

## Faculty of Engineering & Technology

### Graphics 2

#### Information :

**Course Code :** GRA 142

**Level :** Undergraduate

**Course Hours :** 2.00- Hours

**Department :** Faculty of Engineering & Technology

#### Instructor Information :

Title	Name	Office hours
Lecturer	Mostafa Mohamed Reda Salah Eldin Rashed	2
Assistant Lecturer	Noura Khedr Abdul raheem Ahmed	
Teaching Assistant	Ahmed Salah Rashad Ahmed Abdelhakk	

#### Area Of Study :

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

#### Description :

Development, Sectioning, drawing and joining of steel Frames, Fasteners, Assembly drawing of some mechanical parts, Computer applications, Introduction to civil and architectural drawing.

#### Course outcomes :

##### **a.Knowledge and Understanding: :**

- |     |  |
|-----|--|
| 1 - | a.1. List the fundamentals and components of structural and architectural engineering drawing. |
| 2 - | a.2. List sketching technique to describe structural and architectural buildings.              |
| 3 - | a.3. List different types of 3D isometric drawings.  |

##### **b.Intellectual Skills: :**

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

##### **c.Professional and Practical Skills: :**

- |     |   |
|-----|---|
| 1 - | c.1. Draw orthographic projection of structural and architectural engineering 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
Construction of both the third view and isometric.	4	1	3
Sectional views	16	4	12
Architectural Drawing	16	4	12

**Course Topic And Contents :**

Topic	No. of hours	Lecture	Tutorial / Practical
Application in civil engineering drawings	16	2	14
Steel structures	16	4	12

**Teaching And Learning Methodologies :**

Lectures

- Practical sections.

- Assignments and homework

- Working models.

**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		-term examination
Semester performance (Participation +Assignment +quizzes)	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

**Periodicals :**

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

**Web Sites :**

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