

## Faculty of Engineering & Technology

### Execution Designs 3

#### Information :

**Course Code :** ARC 571

**Level :** Undergraduate

**Course Hours :** 4.00- Hours

**Department :** Department of Architectural Engineering

#### Instructor Information :

Title	Name	Office hours
Lecturer	Nader Ibrahim Ismael Ibrahim	15
Assistant Lecturer	Nouran Ashraf Ali Abdeltawab	6
Teaching Assistant	Salma Mohamed Eltohamy Elgendy	

#### Area Of Study :

- Prepare the students to demonstrate an entire set of integrated execution documents for projects presenting a complete architectural project with emphasis on structural, construction and technical working details.
- Develop the students' knowledge within the areas of preparation of integrated execution documents for projects, Quantity surveying, Analysis of bids, Cost analysis, Shop and as built drawings.
- Train the students to produce advanced Quantity surveying documents for projects.

#### Description :

The main concern of this course will be the integration of complex multi-disciplinary issues. In addition, students will practice how to survey different quantities of construction/building items. The practice will be on a moderate scale complex projects. In addition these topics will be discussed; Analysis of bids, Cost analysis, Shop and as built drawings.

#### Course outcomes :

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

1 -	a1. Identify the measuring units of each item of Quantity surveying.
2 -	a2. Identify the process of making; analysis of bids, and cost analysis.
3 -	a3. Identify the importance of shop drawings & as built drawings.

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

1 -	b1. Formulate problem solutions related to integrated execution & Quantity surveying documents.
2 -	b2. Choose optimum solutions for preparation of Quantity surveying of a pre-designed project.
3 -	b3. Choose optimum software of Quantity surveying according to different cases.

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

1 -	c1. Apply manual & digital techniques to conduct Quantity surveying documents for a project.
2 -	c2. Apply new techniques used in Cost analysis.

**d.General and Transferable Skills: :**

1 -	d1. Work in team work research.
2 -	d2. Communicate effectively with others.

**Course Topic And Contents :**

Topic	No. of hours	Lecture	Tutorial / Practical
Introduction to Preparation of integrated execution documents for projects	6	2	4
Preparation of working drawings of a pre-designed project	6	2	4
integration of complex multi-disciplinary issues	6	2	4
Introduction to Quantity surveying	6	2	4
Survey different quantities of construction/building items . Manual Method	4	8	12
Midterm Exam , Revision	6	2	4
Survey different quantities of construction/building items . Using AutoCad Software & Excel Sheets	6	2	4
Introduction to Quantity surveying in Revit software Introduction to Quantity surveying in Revit software	6	2	4
Analysis of bids & Cost analysis	6	2	4
Shop drawings & As built drawings	6	2	4
Practical Quantity surveying	12	4	8
Final Quantity surveying project	12	4	8

**Teaching And Learning Methodologies :**

Lectures.  
 Assignments and lap work

**Course Assessment :**

Methods of assessment	Relative weight %	Week No	Assess What
Assignments and lap work	40.00		
Final examination.	40.00		
Mid-term examination(s).	10.00		
project.	10.00		

**Course Notes :**

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**Recommended books :**

Slitt; Fred. Working Drawing manual, 1998, McGraw Hill  
 Allen; Edward, Iano; Joseph. Fundamentals of Building Construction: Materials and Methods, John Wiley & Sons, 2011

**Periodicals :**

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**Web Sites :**

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