

## Faculty of Engineering & Technology

### Execution Designs 1

#### Information :

**Course Code :** ARC 471

**Level :** Undergraduate

**Course Hours :** 4.00- Hours

**Department :** Department of Architectural Engineering

#### Instructor Information :

Title	Name	Office hours
Professor	Gamal Mohamed Attia Elkholy	4
Lecturer	MOHAMED MAHMOUD SAYED MAHMOUD SALEH	1
Assistant Lecturer	AMANY MEDHAT HUSSIEN KHALIL MOHAMED	
Assistant Lecturer	AMANY MEDHAT HUSSIEN KHALIL MOHAMED	
Assistant Lecturer	Fatma Elzahraa Ibrahim Ahmed Abdelrahman	
Assistant Lecturer	SOFIA AYAD ESKANDER DAWOUD	
Teaching Assistant	Amir Bahgat Abd El Azem Ebrahim Eltantawy	
Teaching Assistant	Kamal Abdeleziz Ali Selim	

#### Area Of Study :

The main aims of this course are to :

- Prepare the student to demonstrate an entire set of working drawings presenting a complete set of documents for an architectural project with weight on structural, construction and technical working details.
- Develop the student's knowledge of materials and various finishing.
- Train the students to produce preliminary technical mechanical and electrical documents for a chosen architectural project.

#### Description :

The students will know about the basics of drafting working drawings. They will learn how to follow dimensioning and coding systems. In addition, they will learn how to use the different coding systems. They will also practice coordinating between architectural, structural, and electromechanical needs. Their practice will be on a small to moderate scale project.

#### Course outcomes :

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

1 -	List some of the structural systems that are suitable to moderate and wide spans.
2 -	List the main complementary systems _structural and electromechanical systems_ that are integrated within the architectural design.
3 -	Define the annotating and dimensioning principals for construction drawings.
4 -	Explain the CSI coding system for construction sheets and digital files.

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

1 -	Modify the schematic design of moderate projects to suit the execution process.
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2 -	Drive different solutions to coordinate between multidisciplinary systems.
3 -	Code construction drawings sheets according to the CSI coding system.
<b>c. Professional and Practical Skills: :</b>	
1 -	Prepare construction drawings.
2 -	Apply annotation and dimensioning standards.
3 -	Remark, graphically, complementary structural and electromechanical systems designs.
4 -	Coordinate between multidisciplinary designs.
<b>d. General and Transferable Skills: :</b>	
1 -	Manage time to meet deadlines.
2 -	Share ideas via communicating with others.
3 -	Search for relevant information.
4 -	Work within constraints of time.
5 -	Refer to data sources.
6 -	Listen to other's thoughts.

<b>Course Topic And Contents :</b>			
<b>Topic</b>	<b>No. of hours</b>	<b>Lecture</b>	<b>Tutorial / Practical</b>
Fundamentals of working drawings of a pre-designed project	6	2	4
Preliminary stage: site drawings	6	2	4
Preliminary stage: plans	6	2	4
Preliminary stage: sections	6	2	4
Research: finishing materials	6	2	4
Preliminary stage: elevations	6	2	4
Mid Term Exam , Revision	6	2	4
Research: Coordination between multidisciplinary systems.	6	2	4
Sanitary drawings	6	2	4
Electrical drawings : Lighting & Sockets	6	2	4
Electrical drawings : Light Current; Fire Alarm, CCTV, Access control, etc.	6	2	4
HVAC drawings	6	2	4
Final project (Full drawings of preliminary stage)	12	8	12
Introduction to Preparation of execution drawings for projects	6	2	4

<b>Teaching And Learning Methodologies :</b>
Interactive Lecture
One to One Discussion
Project based teaching
Research

**Course Assessment :**

Methods of assessment	Relative weight %	Week No	Assess What
Assignments/Lab work	20.00		
Final Examination	40.00		
Midterm 1	15.00		
Midterm 2	15.00		
participation	10.00		

**Course Notes :**

-Presentations  
-Lecture Notes

**Periodicals :**

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**Web Sites :**

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