

## M.Sc. (Master of Science)

1020 Colleges • 5059 Courses • 52 Exams

[Popular Colleges](#) [Top Courses](#)



[Q&A](#) [Articles](#)

### What is M.Sc. (Master of Science)?

Full form of M.Sc is Master of Science (MSc). MSc is a two-year duration postgraduate degree course offered by universities and colleges in various specialised Science fields such as Physics, Biology, Chemistry, Mathematics, Botany, Biotechnology, Microbiology, Environmental Sciences, Food Sciences, Life Sciences, and so on.

A Master of Science degree provides scientific as well as professional entry-level competency to students. The course offers advanced theoretical as well as practical knowledge to students in their chosen specialisation. The MSc specialisation opted by students is usually the one studied by them during graduation.

If you are a graduate looking for career options in the field of Science, given below is everything-you-need-to-know about MSc in terms of its required skillset, basic eligibility criteria, course curriculum, top entrance exams, job profiles, etc.

**Note:** Apart from the aforementioned Science fields, MSc course is also offered by some colleges under **Design** and **Hospitality** streams.

### Required Skillset for MSc

Basic skills and traits that candidates aspiring to pursue an MSc degree course should possess are mentioned below:

### Skillset for MSc Aspirants

Patience	Determination
Attention to detail and accuracy	Analytical skills
Scientific skills	Ability to work in a team
Observation skills	Research skills
Problem-solving skills	-

---

## MSc: Eligibility Criteria

As already hinted above, all candidates need to possess a bachelor's degree in Science from a recognised college/ university. Minimum marks that candidates need to secure in graduation in order to be eligible for an MSc course is usually 50 – 60%. However, the required percentage might change depending on the policy of a university or institute in which a candidate is applying.

**Age bar:** There is usually no age criteria to join MSc course.

---

## Course curriculum for MSc

An MSc course is offered in a number of specialisations. Some of the popular MSc specialisations include Physics, Chemistry, Mathematics, Biology, Computer Science, Environmental Sciences, Biotechnology, Microbiology, Statistics, Life Sciences, and Food Sciences.

Course curriculum of an MSc course depends on the specialisation a candidate has chosen to pursue. Given below is an overview of subjects taught in some of the popular MSc specialisations:

### Physics

### MSc Physics Course Curriculum

Mathematical Methods	Classical Mechanics
Quantum Mechanics	Classical Electrodynamics
Solid State Physics	Electronics
Atomic Spectroscopy	Nuclear and Particle Physics
Relativity and Cosmology	Advanced Optics
Radiation Theory	Atomic and Molecular Physics
Statistical Mechanics	Advanced Quantum Mechanics
Computer Applications in Physics	Molecular Spectroscopy
Astrophysics	-

### Chemistry

#### MSc Chemistry Course Curriculum

Inorganic Chemistry	Organic Chemistry
Physical Chemistry	Analytical Chemistry
Inorganic Reaction Mechanism and Organometallics	Organic Reactions Mechanisms
Principles of Spectroscopy	Organic Synthetic Methods
Chemistry of Materials	Nuclear & Radiochemistry
Computational Chemistry	Advanced Quantum Chemistry
Chemical Dynamics and Electrochemistry	Applications of Spectroscopy
Macromolecules	Advanced Chemical Kinetics and Electrochemistry
Transition and Non-transition Metal Chemistry	Group Theory and Spectroscopy
Concepts in Organic Synthesis	Modern Techniques and Scope of Chemical Biology
Classical and Statistical Thermodynamics	-

### Mathematics

### MSc Mathematics Course Curriculum

Advanced Abstract Algebra	Real Analysis
Advanced Differential Equations	Differential Geometry
Dynamics of a Rigid Body	Linear Algebra
Topology	Special Functions
Hydrodynamics	Complex Analysis
Mechanics	Advanced Analysis
Numeral Analysis	Measure and Integration
Fluid Dynamics	General Measure Theory
Matrix Analysis	Theory of Operations
Vector Analysis	Geometry of Numbers

### Biology

#### MSc Biology Course Curriculum

Genes and Genomics	Metabolism and Metabolomics
(Organismic Biology and Cell Biology	Molecules of living systems
Proteins and Proteomics	Recombinant DNA Technology
Cell Biology	Methods in Applied Sciences
Microbiology	Biochemistry
Biostatistics and Bioinformatics	Research Methodology and IPR
Molecular Oncology and Molecular Medicine	Clinical Immunology
Recent Advances in Biology	Introduction to Pharmacology
Catalysis	Plant physiology
Animal physiology	Genetics
Biophysics and structural biology	Computational biology and bioinformatics

