



DEPARTMENT OF ELECTRICAL AND ELECTRONICS  
ENGINEERING

COURSE PLAN – PART I			
Name of the programme and specialization	B.Tech Electrical and Electronics Engineering, I semester		
Course Title	Engineering Practice		
Course Code	PRIR11	No. of Credits	2
Course Code of Pre-requisite subject(s)	-	-	-
Session	July 2023	Section (if, applicable)	A
Name of Faculty	Dr.-Ing. 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 checked="" type="checkbox"/> Lab course		
Syllabus (approved in BoS)			
Foundry Preparation of sand mould for the following 1. Flange 2. Hand wheel Welding Exercise in arc welding for making 1. Butt joint 2. Lapjoint Carpentry Wood sizing exercise in planning, marking, sawing, chiseling and grooving to make 1. T-joint 2. Tenon-joint Fitting Preparation of joints, markings, cutting and filling for making 1. Semi-circle part 2. Dovetail part Sheet metal Making of small parts using sheet metal 1. Corner tray 2. Dust pan			



**COURSE OBJECTIVES**

Introduction to the use of tools and machinery in Carpentry, Welding, Foundry, Fitting and Sheet Metal Working

**MAPPING OF COs with Pos and PSOs**

Course Outcomes	Aligned Programme Outcomes (PO)												Programme Specific Outcomes (PSO)		
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
To impart knowledge on the selection of suitable manufacturing processes for typical components.	1	1	1	2	1	1	2	3	1	1	1	1	3	3	3
To learn the various methods and types of welding, welding processes, sheet metal.	1	1	2	1	3	3	1	1	2	1	1	1	3	3	3
To enable students to solve practical work related to Carpentry and Fitting	1	1	2	3	1	2	2	3	1	1	1	1	3	3	3
Prepare the different joints in roofs, doors, windows, and furniture	1	1	3	1	3	2	1	1	2	1	1	1	3	3	3
Apply the knowledge of production process in Foundry	1	1	1	2	1	1	3	3	1	2	1	1	3	3	3

1 – Low

2 – Medium

3 - High

**COURSE PLAN – PART II**

**COURSE OVERVIEW**

- Knowledge of contextual factors impacting the engineering discipline.
- Understanding of the scope, principles, norms, accountabilities and bounds of contemporary engineering practice in the specific discipline.
- Application of systematic engineering synthesis and design processes.

**COURSE TEACHING AND LEARNING ACTIVITIES**

S.No.	Week/Contact Hours	Topic	Mode of Delivery
1.	1 <sup>st</sup> week	Introduction to EP/ Demonstration on Experiment	<b>Demonstration</b>
<b>FITTING</b>			
2.	2 <sup>nd</sup> week	Semi-circle part	Practical
3.	3 <sup>rd</sup> week	Dovetail part	Practical
<b>WELDING</b>			
4.	4 <sup>th</sup> week	Lap Joint	Practical



5.	5 <sup>th</sup> week	Butt Joint	Practical
<b>CARPENTRY</b>			
6.	6 <sup>th</sup> week	T through half lap halving joint	Practical
7.	7 <sup>th</sup> week	Scarf with Tenon joint	Practical
<b>FOUNDRY</b>			
8.	8 <sup>th</sup> week	Flange pattern	Practical
9.	9 <sup>th</sup> week	Hand wheel pattern	Practical
<b>SHEET METAL OPERATION</b>			
10.	10 <sup>th</sup> week	Square tray	Practical
11.	11 <sup>th</sup> week	Dust pan	Practical
12.	12 <sup>th</sup> week	Compensation Lab and viva voce	Practical

**COURSE ASSESSMENT METHODS** (shall range from 4 to 6)

S.No.	Mode of Assessment	Week/Date	Duration	% Weightage
1	Experiments	Every week	150 mins	25%
	Record			25%
	Viva-voce			20%
CPA	Compensation Assessment			
2	Final Assessment *	End of semester	180 mins	30%

\*mandatory; refer to guidelines on page 4

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

Online Feedback will be collected at the end of semester

**COURSE POLICY** (including compensation assessment to be specified)

**MODE OF CORRESPONDENCE (email/Phone etc)**

Students can contact in person or through email 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.


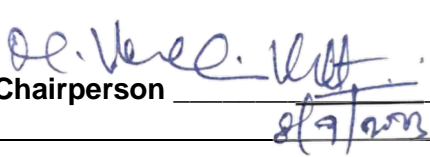
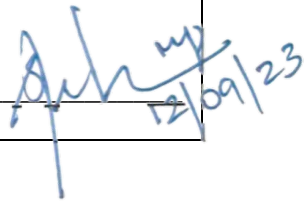
**ACADEMIC DISHONESTY & PLAGIARISM**

- 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 for all the programmes.

**ADDITIONAL INFORMATION, IF ANY**

The faculty is available for consultation at scheduled time periods as per the intimation given by the faculty

**FOR APPROVAL**

Course Faculty  CC- Chairperson  8/9/2023 HOD  12/09/23



**Guidelines**

- a) The number of assessments for any theory course shall range from 4 to 6.
- b) Every theory course shall have a final assessment on the entire syllabus with at least 30% weightage.
- c) One compensation assessment for absentees in assessments (other than final assessment) is mandatory. Only genuine cases of absence shall be considered.
- d) The passing minimum shall be as per the regulations.

B.Tech. Admitted in				P.G.
2018	2017	2016	2015	
35% or (Class average/2) whichever is greater.		(Peak/3) or (Class Average/2) whichever is lower		40%

- e) Attendance policy and the policy on academic dishonesty & plagiarism by students are uniform for all the courses.
- f) Absolute grading policy shall be incorporated if the number of students per course is less than 10.
- g) Necessary care shall be taken to ensure that the course plan is reasonable and is objective.