

**Faculty of Engineering & Technology**

**Mechanical Engineering Drawing**

**Information :**

**Course Code :** MAN 241

**Level :** Undergraduate

**Course Hours :** 2.00- Hours

**Department :** Department of Mechanical Engineering

**Instructor Information :**

Title	Name	Office hours
Associate Professor	Elsayed Mohamed Atta Elsayed	
Lecturer	Mostafa Mohamed Reda Salah Eldin Rashed	3
Lecturer	Mostafa Mohamed Reda Salah Eldin Rashed	3
Assistant Lecturer	Ahmed Yahia Abdelhamid Sayed Hassan	1
Teaching Assistant	Mariam Esmat Danial Doss	1
Teaching Assistant	Osama Mohamed Mahmoud Mohamed	3
Teaching Assistant	Muhanned Ashraf Kamer El dawla Ibrahim Salem	1
Teaching Assistant	Osama Mohamed Mahmoud Mohamed	3

**Area Of Study :**

The main aim of this third course in engineering graphics is to introduce different mechanical standardized elements and develop in the engineering student the ability to visualize parts assembly then to draw simple machines making use of AUTOCAD. On successful completion of this course the student will be able to:

- 1- To get the skill of using AUTOCAD in engineering drawing.
- 2- To know how to deliver a Working drawing.
- 3- To get introduced to the welding symbols.
- 4- To know how to select and use standardized parts
- 5- To know how to apply graphical communication skills to visualize and construct assembly drawings.
- 6- To be introduced to the concept of mechanical design in general.

**Description :**

Computer-aided drafting, Mechanical details and assembly drawings, Working drawings, Geometrical tolerances, Welding symbols and details, Introduction to 3D modeling.

**Course outcomes :**

**a.Knowledge and Understanding: :**

1 -	Know the principles of AUTOCAD
2 -	Construct working drawing of mechanical parts.
3 -	Selection of suitable welding symbols.
4 -	Selection of suitable standardized parts.
5 -	Understand the concept of parts assembly

6 -	Practice the basics of assembly drawing
<b>b.Intellectual Skills: :</b>	
1 -	Deal with engineering mechanical drawing
2 -	Think imaginary and creatively.
<b>c.Professional and Practical Skills: :</b>	
1 -	To gain skills of drawing using AUTOCAD
2 -	To gain skills in selection and use of standardized parts
3 -	To gain skills in constructing of assembly drawing
<b>d.General and Transferable Skills: :</b>	
1 -	Gain the principle of quality of learning.
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 AUTOCAD	8	2	6
Working drawing	4	1	3
Fasteners	12	3	9
Assembly Drawing	28	7	21

**Teaching And Learning Methodologies :**

Lectures
Tutorials
assignments
Tests and Quizzes
Class and Office hours discussions

**Course Assessment :**

Methods of assessment	Relative weight %	Week No	Assess What
2 Mid Term Exams (2x15 marks)	30.00		
Assignments (Design Sketches – Project-based work)	20.00		
Attendance	5.00		
Final-term examination	40.00		
Participation	5.00		

**Recommended books :**

- Earle, J.H., " ENGINEERING DESIGN GRAPHICS"  
Pearson Prentice–Hall, 11th edition, 2004.
- Bertoline, G.R., and Wiebe, E.N. " FUNDAMENTALS OF GRAPHIGS COMMUNICATION" Mc Graw- Hill, 5th ed.,  
2007

**Web Sites :**

[www.prenhall.com/giesecke](http://www.prenhall.com/giesecke)