

**DEPARTMENT OF CHEMISTRY KURUKSHETRA UNIVERSITY KURUKSHETRA**  
**INFORMATION ABOUT ACADEMIC DEPARTMENTS FOR WEB-PORTAL**  
**( ACADEMIC DEPARFTMENTS)**

**Department Profile**

Chairperson : Prof. S.C. Bhatia  
 Contact Information : Department of Chemistry,  
 K.U. Kurukshetra  
 Ph. No.01744-238410 Extn. 2129

**Faculty Information**

Name	Joining Date	Specialization	Qualifications	Contact Information Extn. No. Extn
<b>CHAIRMAN</b>				
Dr. S.C. Bhatia	14.11.1977	X-Ray Crystallography Physico-chemical studies of interactions in liquids and in solutions	M.Sc., Ph.D.	Chairman's Office 2129 Res. 2830 Office 2666
<b>PROFESSORS</b>				
Prof. S.P. Arya	15.7.1985	Inorganic & Analytical Chemistry	M.Sc., Ph.D.	Office 2683 Res. 2711
Prof. Om Prakash	April, 1987	Applications of reagents in organic synthesis/Synthesis of heterocyclic compounds	M.Sc., Ph.D.	Office 2664
Prof. R.C. Kamboj	29.1.1990	Enzymology & Photochemistry	M.Sc., Ph.D.	Office 2667 Res. 2774
Prof. A. Pal	13.2.21990	Solution Thermodynamics/Electrochemistry	M.Sc., Ph.D.	Office 2684
<b>READERS</b>				
Dr. Sanjiv Arora	6.1.1992	Polymer Chemistry/Physical Chemistry	M.Sc., Ph.D.	Office 2682
Dr. H.K. Sharma	13.2.1990	Organomettalic Chemistry and metalakoxides	M.Sc., Ph.D.	Office 2669 Res. 2775
Dr. (Mrs.)Ranjana Aggarwal	14.11.1995	Organic Synthetic Chemistry, Heterocyclic	M.Sc., Ph.D.	Res. 2846
<b>LECTURERS</b>				
Dr. Pawan K. Sharma	8.5.1996	Cyclooxygenase Inhibitors Antisense Oligonucleotides	M.Sc., Ph.D.	

Dr. (Mrs.) Kiran Singh	3.8.1998	Co-ordination compounds	M.Sc., Ph.D.	Office 2861
Dr. Gyan Prakash Dubey	03.08.1998	Chemical Thermodynamics, Liquid State, Ultrasonics	M.Sc., D.Phil.	
Dr. R.K. Baweja	23.2.1973	Analytical Chemistry/ Inorganic Chemistry	M.Sc., Ph.D.	
Dr. Neera Raghav	26.7.2006	Organic Chemistry ; Enzyme Chemistry		
Dr. Hardeep Anand	3.8.2006	Ultrasonics/Solvation Studies/Electrochemistry	M.Sc., Ph.D.	
Dr. Rashmi Pundeer (Under SFS)	10.8.2004	Synthetic studies in organic Chemistry	M.Sc., Ph.D.	
Dr. Ravi Kumar (Under SFS)	10.8.2004	Applications of Vilsmeier-Haack and Organohypervalent iodine reagents	M.Sc., Ph.D.	

### Courses offered

Type of Course (Postgraduate & Others)	System of Examination
M.Sc. Chemistry (Organic, Physical, Inorganic & Pharmaceutical)	Annual
M.Phil Chemistry (Organic, Physical and Inorganic)	Annual

### Profile of different courses offered

Degree Type	Course Duration	No. of sanctioned seats	Scheme of Exams. (Annual/Semester)
M.Sc.	Two Years	80	Annual
M.Phil	One Year	15	Annual

### Details of different Courses

Course Name	: M.Sc. Chemistry	M.Phil
Course Type	: (Organic, Physical, Inorganic & Pharmaceutical)	(Organic, Physical & Inorganic)
Exam. Scheme	: Annual	Annual
Duration	: Two Years	One Year

### Semester-wise/Year-wise details

Paper Code	Paper Name	Paper Type	Paper Remarks	Max. Marks	Internal Marks	External Marks
<b><i>M.Sc. (Previous)</i></b>						
I	Inorganic Chemistry	(General)		90		
II	Physical Chemistry	(General)		90		
III	Organic Chemistry	(General)		90		
IVa	Chemistry of Life Science			40		
	(or)					
IVb	Mathematics for Chemists			40		
V	Applications of Computer in Chemistry			40		
VI	Inorganic Chemistry Practicals			50		
VII	Physical Chemistry Practicals			50		
VIII	Organic Chemistry Practicals			50		
<b><i>M.Sc. (Final)</i></b>						
IX	Inorganic Chemistry	(General)		40		
X	Physical Chemistry	(General)		40		
XI	Organic Chemistry	(General)		40		
XII	Inorganic Chemistry	(Special)		70		
XIII	Inorganic Chemistry	(Special)		70		
XIV	Inorganic Chemistry	(Special)		70		
XII	Physical Chemistry	(Special)		70		
XIII	Physical Chemistry	(Special)		70		
XIV	Physical Chemistry	(Special)		70		
XII	Organic Chemistry	(Special)		70		
XIII	Organic Chemistry	(Special)		70		
XIV	Organic Chemistry	(Special)		70		
XII	Pharmaceutical Chemistry	(Special)		70		
XIII	Pharmaceutical Chemistry	(Special)		70		
XIV	Pharmaceutical Chemistry	(Special)		70		
XIV	Inorganic Chemistry	Practicals		50		

