

**C21\_ Curriculum**

**DIPLOMA IN AUTOMOBILE ENGINEERING**



**OFFERED BY**

**STATE BOARD OF TECHNICAL EDUCATION & TRAINING,**

**TELANGANA: HYDERABAD**

### AU-601-INDUSTRIAL TRAINING

Course Title:	Industrial Training	Course Code	AU-601
Semester:	VI	Course Group	Practical
Teaching Scheme in Periods(L:T:P)	---	Credits	25
Methodology	Practical	Total Training Period	6 Months

**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. (01) faculty member is allotted for (10) students and that faculty has to visit the industry minimum (03) 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.

- **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.

Mid-I Industrial assessment at Industry	: 300 marks
Mid-II Industrial assessment at Industry	: 300 marks
Institutional Internal Evaluation	: 300 marks
Semester End Examination	: 100 marks
(Seminar/viva-voce at Institution)	

TOTAL	<hr/> 1000 marks <hr/>
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**Mid – I & II Industrial 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	

**Institutional internal Assessment parameters**

Institution Level Evaluation Scheme			
Sl No	Criteria	Marks	Time
1	1 <sup>st</sup> Report Submission	50	After 8 Weeks
2	Seminar-I	50	9 <sup>th</sup> to 10 <sup>th</sup> week
3	2 <sup>nd</sup> Report Submission	50	After 18 weeks
4	Log book	100	Before Viva-Voce
5	Seminar-II	50	Before Viva-Voce
	<b>Institute Evaluation Total</b>	<b>300</b>	
Semester End Examination			
1	Viva-Voce	50	After 24 weeks
2	Presentation/Demonstration of skills	50	
	<b>Total</b>	<b>100</b>	

- 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 same 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 various Components/ 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 Starting and shutting 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