

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	Mohamed Hussien Bayomy Ahmed	6
Lecturer	Maha Fathy Abdallah Elsangary	2
Lecturer	Mostafa Mohamed Reda Salah Eldin Rashed	1
Lecturer	Mohamed Hussien Bayomy Ahmed	6
Assistant Lecturer	Ahmed Amr Kadry Ahmed Shaheen	
Assistant Lecturer	Mostafa Sayed Abd El Wahed Hassan Madina	3
Assistant Lecturer	Noura Khedr Abdul raheem Ahmed	
Teaching Assistant	Ahmed Salah Rashad Ahmed Abdelhakk	
Teaching Assistant	Mahmoud Mohamed Khalaf Ahmed	2
Teaching Assistant	Eman Mohamed Hammad Ahmed	6
Teaching Assistant	Ahmed Mohamed Abdelnaby Ali Shafay	2
Teaching Assistant	Ahmed Abdelfattah Abdelaziz Abdelfattah	
Teaching Assistant	Mahmoud Mohamed Khalaf Ahmed	2
Teaching Assistant	Ahmed Salah Rashad Ahmed Abdelhakk	
Teaching Assistant	Ahmed Taher Abdelhamed Mohamed Yousef	

Area Of Study :

- 1- Build students awareness of mechanical engineering drawing terms, methods, and techniques
- 2- Train students to express 3D engineering forms into 2D media.

Description :

Techniques and skills of engineering drawing: Geometrical constructions, Drawing of pictorial views (Isometry, Oblique), Orthogonal and auxiliary projections, deduction of missing views.

Course outcomes :

a. Knowledge and Understanding: :

1 -	a.1. List the fundamentals and components of mechanical engineering drawing.
2 -	a.2. List sketching technique to describe machine objects.
3 -	a.3. List different types of 3D isometry drawings.

b. Intellectual Skills: :

1 -	b.1. Predict 3D forms from 2D projections
2 -	b.2. Think imaginarily and creatively.

c. Professional and Practical Skills: :

1 -	c.1. Draw orthographic projection of mechanical drawings.
2 -	c.2. Apply drafting techniques to differentiate between drawing elements (section and elevation).

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Lettering and kinds of lines	4	1	3
Geometrical constructions	16	4	12
Pictorial drawing	8	2	6
Orthographic projection of engineering bodies	16	4	12
Constructing missing third view	16	4	12

Teaching And Learning Methodologies :

Interactive Lecture
Class Work (Problem Solving)

Course Assessment :

Methods of assessment	Relative weight %	Week No	Assess What
11th week evaluation	25.00		
6th week evaluation	25.00		
Final-term examination	40.00		
Semester performance	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 GRAPHIGS COMMUNICATION" Mc Graw- Hill, 5th ed., 2007