

DEPARTMENT OF CHEMISTRY
GOVERNMENT DEGREE COLLEGE R.S.PURA, JAMMU.
(J&K)





Department of Chemistry

- **Year of Establishment : 2010**
- **Initial Enrollment Of Students : 70**
- **Current Enrollment Of Students : 237**
- **Enrollment of Students in Core Courses for the Session 2020-21:**
 - B. Sc Semester 1st = 91
 - B. Sc Semester 3rd = 57
 - B. Sc Semester 5th = 30
- **Enrollment of Students in Skill Enhancement Courses (SEC) for the Session 2020-21**
 - B. Sc. Semester 3rd = 34
 - B. Sc. Semester 5th = 25



Staff Members

Teaching Faculty

No. of sanctioned posts = 02

S. No.	Name	Designation	Teaching Experience	
			In HED	In GDC R S Pura
1	Mr. Himanshu Khajuria (HOD)	M.Sc., NET/SET	5 years	2 years
2	Dr. Jaspreet kour	M. Sc., B. Ed., M. Phil., Ph.D.	Nil	1 year



Staff Members

Non-Teaching Faculty

No. of Sanctioned posts = 01

S. No.	Name	Designation	Teaching Experience	
			In HED	In GDC R S Pura
1	Mr. Sarabjeet Singh	M.Sc.	3 years	3 years



Faculty Profile

S. No.	Name	Designation	Qualification	No. of Refresher/ General Orientation Courses attended	No. of Research Publications/ No. of Books/ Articles	Conferences / Symposium/ Workshops / Webinars attended
1	Mr. Himanshu Khajuria (HOD)	Assistant Professor	M.Sc., NET/SET	Four (GOC) Two (RC)	05	12
2	Dr Jaspreet kour	Lecturer	M. Sc., B. Ed., M. Phil., Ph.D.	Nil	04	05



Workshops / Seminars / Conferences / FDPs / Refresher courses (2016-21)

Prof. Himanshu Khajuria

- Attended three weeks Induction / Orientation Training Programme w.e.f 10-04-2017 to 29-04-2017 in Govt. College of Education, Jammu.
- Organized Symposium on “Radioactivity and Human Sustainability” on 15-11-2017 organized by Deptt. Of Chemistry Govt. College for Women Parade Ground Jammu.
- Attended workshop on “Basic Computing Techniques” held in the Deptt. Of Computer Science, GCW Parade Ground, Jammu from 18-11-2017 to 25-11-2017.
- Participated in two day National Science Conference on “Science, Society and Sustainable Development” held at Poonch Campus, University of Jammu/ Govt. Degree College Poonch on 25th-26th Nov.2017.
- Participated in a National Conference on “Skill Enhancement Courses and Employment Generation” organized by Deptt. Of Chemistry , Govt. Degree College, Kathua, J&K on Dec. 19, 2017.



Contd...

- Participated and Organized “Instrumentation and Training” workshop held in the Deptt. Of Chemistry, Govt. College for women, Parade w.e.f 19th to 25th Jan.2018.
- Participated in three Day National workshop on “Research Methodology” organized by GCW Parade Ground, Jammu and co-sponsored by UGC w.e.f 30th Jan to 1st Feb.2018.
- Presented oral Paper entitled “Cosmetics, Perfumes and medicinal agents from national sources” in two day International conference on Advances in Mathematical ,Physical and Computer Sciences (ICAMPCS-2018) organized by S.G.G.S Khalsa College Mahilpur, Distt. Hoshiarpur, Punjab during Feb 12-13 , 2018.
- Member of Organizing Committee of the seminar on the topic “Say no to Plastic” sponsored by J&K Science Technology and information Council, DST,J&K at Govt.Degree College for women ,Parade Ground, Jammu on 20th October 2018.



Contd...

