

Faculty of Engineering & Technology

Mechanical Engineering Drawing

Information :

Course Code : MAN 241

Level : Undergraduate

Course Hours : 2.00- Hours

Department : Department of Mechanical Engineering

Area Of Study :

The Main Goals of this course are:

- Understand the fundamental of engineering drawing using computer software.
- Identify various technical drawings with necessary views and dimensions using computer software.
- Recognize the rules of drawing engineering metal sections and details.
- Recognize the rules of different mechanical drawing and assembling parts

Description :

Computer aided drafting, detailed working drawing, Dimensioning and geometrical tolerance symbols, Permanent joints details (riveting, welding, soldering & Fasteners, Threading, Drawing of standardized parts; bearings, gears, springs, Different assembly drawings (simple gear box, fixtures, vices, valves & etc).

Course outcomes :

a. Knowledge and Understanding: :

- | | |
|-----|--|
| 1 - | Estimate suitable standardized parts. |
| 2 - | Identify suitable welding symbols. |
| 3 - | Identify the principles of AUTOCAD. |
| 4 - | Define the fundamental of assembly drawings. |

b. Intellectual Skills: :

- | | |
|-----|---|
| 1 - | Create own design ideas expressed in mechanical assembly drawings |
| 2 - | Develop skills in visualizing the various mechanical assembly drawings. |

c. Professional and Practical Skills: :

- | | |
|-----|--|
| 1 - | Construct mechanical parts and assembly drawing. |
| 2 - | Select standardized parts. |
| 3 - | Gain skills of drawing using AUTOCAD. |

d. General and Transferable Skills: :

- | | |
|-----|---|
| 1 - | Effectively manage tasks, times and resources. |
| 2 - | Develop skills related to creative thinking, imagination, oral and written communications and teamwork. |

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Introduction to the fundamental of assembly drawing	4	1	3
Types of bolts and its represented drawing	8	2	6
Transmission shaft assembly	8	2	6
Bearing assembly (sliding bearing)	8	2	6
Valves assembly (non-return valves)	4	1	3
Valves assembly (Safety valves)	8	2	6
Power screw assembly (Screw Jack)	4	1	3
Coupling assembly (Rigid flange) and flexible	8	2	6
Machine vise assembly	8	2	6

Teaching And Learning Methodologies :

Interactive Lecture
Discussion
Problem-based Learning
Experiential Learning

Course Assessment :

Methods of assessment	Relative weight %	Week No	Assess What
Assignment	20.00		Written Exam
Final Exam	40.00		
Mid-Exams I	15.00		Written Exam
Mid-Exams II	15.00		Reports follow up during tut. /lab work, & written exam.
Participation	10.00		

Recommended books :

- Thomas, E.F., % Fundamentals of Engineering Drawing + McGraw-Hill 2004
- Thomas, E.F. and Vierck, C.J., % Engineering Drawing and Graphic Technology + McGrawHill 2001
- Hart, K.R., % Engineering Drawing + The English Universities Press Ltd 2003
- Dobrovolsky, Machine elements, MIR Publisher Co. 2007.

Web Sites :

www.prenhall.com/giesecke