

## **Programmes**

### **Bachelor of Science (Honours with Research) in Physics**

**Course Intensity:** Full Time Programme

**Duration:** 4 years

#### **About the programme:**

A Bachelor of Science (B.Sc.) in Physics is a degree offered for 4 years that can provide the career for students in various fields which includes higher education, scientific laboratories, industry, government sectors and other related discipline. The different courses offered for this degree focus on the fundamentals of physics. In addition to that, the ability enhancement, value added and skill enhancement courses are also included to inculcate the students in various domain of their interest along with the core courses of Physics. In the last year of the program, the students will be involved in the project work and demonstrate some ability to identify, and solve the social and technology related problems.

**Eligibility:** XII<sup>th</sup> with Science with minimum 50% marks.

**Tuition fee per annum:** 50000

**Exam fee per annum:** 15000

#### **Programme Objectives (POs):**

1. Critical thinking and analytical reasoning: Acquire ability of critical thinking and logical reasoning and capability of recognizing and distinguishing the various aspects of real-life problems.

2. Conduct investigations of complex research problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
3. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex scientific activities with an understanding of the limitations.
4. Communication: Communicate effectively on scientific activities with the community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
5. Environment and sustainability: Understand the impact of the professional scientific solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
6. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the scientific practice.
7. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
8. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

**Programme Specific Outcomes (PSOs):**

1. PSO1: Understand, analyze and demonstrate the knowledge of electronics devices and material to design a variety of components and systems to solve real world problems.
2. PSO2: Perform high quality research in the area of interest and publish it in reputed Journals.

**Programme Educational Objectives (PEOs):**

1. PEO1: Be successful professionals in Academia, Industry, Government and Entrepreneurship.
2. PEO2: Pursue higher education/research at Institute of National and International repute.
3. PEO3: Effectively address the challenges of the society and undertake the projects for bridging the gap between industry and societal needs.

**Program Structure:**

<https://drive.google.com/drive/u/1/folders/1cmdYynl7HMH2wzrapvzF4rJNfhDo-Bn1>