



NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI

DEPARTMENT OF PRODUCTION ENGINEERING

COURSE PLAN – PART I			
Name of the programme and specialization	B. Tech. Chemical Engineering, II Semester		
Course Title	Engineering Practice Laboratory		
Course Code	PRIR11	No. of Credits	2
Course Code of Pre-requisite subject(s)			
Session	January 2022	Section (if, applicable)	-
Name of Faculty	Dr. M. Duraiselvam	Department	Production Engineering
Official Email	durai@nitt.edu	Telephone No.	0431-2503509
Name of Course Coordinator(s) (if, applicable)	-		
Official E-mail	-	Telephone No.	-
Course Type (please tick appropriately)	<input type="checkbox"/> Core course	<input type="checkbox"/> Elective course	<input checked="" type="checkbox"/> Lab
Syllabus (approved in BoS)			
<p>Foundry Preparation of sand mould for the following</p> <ol style="list-style-type: none"> 1. Flange coupling 2. Hand wheel <p>Welding Exercise in arc welding for making</p> <ol style="list-style-type: none"> 1. Butt joint 2. Lap joint <p>Carpentry Wood sizing exercise in planning, marking, sawing, chiseling and grooving to make</p> <ol style="list-style-type: none"> 1. Tee Through Halving 2. Joint and Dovetail Scarf Joint. <p>Fitting Preparation of joints, markings, cutting and filling for making</p> <ol style="list-style-type: none"> 1. Square Fitting 2. V Fitting 3. Semi-circle part with the given work piece, 4. Dovetail part with the given work piece. <p>Sheet metal Making of small parts using sheet metal</p> <ol style="list-style-type: none"> 1. Dust Pan 2. Square Tray 			
COURSE OBJECTIVES			
To use hand tools and machinery in Carpentry, welding shop, Foundry, Fitting shop and Sheet Metal work. To manufacture engineering products or prototypes.			

COURSE PLAN – PART II			
COURSE OVERVIEW			
1. Making of Mould using foundry technique 2. Joining of Metal by welding process 3. Working on wood, metal and sheet metal to make some basic shapes			
MAPPING OF COs with POs			
Course Outcomes			Programme Outcomes (PO) (Enter Numbers only)
1. To impart knowledge on selection of suitable manufacturing process for the typical component.			1, 2, 3, 5, 6 and 9
2. To learn the various methods and types of welding, sheet metal and foundry processes.			1, 2, 4, 7, 8 and 10
3. To enable students to solve practical work related to Carpentry and Fitting.			1, 2, 5, 9, 10 and 11
4. Produce simple engineering products or prototypes.			1, 2, 4, 7, 8 and 10
COURSE TEACHING AND LEARNING ACTIVITIES			
S. No.	Week/Contact Hours	Topic	Mode of Delivery
1	1 st Week	Introduction to EP/ Demonstration on Experiment	Online – MS Teams
FOUNDRY			
2	2 nd Week	Flange coupling pattern, Hand wheel pattern	Online – MS Teams
WELDING			
3	3 rd Week	Lap Joint, Butt Joint	Online – MS Teams
CARPENTRY			
4	4 th Week	T Joint, Tenon joint	Online – MS Teams
FITTING			
5	5 th Week	Square Fitting, V Fitting	Online – MS Teams
6	6 th Week	Semi-circle part, Dovetail part.	Online – MS Teams
SHEET METAL OPERATION			
7	7 th Week	Square tray, Dust pan	Online – MS Teams
8	8 th Week to 11 th Week	Technical quiz 1, 2, 3 and 4	Practical

9	12 th Week	Compensation Lab	Practical
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COURSE ASSESSMENT METHODS (shall range from 4 to 6)

S. No.	Mode of Assessment	Week/Date	Duration	% Weightage
1	Technical Quiz 1	8 th week	20 Minutes	15
2	Technical Quiz 2	9 th week	20 Minutes	15
3	Technical Quiz 3	10 th week	20 Minutes	15
4	Technical Quiz 4	11 th week	20 Minutes	15
5	Assignment	One assignment on each topic	---	10
6	Viva-voce*	13 th week	---	30

*mandatory; refer guidelines and additional information on page no. 3 & 4

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

1. Feedback from the students during class committee meeting
2. End semester feedback on course outcomes

COURSE POLICY (including compensation assessment to be specified)

MODE OF CORRESPONDENCE

Students can contact through email or MS Teams for clarifying doubts.

COMPENSATION ASSESSMENT POLICY

If any student is not able to attend any of the lab session due to genuine reason, student is permitted to attend one compensation lab before end semester exam

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 to all the programmes.

ADDITIONAL INFORMATION, IF ANY

The course assessment methods mentioned are tentative. In case the students are allowed to come to the NIT campus during this semester, then the students will go through hands on practice for the lab and there may be some changes in the assessment methods.

FOR APPROVAL



Course Faculty



CC – Chairperson



HOD

(Dr.M.Duraiselvam)