XVI	Inorganic Chemistry	Practicals	50
XVII	Inorganic Chemistry	Practicals	50
XV	Physical Chemistry	Practicals	50
XVI	Physical Chemistry	Practicals	50
XVII	Physical Chemistry	Practicals	50
XV	Organic Chemistry	Practicals	50
XVI	Organic Chemistry	Practicals	50
XVII	Organic Chemistry	Practicals	50
XV	Pharmaceutical Chemistry	Practicals	50
XVI	Pharmaceutical Chemistry	Practicals	50
XVII	Pharmaceutical Chemistry	Practicals	50
	<b>Seminars</b>		20
<b>M.Phil</b>			
I	<b>Research Methodology</b>		100
II	Organic Chemistry (OR)	(Special)	100
	Inorganic Chemistry	(Special)	100
	(OR)		
	Physical Chemistry	(Special)	100
	Seminar		80
	Internal Assessment		20
III	Dissertation		Grades :
			A with
			Distinction
			A
			B

### Facility

Library : *About 400 new books have been added to the departmental library. Equipment worth about 1.25 Crores were purchased, Computers and Accessories during the past five years.*

Teaching Labs. : *Four classrooms & thirteen labs are available in the department for M.Sc. & M.Phil. classes and research purposes, one computer room with 10 computers. Every teacher has been provided with a computer, one library with carpet area 60'×27' with a seating capacity of 30 persons.*

Other facilities : *Computers and Internet are being made use of. New equipments are being made use of for Practicals from time-to-time in Laboratories.*

### **Placement Cell**

*Following are the names of the companies who visited the department for the placement of the students and approx. 15 students were appointed in different streams of these companies through campus interview last year, 2006.*

*(I) Jubilant Organosys Ltd. (II) Ranbaxy Research Labs. Ltd., (III) Panacea Biotech Ltd. (IV) Ind-Swift Labs. Ltd.*

### **Information on Seminar and Conferences**

Seminar/Conferences organized by the Department (2006-07)

National Level Symposium on “Modern Trends in Chemical Sciences”: held on October 6-7, 2006 in the Department of Chemistry, Kurukshetra University, Kurukshetra.

## Information on Research Activities (Projects)

*List of Research Projects funded by outside agencies such as CSIR, DRDO, UGC, DST etc. being undertaken in the department with following information:*

Sr. no.	Name of the teachers (PI & Co-PI)	<u>Title of the research projects</u>	Total amount Sanctioned	Duration, Funding agency	Research scholars working in the project & their names
1.	Prof. (Emeritus) S.P. Singh	Chemical transformations of dehydroacetic acid and its derivatives: Synthesis of heterocyclic compounds	6,27,660/-	3 Years, UGC	01, Vinod Choudhary
2.	Prof. S.N. Dhawan (Retd.)	A Chemical and Photochemical study of Schmidt and related reactions of 2-benzylidenecycloalkanones.....oximes	4,95,660/-	3 Years, UGC	
3.	Prof. S.C. Gupta (Retd.)	Exploratory Organic Photochemistry: Hydrogen Abstractions; A Synthetic Tool	5,28,660/-	3 Years, UGC	
4.	Prof. Om Prakash	Synthetically Useful Chemical transformations involving Organiodine (III) and Combination Reagents	21.44 lacs	3 Years, DRDO	02, Dr. Ajay Aggarwal & Richa Prakash
5.	Prof. A. Pal	Studies on Thermodynamics, Transport, and acoustic properties of liquid mixtures containing amphiphiles	6,60,000/-	3 Years, DST	01, Rekha Gaba
6.	Dr. (Mrs.) Ranjana Aggarwal	Oxazolidin-2-one derivatives as potential Anti-infective Agents: Synthesis and Structure-Activity Studies	3,40,560/-	3 Years, UGC	01, Garima
7.	Dr. (Mrs.) Kiran Singh	Design, Synthesis and Characterization of metal chelates derived from Bioactive Multidentate Ligands	3,40,560/-	3 Years, UGC	01, Manjeet Singh
8.	Dr. G.P. Dubey	Interaction studies in Liquid mixtures: An experimental and Theoretical Approach	4,89,600/-	3 Years	01, Monika
9.	Chemistry Department	Improvement of S & T Infrastructure in Universities and Higher Educational Institutions (FIST) under DST program	33 lacs	DST	
10.	Prof. Om Prakash & Dr. Pawan K. Sharma	Organohypervalent Iodine compounds as unique reagents in organic synthesis	Rs. 21.24 lacs	DRDO	

## Information on Achievement

*Two of our research scholars, Mr. Ajay Kumar & Mr. Vinod Kumar, have been awarded young scientist award for the year 2005 and 2006 respectively. One of our faculty members, Prof. Om Prakash, had been selected for Platinum Jubilee Lecture award of Indian Science Congress held in 2003, Dr.(Mrs.) Ranjana Aggarwal was awarded Commonwealth Visiting Fellowship for the year 2003-04, Dr. Pawan Sharma had participated in 21<sup>st</sup> Indian Scientific expedition to Antarctica. Dr. (Mrs.) Nivedita Agnihotri, Research Associate, was awarded "Kalpana Chawla Memorial Award" for being best researcher of the year 2003-04.*