



B. Sc. Chemistry

Vision

To transform students into globally-competent graduates by providing a vibrant, Innovative and all-inclusive learning environment that fosters Values, Professional ethics and Social Consciousness.

Mission

To reach its vision the Department would

- Offer a Quality and Comprehensive Curriculum
- Facilitate a Competent Learning Environment
- Create an Integrated Research Culture
- Foster Industry - Academia Network for education
- Inspire to Innovate

Programme Outcomes

1. Comprehend knowledge of basic concepts, fundamental principles and the scientific theories related to various scientific phenomena and their relevance to day-to-day life.
2. Exhibit a scientific acumen and outlook in all walks of life in order to provide creative solutions for a sustainable future.
3. Critically analyze and interpret scientific data in a logical and systematic manner to arrive at objective conclusions.
4. Show inclination to lifelong learning and adaptability to challenging situations.
5. Acquire the ability to synthesize, separate and characterize compounds using laboratory and instrumentation techniques.
6. Handle scientific instruments and tools with ease and to choose the appropriate scientific methods and experiments to test and produce reliable results.
7. Communicate effectively in oral, written and electronic formats and display personal and interpersonal skills.
8. Exhibit analytical skills and problem-solving skills using the principles of chemistry and its allied fields.
9. Practice professional, ethical, moral and social values in personal and social life and would contribute to nation building.

Programme Specific Outcomes

1. Demonstrate knowledge and understanding of essential facts, concepts, principles and theories related to the different areas of chemistry.
2. Perform documented laboratory procedures involved in synthetic and analytical work, in relation to inorganic and organic systems by following standard laboratory safety protocols.
3. Apply numeracy, mathematical and digital skills to error analysis, order- of-magnitude estimations, standard unit usage, modes of data presentation and scientific documentation.
4. Use the evidence based comparative chemistry approach to explain the chemical the properties and reactions of various types of elements and compounds.



M. Sc. Chemistry

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Programme Outcomes

1. Exhibit substantial and advanced knowledge in Organic, Inorganic, Physical and related fields of Chemistry.
2. Apply concepts and theories of chemistry to solve qualitative and quantitative problems
3. Disseminate scientific and technical information to both Professional and broader audience effectively.
4. Analyze complex problems through appropriate techniques, experiments, computational tools, spectral and instrumental methods to provide solutions.
5. Assess experimental and research problems critically and independently to arrive at objective conclusions.
6. Exhibit digital proficiency in data analysis, library search, basic chemistry software and related computational tools.
7. Contribute to diverse teams through leadership and collaborative skills and hence adaptable to Jobs in Chemical industries, Academic institutions, Research organizations, corporate and public sectors.
8. Practice professional and ethical values with a consciousness to legal, environmental and social responsibilities in all walks of life.
9. Observe IPR guidelines while designing, documenting and publishing a possible project.

Programme Specific Outcomes

1. Relate the properties, reactions and applications of various chemical entities using theories and principles.
2. Evaluate the various reaction mechanisms to plan synthetic routes and choose the right modus operandi for reactions and processes in laboratory with safety and environmental security.
3. Comprehend the mathematical and physical basis of the behaviour of chemical species and processes.
4. Develop analytical skills and problem solving skills in addition to project based learning.