

Programme outcomes (POs) for B.Sc Course

- PO1. **Scientific knowledge:** Apply the knowledge of mathematics, science, fundamentals, to the solution of complex problems.
- PO2. **Problem analysis:** Identify, formulate, research literature, and analyze complex problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and social sciences.
- PO3. **Learning laboratory skills:** Imparting laboratory skills to the students, enabling them to take measurements in laboratory and analyse the measurements to draw valid conclusions.
- PO4. **Critical thinking:** Equipping the students for oral and written scientific communications to enable them to think critically and work independently.
- PO5. **Proficiency in experimental techniques :** Students will be enabled to demonstrate proficiency in experimental techniques.
- PO6. **Design/development of solutions:** Design solutions for complex problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- PO7. **Conduct investigations of complex 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.
- PO8. **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern scientific and IT tools including prediction and modeling to complex scientific problems with an understanding of the limitations.
- PO9. **Environment and sustainability:** Understand the impact of the effective scientific solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- PO10. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities as a scientist.
- PO11. **Individual and team work:** Function effectively as an individual, and as a member

or leader in diverse teams, and in multidisciplinary settings.

PO 12.**Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning.

Programme outcomes (POs) for B.A. Course

PO1.**Critical Thinking:** Students will demonstrate the ability to analyse, interpret and draw conclusions critically.

PO2.**Effective Communication:** Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.

PO3. **Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusions in group settings.

PO4. **Effective Citizenship:** Demonstrate empathetic social concern and equity centred national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.

PO5. **Ethical and Social responsibility:** Students will appreciate the relevance of literary and analytical knowledge to everyday life. They will demonstrate an appreciation and respect for the diversity of perspectives, world –views and cultures.

PO6. **Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.

PO7. **Self-directed and Life-long Learning:** Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes