B.Sc.

What is B.Sc.?

Bachelor of Science (BSc) is an undergraduate degree course usually of three years duration. It is one of the most popular course choices among Science students after Class 12th. Full form of BSc is**Bachelor of Science** (Baccalaureus Scientiae in Latin)

The course is considered as a foundation course for students who want make their career in the field of Science. It is offered in a variety of Science subjects at a majority of universities in India. Some of the popular BSc courses that students usually choose to pursue after Class 12th are BSc Physics, BSc Computer Science, BSc Chemistry, BSc Biology, BSc Mathematics, and so on.

A BSc course can be pursued as both a full-time or part-time course. Students can choose to pursue plain BSc or BSc (Honours). The course is most apt for students who have a strong interest and background in Science and Mathematics. The course is also beneficial for students who wish to pursue multi and interdisciplinary science careers in future.

After the completion of a BSc degree, candidates can opt to pursue Master of Science (MSc) or even secure admission in a professional job-oriented course.

Popular BSc Branches

BSc IT (Information

Technology)

BSc Computer Science

BSc Nursing

BSc Fashion Design

BSc Animation

BSc Hospitality

BSc Biotechnology

BSc Agriculture

Required Skillset for BSc

BSc serves as a foundation for candidates who have a keen interest to build a career in the field of <u>Science</u>. Basic skills and traits that candidates should have to pursue a BSc course are:

Skillset for BSc Candidates

Observation skills Problem-solving skills

Analytical skills Logical skills Scientific skills Research skills

Experimental skills -

BSc: Eligibility Criteria

In order to meet BSc eligibility criteria candidates should clear Class 12th in Science stream with minimum 50% - 60% aggregate marks from a recognised board. It may be noted that the minimum percentage required for BSc admissions may vary depending on the policy of a university/ college in which a candidate is applying.

Read: What is BSc course all about? Know the Full Form, Eligibility & Scope

Course curriculum for BSc

As already mentioned above, BSc can be pursued in different Science subjects, some of the popular ones being Physics, Chemistry, Mathematics, Computer Science, etc. Apart from this, candidates can also choose to pursue a BSc program course which focuses on all major subjects of Science. Given below is an overview of the subjects taught in BSc Physics, BSc Mathematics, BSc Chemistry and BSc Computer Science:

Physics

B.Sc Physics Course Curriculum

Mathematical Physics Mechanics

Electricity and Magnetism Waves and Optics

Chemistry Technical Writing & Communication in English

Oscillations & Waves Digital Systems and Applications

Digital Electronics Microprocessors & Computer Programming

Thermal Physics <u>Mathematics</u>

Optics Mathematical Analysis & Statistics
Numerical Analysis Quantum Mechanics and Applications

Atomic and Molecular Physics Electronic Devices

Electromagnetic Theory Statistical Mechanics
Solid State Physics Nuclear & Particle Physics

Mechanics and Wave Motion Kinetic Theory and Thermodynamics Elements of Modern Physics Analog Systems and Applications

Mathematics

BSc Mathematics Course Curriculum

Calculus Algebra

Basic Statistics & Probability Real Analysis

Analytical Solid Geometry Differential Equations

Matrices Data Structures and Operating Systems

Sequences & Series of Real Numbers Mechanics

Abstract Algebra Linear Programming

Theory of Real Functions Ring Theory and Linear Algebra

Discrete Mathematics Complex Analysis
Linear Programming & Its Applications Numerical Analysis
Vector Analysis Probability Theory

Chemistry

BSc Chemistry Course Curriculum

Inorganic Chemistry

Atomic Structure Periodic Properties
Chemical Bonding s-Block Elements
Chemistry of Noble Gasses p-Block Elements

BSc Chemistry Course Curriculum

Organic Chemistry

Structure and Bonding Mechanism of Organic Reactions

Alkanes and Cycloalkanes Stereochemistry of Organic Compounds

Alkenes, Cycloalkenes, Dienes and Alkynes Arenes and Aromaticity

Alkyl and Aryl Halides -

BSc Chemistry Course Curriculum

Physical Chemistry

Mathematical Concepts

Gaseous States

Computers

Liquid State

Solid States

Colloidal States

Chemical Kinetics and Catalysis

Computer Science

BSc Computer Science Course Curriculum

Fundamentals of Computer Organization

& Embedded System

Introduction to Programming using Python

Introduction to Programming Concepts

Introduction of Windows, Features, Application Advanced Programming using Python

Control Structures

Arrays

Discrete Mathematics C++ Programming

Discrete Structures

Database Management Systems

Operating Systems

Design and Analysis of Algorithms

Theory of Computation

Computer Graphics

Advanced Java

Operating Systems

Principles of Web Design and Web

Technologies &

Dot Net Technologies

Introduction to Database Management

Systems

Introduction to C

Introduction to Number System and Codes

Functions

Linux

Computer Graphics

Java Programming

Data Structures

Software Engineering

Computer Networks

Internet Technologies

Artificial Intelligence

Data Communication &

Networking

DBMS

Networking & Security

BSc: Job Profiles & Top Recruiters

Depending on their respective subjects, BSc graduates can find jobs in various sectors such as educational institutes, healthcare industry, pharmaceuticals and biotechnology industry, chemical industry, research firms, testing laboratories, wastewater plants, oil industry, and the list continues. However, it is advisable that BSc students first complete their MSc degree and then look out for a job.

