1	M. Sc. (Computer Science)

M.Sc. (Computer Science) is a 2 years (Four Semester) full-time programme (as per NEP 2020) offered by the Department.

1.1 Eligibility

The candidate must have passed the following degree examination:
B.Sc. (Computer Science) **OR** B.Sc.(Information Technology) **OR**
B.E.**OR** B.Sc. (Physics) **OR** B.Sc. (Mathematics) **OR** B.Sc. (Statistics)

1.2 Syllabus and Credit Scheme

M.Sc. (Computer Science) Semester-I				
Paper	Course Name	Compulsory / Elective	Marks (I + E + P)	Credits
I	Applied Signal &Image Processing	Compulsory	50+50+50	6
II	Software Defined Networking	Compulsory	50+50+50	6
III	Principles of Compiler Design	Compulsory	25+25+00	2
IV	Research Methodology	Compulsory	50+50+00	4
V	NoSQL Technologies	Elective	25+25+50	4
	Robotic			
	UI/UX Design			
	Total (Marks & Credits)		**550**	**22**

M.Sc. (Computer Science) Semester-II				
Paper	Course Name	Compulsory / Elective	Marks (I + E + P)	Credits
I	Machine Learning	Compulsory	50+50+50	6
II	Natural Language Processing	Compulsory	50+50+50	6
III	Simulation & Modeling	Compulsory	25+25+00	2
IV	On Job Training	Compulsory	50+50+00	4
V	Bio Informatics	Elective	25+25+50	4
	Embedded &IoT Technology			
	Web Data Analytics			
	Total (Marks & Credits)		**550**	**22**

M.Sc. (Computer Science) Semester-III				
Paper	Course Name	Compulsory / Elective	Marks (I + E + P)	Credits
I	Web3 Technologies	Compulsory	50+50+50	6
II	Cyber Security & Risk Assessment	Compulsory	50+50+50	6
III	Ethical & Responsible AI	Compulsory	25+25+00	2
IV	Research Project	Compulsory	50+50+00	4
V	Social Network Analysis	Elective	25+25+50	4
	Data Visualization			
	Fuzzy Systems			
	Total (Marks & Credits)		**550**	**22**

M.Sc. (Computer Science) Semester-IV				
Paper	Course Name	Compulsory / Elective	Marks (I + E + P)	Credits
I	Deep Learning	Compulsory	50+50+50	6
II	Big Data Analytics	Compulsory	50+50+50	6
III	Research Project	Compulsory	50+50+50	6
IV	Trends in Cloud Computing	Elective	25+25+50	4
	Remote Sensing			
	Server Virtualization			
	Total (Marks & Credits)		**550**	**22**

Grand Total (Marks & Credits)	2200	88

I = Internal   *E = External (Theory)*   *P = Practical*

1.3 Examination Scheme

The Internal Examination of 50/25 marks paper. The External Examination shall be of 2 hours duration for 50 marks theory papers and 1 hour for 25 marks theory papers. The Practical Examination shall be of 2 hours duration for each practical paper of 50 marks. To pass the M.Sc. Examination a candidate must obtain a minimum of 40% of the marks allotted to each paper (Internal, Theory and Practical Examination).

1.4 Admission Process

- The **intake** capacity of the **M. Sc. (Computer Science)** course is **120 students**. The reservation policy is to be followed as per the Government of Maharashtra.
- **Online Pre-Registration and Application forms for admission:** through **https://mu.ac.in/admission**
- Select Programme→ **Master of Science (Computer Science)**
- Select College/Institution → **MU-0321 Department of Computer Science**
- **No Hard Copy of the Application is required to submit at this stage.**
- Admission to the said course will be made on purely merit basis. (Percentage/ aggregate marks/grade).
- **There is no CET for M. Sc. (Computer Science) admission**.

1.5 Fees (approx.)

M.Sc. (Semester-I & II)		M.Sc. (Semester-III & IV)	
GEN/EWS	INR 40000	GEN/EWS	INR 40000
SC/ST/DT/NT/OBC/SBC	INR 2600	SC/ST/DT/NT/OBC/SBC	INR 2200
Foreign Student	INR 200000	Foreign Student	INR 200000

2	M. Sc. (Data Science)

M.Sc. (Data Science) is a 2 years (Four Semester) full-time programme (as per NEP 2020) offered by the Department. Classes in blended learning mode (online). Opportunity for the working professionals.

2.1 Eligibility

A candidate with minimum 50% score in Graduation (Any Subject) can appear for entrance examination through which the admission merit list will be generated.

