Science Stream

Non-Medical Courses	Medical Courses
• Bachelor of Engineering • Mining Engineering • Petroleum Engineering • Naval Architecture • Marine Engineering • Aerospace Engineering • Nuclear Engineering • Electrical and Electronics • Mechanical Engineering • Civil Engineering • Computer Science Engineering • Bachelor of Architecture	• MBBS,MD • BSc Veterinary Science • BSc Nursing • BSc Forensic Science • Bachelor of Naturopathy and Yogic Sciences • Bachelor of Homoeopathic Medicine and Surgery • Bachelor of Ayurvedic Medicine and Surgery • Bachelor of Pharmacy • Diploma in Orthopaedics • Bachelor of Physiotherapy • BSc in Zoology (with Hons) • Bachelor of Paramedics • BSc in Aquaculture (Fishery Microbiology) • BSc Microbiology • BSc Animal Husbandry and Dairying • BSc Agriculture

Area of Study	Courses	Duration
Engineering	Diploma in Engineering	3 Years
	B.Tech	4 Years
Architecture	B.Arch	3 years
Computer Applications	B.C.A.	3 years
Physics/Chemistry/Maths	B.Sc	3 years

Areas of Study	Course	Duration	Career Paths
Medicine	MBBS	5 Years	Doctor, Medical Advisor, General Physician, Doctor, Surgeon
Engineering and Technology	B.E./BTech	3 years/ 4 years	Engineer, Information Technology Engineer, Database Manager, Developer, Technical assistant, teacher, professor, scholar.
Alternative Medicine Courses	BHMS, BAMS	5+ years	Therapist, Pharmacist, Public Health Specialist, Lecturer.
Nursing	BSc	3 years	Nurse, Nursing Service Administrators, Assistant Nurse, Superintendent, nursing tutor, psychiatric tutor, Dean of Nursing, Health Service manager.
Subject Oriented (Physics/Chemistry/Maths/Biology/Computer Science/Biotechnology/Botany/Zoology/Biochemistry/ Geology/Psychology/Statistics	BSc	3 years	Research Scientist, Biochemist, Assistant Professor/Lecturer, Lab Technician, IT Jobs, Biological Technician, Junior Research Fellow, Chemical Analyst, Statistician, Mathematician.

Science Stream Subjects after Class 10th

The science stream is further divided into 2 branches, namely medical (PCB) and non-medical (PCM) science stream.

1. Physics

It focuses on understanding how the universe behaves. Advances in the field of physics enable advancements in technologies, such as the study of electromagnetism, thermodynamics, mechanics, nuclear physics and solid-state physics. After studying physics there are a variety of career options available, including working as a physicist, astronaut, data scientist, technician, and engineer. Examples of a few topics you will study are:

- Kinematics
- Laws of Motion
- Thermodynamics
- Electrostatics
- Electromagnetic Waves
- Electronic Devices

2. Chemistry

Chemistry is based on the study of the composition, properties, and structure of matter, including atomic structure and the changes influenced by chemical reactions. Career options after studying chemistry include working in research, pharmaceuticals, healthcare as lab scientists, chemical engineers, biochemists, flavour chemists, analytical chemists, etc. Examples of topics you will study are:

- Chemical Bonding and Molecular Structure
- Chemical Thermodynamics
- Organic Chemistry
- Chemical Kinetics
- Surface Chemistry

3. Biology

Biology studies living organisms – plants and animals – including facets such as their physical structures, physiological mechanisms, chemical processes, molecular interactions, and development and evolution.

The subject of Biology at the Class 11-12 level focuses on providing a firm conceptual basis while also connecting the study of the subject with real-life technology, environment, agriculture, health, and industry. Examples of topics you will study are:

- Structural Organisation in Plants and Animals
- Cell: Structure and Function
- Plant Physiology
- Human Physiology
- Genetics and Evolution
- Biotechnology and its Applications

4. Mathematics

As a subject, Math focuses on the concepts of quantity, change, structure, and space.

At a Class 11-12 level, you would learn about the principles of underlying processes and skills, identify the flow of reason while solving a problem or proving a result, and learn how to apply acquired skills to solve problems by more than one method. If you pursue the Medical (PCB) stream, you can also take on Mathematics as an optional subject.

