

Faculty of Engineering & Technology

Graphics 1

Information :

Course Code : GRA 141

Level : Undergraduate

Course Hours : 2.00- Hours

Department : Faculty of Engineering & Technology

Instructor Information :

Title	Name	Office hours
Lecturer	Ahmed Amr Kadry Ahmed Shaheen	

Area Of Study :

- 1- Prepare the students to apply drawing standards.
- 2- Develop the students knowledge about the fundamentals of engineering drawing and shape description.
- 3- Train students to apply drafting techniques to present solid bodies and their orthographic projection.

Description :

Techniques and skills of engineering drawing, Normal and auxiliary projections. Solid geometry. Intersections between planes and solids.

Course outcomes :

a.Knowledge and Understanding: :

1 -	Define the fundamentals of engineering drawing.
2 -	Identify sketching technique to describe solid objects.
3 -	Explain the various drawing techniques of isometry and projections.
4 -	Estimate the third view from 2 given views.

b.Intellectual Skills: :

1 -	Apply engineering graphics techniques.
2 -	Apply imagination and creativity

c.Professional and Practical Skills: :

1 -	Gain skills in defining types of drawing and orthographic projection.
2 -	Create engineering parts using mechanical drawing.

d.General and Transferable Skills: :

1 -	Work in stressful environment and within constraints through assignments and course project.
2 -	Effectively manage tasks, times and resources.

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Lettering and kinds of lines	8	2	6

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Geometrical constructions	8	2	6
Pictorial drawing	4	1	3
Isometric drawing	8	2	6
Projection	20	8	12
Missing View	12	3	9

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		

Course Notes :

Course and instructor notes

Recommended books :

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