



DEPARTMENT OF CHEMISTRY

COURSE PLAN – PART I			
Name of the programme and specialization	Organic Preparations and Separations Lab		
Course Title	Chemistry (Lab)		
Course Code	CH609	No. of Credits	2
Course Code of Pre-requisite subject(s)	Nil		
Session	July 2022	Section (if, applicable)	
Name of Faculty	Dr. A. Sreekanth	Department	Chemistry
Official Email	sreekanth@nitt.edu	Telephone No.	9489551851
Name of Course Coordinator(s) (if, applicable)	Dr. A. Sreekanth		
Official E-mail	sreekanth@nitt.edu	Telephone No.	9489551851
Course Type (please tick appropriately)	<input checked="" type="checkbox"/> Core course <input type="checkbox"/> Elective course		
Syllabus (approved in BoS)			
Practicals: Separation, Purification and Identification of organic compounds. a. Preparation of TLC plates and analysis of mixtures (TLC plates, glass rods, TLC grade silica, Distilled water) b. Separation using column chromatography and crystallization c. Identification using IR and NMR Spectroscopy 2. Preparation, Purification and Identification of products using spectroscopy a. Claisen Schmidt reaction –Dibenzalacetone synthesis b. Fischer Indole synthesis c. Benzil reduction d. Synthesis of dinitrobenzene e. Glucosazone f. Diels-Alder reaction of Anthracene and maliec anhydride g. preparation of diazoamino benzene h. Preparation of 2-Iodoxybenzoic Acid (IBX) i. Alkylation of Isatin 3. Soxhlet extraction of natural product a. Curcumin, Tea leaves, Neem leaves etc.			
REFERENCE BOOKS 1. I. Vogel, Text Book of Practical Organic Chemistry, 5th Edn., ELBS, London, 1989. 2. B. B. Dey and M. V. Sitharaman, Laboratory Manual of Organic Chemistry, Revised by T.R. Govindachari, Allied Publishers Ltd., New Delhi, 4th Revised Edn., 1992.			
COURSE OBJECTIVES			



To conduct various experiments, to analyze the role of reaction conditions and to interpret the data.	
MAPPING OF COs with POs	
Course Outcomes	Programme Outcomes (PO) (Enter Numbers only)
Upon completing the course, the student will be able to,	1, 2, 3, 6, 7, 8, 9, 10
CO1. Design and conduct experiments.	1, 2, 3, 6, 7, 8, 9, 10
CO2. Optimize the reaction conditions for the intended product.	1, 2, 3, 6, 7, 8, 9, 10
CO3. Use different instrumental methods of analysis and estimation	1, 2, 3, 6, 7, 8, 9, 10
CO4. Analyse and interpret the data.	1, 2, 3, 6, 7, 8, 9, 10

COURSE PLAN – PART II

COURSE OVERVIEW

This is a two credit course offered to IInd year B.Tech. MSc. Chemistry Students. This course is a Practical Chemistry (2 credit) course. Two Practical classes (6 h per week) will be conducted per week. This course provides a thorough understanding of the subject through hand on practice and demonstrations.

COURSE TEACHING AND LEARNING ACTIVITIES

(Add more rows)

S.No.	Week/Contact Hours	Topic	Mode of Delivery
1	II week of September	Separation, Purification and Identification of organic compounds.	Lab
2	III week of September	Preparation of TLC plates and analysis of mixtures (TLC plates, glass rods, TLC grade silica, Distilled water)	Lab
3	IV week of September	Separation using column chromatography and crystallization	Lab
4	I week of October	Preparation, Purification and Identification of products using spectroscopy	Lab



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5	II week of October	Claisen Schmidt reaction – Dibenzalacetone synthesis	Lab
6	III week of October	Fischer Indole synthesis	Lab
7	IV week of October	Benzil reduction	Lab
8	IV week of March	Synthesis of dinitrobenzene	Lab
9	I week of November	Glucosazone	Lab
10	II week of November	Diels-Alder reaction of Anthracene and maliec anhydride	Lab
11	III week of November	preparation of diazoamino benzene	Lab
12	IV week of November	Preparation of 2-Iodoxybenzoic Acid (IBX)	Lab

COURSE ASSESSMENT METHODS (shall range from 4 to 6)

S.No.	Mode of Assessment	Week/Date	Duration	% Weightage
Practicals				
1	Assessment I (Based on Regular Laboratory Experiments)	Throughout the Semester	6 hours/Week	40
2	MC questions Test	II week of November	30 minutes	5
3	<i>Viva voce and Record writing</i>	III Week of November	15 min	5
4	Final Assessment	III week of November	3 hours	50

Total (100 Marks)

COURSE EXIT SURVEY (mention the ways in which the feedback about the course shall be assessed)

1. Feedback from students during class committee meetings
2. Anonymous feedback through questionnaire at the end of the semester.



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COURSE POLICY (including compensation assessment to be specified)

MODE OF CORRESPONDENCE (email/ phone etc)

E-mail: sreekanth@nitt.edu

COMPENSATION ASSESSMENT POLICY

For those students who missed any Lab experiment during Assessment I, Compensation assessment will be conducted during II Week of November.

ATTENDANCE POLICY (A uniform attendance policy as specified below shall be followed)

At least 75% attendance in each course is mandatory.

A maximum of 10% shall be allowed under On Duty (OD) category.

Students with less than 65% of attendance shall be prevented from writing the final assessment and shall be awarded 'V' grade.

ACADEMIC DISHONESTY & PLAGIARISM

Possessing a mobile phone, carrying bits of paper, talking to other students, copying from others during an assessment will be treated as punishable dishonesty.

Zero mark to be awarded for the offenders. For copying from another student, both students get the same penalty of zero mark.

The departmental disciplinary committee including the course faculty member, PAC chairperson and the HoD, as members shall verify the facts of the malpractice and award the punishment if the student is found guilty. The report shall be submitted to the Academic office.

The above policy against academic dishonesty shall be applicable for all the programmes.

ADDITIONAL INFORMATION, IF ANY

The respective faculty will be available for consultation at times as per the intimation by the faculty.

FOR APPROVAL

Course Faculty _____

D. A. Sreekanth

CC- Chairperson _____

[Signature]
16/1/22

HOD _____

[Signature]
19/09/2022
Head

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