Given below are popular job profiles that BSc graduates can take up after completing the course:

• Research Scientist: A research scientist is responsible for undertaking as well as analysing information obtained from laboratory-based experiments and investigations. A research scientist may work for government labs, specialist research organisations and environmental organisations.

- Scientific Assistant: A scientific assistant is a professional who provides complete support to the scientist in research. A scientific assistant is also responsible for performing and managing various administrative tasks.
- **Treasury Specialist**: A treasury specialist is responsible for helping organisations increase profitability by assessing their periodic liquidity needs and investing excess cash in capital markets.
- Market Research Analyst: A market research analyst researches and gathers data to help a company market its products or services. An analyst helps a company determine its position in the market by researching its competitors and analysing its sales, prices, etc.
- Quality Control Manager: A quality control manager ensures that products of a particular company meet set quality and efficiency standards. The manager plans, directs and coordinates quality assurance programmes and also formulates various quality control policies.
- Statistician: A statistician gathers different numerical data of a company and then displays it, thereby helping them to analyse quantitative data and spot trends.
- **Teacher**: A Science teacher is typically involved in tasks such as preparing lesson-plans, evaluating student performances and teaching through lectures and technology.
- **Technical Writer**: A technical writer writes articles and prepares instruction manuals and other supporting documents to communicate technical information easily.
- Lab Chemist: A lab chemist analyses chemicals and creates new compounds that are useful in different aspects of human life. Research and testing are two crucial job responsibilities of a lab chemist.

Also Read: Job Options after BSc Degree – Know Salary Packages

Some of the top recruiters for BSc graduates are:

Top Companies that Hire BSc Graduates

Google Yahoo

IBM HCL Technologies

Verizon Amazon
Infosys Wipro
TCS Accenture
L&T Infotech Capgemini
Reliance Industries Limited Cipla

SRF Limited Gujarat Fluorochemicals
Gharda Chemicals Glenmark Pharmaceuticals

Popular B.Sc. Colleges in India

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

Brochure.
View more
BHU - Banaras Hindu University
Varanasi
B.Sc. (Hons.) in Agriculture
Shortlist Brochure
Fergusson College
Fergusson College Road, Pune
B.Sc. in Biotechnology
Chandigarh University (CU)
Chandigarh

B.Sc.(Hons.) in Agriculture

The Oxford College of Science

H.S.R Layout, Bangalore

B.Sc. (Physics, Mathematics, Computer Science)

UoH - University of Hyderabad

Gachibowli, Hyderabad

View All Popular Colleges

Top Rated Courses

Following are the top-rated B.Sc. courses, based on alumni reviews. Explore these reviews to choose the best course in B.Sc..

View more

Courses

- **B.Sc.in Applied Mathematics**Offered ByParul University
- **B.Sc. in Computer Science**Offered ByChandigarh University (CU)
- B.Sc. in Exercise and Sports ScienceOffered ByManipal School of Allied Health Sciences, Manipal
- B.Sc. in Computer ScienceOffered ByCMS College of Science and Commerce
- **B.Sc. in Data Science**Offered ByFaculty of Engineering and Technology, Manav Rachna International Institute of Research and Studies
- **B.Sc. in Nautical Science**Offered ByTolani Maritime Institute- TMI
- B.Sc. in BiotechnologyOffered ByLPU Lovely Professional University
- B.Sc. in Computer ScienceOffered BySuryadatta College of Management Information Research and Technology SCMIRT
- **B.Sc.** (Hons.) in Applied Psychology Offered By The Neotia University
- **B.Sc. in Biotechnology**Offered ByChandigarh Group of Colleges, Landran

View All Courses

Popular B.Sc. Specializations in India

Following are the most popular B.Sc. Specializations . You can explore the top Colleges offering these Specializations by clicking the links below.

View more

Popular Specializations

• <u>Mathematics</u>

1014 Colleges

• Computer Science

903 Colleges

• Physics

853 Colleges

• <u>Chemistry</u>

838 Colleges

• <u>Zoology</u>

397 Colleges

• Biotechnology

388 Colleges

• Botany

386 Colleges

• Agriculture

285 Colleges

• Microbiology

272 Colleges

• Biology