GUJARAT TECHNOLOGICAL UNIVERSITY
DIPLOMA IN MECHANICAL ENGINEERING
SEMESTER- VI

Subject Name: **Industrial Engineering Practice**
Subject Code: **2361904**

NOTE: - Following are the minimum experiences required, but the College can do more experiences if possible.

LABORATORY EXPERIENCES :			
Experience Type	**Experience Number**	**Description of Laboratory Experience**	**Hrs.**
Preparatory	1	3. Appreciate main objective of learning this subject: Develop action based thinking which leads to reduce cost & waste and enhance quality & productivity of existing / new methods/ processes. 4. Recall and strengthen know-how for orthographic projections and various machining processes.	2
Performance	2	Prepare operation process chart (OPC) for given assembly(Take physical assembly of 4 to 5 components. Students will prepare drawings as home assignment).	2
	3	Prepare flow process chart and flow diagram for given assembly for OPC.	2
	4	Prepare man and machine chart for given situation.	2
	5	Calculate co-efficient of co-relation for time study person using performance rating technique.	2
	6	Calculate standard time for a given job using decimal minute stop watch techniques.	2
	7	Select the data source and prepare a frequency distribution curve.	2
	8	Construct X bar -R chart for given process.	2
	9	Construct P-chart for given process.	2
	10	Construct C-chart for given product.	2
	11	Decide about acceptance or rejection of a given lot of particular product using single sampling or double sampling plan.	2
Download and Seminar Presentation, (Copy downloaded content and seminar of	12	a) Prepare and present seminar individually in your batch. (Seminar topic has to be given by teacher). b) Download-internet/collect from reference books individually visual aids, movies, content and other related content for the given case/situation. (Case/situation has to be given by teacher-preferably from emerging/ recent trends).Present and discuss the same in your batch.	4

whole batch In one /one set of CD/DVD)			
Industrial Visit	13	Visit at least two related industries.	-
Live Learning and Shop Talk.	14	Each student will discuss with group/batch and write : a) His/Her own experience in performing subject practicals. b) He/She has faced technical problems during performance of experiences and solutions found. c) Extent to which he/she has achieved the main objective and skill level of subject learning mentioned at experience number 1.	2
		Total	**28**

Notes:

A. FOR STUDENTS.

a. It is advised that student download this copy of syllabus and plan to achieve the objectives of learning this subject.
b. Attach copy of syllabus as part of term work.

B. FOR STUDENTS AND SUBJECT TEACHER/S.

a. Term work report content of each experience should also include following.
    i. Experience description / data and objectives.
    ii. Skill/s which is / are expected to be developed in student after completion of experience.
    iii. Steps / procedure to execute experience.
b. Term work report of student of regular mode should exclude Distance Learning manual, photocopies, printed content (except visual aids), etc. Focus should be on developing the term work as original efforts of students.
c. Term work content of industrial visit report should also include following.
    i. Brief details of industry visited.
    ii. Type, location, products, rough layout, human resource, etc of industry.
    iii. Details, description and broad specifications of machineries/ processes observed.
    iv. Safety norms and precautions observed.
    v. Student's own observation on Industrial environment, productivity concepts, quality consciousness and quality standards, cost effectiveness ,culture and attitude.
    vi. Any other details / observations asked by accompanying faculty.
d. Term work should also include experience logbook duly certified by subject teachers.
e. Term work is to be defended (along with term work) with practical examination by external and internal examiners .Practical examination will include followings:
    i. Viva

ii. Explanation of procedure of any one performance type experience.
iii. Performance of any one experience from experience number 2-11 except experience covered in ii above.

Reference Books:

1.	Industrial Engineering and Industrial Management	Pulela
2.	Learning Package in Industrial Engineering	TTTI, Bhopal
3.	Handbook of Industrial Engineering	Gavriel & Salvendy
4.	Work Study	I.L.O.
5.	Industrial Engineering	R.C.Patel
6.	Industrial Engineering	Dalale-Mansurali

Additional Reference Books:

1.	Inspection and Quality Control	N.P.C.
2.	An Introduction to Productivity	N.P.C.
3.	Method Study	N.P.C.
4.	Work Measurement	N.P.C.
5.	Plant Layout and Material Handling	N.P.C.
6.	A Laboratory Manual in Industrial Engineering	TTTI, Bhopal
	Work Study	Curry
7.	Work Study and related Management service	Dennis A.White
		move
8.	Principles of Work study	J .Walker Morris
9.	Motion and Time Study	Mandel
10.	Motion and Time Study	R.M.Barnes