- Participated in Five Day Faculty Development Programme in “Emerging technologies based upon digital teaching system” from 24th to 28th Feb.2020 at National institute of Electronics & information technology, Jammu.
- Attended two week Faculty Development Programme on “Advanced Concepts for developing MOOCS” from 02nd to 17th July 2020.
- Successfully completed UGC sponsored Refresher Course in Chemistry from 3rd to 16th March 2021 at University of Jammu (J&K,UT).
- Successfully completed Two weeks Interdisciplinary Refresher Course on “Research Methodology and Data Analysis” from 21st February to 05th March ,2022 with grade A.



TEACHING METHODS AND RESOURCES USED

- Lecture method.
- Lecture cum Demonstration method.
- Reference books in college library **(514)** and departmental library **(221)**.
- Online sources such as Wise-App, What's App groups, Google classrooms etc.
- Links such as N-list, NDL are also provided through the college library for wider choice of study material.
- Subject related E content as per the syllabus prescribed by the university of Jammu has been provided in the browsing centre of the college.



Aims and Objectives of Curriculum of Choice Based Credit System of B.Sc. Program in Chemistry

1. To enable the students to model, simulate and validate the basic concepts related to different branches of Chemistry.
2. To practice and solve numerical problems and also to understand the mechanism of some basic organic reactions.
3. To understand the basics of, for example, analytical techniques, detection of elements, gravimetric and volumetric analysis, simple spectroscopic techniques etc.



Existing Course No's & Course Titles of Syllabi under CBCS

Semester	Course Number	Course Title	Credits
I	UCHTC 101	Atomic Structure, Bonding, General Organic Chemistry and Aliphatic Hydrocarbons	4
	UCHPC 102	Laboratory Course: Chemistry-I	2
II	UCHTC 201	Chemical Energetics, Equilibria & Functional Organic Chemistry	4
	UCHPC 202	Laboratory Course: Chemistry-II	2
III	UCHTC 301	Solutions, Phase Equilibrium, Conductance, Electrochemistry & Functional Group Organic Chemistry	4
	UCHPC 302	Laboratory Course: Chemistry-III	2
IV	UCHTC 401	Coordination Chemistry, States Of Matter & Chemical Kinetics	4
	UCHPC 402	Laboratory Course: Chemistry-IV	2



Existing syllabi and courses of study under CBCS

Skill Enhancement Courses (SEC):

Semester	Course Number	Course Title	Credits
III	UCHTS 303	Cosmetics, Perfumes & Medicinal Agents from Natural Sources (Skill Enhancement Course SEC-1)	4
IV	UCHTS 403	Pesticide Chemistry (Skill Enhancement Course SEC-2)	4
V	UCHTS 503	Fuel Chemistry (Skill Enhancement Course SEC-3)	4
VI	UCHTS 603	Green Methods In Chemistry (Skill Enhancement Course SEC-4)	4



Existing syllabi and courses of study under CBCS

Discipline Specific Elective Courses (DSE):

Semester	Course Number	Course Title	Credits
V	UCHTE 501	Spectroscopy, Photochemistry, Organometallics and Bioinorganic Chemistry	4
	UCHPE 502	laboratory Course: Chemistry - V	2
VI	UCHTE 601	Inorganic Materials of Industrial Importance & Organic Spectroscopy	4
	UCHPE 602	laboratory Course: Chemistry - VI	2



