## INDUSTRIAL TRAINING

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|---|---|---|---|
| Course Title | **: Industrial Training** | Course Code | **:18EI-60IP** |
| Semester | **: VI** | Course | **: P** |
| Teaching Scheme / week | **: 48 Hrs** | Credits | **: 25** |
| Methodology | **: Training** | Total Contact Period | **: 6 months** |
| CIE | **: 300** | SEE | **: 100** |
| Industrial Evaluation | **: 600** | | |

**Rationale:** Industrial training is introduced in the VI semester for the students as a part of the program to make the passed out students shall be industry ready thus saving the time for training and apprenticeship needs in the industry and also help in capacity building of the Telangana state and the country.

**Course Objective:**

To enable the students to

1. Acquaint with Industry environment and culture.
2. Acquires latest technology available in the Industry
3. Develop professional skills
4. Enhance the usage skills of modern tools
5. Develop Communication and leadership skills.
6. Encourage entrepreneurship

**Course Outcomes:**

| CO | Outcome | CO/PO Mapping |
|---|---|---|
| **CO1** | Appreciate the organizational setup and hierarchy | 2,8 |
| **CO2** | Practice the use of Resource optimization techniques | 1,2,3,4,10 |
| **CO3** | Develop core engineering skills | 2,4,5 |
| **CO4** | Develop an understanding of solutions for Environmental issues in the industry | 6 |
| **CO5** | Get acquainted to industry culture and professionalism | 5,8,10 |
| **CO6** | Trained in entrepreneur skills | 5,7 |
| **CO7** | Acquire the knowledge in latest Technology | 4,10 |
| **CO8** | Team leadership | 8 |

**Evaluation:**

1. The student should submit a report describing the profile of the company, Nature of the job assigned to him /her and other details in a standard format duly attested and approved by the head of the industry after two weeks and before Four weeks from the date of joining through e mail. Hard copy of the report may be submitted in person or by post.
2. A candidate shall be assessed twice in the spell of industrial training i.e. at the end of Second month and fourth month in the Industry and Final Exam will be conducted at Institution.
3. The assessment shall be carried out by a committee comprising of a representative of the Industry where the candidate is undergoing training and a faculty member from the respective program from the Polytechnic. One faculty member is allotted for Ten

students and that faculty has to visit the industry minimum Three times i.e. first visit at the time of allotment, second visit at the time of first assessment and third visit for second assessment

For Institution level evaluation of industrial training, a committee consisting following faculty members (1) Head of Dept. concerned. (2) Faculty member who assessed the student in the industry (3) External examiner from the Industry/Institution.

- **Evaluation and assessment of Industrial Training**, shall be done and marks be awarded in the following manner, provided the candidates concerned have put up minimum 90% attendance of Industrial Training.

Industrial assessment at Industry : 600 marks (in two spells of 300 marks each)

Institutional Evaluation : 300 marks

Semester End Examination (Seminar/viva-voce at Institution) : 100 marks

TOTAL 1000 marks

**Assessment parameters at Industry**

| Sl No | Learning Parameter | Assessment I (First Quarter) | Assessment II (Second Quarter) |
|---|---|---|---|
| 1 | Attendance and punctuality | 20 | 20 |
| 2 | Familiarity of tools and material | 30 | 30 |
| 3 | Engineering skills | 50 | 50 |
| 4 | Application of knowledge & Problem solving skills | 50 | 50 |
| 5 | Comprehension and observation | 10 | 10 |
| 6 | Professionalism/Professional ethics | 20 | 20 |
| 7 | Safety and environmental consciousness | 10 | 10 |
| 8 | Communication skills | 20 | 20 |
| 9 | Supervisory skills | 50 | 50 |
| 10 | General conduct during the period | 40 | 40 |
| Total marks for Industry Evaluation | | 300 | 300 |
| | | 600 marks | |

**Assessment parameters at Institution (End Examination)**

| **Institution Level Evaluation Scheme** | | | |
|---|---|---|---|
| **Sl No** | **Criteria** | **Marks** | **Time** |
| 1 | 1st Report Submission | 50 | within 4 Weeks |
| 2 | Seminar-I | 50 | 9th to 10th week |
| 3 | 2nd Report Submission | 50 | Within 12 weeks |
| 4 | Log book | 100 | -- |
| 5 | Seminar-II | 50 | Before Viva-Voce |
| | **Institute Evaluation Total** | **300** | |
| **Semester End Examination** | | | |
| 1 | Viva-Voce | 50 | After 24 weeks |
| 2 | Presentation/Demonstration of skills | 50 | |
| | **Total** | 100 | |

The assessment at the institute level will be done by a minimum of three members i.e. Internal Faculty, Industrial Experts/External Examiner and H.O.D. and the shall be averaged

**Learning Outcomes**

**1.0 Observe Safety Precautions and rules of the industry**

1.1. Know the importance of safety in industries
1.2. Understand the safety about personnel protection, equipment protection
1.3. Know the usage of various safety devices
1.4. Precautionary measures to be taken.

**2.0 Appreciate organizational set up from top executive to workmen level**

2.1. Acquaint with the function of each department/section
2.2. Comprehend the inter relationship among various department/sections.

**3.0. Observe the end product and variousComponents/ materials used in the production and**

**Identify their source.**

3.1. Identify the various stages involved in the assembly and production of end product.
3.2. List the final products, their composition and its commercial importance, uses and Applications.

**4.0. Develop an Understanding the various stages involved in processing, sequential arrangement of different equipment.**

4.1. Represent the whole process and each sub processes with a flow diagram, detail Flow diagram

4.2. Observe and appreciate the resource optimization of space (the arrangement of various equipment and machinery in systematic manner in a less possible area of site), Electricity, Men, machinery, money and Time.

**5.0 Explain various analytical methods used in the quality control department**

5.1. Practice the Testing methods for quality assurance and bench mark standards

5.2. Practice use of various tools, instruments used for quality checking.

**6.0. Observe trouble shooting /servicing /maintenance techniques used during the production**

6.1. Observe preventive precautions and maintenance of each equipment in the unit

6.2. Follow Staring andshutting down procedures for the equipment in the unit.

**7.0 Identify the various pollutants emitted from the plant/Industry.**

7.1 State effects of pollutants.

7.2 Explain handling methods of E waste and pollutants disposal

**CO-PO Mapping Matrix**

| | Basic knowledge | Discipline Knowledge | Experiments and practice | Engineering Tools | Engineer and society | Environment & sustainability | Ethics | Individual and Team work | Communication | Lifelong learning | Linked PO |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CO | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PO 9 | PO 10 | |
| CO1 | 3 | 1 | 3 | 3 | 3 | 1 | 1 | 2 | 1 | 3 | 2,8 |
| CO2 | 3 | 3 | 3 | 3 | 3 | - | - | 1 | 2 | 3 | 1,2,3,4,10 |
| CO3 | 3 | 3 | 3 | 3 | 3 | - | - | 2 | - | 3 | 2,4,5 |
| CO4 | - | - | - | - | - | 3 | 2 | - | - | - | 6 |
| CO5 | - | - | - | 2 | 3 | - | 2 | 3 | 3 | - | 5,8,10 |
| CO6 | 2 | 2 | 3 | 3 | 3 | 1 | 2 | 3 | 3 | 3 | 5,7 |
| CO7 | 3 | 3 | 3 | 3 | 3 | 3 | - | - | 2 | 3 | 4,10 |
| CO8 | - | - | 2 | - | 3 | - | 2 | 3 | 3 | - | 8 |