Faculty of Engineering & Technology

Mechanical Engineering Drawing

Information :

Course Code :	MAN 241	**Level :**	Undergraduate	**Course Hours :**	2.00- Hours

Department : Department of Petroleum Engineering

Instructor Information :

Title	Name	Office hours
Lecturer	Mostafa Mohamed Reda Salah Eldin Rashed	9
Lecturer	Mostafa Mohamed Reda Salah Eldin Rashed	9
Teaching Assistant	Raouf Mahmoud Mourad Naguib	
Teaching Assistant	Mirna Sharif Mohamed Salama	
Teaching Assistant	Amira Khaled Hasan Mohamed Elkodama	

Area Of Study :

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 -	Define the fundamental of assembly drawings.
2 -	Identify the principles of AUTOCAD.
3 -	Identify suitable welding symbols.
4 -	Estimate suitable standardized parts.
b.Intellectual Skills: :	
1 -	Develop skills in visualizing the various mechanical assembly drawings.
2 -	Create own design ideas expressed in mechanical assembly drawings.
c.Professional and Practical Skills: :	
1 -	Gain skills of drawing using AUTOCAD.
2 -	Select standardized parts.

3 -	Construct mechanical parts and assembly drawing.
d.General and Transferable Skills: :	
1 -	Develop skills related to creative thinking, imagination, oral and written communications and teamwork.
2 -	Effectively manage tasks, times and resources.

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		
Final Exam	40.00		
Mid- Exam I	15.00		
Mid- Exam II	15.00		
Participation	10.00		

Recommended books :

Thomas, E.F., ñFundamentals of E ngineering Drawingò, McGraw-Hill
Thomas, E.F. and Vierck, C.J., ñEngineering Drawing and Graphic Technologyò, McGraw-Hill
Hart, K.R., ñEngineering Drawingò, The English Universities Press Ltd
Dobrovolsky, Machine elements, MIR Publisher Co. 2007