NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI

OK

DEPARTMENT OF PRODUCTION ENGINEERING

COURSE PLAN – PART I			
Name of the programme and specialization	B.Tech - Mechanical Engineering		
Course Title	ENGINEERING PRACTICE		
Course Code	PRIR11	**No. of Credits**	02
Course Code of Pre-requisite subject(s)	-		
Session	Jan 2023	**Section (if, applicable)**	A
Name of Faculty	Dr. Deepak D. Patil (2470)	**Department**	Production Engineering
Official Email	deepakdeelip@nit.edu	**Telephone No.**	7020950289
Name of Course Coordinator(s) (if, applicable)			
Official E-mail		**Telephone No.**	
Course Type (please tick appropriately)	**Core course** ☐	**Elective course** ☐	**Lab** ✓

Syllabus (approved in BoS)

- Foundry: Mould preparation for Flange and Hand Wheel, Plastic moulding / Wax moulding.
- Welding: Fabrication of Butt Joint and Fabrication of Lap Joint.
- Carpentry: Wood sizing exercise in planning, marking, sawing, chiseling and grooving to make; Tee Through Halving Joint and Dovetail Scarf Joint.
- Fitting: Preparation of joints, markings, cutting and filling for making; Semi-circle part with the given work piece, Dovetail part with the given work piece.
- Sheet metal: Fabrication of Dust Pan and Fabrication of Corner 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

Programme Specific Outcomes (PSOs)

1. Apply the fundamental knowledge acquired in the area of design, thermal engineering and manufacturing to identify, formulate and solve mechanical engineering problems confronted by the industry and society.
2. Develop products and processes by carrying out research and development considering the economic constraints, sustainability, environment, safety, and cultural perceptions.

MAPPING OF COs with POs

Course Outcomes	Aligned Programme Outcomes (PO)

1. To impart knowledge on selection of suitable manufacturing process for the typical component.
2. To learn the various methods and types of welding, welding processes, sheet metal.
3. To enable students to solve practical work related to Carpentry and Fitting.
4. Produce simple engineering products or prototypes.

Programme Outcomes (POs)	Course Outcomes (COs)			
	CO1	CO2	CO3	CO4
PO1	3	2	2	-
PO2	1	2	2	-
PO3	-	3	3	3
PO4	1	2	2	-
PO5	-	3	3	-
PO6	-	3	3	-
PO7	-	-	-	-
PO8	-	-	-	-
PO9	-	-	-	-
PO10	-	3	3	-
PO11	-	-	-	-
PO12	2	2	2	-
PSO1	3	1	1	-
PSO2	-	3	3	3

COURSE PLAN – PART II

COURSE OVERVIEW

- Knowledge of contextual factors impacting the engineering discipline.
- Application of systematic engineering synthesis and design for manuacturing processes.

COURSE TEACHING AND LEARNING ACTIVITIES (Add more rows)

S.No.	Week/Contact Hours	Topic	Mode of Delivery (Online)
1	Week 1	Introduction	PPT, chalk board
2	Week 2	Welding	Practical
3	Week 3	Welding	Practical
4	Week 4	Foundry	Practical
5	Week 5	Foundry	Practical
6	Week 6	Carpentry	Practical
7	Week 7	Carpentry	Practical
8	Week 8	Fitting	Practical
9	Week 9	Fitting	Practical
		Quiz Test	
10	Week 10	Sheet Metal	Practical
11	Week 11	Sheet Metal	Practical
12	Week 12	Viva-voce	Practical

COURSE ASSESSMENT METHODS (shall range from 4 to 6)

S.No.	Mode of Assessment	% Weightage
1	Continuous Assignment*	70
2	End Examinations#	30

* = Experimnet, record, observation, Quiz, # = Viva

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.

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.

FOR APPROVAL

Patil

Course Faculty _____ **CC- Chairperson** _____ **HOD** _____