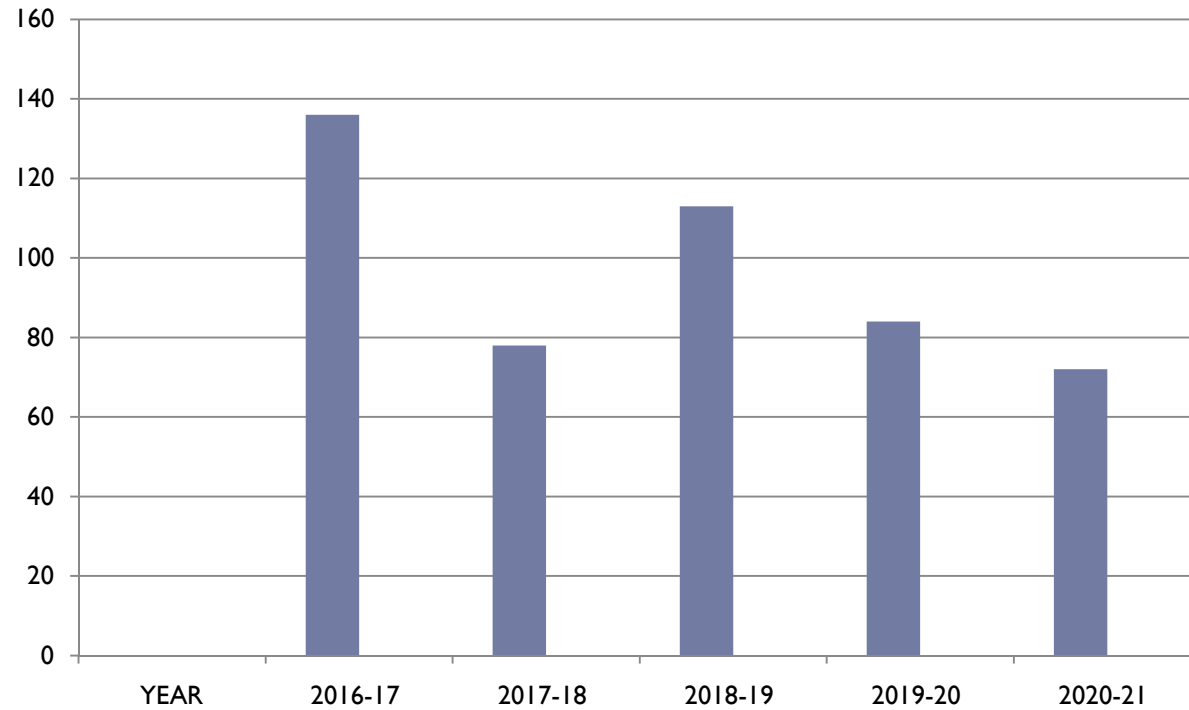
Student Profile

Total no. of students enrolled (CBCS/NCBCS)

Semester	2016-17	2017-18	2018-19	2019-20	2020-21
Semester I	CBCS=136	CBCS=78	CBCS=113	CBCS=84	CBCS=72
Semester II	CBCS=133	CBCS=68	CBCS=80	CBCS=58	CBCS=63
Semester III	NCBCS=66	CBCS=37 NCBCS=15	CBCS=62	CBCS=54	CBCS=29
Semester IV	NCBCS=66	CBCS=36 NCBCS=14	CBCS=61	CBCS=52	CBCS=30
Semester V	NCBCS=31	NCBCS=50	CBCS=34 NCBCS=16	CBCS=55	CBCS=53
Semester VI	NCBCS=31	NCBCS=50	CBCS=34 NCBCS=16	CBCS=55	CBCS=53



Graphical Representation of Year wise Enrollment (CBCS)





