

# GANPAT UNIVERSITY

## FACULTY OF ENGINEERING & TECHNOLOGY

Programme	Diploma Engineering	Branch	Mechanical Engineering			
Semester	V	Version	1.0.0.0			
Effective from Academic Year	2020-21	Effective for the batch Admitted in	July 2018			
Subject code	1ME2506	Subject Name	PROJECT-I			
Teaching scheme			Examination scheme (Marks)			
(Per week)	Lecture(DT)	Practical(Lab.)	Total	CE	SEE	Total
	L	TU	P	TW		
Credit	0	0	1	0	1	Theory 0 0 0
Hours	0	0	2	0	2	Practical 30 20 50

**Pre-requisites:**

**Course Learning Outcomes:**

The course content should be taught and implemented with an aim to develop different skills leading to the achievement of the following competencies and course learning outcomes:

- CO1. Selection of project compatible to existing needs and market. Encourage innovativeness which leads to enhance creativity. To develop a think tank which fulfill the ecofriendly environment
- CO2. Selection of economical material to build parts by various methods of manufacturing
- CO 3. Design the products using CAD software by deriving details and assembly drawings.
- CO 4. To formulate a project report using standard format and specification.
- CO 5. To develop entrepreneur skill at this level

### Course Content

Name of UNIT	Unit Content	Unit Learning Outcomes	Marks	Hrs
<b>UNIT – 1 (Introduction)</b>	1.1 Introduction  1.2 Significance, purpose, requirement of the project.  1.3 Selection from the various alternatives considering cost effectiveness, economy and	1a. To enhance proper selection of the project and importance of its purpose with valuable benefits.	10	5

	feasibility aspects.			
<b>UNIT – 2 (Problem recognition)</b>	2.1 Basic need of the project by understanding real situation, difficulties/problems face by the industry. 2.2 Basic engineering techniques to increase efficiency, quality, safety, value analysis, present market requirements and various strategies to solve above mentioned problems	2a. to pinpoint the problem areas 2b. Implement techniques to locate problem and to solve it by minimum effort and maximum accuracy	15	8
<b>UNIT – 3 (Design and project cost Estimation)</b>	3.1 To make details and assembly production drawings applying any parametric software for manufacturing type projects. 3.2 To generate bill of material. 3.3 Cost estimation of parts and complete project.	3a.To understand real problem and their solution at industry level.	15	9
<b>UNIT – 4 (Project report)</b>	4.1 Present the draft project report. 4.2 Prepare draft project report.	4a. Prepare draft project report.	20	8
		Total	60	30

List of Instruments / Equipment / Trainer Board			
1	CAD workstation with printer.		
2	Library with e books and magazines		
Link of Text Books			
No	Title of Books	Authors	Publication
1			
List of References			
No	Title of References		
1	Journals		
2	Industrial visit according to the project		
3	Design data book, hand books		
Link of Learning Web Resource			

1	

PO & CO Mapping							
Sr. No.	Name of PO	Description	Co1	Co2	Co3	Co4	Co5
1	PO 1	Acquire fundamental knowledge of mathematics, science, and mechanical engineering.	Slight	None	Moderate	None	Substantial
2	PO 2	Design and conduct experiments, as well as analyze and interpret data.	Slight	Moderate	Substantial	Slight	Slight
3	PO 3	Use the techniques, skills, and modern engineering tools necessary for engineering practice	Slight	Moderate	Moderate	None	Substantial
4	PO 4	Function in multi-disciplinary teams and identify, formulate, and solve engineering problems.	Substantial	Moderate	Substantial	Slight	Moderate
5	PO 5	Clear understanding of his duties and responsibilities as a Mechanical engineer.	Moderate	Moderate	Slight	None	Substantial
6	PO 6	Develop effective communication skill and provide leadership for professional development.	Moderate	None	Slight	Moderate	Substantial
7	PO 7	Engage in life-long learning in mechanical engineering field and comprehend issues related to environment and sustainable development.	Substantial	None	Moderate	None	Moderate
8	PO 8	Graduate will demonstrate knowledge of professional and ethical responsibilities.	Substantial	None	Moderate	Moderate	Substantial
9	PO 9	Incorporate economics and business practice including project and risk management.	Moderate	None	Moderate	Moderate	Substantial
10	PO 10	Graduated are able to share their knowledge to the industries as well as society.	Substantial	Moderate	Moderate	Moderate	Moderate
11	PO 11	Graduated will be able to apply their skill and knowledge for the sustainable development of nation.	Substantial	Moderate	Substantial	Moderate	Substantial
12	PO 12	Graduated are able to learn to work with the team and also with the inter discipliners.	Substantial	Slight	Substantial	Slight	Substantial