Examples of topics you will study are:

- Algebra
- Calculus
- Mathematical Reasoning
- Linear Programming
- Probability
- Vectors and Three-Dimensional Geometry

Studying Mathematics in Class 11-12 opens up a variety of career options, including those in the field of commerce, if you decide to change your mind about a career in the sciences. Career options include engineering, computer science, insurance, statistics, economics, banking, accountancy, etc.

Optional Subjects with Science

Apart from the 4 compulsory subjects in the Science stream (Physics, Chemistry, English and Biology/Mathematics), you are required to take on a 5th optional subject.

1. Computer Science
2. Informatics Practices
3. Economics
4. Psychology
5. Physical Education
6. Electronics

Quick Links

https://blog.byjus.com/trending/science-stream-after-10th-things-remember-when-making-big-decision/

https://www.merementor.com/blog/science-stream-career-options-after-10th

https://www.topperlearning.com/blog/is-a-career-in-science-after-10-really-for-you-8614

https://vidhyarthiportal.com/articles/science-courses-after-10th/

https://youtu.be/jEBmrQT_H9g

https://www.youtube.com/c/StudentsCanIHelpYou/featured

https://www.youtube.com/user/byjusclasses

https://www.youtube.com/c/Vedantu

https://www.youtube.com/watch?v=YWVxasaOnNs

https://collegedunia.com/courses/bachelor-of-medicine-bachelor-of-surgery-mbbs

https://collegedunia.com/courses/bachelor-of-science-bsc

https://www.shiksha.com/b-sc-chp

https://www.collegedekho.com/courses/bachelor-of-science-bsc/

https://www.careers360.com/courses/bsc-in-agriculture

Electronics

Opportunities for students graduated with ECE and EEE degree

- Embedded systems
- Robotics and automation
- Artificial Intelligence and computer/embedded vision
- Signal processing or language processing
- VLSI (Analog VLSI or Digital programming)
- Antenna design
- Communication System Sesign
- System Admin(Networking)
- PCB circuit Designing
- Laster and optical electronics(works based on LED LCDs)
- Electronic Circuit Design
- Telecommunications
- Signal Processing

Roles for students graduated with an ECE or EEE degree

- Program analyst
- Communication engineer
- Electronic circuit designer
- Electronics engineer
- Signal processor
- Instrumentation engineer
- Telecommunication engineer
- VLSI communication engineering
- Data Analyst
- Engineering professors (preferably those with an MTech)

Quick Links

https://in.indeed.com/Eee,ece-Core-Companies-jobs-in-Bengaluru,-Karnataka

https://www.naukri.com/ece-fresher-jobs

https://chennai.vit.ac.in/job-opportunities-in-electronics-and-communication-engineering/

https://www.indiatoday.in/education-today/jobs-and-careers/story/-7-new-age-jobs-that-electronics-and-communication-engineering-provides-1643577-2020-02-05

https://www.youtube.com/watch?v=1TPmZy4RaUs

https://www.vedantu.com/question-answer/major-contribution-of-the-electronics-industry-class-9-social-science-cbse-5fe2c73aed4f37109ca6fe9f

Computer Science

Opportunities for students graduated with computer science and information science engineering degree:

Database Administrator

Computer Hardware Engineer

Computer Systems Analyst

Software Developer

Computer Network Architect

Web Developer

Project Manager

Content Developer

Author For Programming Books

Web Designer

Tech Support and Repair

Quick Links

https://www.prospects.ac.uk/careers-advice/what-can-i-do-with-my-degree/computer-science

https://www.embibe.com/exams/scope-of-placements-in-cse/

https://www.shiksha.com/engineering/articles/a-career-in-computer-science-engineering-scope-courses-jobs-salary-blogId-23975

https://www.upgrad.com/blog/career-options-after-computer-engineering/

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https://hackr.io/blog/top-computer-science-books-for-it-students

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https://bookriot.com/best-computer-science-books/

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https://in.linkedin.com/jobs/computer-science-jobs

https://www.youtube.com/watch?v=odtZP68RVhw