Department of Chemistry

Programme Outcomes of B.Sc:

1. Students will have a firm foundation in the fundamentals and application of current chemical and scientific theories including those in analytical, Inorganic, Organic and Physical Chemistries.
2. Students will be able to design and carry out scientific experiments as well as accurately record and analyze the results of such experiments.
3. Students will be skilled in problem solving, critical thinking and analytical reasoning as applied to scientific problems.
4. Students will be able to explore new areas of research in both chemistry and allied fields of science and technology.
5. Students will appreciate the central role of chemistry in our society and use this as a basis for ethical behaviour in issues facing chemists including an understanding of safe handling of chemicals, environmental issues and key issues facing our society in energy, health and medicine.
6. Students will be able to explain why chemistry is an integral activity for addressing social, economic, and environmental problems.
7. Students will be able to function as a member of an interdisciplinary problem solving team.

Programme Outcomes of M.Sc:

1. Have the core idea about advanced organic chemistry principles and theories to develop research oriented skills in applied organic chemistry.
2. Understand the concept and definitions of Aliphatic nucleophilic and electrophilic substitution reactions, fundamentals of free-radicals, pericyclic chemistry.
3. In depth knowledge about organic chemical reactions with a focus on principles for effective synthetic strategies.
4. Describe and apply stereochemical concepts such as Chirality, stereoisomerism and stereoselectivity in relation to chemical transformations.

5. Encompass achieved advanced knowledge about the interactions of electromagnetic radiation and matter and their applications in organic spectroscopy to elucidate the structure of the organic compounds.
6. Chemistry is the central science and impacts on all facets of our lives. An understanding of chemistry is necessary to all other sciences in an interdisciplinary way.
7. All of the materials used by engineers and technologists are made by chemical reactions and we all experience chemical reactions continuously, whether it be breathing or baking a cake, driving a car or listening to a battery driven minidisk player.
8. Chemistry is concerned with all aspects of molecules, their physical and chemical properties, their composition and structure, their synthesis and use in the 21st century. Chemistry is fundamental.
9. To understand why an autumn leaf turns red, or why a diamond is hard, or why soap gets us clean, requires an understanding of chemistry.
10. To design a synthetic fibre, a life-saving drug, or a space capsule requires knowledge of chemistry. The behaviour of atoms, molecules, and ions determines the sort of world we have to live in, our shapes and sizes, and even how we feel on a given day. Chemists are very much involved in tackling the problems faced by our modern society.