



# DEPARTMENT OF CHEMISTRY



Miranda House  
University of Delhi



# THE DEPARTMENT

The Department of Chemistry has a learned and dedicated faculty complemented by industrious and motivated laboratory staff.

The following facilities are available to Chemistry students:

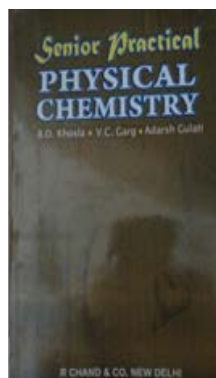
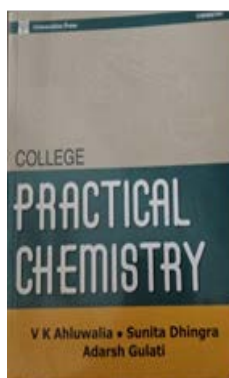
- Three well-equipped laboratories, one of them renovated with latest fittings
- Two instrumentation laboratories with a variety of instruments
- A well-stocked Department Library

The facilities of the DS Kothari Centre for Research and Innovation in Science Education may be utilised by Chemistry students for project work. These include Microwave Oven for chemical synthesis, Atomic Absorption Spectrometer and a computer-interfaced instrumentation laboratory with sensors for measuring pH, conductivity, temperature etc.





# FACULTY PROFILE



Name	Specialization
Dr. A. Gulati	Thermodynamics
Dr. M.J. Verma	Analytical Chemistry
Dr. B. Roy	Coordination Chemistry
Dr. A.T. Sheikh	Quantum Chemistry
Dr. M. Pathak	Computational Chemistry, Nanomaterials
Dr. S.M. Sonkar	Biochemistry
Ms. N. Rani	Organic Chemistry
Dr. K. Saini	Material Chemistry
Dr. M. Sharma	Inorganic Chemistry
Dr. S.S. Bhatia	Computational Chemistry, Nanomaterials
Ms. A. Kumari	Organic Chemistry
Dr. A. Lumb	Synthetic Organic Chemistry
Dr. D. Rawat	Green Chemistry
Dr. Poonam	Organic Material Chemistry

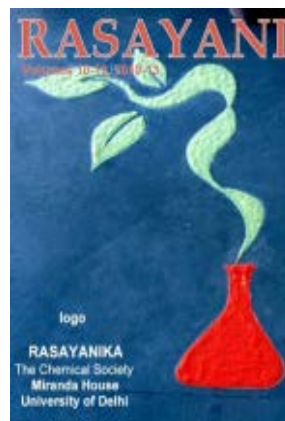


# DEPARTMENTAL ACTIVITIES...

Department Society: Rasayanika

Department Festival: Pratikriya

Departmental Magazine: Rasayani



Add-on Certificate Course *Green Chemistry and Environment*-Interesting lectures and well-planned lab sessions are organised every year to introduce students to alternate green chemical methods which are safer for the environment.



Rasayanika, the Chemistry Society of Miranda House, is an active and energetic Society. Rasayanika has organised lectures by eminent scientists including Prof. Yashpal, Dr. MGK Menon, Dr. APJ Abdul Kalam, Dr. RA Mashelkar, Dr. SK Brahmachari, Dr. Vani Brahmachari, Dr. Kasturi Datta, Dr. Lakshmi Raghupathy etc. Rasayanika co-hosted the International Symposium: Green Chemistry and Sustainable Development in 2012.





## DEPARTMENTAL ACTIVITIES...

The Department of Chemistry lays great stress on team work and interaction of students. To this end, the Department regularly held interactive sessions between I, II and III Year students. A few alumnae are invited to share their insights and experiences of various competitive exams like IIT JAM and CAT as well as courses such as Environmental Science, Geoinformatics etc. which they have joined after graduating from Miranda House.



