INSTITUTE	**DIPLOMA STUDIES**
PROGRAM	**DIPLOMA ENGINEERING (MECHANICAL ENGINEERING)**
SEMESTER	**5**
COURSE TITLE	**PROJECT - I**
COURSE CODE	**09ME1505**
COURSE CREDITS	**3**

Objective:

1 There is number of engineering problems around the world. This course allow students to identify the problems and give appropriate solution by exercising his knowledge of this program. This course is also allow students to develop their skills related to modern situation or problem. Student can bring number of solution using their knowledge and skills for single problem. This course includes a planning of the projectwhich is to be completed within allocated time limit and the preparation of a report. This course also aims to develop the managerial skills such as leadership, coordination, team work, planning the resources, etc. Thus by studying this course, abilities like innovativeness, creativity, imitativeness, performance qualities, etc. Are developed in students.There is number of engineering problems around the world. This course allow students to identify the problems and give appropriate solution by exercising his knowledge of this program. This course is also allow students to develop their skills related to modern situation or problem. Student can bring number of solution using their knowledge and skills for single problem. This course includes a planning of the projectwhich is to be completed within allocated time limit and the preparation of a report. This course also aims to develop the managerial skills such as leadership, coordination, team work, planning the resources, etc. Thus by studying this course, abilities like innovativeness, creativity, imitativeness, performance qualities, etc. Are developed in students.

Course Outcomes: After completion of this course, student will be able to:

1 To perform various tasks like market survey, industrial visits, creative and innovative techniques, etc. to identify project.

2 To plan material and processes optimally and economically.

3 To develop sense of environmental responsibility

Pre-requisite of course:NA

Teaching and Examination Scheme

Theory Hours	Tutorial Hours	Practical Hours	ESE	IA	CSE	Viva	Term Work
0	0	6	0	0	0	50	50

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Contents : Unit	Topics	Contact Hours
1	**INTRODUCTION** Introduction, need, importance, objectives, project ideas, expected outcomes	0
2	**PROJECT PROBLEM IDENTIFICATION** Need of industrial environment, basic techniques, innovative thinking or ideas, quality of project, creativity and innovation, cost reduction techniques, safety, pollution control, marketing survey, value analysis, SWOT analysis, Plan time and material optimally and economically, Identification of problem/ project (Live problem solution at industry place, Manufacturing type at institute Place, To develop the generic as well as technology related skills, etc.), Cost estimation of parts and complete project.	0
3	**DRAFT PROJECT REPORT** Prepare draft project report, Present the draft project report	0
Total Hours		**0**

Suggested List of Experiments:

Contents : Unit	Topics	Contact Hours
1	**PRIMARY ACTIVITIES** PRIMARY ACTIVITIES	20
2	**BASIC TECHNIQUES** BASIC TECHNIQUES	22
3	**DRAFT PROJECT REPORT** DRAFT PROJECT REPORT	22
4	**DRAFT GUIDE** DRAFT GUIDE	20
Total Hours		**84**

Textbook :

1 A Handbook on Mechanical Engineering , Made Easy Team, Made Easy Publication, 2020

References:

1 A Hands-On Guide to Designing and Making Physical Things, A Hands-On Guide to Designing and Making Physical Things, Brian Bunnell and Samer Najia, Dale Dougherty, 2020

Suggested Theory Distribution:

The suggested theory distribution as per Bloom's taxonomy is as follows. This distribution serves as guidelines for teachers and students to achieve effective teaching-learning process

Distribution of Theory for course delivery and evaluation

Remember / Knowledge	Understand	Apply	Analyze	Evaluate	Higher order Thinking
30.00	40.00	30.00			

Instructional Method:

1 The course delivery method will depend upon the requirement of content and need of students.

2 The internal evaluation will be done on the basis of continuous evaluation of students.

3 Students will use supplementary resources such as online videos, NPTEL videos, e-courses, Virtual Laboratory.

Supplementary Resources:

1 https://www.forecast.app/blog/project-planning

2 https://nevonprojects.com/project-ideas/electronics-ideas/

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