

Course Outcome

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PG Sem I	
Organometallics and Nuclear Chemistry	To know and understand different properties and structures for organometallic compounds and their applications in catalysis. Give awareness to bioorganic chemistry and importance of nuclear chemistry and its applications.
Structural and Molecular Organic Chemistry	Give detailed of stereochemistry and conformation of organic compounds. Studies on the physical organic chemistry and photochemistry.
Quantum Chemistry and Group Theory	Application of quantum mechanics to polyatomic molecules. Detailed study on Group theory and its application in spectroscopy.
Classical and Statistical Thermodynamics	Apply the principles of classical and statistical mechanics to various situations. Study on the use of tools, methodology, language, conventions of physics etc. to test and communicate ideas and explanations.
PG Sem II	
Co-ordination Chemistry	Analysis of complexes, role of transition metal compounds in catalysis, electronic properties of ligands etc. will be studied
Organic Reaction Mechanisms	Recognise the mechanism of various reactions. Study on the reaction intermediates.
Chemical Bonding and Computational Chemistry	Give idea on the approximation methods in quantum mechanics and applications of group theory in chemical bonding. Study on the theory and applications of computational chemistry. Idea on the application of classical and quantum mechanics in noncomputational chemistry. Various tools, computational programmes, methods, Z-matrix etc. will be introduced.
Molecular Spectroscopy	Different spectroscopic techniques and their application in various fields.
PG Sem III	
Advanced Synthetic Organic Chemistry	Give idea on reaction mechanism, modern synthetic methods and reagents, supramolecular chemistry, retrosynthetic analysis, green alternatives of organic synthesis.
Chemistry and Biochemistry of Fatty Acid	Give idea on lipids, fatty acids, isolation and properties.
Essential Oils and Aromatics	Acquire knowledge on sources, nature, production and isolation of essential oils and their applications. Various constituents in essential oils and their spectral studies.
Spectroscopic Methods in Chemistry	Application of spectroscopic methods such as UV, NMR, IR, Mass Spectrometry in organic compounds and their structural elucidation.
PG Sem IV	
Fats, Oils and Waxes	Extraction and analysis of oils and fats and their applications
Industrial Oil and Fat products	Processing and reactions of fats and oils. Chemistry of fat products such as soaps, detergents, paints, varnishes and lacquers. Instrumental analysis of oils and fat products.
Chemistry of Aromatics and Essential oil Constituents	Knowledge about spices, spice oils and oleoresins. Sources, production and chemistry of aromatic and essential oil constituents. Chemistry and analysis of flavours and perfumes.