MSc degree holders can move into various kinds of jobs depending on the specialisation that they have studied. The course has great scope and there are ample opportunities for MSc pass-outs in both public as well as private sectors. Some of the top recruiters for MSc graduates are:

Top Recruiters for MSc Graduates	
Bhabha Atomic Research Centre	Infosys
Wipro	Ranbaxy
GAIL	ONGC
HCL	ISRO
BAARC	BHEL
GlaxoSmithKline	Cipla

Have a look at some of the popular job profiles of MSc degree holders below:

- **Research Scientist:** A Research Scientist has the role of designing, undertaking and analysing information obtained from controlled lab-based experiments and investigations. As a Research Scientist a student can choose to work in a government lab, environmental organisation, etc.
- **Junior Research Fellow:** The job role of a Junior Research Fellow includes doing research, conducting research-related development activities, publishing scientific work and its results and so on. Along with JRF (Junior Research Fellowship), candidates are also usually involved pursuing a PhD programme.
- **Mathematician:** A mathematician uses advanced theories and techniques of Mathematics to develop and understand mathematical principles and solve real-world problems in business, government, engineering, social sciences, etc.
- **Biochemist:** A biochemist is a person who plays a key role in developing medicines to fight different diseases. As part of daily work, a biochemist analyses DNA, enzymes and other molecules to research the effects of drugs and food on biological processes.
- **Food & Drug Inspector:** The main job of a food and drug inspector is to ensure that products are safe for human consumption. A food and drug inspector, also known as quality control inspector, examines food or pharmaceuticals at different stages of manufacturing process and ensures that quality standards are being met.
- **Chemical Analyst:** A chemical analyst is a professional who collects information about the composition of chemical substances, and processes as well as communicates this information via the mediums of science, engineering and mathematics. Sometimes a chemical analyst also documents and publishes his/ her findings in industry journals.
- **Teacher:** An MSc graduate can also choose to be a teacher in his/ her respective Science subject. However, for the same candidates need to pursue BEd after their post-graduation.

## Popular M.Sc. (Master of Science) Colleges in India

Following are the most popular M.Sc. (Master of Science) Colleges in India. Learn more about these M.Sc. (Master of Science) colleges (Courses, Reviews, Answers & more) by downloading the Brochure.

### BHU - Banaras Hindu University

📍 Varanasi

[Admissions 2019 >](#)



#### M.Sc. in Food Science and Technology

1.20 Lakh | 2 years | Full Time

Shortlist

Apply Now

### BU - Bundelkhand University

📍 Uttar Pradesh - Other

[Admissions 2019 >](#)



#### M.Sc. in Forensic Science

92,100 | 2 years | Full Time

Shortlist

Apply Now

### The Oxford College of Science

📍 H.S.R Layout, Bangalore

[Admissions 2019 >](#)



#### M.Sc. in Biotechnology

2 years | Full Time

Shortlist

Apply Now

### LPU - Lovely Professional University

📍 Jalandhar

[Admissions 2019 >](#)



#### M.Sc. in Food Science and Technology

2.46 Lakh | 2 years | Full Time

Shortlist

Apply Now

Lovely Professional University, Admission Office



📍 Connaught Place, Delhi

[Admissions 2019](#) >

### M.Sc. in Zoology

2.06 Lakh | 2 years | Full Time

Shortlist

Apply Now

[View All Popular Colleges](#) ↴

## Top Rated Courses

Following are the top-rated M.Sc. (Master of Science) courses, based on alumni reviews. Explore these reviews to choose the best course in M.Sc. (Master of Science).

### Courses

#### M.Sc. (Hons.) in Applied Mathematics

Offered By [CU - Chandigarh University](#)

4.2 ★★★★★ 1 review

#### M.Sc. in Chemistry

Offered By [Shoolini University](#)

4.2 ★★★★★ 1 review

#### M.Sc. in Biotechnology

Offered By [Amity University - Lucknow Campus](#)

4.2 ★★★★★ 1 review

#### M.Sc. in Applied Chemistry

Offered By [Amity University, Gurugram](#)

5.0 ★★★★★ 1 review

#### M.Sc. in Biotechnology

Offered By [Amity University, Mumbai](#)

