

DEPARTMENT OF CHEMISTRY

1) UG COURSE- BSc. CHEMISTRY

PROGRAMME OUTCOME (P.O)

The BSc. Degree programme in Chemistry covers three academic years consisting of six semesters and aims to provide the students with an in-depth understanding of and training in Chemical Sciences. The syllabus has been designed to stimulate the interest of the students in Chemistry and prepared in order to equip the students with a potential to contribute to the academic and industrial requirements of the society. The programme is infused with new vigour and more depth. Chemistry being an experimental science, due importance is given to the development of laboratory and instrumentation skills.

PROGRAMME SPECIFIC OUTCOME

The main objective is to provide the students an in-depth understanding of basic concepts of chemical sciences and enable them with tools needed for the practice of Chemistry, which remains a discipline with much stress on experimentation. It attempts to provide a detailed knowledge of the terms, concepts, methods, principles and experimental techniques of Chemistry.

COURSE OUTCOME

UG- CORE COURSE

Semester	Paper Code	Title of paper	Course outcome
1	CH 1141	Inorganic Chemistry I	Helps to learn the structure of atom, periodicity and non aqueous solvents. It enables them to appreciate the inner structure and chemical properties of elements .
2	CH 1221	Inorganic Chemistry II	On completion of the course, the student will be able to understand , how science or in special chemistry works. They will get a basic understanding to do self directed experimentation work and research in chemistry under the guidance and supervision of a mentor. Analytical chemistry helps the student to understand about the experimental parts of the theory and the safety measures which could follow when doing experiments using chemicals.

3	CH 1341	Inorganic Chemistry II	The student get fundamental to detailed knowledge in chemical bonding, compounds of non transition elements. and nano materials. Students get a thorough knowledge in nuclear chemistry.
4	CH 1441	Organic Chemistry Paper I	It imparts the behavior of aliphatic and aromatic compounds and introduces the concept of reaction mechanism. It make the student to understand the mechanism of reactions of organic compounds, stereochemical aspects, photochemical reactions and aromaticity.
5	CH 1541	Physical Chemistry I	Students will gain exposure and practice in the areas of physical chemistry which include gas and liquid properties, thermodynamics and group theory.
5	CH 1542	Inorganic Chemistry III	Students will gain exposure and practice in the areas inorganic chemistry which include, Co-ordination chemistry, transition and inner transition elements. The students would be able to realize the role of organometallics in organic synthesis. instrumental method of analysis and general principle of isolation of elements help the students to understand about the experimental techniques used in chemistry and how their elements are isolated from their ores
5	CH1543	Organic chemistry II	The student will get interesting idea about the preparation and properties, mechanism of reactions of many organic conversions and of organic compounds. They will also get sufficient knowledge to interpret spectrum of organic compounds and novel areas of organic chemistry-the supramolecular and green chemistry
6	CH1641	Physical Chemistry II	Student will able to derive essential mathematical relationships in thermodynamics, quantum mechanics and spectroscopy. Students will evaluate physical and chemical systems by non spectroscopic techniques
6	CH1642	Organic Chemistry paper III	The students will get an interesting idea about the preparation and properties, mechanism of reactions of many organic conversions and of organic compounds
6	CH1643	Physical Chemistry paper III	Student will get an idea about the basics of electrochemistry and its importance to modern industry and technology . The course introduce various types of reactions and different factors that determine the rate of chemical changes. The course also includes the study of phase diagrams of one, two

			and three component systems and elementary ideas of photochemistry.
6	CH1651.3	Polymer Chemistry	Student will get idea of recent developments in plastic and rubber technology. Student will get elementary idea of synthesis, chemistry, property and application of elastomers and various polymer processing in the polymer industry in India.