



DEPARTMENT OF CHEMISTRY COURSE PLAN – PART I			
Name of the programme and specialization	Master of Science – Chemistry (Semester-I)		
Course Title	Organic Preparations and Separations Lab		
Course Code	CH609	No. of Credits	2
Course Code of Pre-requisite subject(s)	Nil		
Session	July 2019	Section (if, applicable)	NA
Name of Faculty	Dr. Nitin B. Padalwar	Department	Chemistry
Official Email	nitin@nitt.edu	Telephone No.	9444377376
Name of Course Coordinator(s) (if, applicable)	Dr. V. M. Biju		
Official E-mail	nitin@nitt.edu	Telephone No.	9444377376
Course Type (please tick appropriately)	<input checked="" type="checkbox"/> Core course	<input type="checkbox"/> Elective course	
<b>Syllabus (approved in BoS)</b>			
<b>COURSE CONTENT</b>			
<p>(a) Preparations - Double stage preparation of m-nitrobenzoic acid from methyl benzoate, preparation of acetyl salicylic acid from methyl salicylate, preparation of triacetoxy benzene from hydro quinone, preparation of m-nitroaniline from nitro benzene, preparation of tribromo benzene from aniline, preparation of p-nitroaniline from acetanilide. Single stage preparations involving acetylation, alkylation, condensation, hydrolysis, esterification etc.</p> <p>(b) Separation and characterization of two component and three component mixtures.</p>			
<b>REFERENCE BOOKS.</b>			
<p>1. A. I. Vogel, Text Book of Practical Organic Chemistry, 5th Edn., ELBS, London, 1989.</p> <p>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.</p>			
<b>COURSE OBJECTIVES</b>			
<p>1. To introduce the students to have hands on experience to perform various reactions.</p> <p>2. The students can Separate and characterize the two component and three component mixtures.</p>			



MAPPING OF COs with POs	
Course Outcomes	Programme Outcomes (PO) (Enter Numbers only)
Students will learn about	
Perform various reactions practically	3, 4, 5, 6, 7, 9, 10
Synthesize the derivatives of different functional groups	3, 4, 5, 6, 7, 8, 9, 10
Separate the organic mixtures and identify various functional groups	3, 4, 5, 6, 7, 8, 9, 10

COURSE PLAN – PART II			
COURSE OVERVIEW			
This course is offered to second year M.Sc. Chemistry students. It is a laboratory practical course of 3 h +3 h duration per week for four months and carries a weightage of 2 credits.			
COURSE TEACHING AND LEARNING ACTIVITIES			( Add more rows)
S.No.	Week/Contact Hours	Topic	Mode of Delivery
1	1st week of August 2019	Introduction to organic separation lab	C&T
2	2 <sup>nd</sup> -4 <sup>th</sup> weeks of August 2019	Separation and characterization of two component and three component mixtures, Mixtures 1-3	Laboratory Benchwork
3	1 <sup>st</sup> -2 <sup>nd</sup> weeks of September 2019	Separation and characterization of two component and three component mixtures, Mixtures 4 and 5	C&T, Laboratory Benchwork
	3 <sup>rd</sup> and 4 <sup>th</sup> weeks of September 2019	Single stage preparations involving acetylation, alkylation, condensation, hydrolysis, esterification etc.	C&T, Laboratory Benchwork
4	1 <sup>st</sup> and 2 <sup>nd</sup> weeks of October 2019	Double stage preparation of m-nitrobenzoic acid from methyl benzoate, preparation of acetyl salicylic acid from methyl salicylate,	C&T, Laboratory Benchwork
5	3 <sup>rd</sup> and 4 <sup>th</sup> weeks of October 2019	preparation of triacetoxy benzene from hydro quinone, preparation of m-nitroaniline from nitro benzene	C&T, Laboratory Benchwork



6	1 <sup>st</sup> and 2 <sup>nd</sup> weeks of November 2019	preparation of tribromo benzene from aniline, preparation of p-nitroaniline from acetanilide.	C&T, Laboratory Benchwork	
<b>COURSE ASSESSMENT METHODS</b> (shall range from 4 to 6)				
S.No.	Mode of Assessment	Week/Date	Duration	% Weightage
1	Laboratory practical class	Tuesday and Friday every week	3h each	60
4	End Semester Practical Examination	3 <sup>rd</sup> or 4 <sup>th</sup> week of November 2019	6h	25
5	End Semester Oral Examination	3 <sup>rd</sup> or 4 <sup>th</sup> week of November 2019	6h (simultaneous)	15
CPA	Compensation Practicals*	2 <sup>nd</sup> week of November 2019	3h	--
<b>Practical Total = 100 marks</b>				
<b>COURSE EXIT SURVEY</b> (mention the ways in which the feedback about the course shall be assessed)				
<ol style="list-style-type: none"> <li>1. Feedback from students during class committee meetings</li> <li>2. Anonymous feedback through questionnaire at the end of the semester</li> </ol>				
<b>COURSE POLICY</b> (including compensation assessment to be specified)				
<b>MODE OF CORRESPONDENCE (email/phone etc)</b> E-mail: <a href="mailto:nitin@nitt.edu">nitin@nitt.edu</a> / Phone: +91-94443 77376				
<b>COMPENSATION ASSESSMENT POLICY</b> For those students who missed practicals due to genuine reasons, compensation class will be conducted during 3 <sup>rd</sup> week of November 2019.				
<b>ATTENDANCE POLICY</b> (A uniform attendance policy as specified below shall be followed) <ul style="list-style-type: none"> <li>➤ At least 75% attendance in each course is mandatory.</li> <li>➤ A maximum of 10% shall be allowed under On Duty (OD) category.</li> <li>➤ Students with less than 65% of attendance shall be prevented from writing the final assessment and shall be awarded 'V' grade.</li> </ul>				
<b>ACADEMIC DISHONESTY &amp; PLAGIARISM</b> <ul style="list-style-type: none"> <li>➤ Possessing a mobile phone, carrying bits of paper, talking to other students, copying from others during an assessment will be treated as punishable dishonesty.</li> <li>➤ Zero mark to be awarded for the offenders. For copying from another student, both</li> </ul>				



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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 faculty will be available for consultation in person during office hours and on phone beyond office hours on all working days.

### FOR APPROVAL

Course Faculty   
08.08.2019

CC- Chairperson 

HOD 