4.6 ★★★★★ 1 review

#### M.Sc. in Applied Physics

Offered By **Amity University, Raipur**

5.0 ★★★★★ 1 review

### **M.Sc. in Genetics and Plant Breeding**

Offered By **LPU - Lovely Professional University**

4.8 ★★★★★ 1 review

### **M.Sc. in Biotechnology**

Offered By **Rajiv Gandhi Institute of Information Technology and Biotechnology, Bharati Vidyapeeth University**

4.4 ★★★★★ 1 review

### **M.Sc. in Applied Chemistry**

Offered By **Amity University, Jaipur**

4.6 ★★★★★ 1 review

### **M.Sc. in Physics**

Offered By **MMDU - Maharishi Markandeshwar Mullana**

4.2 ★★★★★ 1 review

[View All Courses ↴](#)

## **Popular M.Sc. (Master of Science) Specializations in India**

Following are the most popular M.Sc. (Master of Science) Specializations . You can explore the top Colleges offering these Specializations by clicking the links below.

### **Popular Specializations**

#### **Chemistry**

477 Colleges

#### **Mathematics**

440 Colleges

#### **Physics**

399 Colleges

#### **Biotechnology**



223 Colleges

### Computer Science

221 Colleges

### Microbiology

215 Colleges

### Zoology

182 Colleges

### Botany

179 Colleges

### Biochemistry

159 Colleges

### Environmental Sciences

137 Colleges

## Ask & Answer (Showing 5 of 12.4K Q&A)

### Q. Which are the best colleges in India for M.Sc in chemistry course?

A. I hope this link will help you :

<https://www.shiksha.com/science/colleges/m-sc-chemistry-colleges-india>.

Answered by

**Ashish Kumar Contributor-Level 10**

### Q. What is the syllabus for M.Sc in electronics entrance test?

A. Basically, the entrance exam syllabus will include your B.Sc. (Bachelor of Science) course material. Here is the link you can go through-

<https://www.shiksha.com/science/articles/how-to-prepare-for-top-msc-entrance-exams-blogId-13489>

.

Answered by

**priya arora Contributor-Level 7**

[Read All Answers \(2\)](#)

### Q. Do I need to give fee per year being from the open category for M.Sc in biotechnology?

A. The college says as 40k academic fees per year for this 2 year course. It is not inclusive of the accomodation/hostel and other non academic fees as per the admission procedure. Saying "give fee", I believe you just refer to the academic fees. In addition there are some consumable charg...[more](#)

Answered by

**Bishal Baishya Contributor-Level 10**

---

**Q. From where can I get the previous year's question papers of Utkal University for M.Sc in maths?**

A. Here is the link where you can get the papers-

<https://www.shiksha.com/university/utkal-university/utkal-university-entrance-test-exam-question-papers>.

Answered by

**akhil sharma Contributor-Level 7**

---

**Q. From where can I get M.Sc in biotechnology (PG) entrance exam question papers?**

A. You can download the question paper from this link-

[http://www.sau.int/pdf/QP\\_Biotect.pdf](http://www.sau.int/pdf/QP_Biotect.pdf).

Answered by

**akhil sharma Contributor-Level 7**

[View All 12.4K Questions >](#)

---

**Ask Queries on M.Sc. (Master of Science)**

Type your question here...

[Ask Question](#)

---

## News & Articles

---

**CUSAT CAT 2019 admit card released; Download Now.**

Mar 25, 2019

---

**IIT JAM 2019 Mathematics Topper Interview: AIR 2, Vikas D...**

Mar 25, 2019

---

## IIT JAM 2019 Student Reaction & Reviews

Feb 8, 2019

## Colleges accepting UPCATET 2019 scores/ranks for admission

Feb 6, 2019

## How to prepare for top MSc entrance exams?

Feb 1, 2019

[View all Articles >](#)

### Courses you may be interested in

- **B.F.Sc. (Bachelor of Fisheries Science)**
- **B.Sc.**
- **Distance/Correspondence B.Sc.**
- **M.F.Sc. (Master of Fisheries Science)**
- **Distance/Correspondence M.Sc.**
- **B.Sc. Computer Science**

[STREAMS](#) ^

[TOP EXAMS](#) ^

[STUDY ABROAD](#) ^

[HELP](#) ^

#### Partner Sites

[Jobs](#) | [Jobs for freshers](#) | [Jobs in Middle East](#) | [Real Estate](#) | [Real Estate Agents](#) | [Matrimonial](#) | [Insurance](#)  
[Comparison](#) | [School Online](#) | [Brijj](#) | [Zomato](#) | [mydala - Best deals in India](#) | [Ambition Box](#)