Student Profile

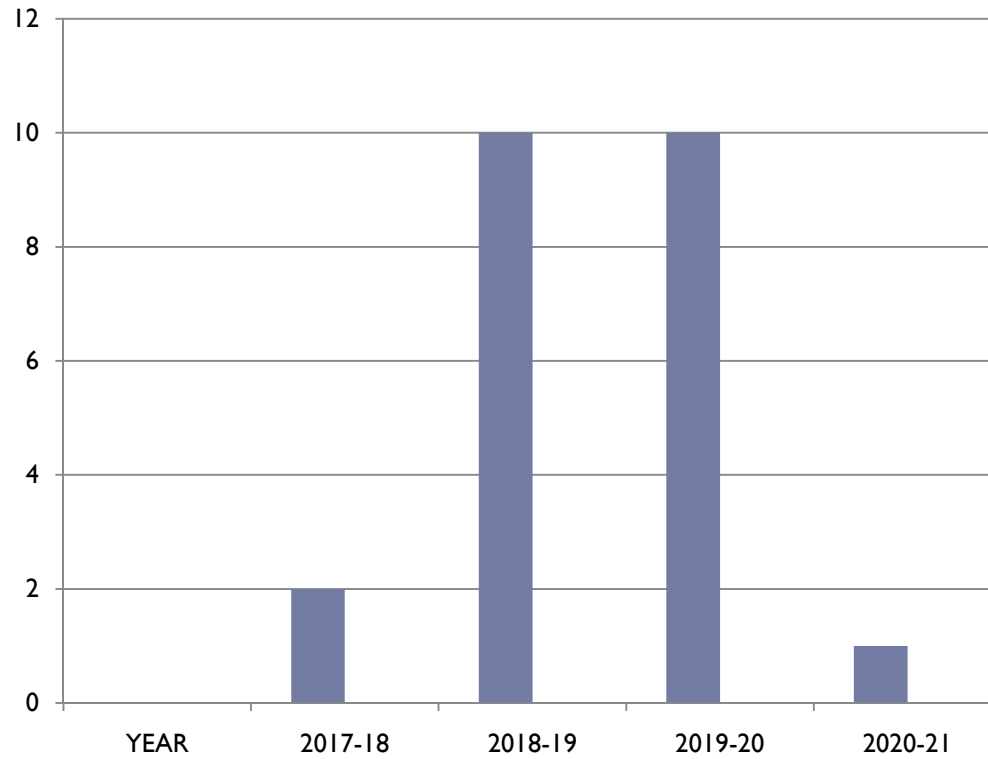
Total no. of students enrolled (SEC)

Semester	2016-17	2017-18	2018-19	2019-20	2020-21
Semester I	NA	NA	NA	NA	NA
Semester II	NA	NA	NA	NA	NA
Semester III	NA	02	10	10	01
Semester IV	NA	02	10	09	01
Semester V	NA	NA	NA	11	11
Semester VI	NA	NA	NA	10	11

(NA = Not Applicable)



Graphical Representation of Year wise Enrollment (SEC)



