Programmes

Bachelor of Science (General with Research) in Physics, Chemistry and Mathematics (PCM)

Course Intensity: Full Time Programme

Duration: 4 years

About the programme:

The Bachelor of Science (BSC) in General with Research program in Physics, Chemistry, and Mathematics (PCM) is a comprehensive undergraduate degree program designed to provide students with a solid foundation in the fundamental sciences while fostering a spirit of inquiry and research. This four-year program is ideal for students who have a keen interest in the physical sciences and wish to delve deeper into research-based learning experiences. This program combines physics, chemistry, and mathematics, allowing students to gain a holistic understanding of the physical sciences. This interdisciplinary approach enhances problem-solving skills and encourages students to explore the intersections of these fields. From the third year onward, students are actively involved in research projects. This hands-on experience not only deepens their understanding of scientific principles but also prepares them for further studies or careers in research and development. In the final year, students have the opportunity to take advanced courses in their chosen field of specialization. These courses prepare them for advanced studies at the graduate level or for specialized careers in industry or academia. The program places a strong emphasis on developing communication skills, including scientific writing and data analysis.

Eligibility: XIIth with Science with minimum 50% marks with Mathematics as one of the subjects.

Tuition fee per annum: 50000

Exam fee per annum: 15000

Programme Objectives (POs):

1. PO1: Demonstrate the comprehensive knowledge of Physics, Chemistry, Mathematics and Research field.
2. PO2: Develop the ability to evaluate theories, methods, principles, and applications of physical sciences
3. PO3: Identify, formulate, and resolve the emerging challenges based on design, experiment, data interpretation and analysis of results
4. PO4: Design a system, component, or methods to meet desired needs within realistic constraints such as environmental, health, safety, manufacturability, and sustainability.
5. PO5: Develop the skills in using modern tools for design and analysis of scientific and societal problems.
6. PO6: Work in teams on multi-disciplinary projects in research organizations and industries and present the report in a full scientific approach with professional ethics.
7. PO7: Build up communication skills, both written and oral, to specialized and non-specialized audiences.
8. PO8: Develop the ability to critically evaluate theories, methods, principles, and applications of pure and applied science in multidisciplinary domain with the lifelong learning approach.

Programme Specific Outcomes (PSOs):

PSO1: Acquire industrial exposure and scientific knowledge through industry internship and research-based learning.

Programme Educational Objectives (PEOs):

1. PEO1: Be successful professionals in Academia, Industry, Research, Government and Entrepreneurship.
2. PEO2: Graduates shall 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