Sc. Computer Science)

Degree Duration: 3 Years (6 Semesters)
Intake Capacity:120

The fast and innovative development of new applications in science, engineering and business, Computer Science is rapidly changing the way in which we experience our world. Students will gain not only knowledge and practical experience of the latest technologies, but also a grounding in the underlying principles of the subject. It is the combination of skills that enable the graduates to keep pace with this fast-moving technology and secure rewarding careers that can be pursued almost anywhere in the world.
Eligibility:

A candidate for being eligible for admission to the three years integrated course leading to the degree of Bachelor of Science (B.Sc.) must have passed Higher Secondary School Certificate Examination (Std. XII) in Science stream conducted by the Maharashtra State Board of Secondary and Higher Secondary Education with Mathematics and Statistics as one of the subject or its equivalent.

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

1. *Aggregate Marks at H.S.C. or equivalent.*
2. *Aggregate Marks in Science Group (Physics, Chemistry and Mathematics)*
3. *Marks in Mathematics and Statistics and Physics.*
4. *Marks in Mathematics and Statistics.*

(Ref. Circular of University of Mumbai/284 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	
USCS101	Digital Systems & Architecture	USCS201	Design & Analysis of Algorithms
USCSP101	Digital Systems & Architecture – Practical	USCSP201	Design & Analysis of Algorithms – Practical
USCS102	Introduction to Programming with Python	USCS202 USCSP202	Advanced Python Programming Advanced Python Programming –
USCSP102	Introduction to Programming with Python – Practical	USCS203	Practical Introduction to OOPs using C++
USCS103	LINUX Operating System	USCSP203	Introduction to OOPs using C++ –
USCSP103	LINUX Operating System – Practical		Practical
USCS104	Open Source Technologies	USCS204	Database Systems
USCSP104	Open Source Technologies – Practical	USCSP204	Database Systems – Practical
USCS105	Discrete Mathematics	USCS205	Calculus
USCSP105	Discrete Mathematics – Practical	USCSP205	Calculus – Practical
USCS106	Descriptive Statistics	USCS206	Statistical Methods

USCSP106	Descriptive Statistics – Practical	USCSP206	Statistical Methods – Practical
USCS107	Soft Skills	USCS207	E-Commerce & Digital Marketing

Semester III		Semester IV	
USCS301	Principles of Operating Systems	USCS401	Theory of Computation
USCSP301	Principles of Operating Systems – Practical	USCSP401	Theory of Computation – Practical
USCS302	Linear Algebra	USCS402	Computer Networks
USCSP302	Linear Algebra – Practical	USCSP402	Computer Networks – Practical
USCS303	Data Structures	USCS403	Software Engineering
USCSP303	Data Structures – Practical	USCSP403	Software Engineering – Practical
USCS304	Advanced Database Concepts	USCS404	IoT Technologies
USCSP304	Advanced Database Concepts – Practical	USCSP404	IoT Technologies – Practical
USCS305	Java based Application Development	USCS405	Android Application Development
USCSP305	Java based Application Development – Practical	USCSP405	Android Application Development – Practical
USCS306	Web Technologies	USCS406	Advanced Application Development
USCSP306	Web Technologies – Practical	USCSP406	Advanced Application Development – Practical
General Elective		General Elective	

USCS3071	Creative Content Writing	USCS4071	Research Methodology
USCS3072	Green Technologies	USCS4072	Management & Entrepreneurship

Semester V		**Semester VI**	
Elective 1		**Elective I**	
USCS502	Linux Server Administration	USCS601	Wireless Sensor Networks and Mobile Communication
USCS503	Software Testing and Quality Assurance	USCS602	Cloud Computing
Elective II		**Elective II**	
USCS504	Information and Network Security	USCS604	Information Retrieval
USCS506	Web Services	USCS606	Data Science
Skill Enhancement		Skill Enhancement	
USCS507	Game Programming	USCS607	Ethical Hacking
Practical		**Practical**	
USCSP501	Practical of Elective-I	USCSP601	Practical of Elective-I
USCSP502	Practical of Elective-II	USCSP602	Practical of Elective-II
USCSP503	Project Implementation	USCSP603	Project Implementation
USCSP504	Practical of Skill	USCSP604	Practical of Skill
	Enhancement: USCS507		Enhancement: USCS607

Career Options After BSc Computer Science

Computer science 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. Programmer
2. Data Scientist
3. Application Analyst
4. Software Tester

5. Information System Manager
6. System Analyst
7. Project Head
8. Web Designer
9. Technical Support Representative
10. Database Administrator
11. Software Engineer
12. Online Tutoring and many more

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