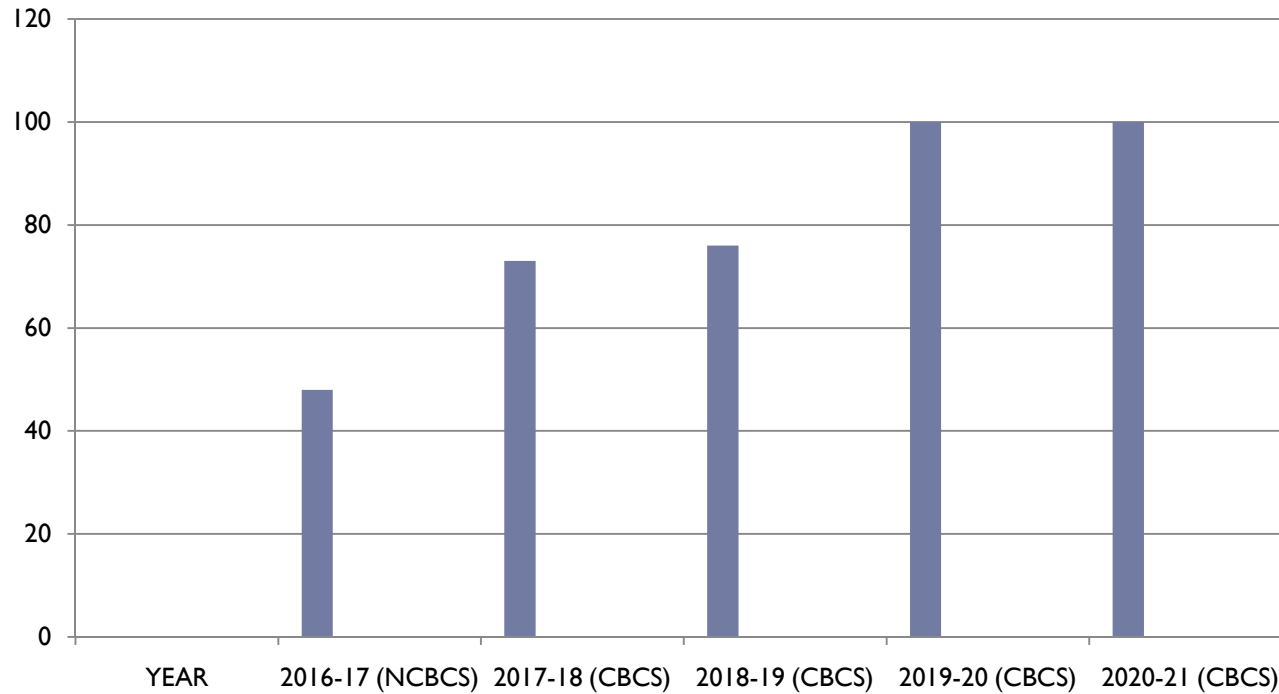


Results in percentage (CBCS)

Semester	2016-17	2017-18	2018-19	2019-20	2020-21
Semester I	CBCS=38	CBCS=67	CBCS=36	CBCS=44	CBCS=97
Semester II	CBCS=63	CBCS=37	CBCS=36	CBCS=98	CBCS=95
Semester III	NCBCS=62	CBCS=89 color: blue;">NCBCS=53	CBCS=67	CBCS=93	CBCS=100
Semester IV	NCBCS =89	CBCS=78 color: blue;">NCBCS=86	CBCS=51	CBCS=52	CBCS=100
Semester V	NCBCS=80	NCBCS =94	CBCS=88 color: blue;">NCBCS=86	CBCS=80	CBCS=100
Semester VI	NCBCS =48	NCBCS =73	CBCS=76 color: blue;">NCBCS=36	CBCS=100	CBCS=100



Graphical Representation of Pass Percentage of final students





Results in percentage (SEC)

Semester	2016-17	2017-18	2018-19	2019-20	2020-21
Semester I	NA	NA	NA	NA	NA
Semester II	NA	NA	NA	NA	NA
Semester III	NA	100	90	100	100
Semester IV	NA	100	90	56	100
Semester V	NA	NA	NA	100	100
Semester VI	NA	NA	NA	100	100

NA = Not Applicable



Syllabi revisions carried out during last five sessions (2016-17 to 2020-21)

Since Govt. Degree College R. S. Pura is affiliated to University of Jammu so it adopts the syllabi and courses of study in the subject of chemistry authorized by the vice-chancellor, in anticipation of the approval of academic council of university of Jammu from time to time.

➤ Vide University of Jammu Notification No. F.Acd /II/15/4184-4203, dated: 09-06-2015, the college was authorized to adopt the syllabi and courses of study from 3rd to 6th semester in the subject of chemistry at under graduate level under semester system for the examinations to be held in the years as under:

Semester	For the examination to be held in the year
Semester -III	Dec. 2015, 2016 and 2017
Semester -IV	May 2016, 2017 and 2018
Semester -V	Dec. 2016, 2017 and 2018
Semester -VI	May 2017, 2018 and 2019



Syllabi revisions carried out during last five sessions (2016-17 to 2020-21)

➤ Vide University of Jammu Notification No. F.Acd/II/16/8435-86, dated: 04-08-2016, the college was authorized to adopt the syllabi and courses of study in the subject of chemistry under Choice Based Credit System (CBCS) at under graduate level for the examinations to be held in the years as under:

Semester	For the examination to be held in the year
Semester -I	Dec. 2016, 2017 and 2018
Semester -II	May 2017, 2018 and 2019



Syllabi revisions carried out during last five sessions (2016-17 to 2020-21)

➤ Vide University of Jammu Notification No. F.Acd/II/19/3756-3805, dated: 22-07-2019, the college was authorized to adopt the syllabi and courses of study in the subject of chemistry under Choice Based Credit System (CBCS) at under graduate level for the examinations to be held in the years as under:

Semester	For the examination to be held in the year	Course code	% of change
Semester-I	Dec.2019,2020 &2021	UCHTC101	No change
		UCHPC102	No change
Semester-II	May2020,2021&2022	UCHTC201	<5% change
		UCHTC202	No change
Semester-III	Dec 2020,2021&2022	UCHTC301	No change
		UCHTC302	No change
		UCHTS303	No change



Syllabi revisions carried out during last five sessions (2016-17 to 2020-21)

Contd...

Semester	For the examination to be held in the year	Course code	% of change
Semester-IV	May 2021,2022&2023	UCHTC401	No Change
		UCHPC402	No Change
		UCHTS403	No Change
Semester-V	Dec 2021,2022&2023	UCHTE501	No Change
		UCHPE502	No Change
		UCHTS503	No Change
Semester-VI	May 2022,2023&2024	UCHTE601	<5% Change
		UCHPE602	No Change
		UCHTS603	No Change



Infrastructure

HOD/Staff Room	01
Lab Assistant Room	01
Laboratories	01
Class Rooms	Common facility
Store	01
Gas Room	01



Equipments/Computers purchased during the last five sessions

Year	S.No.	Name of the Equipment	Date of purchase	Quantity	Rate	Total amount
2018-19	1.	Digital Balance	27/03/2018	1	4053	4053
	2.	Vaccum Pressure Pump	23/03/2019	1	15876.9	15876.9
	3.	Laptop	31/12/2019	1	59999	59999
	4.	Conductivity Meter	23/03/2019	1	14514	14514
TOTAL						94442
2019-20	1.	Weighing Balance	114/01/2020	1	6099.99	6099.99
	2.	Digital TDS/Conductivity Meter	01/07/2020	1	15430	15430
	3.	Spectrophotometer	31/01/2020	1	79650	79650



Equipments/Computers purchased during the last five sessions

Contd....

2019-20	4.	Deluxe pH Tutor	19/02/2020	1	21870	21870	
	5.	Hot Plate Magnetic Stirrer	20/02/2020	1	25200	25200	
	6.	Heating Mantle(100 ml)	19/02/2020	2	1972	3944	
	7.	Heating Mantle(250 ml)	19/02/2020	2	2256	4512	
	8.	Heating Mantle(500 ml)	19/02/2020	2	2565	5130	
	9.	Cannon Printer	25/01/2020	1	17813	17813	
	10.	Micropipette(10 ml)	19/02/2020	1	1827	1827	
	11.	Micropipette(20 ml)	19/02/2020	1	1827	1827	
	12.	Melting Point Apparatus	27/02/2020	2	4410	8820	
	13.	Rack	03-04-2020	2	3999	7998	
	14.	Aquaguard	01-03-2020	1	10800	10800	
	15.	Buerette Stand	22/02/2020	8	275	2200	
	16.	Tripod Stand	22/02/2020	10	120	1200	
	17.	Almirah Double Door	01-02-2020	1	11499	11499	
	18.	Almirah Double Door	01-02-2020	1	9997	9997	
		TOTAL					235817



Equipments/Computers purchased during the last five sessions

2020-21	1.	UPS Luminous	01-06-2021	1	4530.92	4530.92
	2.	Office Chair	16/03/2021	4	3620	14480
	3.	Benq Projector	15/03/2021	1	35883	35883
	4.	Projector Screen	03-10-2021	1	5900	5900
	5.	Square Classroom Stool	19/03/2021	30	1100	33000
	TOTAL					93793



