



# ARSD College, University of Delhi

## Model Course Handout/Lesson Plan

<b>Course Name : B.Sc. (Hons.) Chemistry Lab</b>						
Semester	Course Code	Course Title	Lecture (L)	Tutorial (T)	Practical (P)	Credit (C)
VI	557 : CHEMISTRY - CXI	Organic Chemistry-V: Biomolecules	0	0	60	2
Teacher/Instructor(s)		Dr. Suman Dudeja and Dr. Sangita Aggarwal				
Session		2021-2022				

**Course Description:** This core course aims to introduce the learner to the various tools and techniques for identifying and characterizing the organic compounds

### List of Experiments:

1. Qualitative analysis of unknown organic compounds containing mono-functional groups: aromatic hydrocarbons, aryl halides, carbohydrates, nitro compounds, amines, amides and simple compounds containing bifunctional groups, e.g. salicylic acid, cinnamic acid, nitro-phenols.
2. Identification of simple organic compounds by IR and NMR spectroscopy (Spectra to be provided).

Details of the Lab Course		
Session	Name of Experiment	Contact Hours
1	Introduction about the systematic analysis of organic compound. (Theory)	4
2	Identification of different compounds of carbohydrates.	4
3	Carry out above compound	4
4	Identification of different compounds of hydrocarbons	4
5	Carry out above	4
6	Identification of different compounds of nitro, amines and amides	4
7	Carry out above compounds	4
8	Identifications of different compounds containing bifunctional group	4
9	Carry out above compounds	4
10	Different compounds allotted and ask to paste spectra of compound and its derivative with its interpretation.	4
11	Different compounds allotted and ask to paste spectra of compound and its derivative with its interpretation.	4
12	Ask to finish all pending work	4
13	Mock test and viva	4
14	Continue with mock test and viva	4
	Total	56

<b>Suggested Books:</b>		
<b>Sl. No.</b>	<b>Name of Authors/Books/Publishers</b>	<b>Year of Publication/Reprint</b>
1.	Vogel, A.I. (2012), <b>Quantitative Organic Analysis</b> , Part 3, Pearson.	2012
2.	Mann, F.G.; Saunders, B.C. (2009), <b>Practical Organic Chemistry</b> , Pearson Education	2012
3.	Ahluwalia, V.K.; Dhingra, S. (2004), <b>Comprehensive Practical Organic Chemistry: Qualitative Analysis</b> , University Press	2004
4.	Sunita Rattan, Experiments in Applied Chemistry, S. K. Kataria and sons	2009
5.	Clarke, Hans Thacher, A handbook of Organic analysis, Fourth Edition: CBS Publisher	2009

**Evaluation Scheme:**

<b>No.</b>	<b>Component</b>	<b>Duration</b>	<b>Marks</b>
1.	Internal Assessment		25
	• Quiz/Viva		
	• Observation & Record		
	• Attendance		
	• Model Exam		
2.	End Semester Examination	3 hr	50