Excursions: Chemistry



Visits to IISER Mohali and Khetri Copper Complex

Chemistry students, faculty and lab staff go on short education-cum-pleasure trips to various places. Recent trips include IISER Mohali and Chandigarh, Hindustan Copper Limited, Khetri and Jaipur.



# FACULTY AWARDS/ACHIEVEMENTS



**Dr. Bani Roy**



**Dr. R. Usha**

## Distinguished Teacher Award



**Dr. Bani Roy**  
**Dr. Mallika Pathak**  
**Australian Leadership**  
**Award Fellowship (ALAF)**



**Dr. Kalawati Saini**  
**Scientist Medal Award, IAAM,**  
**USA**



**Dr. Smriti S. Bhatia**  
**Invited Talk, ICNFA, Toronto**



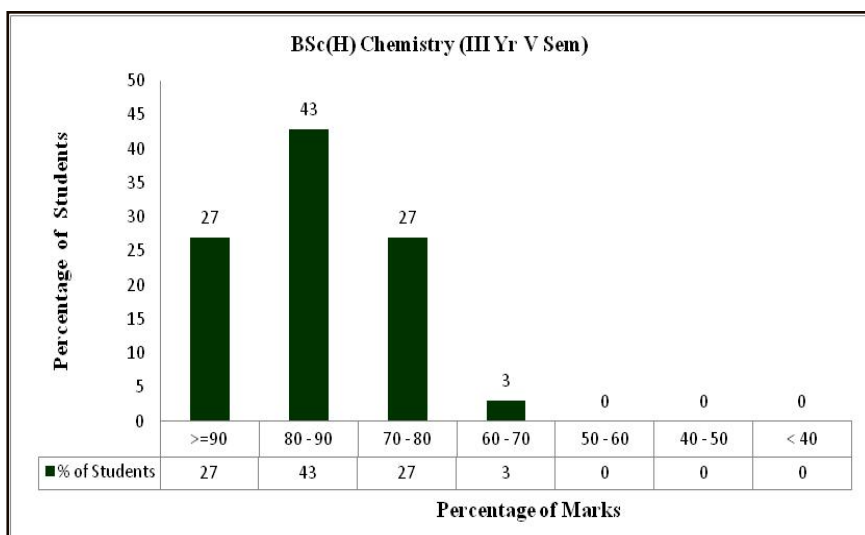
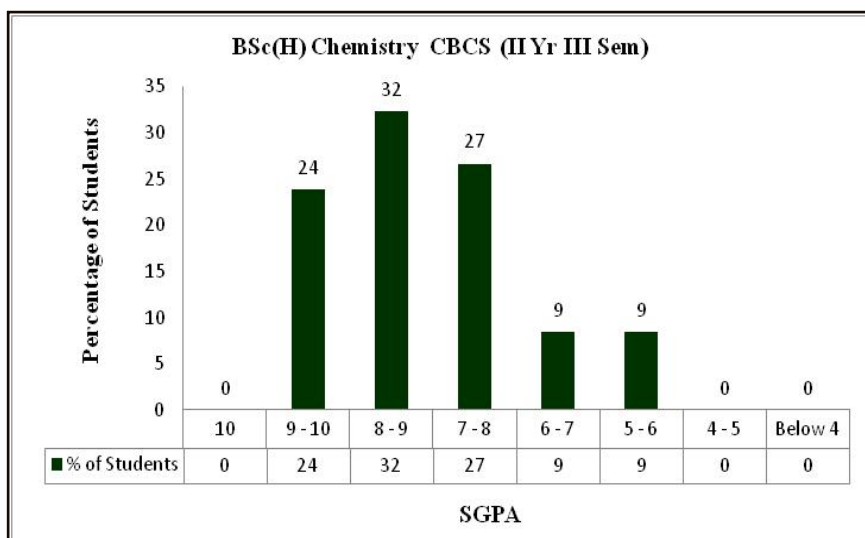
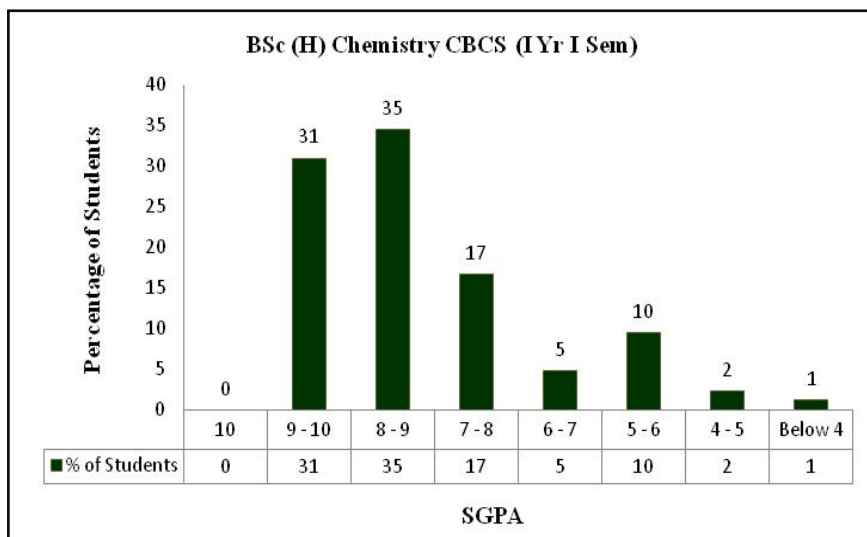
**Dr. Kalawati Saini**  
**Invited Talk, AAMC-2016, USA**



