



DEPARTMENT OF PRODUCTION ENGINEERING

| COURSE PLAN – PART I  |   |  |   |
|---|---|--|---|
| Name of the programme and specialization  | B.Tech. – Computer Science and Engineering              |  |   |
| Course Title  | ENGINEERING PRACTICE                                    |  |   |
| Course Code   | PRIR11  | No. of Credits                           | 02                                      |
| Course Code of Pre-requisite subject(s)   | -   |  |   |
| Session   | July 2023   | Section (if, applicable)                 | B                                       |
| Name of Faculty   | Dr. Vimal K E K   | Department                               | Production Engineering                  |
| Official Email  | vimal@nitt.edu  | Telephone No.                            | 7708539715                              |
| 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 |
| <b>Syllabus (approved in BoS)</b>   |   |  |   |
| <ul style="list-style-type: none"><li>• Foundry: Mould preparation for Flange and Hand Wheel, Plastic moulding / Wax moulding.</li><li>• Welding: Fabrication of Butt Joint and Fabrication of Lap Joint.</li><li>• Carpentry: Wood sizing exercise in planning, marking, sawing, chiseling and grooving to make; Tee Through Halving Joint and Dovetail Scarf Joint.</li><li>• 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.</li><li>• Sheet metal: Fabrication of Dust Pan and Fabrication of Corner Tray.</li></ul> |   |  |   |
| <b>COURSE OBJECTIVES</b>  |   |  |   |
| <ul style="list-style-type: none"><li>• To use hand tools and machinery in Carpentry, welding shop, Foundry, Fitting shop and Sheet Metal work.</li><li>• To manufacture engineering products or prototypes</li></ul>   |   |  |   |
| <b>MAPPING OF COs with POs</b>  |   |  |   |
| <b>Course Outcomes</b>  | <b>Programme Outcomes (PO)<br/>(Enter Numbers only)</b> |  |   |
| 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, welding processes, sheet metal.   | 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 PLAN – PART II**

**COURSE OVERVIEW**

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

**COURSE TEACHING AND LEARNING ACTIVITIES**

( Add more rows)

| S.No. | Week/Contact Hours | Topic  | Mode of Delivery |
|-------|--------------------|--|------------------|
| 1     | Week 1             | Introduction to EP/ Demonstration on Experiment            |                  |
| 2     | Week 2             | Fitting, Welding, Carpentry, Foundry Sheet Metal Operation | Practical        |
| 3     | Week 3             | Fitting, Welding, Carpentry, Foundry Sheet Metal Operation | Practical        |
| 4     | Week 4             | Fitting, Welding, Carpentry, Foundry Sheet Metal Operation | Practical        |
| 5     | Week 5             | Fitting, Welding, Carpentry, Foundry Sheet Metal Operation | Practical        |
| 6     | Week 6             | Fitting, Welding, Carpentry, Foundry Sheet Metal Operation | Practical        |
| 7     | Week 7             | Fitting, Welding, Carpentry, Foundry Sheet Metal Operation | Practical        |
| 8     | Week 8             | Fitting, Welding, Carpentry, Foundry Sheet Metal Operation | Practical        |
| 9     | Week 9             | Fitting, Welding, Carpentry, Foundry Sheet Metal Operation | Practical        |
| 10    | Week 10            | Fitting, Welding, Carpentry, Foundry Sheet Metal Operation | Practical        |
| 11    | Week 11            | Fitting, Welding, Carpentry, Foundry Sheet Metal Operation | Practical        |
| 12    | Week 12            | Fitting, Welding, Carpentry, Foundry Sheet Metal Operation | Practical        |
| 13    | Week 13            | Viva-voce  |                  |

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

| S.No. | Mode of Assessment    | Week/Date       | Duration | % Weightage |
|-------|-----------------------|-----------------|----------|-------------|
| 1     | Regular Practical Lab | Every Lab Class |          | 70          |
| 2     | End Examination*      | Week 13/14      | 3 hrs    | 30          |

\*mandatory; refer to guidelines on page 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 personally 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**

**FOR APPROVAL**

Course Faculty [Signature]

CC- Chairperson [Signature]

HOD [Signature]

Rajeswari Sridhar