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 é .), Fasteners, Threading, Drawing of standardized parts; bearings, gears, springs, Different assembly drawings (simple gear box, fixtures, vices, valvesé 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., ñFundamentals of Engineering Drawingò, McGraw-Hill 2004
- Thomas, E.F. and Vierck, C.J., ñEngineering Drawing and Graphic Technologyò, McGrawHill 2001
- Hart, K.R., ñEngineering Drawingò, The English Universities Press Ltd 2003
- Dobrovolsky, Machine elements, MIR Publisher Co. 2007.

Web Sites :

www.prenhall.com/giesecke