

Department of Chemical Sciences

About the Department

The Department of Chemical Sciences at IKGPTU is a thriving community of academics, researchers, support staff and students, with a commitment to cultivate the spirit of scientific inquiry and to pursue cutting-edge research in a highly encouraging environment. By joining our Department, the students will quickly share their enthusiasm for chemistry and its applications. The Department offers a two years post-graduate programme and Ph.D. programme. In all these courses, the practical course is given due weightage to provide students best lab experiences. The department has four post-graduation laboratories; one each dedicated for inorganic chemistry, organic chemistry, physical chemistry and instrumentation laboratory. The department has two research laboratories, adequately equipped with state-of-art analytical facilities to carry out modern day research.

Faculty Details

Name	Designation	Specialization
Dr. Gaurav Bhargava	Associate Professor	Organic / Medicinal Chemistry
Dr. Rupesh Kumar	Assistant Professor	Organic / Photochemistry
Dr. Roopa	Assistant Professor	Organic / Supramolecular Chemistry
Dr. Reshu Sanan	Assistant Professor	Physical / Analytical Chemistry
Dr. Chander Parkash	Assistant Professor	Environmental Sciences
Dr. Vandana Naithani	Assistant Professor	Environmental Chemistry

Dr. Gaurav Bhargava Dr. Bhargava's research focuses on the metal catalysed higher order cycloaddition/cyclization reactions for the synthesis of bi-/or tricyclic carbo-/heterocycles. A part of the research is also focussed on the lactam mediated synthesis of novel heterocyclic systems. Currently, Dr. Bhargava is handling major research projects funded by DST and DAE.

Dr. Chander Parkash works on environmental issues, with primary focus on Wetlands Ecology, Biodiversity Conservation, Bioremediation and effects of Heavy Metals Toxicology on human health including cancer patients in Punjab. He is also working on biodiversity characterization of major wetlands in Punjab and role of Earthworms in Bioremediation of pollutants from soils.

Dr. Vandana Naithani is working on the chemical behavior of soil organic matter especially humic acid and clay minerals with pesticides.

Dr. Rupesh Kumar is involved in the development of novel methods of synthesizing biologically active heterocyclic compounds. He is also working on the synthesis and

characterization of prospective nano-composites and study of their potential applications in dyes and heavy metal ions removal.

Dr. Roopa works in the field of Organic Chemistry/Supramolecular Chemistry, mainly concerned with the design and synthesis of molecular receptors for biological & environmental species and evaluation of their photo physical behavior.

Dr. Reshu Sanan is a physical/analytical chemist, primarily working in the field of colloid and interfacial chemistry with special emphasis on surfactant additive systems. Her research interests also include electrochemical sensors and synthesis of ionic liquids.

Achievements of Department

The Department of Chemical Sciences has sanctioned projects sponsored by

- Department of Science and Technology
- Department of Atomic Energy

Courses Offered

S. No.	Courses Offered	Eligibility Criteria	Intake
1.	M.Sc. (Chemistry)	B.Sc. with 50% marks with chemistry as one of the subjects	25
2.	PhD	M.Sc. Chemistry	----

Fee Structure

Sr. No.	Content	1 st Semester	2 nd Semester	3 rd Semester	4 th semester
1	Admission Fee	1000/-	-	-	-
2	Tuition Fee	15,500/-	15,500/-	15,500/-	15,500/-
3	Development Fund	1250/-	1250/-	1250/-	1250/-
4	Securities (Refundable)	5000/-	-	-	-
5	Other Fee	1975/-	1975/-	1975/-	1975/-
6	University Related Fee	1150/-		1150/-	
	Total Fee	25,875/-	18,725/-	19,875/-	18,725/-

Note:

* Examination Fee of Rs. 700/- will be charged per semester in addition to above mentioned fee.