

Physics



Introduction

It is the natural science that involves the study of matter and its Motion through Space and Time, along with related concepts such as Energy and Force. The main goal of physics is to understand how the universe behaves.

Skill Set

- Attention to detail
- Good Study Habits
- **Curiosity to learn**
- Technical Knowledge
- Good imagination power
- Planning and scheduling
- Intellectual skills
- Organisation and interpersonal skills
- Knowledge of Mathematics & Physics
- Problem-Solving & Scientific Reasoning

Branches

1	Astronomy/Astrophysics	Stars, Galaxies, Cosmos
2	Classical Physics	Light, Heat, Motion, Electricity, Magnetism
3	Low Temperature Physics	Superconductivity
4	Plasma Physics	Discharge tubes, Fusion
5	Quantum Physics	Lasers, LED's, Fiber Optics, Quantum Dots
6	Atomic & Solid State Physics	Material Science, Semiconductors, Surface
7	Relativistic Physics	Stars, Cosmology, Particle Physics
8	Macromolecular "Biology"	Virus crystallography
9	Accelerator Physics	Particle Accelerators, RF Devices, X-ray
10	Nuclear Physics	Nuclei, Fission, Radiation Therapy
11	High Energy Particle Physics	Subatomic Physics, Quarks, Tomography

Top Colleges

❖ Delhi University, New Delhi

Course: B.Sc in Physics

Eligibility: 10+2 with PCM with 55% marks

Admission: Marks Based

Some good Colleges under Delhi University;

- Acharya Narendra Dev College
- Atma Ram Sanatan Dharma College
- Bhagini Nivedita College (W)
- Bhaskaracharya College of Applied Sciences
- Daulat Ram College (W)
- Deen Dayal Upadhyaya College
- Deshbandhu College
- Dyal Singh College
- Gargi College (W)
- Hans Raj College
- Hindu College
- Kalindi College (W)
- Keshav Mahavidyalaya
- Kirori Mal College
- Maitreyi College (W)
- Miranda House (W)
- Motilal Nehru College
- Rajdhani College
- Ramjas College
- Shaheed Rajguru College of Applied Sciences for Women (W)
- Shivaji College
- Sri Venketeswara College
- Swami Shardhanand College

❖ St. Stephen's College, Delhi

Course: B.Sc (hons) in Physics

Eligibility: 10+2 with PCM

Admission Mode: Admission will be based on composite merit, which comprises-

- i) Class 12 marks: 85% weightage
- ii) Interview: 15% weightage

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❖ **Loyola College, Chennai**

Course: B.Sc in Physics

Eligibility: 10+2 with PCM

Admission Mode: Merit Based

❖ **Fergusson College, Pune**

Course: B.Sc

Eligibility: 10+2 with PCM/B

Admission Mode: Merit Based

❖ **Madras Christian College, Chennai**

Course: B.Sc in Physics

Eligibility: 10+2 with PCM

Admission Mode: Merit Based

❖ **Christ University, Bangalore**

Course:

- BSc CME-Bachelor of Science in Computer Sc, Maths, Electronics
- BSc PCM-Bachelor of Science in Physics, Chemistry, Maths
- BSc PME-Bachelor of Science in Physics, Maths, Electronics

Eligibility: 10+2 with PCM with 50% marks

Admission Mode: Skill Assessment + Personal interview + Academic Performance

❖ **Panjab University, Chandigarh**

Course: B.Sc in Physics

Eligibility: 10+2 with PCM/B with 50% marks

Admission Mode: Entrance Based (PUCET)

❖ **Mumbai University, Mumbai**

Course: B.Sc in Physics with different combinations

Eligibility: 10+2 with PCM/B

Admission Mode: Marks Based

➤ **Indian Institute of Science, Bangalore**

Course: Bachelor of Science

Eligibility:

Admission Mode: Selection Based on the merit list of one of the following national examinations:

KVPY:

- KVPY-SA [appeared in 2017 and selected for the Fellowship]
- KVPY-SB [appeared in 2018 and selected for the Fellowship]
- KVPY-SX [appeared in 2018 and selected for the Fellowship]
- KVPY Fellows selected through the Empowerment Initiative for SC/ST candidates [appeared in 2017 for SA, 2018 for SB/SX and selected for the Fellowship]

(IIT)JEE-Main:

- Appearing in 2019 and securing a minimum of 60% (GN), 54% (OBC-NCL), 54% (EWS), 30% (SC/ST/PwD)

(IIT)JEE-Advanced:

- Appearing in 2019 and securing a minimum of 60% (GN), 54% (OBC-NCL), 54% (EWS), 30% (SC/ST/PwD)

NEET-UG:

- Appearing in 2019 and securing a minimum of 60% (GN), 54% (OBC-NCL), 54% (EWS), 30% (SC/ST/PwD)

Job Prospects

- **Astrophysics & Astronomy** is a branch of space science that applies the laws of physics and chemistry to explain the birth, life and death of stars, planets, galaxies, nebulae and other objects in the universe.
- **Biophysics** is an interdisciplinary science that applies approaches and methods traditionally used in physics to study biological phenomena. Biophysics covers all scales of biological organization, from molecular to organismic and populations.
- Gravity Researcher
- **Fluid Physics** = In physics and engineering, fluid dynamics is a subdiscipline of fluid mechanics that describes the flow of fluids—liquids and gases. It has several subdisciplines, including aerodynamics and hydrodynamics
- **Forensic Science** is the use of science to investigate crime and present unbiased scientific evidence in court.
- **Particle Physicist** is a branch of physics dealing with subatomic (smaller than an atom) elements of matter and radiation as well as subatomic particles. A



particle physicist is someone who looks to see how these particles exist and interact.

- **Architecture** design buildings and living spaces for public and private use.
- **Games designer** Game is a person who crafts the game look, feel & layout. Builds 2D & 3D models and animation. Researches projects for game realism.
- Teacher
- Sound engineer

Disclaimer: The information provided here is best to our knowledge. It is highly recommended that you should cross-check the source of information through the specific Colleges and Institutes. WonderSkool (WS Education Pvt Ltd) is in no way responsible for the decisions made solely on the basis of this document.

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