# ACADEMIC PERFORMANCE

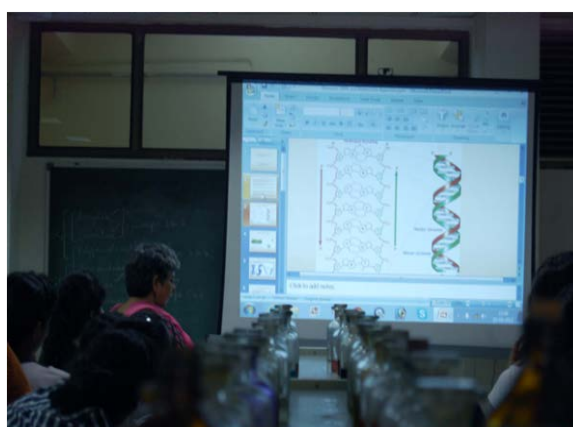
## SEMESTER Exam Nov-Dec 2016

The Department has shown steady improvement in examination results of graduating students over the last few years with 62% students in the passing out batch of 2016 scoring between 80-90% and 2% students securing over 90% marks.



# INFRASTRUCTURE

- Three well-equipped laboratories
- Two instrumentation laboratories
- A well stocked department library





# INFRASTRUCTURE...



**Departmental Library, Solution Preparation rooms, Well Stocked Stores**



## DSKC Chemistry Undergraduate Research Lab

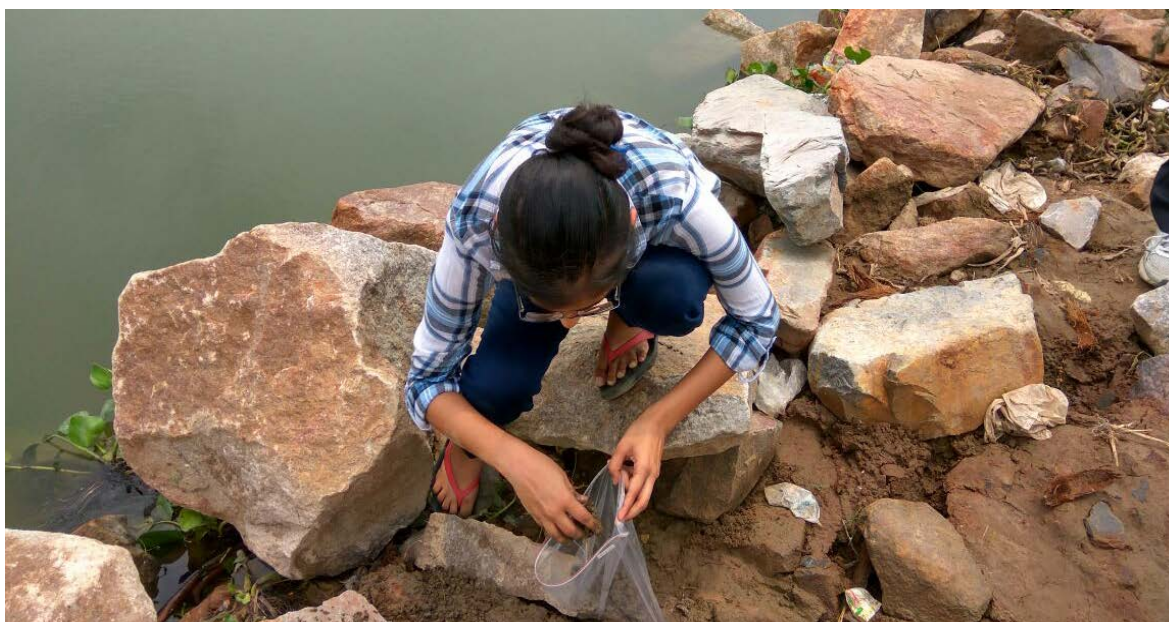
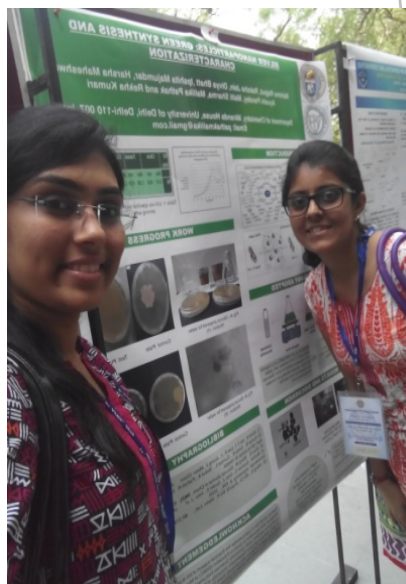
- **Microwave Synthesis Station**
- **Atomic Absorption Spectrometer**
- **Rotavapor**
- **Sonicator**
- **Multiplate Reader**
- **Lyophilizer**
- **Flame Photometer**





# UNDERGRADUATE RESEARCH: Learning from each other

Even before the beginning of the academic session, Chemistry students work on Chemistry projects under DS Kothari Centre for Research and Innovation in Science Education under the mentorship of the faculty and are greatly appreciated for their research work which is presented before participants from different colleges and teachers. A number of Chemistry students also act as mentors for school students during INSPIRE, a Department of Science and Technology project to inspire school children to opt for Science, held in Miranda House every year.





# UG RESEARCH ECOSYSTEM

Approximately 40% of the students work on undergraduate research projects during the summer vacation under DSKC. Some representative projects are: Green synthesis of metal nanoparticles; Anti-oxidant activity of fresh fruit juices; Natural indicators; Molecular modelling; Analysis of sunscreens and oscillating reactions. These undergraduate summer interns act as mentors for high school students at the innovative workshops under the week-long DST INSPIRE Internship programme organized at Miranda House every year.

DU Innovation Projects which are interdisciplinary had the chemistry students participate in large numbers. Also, eleven of the faculty members were involved in the said projects. Eight students and four faculty members from Department of Chemistry are currently engaged in DU-Star Innovation projects.





**Miranda House**  
**University of Delhi**  
**Delhi- 110 007**