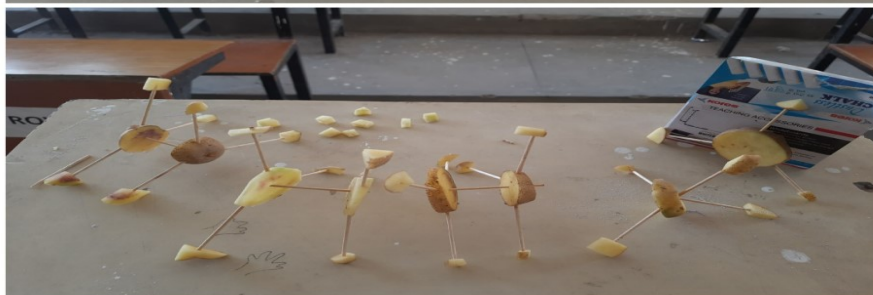
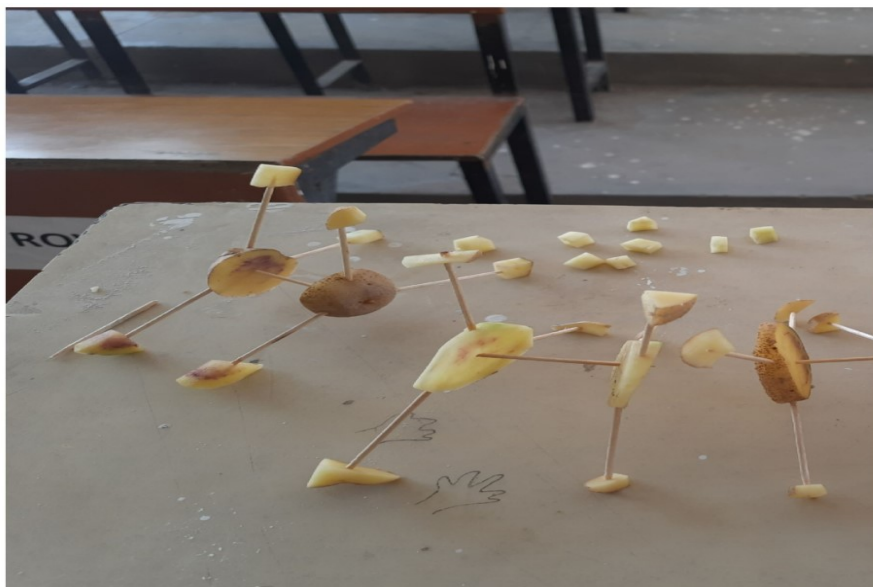
Various Departmental Activities



Department of Chemistry organized extension lectures under the “Series of Lectures” event. Prof. Ranjit Singh Jamwal , I/C Principal GDC Basoli, an eminent professor, was the resource person and he presented a very informative and engrossing presentation on the topic “Spectroscopy & its application to molecular structure and determination” on 1st Nov.2017.



Various Departmental Activities



Demonstration of 3D models of organic molecules by Prof. Himanshu Khajuria, (HOD) to imbibe the students with 3D vision of seeing organic molecules.



Various Departmental Activities



Poster Making Competition on the Topic “Elements in the Periodic Table”.



Various Departmental Activities



Practical Demonstration to Students.



Future Plan

- **To establish a new laboratory well equipped with equipments (Instrumentation Lab).**
- **To organize interactive lectures of learned scholars from reputed institutes.**
- **To get major/minor research projects in the department sanctioned from various funding agencies like DST or UGC.**
- **To make the students aware of the latest research by starting small UGC research projects.**



Projects undertaken by students in chemistry

- **To check the adulteration in the following food materials:**
 - **Chilly powder**
 - **Turmeric**
 - **Desi ghee**

- **To do the comparative study and qualitative analysis of different brands of cold drinks available in the market.**

THANK YOU