



Indian Institute of Technology Delhi

Placement Brochure 2023-2024

Department of Chemistry

About Us

- The Department of Chemistry established in September 1963 has a renowned faculty actively engaged in research areas such as Solid State & Nano-materials, Biochemistry, Computational Chemistry, and Synthetic Chemistry.
- Heeding the gap between traditional Chemistry education and modern world requirements, the unit conceptualized a research-based Master's program that emphasizes quantitative & qualitative techniques with empirical application and aims to teach analytical competence to its students.

Placement Team

Faculty Coordinators

- M.Sc: Prof. Kuntal Manna
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- M.Tech: Prof. Tanmay Dutta
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Nucleus Coordinators

- M.Sc: Vidit Jain
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- M.Tech: Peteti Yogananda
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Academic Programs

M.Tech

- The MTech. Program in Molecular Engineering: Chemical Synthesis and Analysis is a one-of-a-kind program in the country that provides advanced training in the design, synthesis, separation, and characterization of molecules while preparing students for careers in industry or academia. In addition, students are offered a choice of electives in various specialized areas of chemistry, chemical and polymer engineering, and management. It culminates in a year-long project where the foundation for scientific research is laid.

M.Sc

- The Four-Semester Master of Science in Chemistry is designed to provide broad-based training in physical, inorganic, and organic chemistry. Courses in biochemistry and analytical chemistry are also included in the core program. Students are offered a choice of electives in various specialized areas like solid state chemistry, organometallic chemistry, statistical mechanics, bioorganic chemistry, and immunochemistry. Students are required to also take two electives from outside the department. The project in the second year initiates the students into research work in various branches of Chemistry.

Programs Offered

Core Courses

M.Tech

- Design and Synthesis Organic Molecules
- Cheminformatics and Molecular Modelling
- Chemical Separation and Electroanalytical Methods
- Applied Spectroscopy
- Material Characterization
- Synthesis Of Industrially Important inorganic compounds
- Instrumentation Laboratory
- Lab on Synthesis

M.Sc

- Quantum Chemistry
- Instrumental Methods of Analysis
- Molecular Thermodynamics
- Organic Synthesis
- Photochemistry & Pericyclic Reactions
- Main Group Chemistry
- Organometallic Chemistry
- Molecular Biochemistry
- Transition and Inner Transition Metal Chemistry
- Biomolecules
- Chemical Dynamics & Surface Chemistry

Electives

M.Tech

- Chemistry of Industrial Catalysis
- Applications of P-block Elements
- Chemistry of Nanostructured Materials
- Organa and Organometallic Catalysis
- Materials Simulation Methods using High-Performance Computing
- Molecular Modeling and Simulations
- Physical Organic Chemistry Advanced

M.Sc

- Introduction to Machine Learning
- Computer Programming
- Introduction to Database Management Systems
- Statistics and probability
- Mathematical Foundation for Cognitive Science
- Mathematical Modelling of Credit Risk
- Food Chemistry
- Applied Bio catalysis
- Microbial Biochemistry
- Group Theory & Spectroscopy
- Supramolecular Chemistry

Research Domain

Physical Chemistry

- Computational Chemistry
- Electrochemistry
- NMR methodologies
- Advanced fluorescence techniques
- Crystal engineering
- Synthesis and applications of nanocrystals
- Optical spectroscopy
- Advanced fluorescence techniques
- Environmentally friendly solvent systems

Biochemistry

- Extremophiles and extremozymes
- Regulation by small RNAs in Bacteria
- Chemical biology of peptides and proteins
- Biomolecular modeling and simulation

Organic Chemistry

- Asymmetric Catalysis
- C-H and C-F activation
- Total Synthesis of small molecules
- Catalysis by ionic liquid stabilized transition metal nanoparticles
- Natural product synthesis and their biological studies

Inorganic Chemistry

- Synthetic main group and organometallic chemistry
- Homogeneous and heterogeneous catalysis
- Metalorganic frameworks
- Inorganic Polymers
- Coordination chemistry of silicon, germanium and tin.

Batch Profile

Educational Background

- M.Sc : B.Sc
- MTech: M.Sc, some research and teaching exposure

Software skills



Exams Cleared



Non-Core Skills



Roles We Fit in

Core Profiles

- Chemistry Faculty
- Quality control manager
- Quality assurance Manager
- Research Associate
- R&D Chemist
- Forensic Toxicologist

Non-Core Profiles

- Data Scientist
- Data Analyst
- Data Engineer
- Consulting
- Product Design

Past Recruiters