2.2 Syllabus and Credit Scheme

M.Sc. (Data Science) Semester-I				
Paper	Course Name	Compulsory / Elective	Marks (I + E + P)	Credits
I	Essential Technologies for Data Science	Compulsory	50+50+50	6
II	Data Analysis & Visualization	Compulsory	50+50+50	6
III	Statistical Methods for Data Science	Compulsory	25+25+00	2
IV	Research Methodology	Compulsory	50+50+00	4
V	SPARK Technologies	Elective	25+25+50	4
	Retail Marketing Analytics			
	Sports Data Analytics			
	Total (Marks & Credits)		**550**	**22**

M.Sc. (Data Science) Semester-II				
Paper	Course Name	Compulsory / Elective	Marks (I + E + P)	Credits
I	Soft Computing	Compulsory	50+50+50	6
II	Time Series Analysis & Forecasting	Compulsory	50+50+50	6
III	Ethical Issues in Data Science	Compulsory	25+25+00	2
IV	On Job Training	Compulsory	50+50+00	4
V	Human Resource Analytics	Elective	25+25+50	4
	Public Health Care Analytics			
	Social Media Analytics			
	Total (Marks & Credits)		**550**	**22**

M.Sc. (Data Science) Semester-III				
Paper	Course Name	Compulsory / Elective	Marks (I + E + P)	Credits
I	Next Generation Databases	Compulsory	50+50+50	6
II	Text Mining & Natural Language Processing	Compulsory	50+50+50	6
III	Data Compliance & Auditing	Compulsory	25+25+00	2
IV	Research Project	Compulsory	50+50+00	4
V	Image & Video Analytics	Elective	25+25+50	4
	Econometrics & Finance			
	Data Science for Agriculture			
	Total (Marks & Credits)		**550**	**22**

M.Sc. (Data Science) Semester-IV

Paper	Course Name	Compulsory / Elective	Marks (I + E + P)	Credits
I	Deep Neural Networks	Compulsory	50+50+50	6
II	Optimization Methods for Data Science	Compulsory	50+50+50	6
III	Research Project	Compulsory	50+50+50	6
IV	Blockchain Technologies for Data Science	Elective	25+25+50	4
	Financial Risk Analytics & Management			
	Legal Analytics			
Total (Marks & Credits)			**550**	**22**

| **Grand Total (Marks & Credits)** | | | **2200** | **88** |

I = Internal	E = External (Theory)	P = Practical

2.3 Examination Scheme

The Internal Examination of 50/25 marks paper. The External Examination shall be of 2 hours duration for 50 marks theory papers and 1 hour for 25 marks theory papers. The Practical Examination shall be of 2 hours duration for each practical paper of 50 marks. To pass the M.Sc. Examination a candidate must obtain a minimum of 40% of the marks allotted to each paper (Internal, Theory and Practical Examination).

2.4 Admission Process

- The intake capacity of the **M. Sc. (Data Science)** Course is **120 students**. The reservation policy is to be followed as per the Government of Maharashtra.
- **Online Pre-Registration and Application forms for admission:**
  through **https://mu.ac.in/admission**
- Select Programme → **Master of Science (Data Science)**
- Select College/Institution → **MU-0321 Department of Computer Science**
- **No Hard Copy of the Application is required to submit at this stage.**
- **Entrance test Application Form: Will be announced later. Fees Rs.500/-**
- **It is mandatory to fill the entrance test form and appear for entrance test.**
- **Entrance Test Date:** Will be announced later.

2.5 Fees (approx.)

M.Sc. (Semester-I & II)		M.Sc. (Semester-III & IV)	
GEN/EWS	INR 40000	GEN/EWS	INR 40000
SC/ST/DT/NT/OBC/SBC	INR 2600	SC/ST/DT/NT/OBC/SBC	INR 2200
Foreign Student	INR 200000	Foreign Student	INR 200000

3	**Ph. D. (Computer Science)**

Doctor of Philosophy in the subject of Computer Science is a minimum 3 years programme offered by the Department.

3.1 Eligibility

Post-graduate with 55% marks for general category students and 50% marks for reserved category students **AND**
PET (Ph.D. Entrance Test) conducted by the University **OR**
NET/SET in the respected PG subject.

3.2 Admission Process

The Notification for PET will be published by the Research Administration & Promotion Cell, University of Mumbai on the website -www.mu.ac.in

Syllabus for the Entrance Test (PET): The syllabus for PET in a given subject shall be the various topics in the Compulsory/Core subjects/papers for the Post Graduate Degree Level Programme of the University of Mumbai for that subject

Mode of Selection: The qualified student of PET and the student who taken exemption from PET i.e. NET/SET qualified students are required to fill the Application form for Interview of Ph.D. Admission within 15 days from the declaration of the PET result. The Department will decide the date of the interview, subject to the availability of the seats.

3.3 Fees (approx.)

Ph.D. (1st Year)		Ph.D. (2nd Year and Onwards)	
GEN/EWS	INR 29000	GEN/EWS	INR 24000
SC/ST/DT/NT/OBC/SBC	INR 2300	SC/ST/DT/NT/OBC/SBC	INR 1400
Foreign Student	INR 145000	Foreign Student	INR 120000

Facilities

- **Laboratory Facility:** The Department has three laboratories with high quality software and hardware having capacity of 25 each with internet facility.

- **Library Facility:** Knowledge Resource Centre (J.N. Library) at Vidyanagari Campus is well equipped with Computer Science books, journals and periodicals. The Department also maintains an Internal Library for the students which are freely accessible.

- **Hostel Facility:** The University has 6 hostels for the outside students. Out of which, the Departments quota for Girls are 12 students and for Boys are 4 students. However, students can accommodate on twin sharing basis also.

मुंबई विद्यापीठ
University of Mumbai

संगणकशास्त्र विभाग
DEPARTMENT OF COMPUTER SCIENCE

2025-2026

❶ **M.SC. (COMPUTER SCIENCE)**

❷ **M.Sc. (DATA SCIENCE)**

❸ **PH.D. (COMPUTER SCIENCE)**