

## Faculty of Engineering & Technology

### Architectural Design 7

#### Information :

**Course Code :** ARC 511

**Level :** Undergraduate

**Course Hours :** 4.00- Hours

**Department :** Department of Architectural Engineering

#### Instructor Information :

| Title              | Name                                  | Office hours |
|--------------------|---------------------------------------|--------------|
| Lecturer           | BOTHAINA SAMIH ISMAIL ABOELKHIER BADR | 3            |
| Lecturer           | BOTHAINA SAMIH ISMAIL ABOELKHIER BADR | 3            |
| Assistant Lecturer | Nouran Ashraf Ali Abdeltawab          |              |
| Assistant Lecturer | AYA USAMAH AHMED KAMAL ALI            |              |
| Assistant Lecturer | Nouran Ashraf Ali Abdeltawab          |              |
| Teaching Assistant | Omar Magdy Ahmed Ibrahim Elbahrawy    |              |
| Teaching Assistant | Heba Mohamed Abdullah Ahmed Ghuneim   |              |

#### Area Of Study :

Upon successful completion of the course, the student should be able to:

1. Designing complexes within urban settings, with an emphasis on adaptive re-use, historic preservation, and urban design practices.
2. Developing a framework will be to assess and design for contemporary issues in architecture within critical settings of high land value (historical, traditional or waterfront contexts).
3. Develop design process awareness (including data gathering and analysis)
4. Share ideas and work in a team or a group
5. Organize and articulate form and space that satisfy both functional and aesthetic requirements

#### Description :

Analytical study of design alternatives for public and residential projects, to reach architectural and urban forms & configurations together with the appropriate design alternatives to satisfy: Design, functional, structural, visual, and environmental goals.

#### Course outcomes :

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

|     |   |
|-----|---|
| 1 - | Demonstrate knowledge and understanding of scientific background (theories and history) of similar building types.  |
| 2 - | Define design problems and illustrate in drawings and sketches possible solutions .   |
| 3 - | Define the principles of building technologies, including the application of structures, construction methods, materials and environmental design in relation to human needs. |

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

|     |  |
|-----|--|
| 1 - | Analyze and solve design problems using models, drawings and diagrams. |
|-----|--|

|     |  |
|-----|--|
| 2 - | Conceptualize, investigate and develop the design of three dimensional objects and spaces. |
| 3 - | Create architectural designs that integrate social, aesthetic and technical requirements   |
| 4 - | Criticize and evaluate alternatives.   |
| 5 - | Decide and chose among different design alternatives.                                      |

**c. Professional and Practical Skills :**

|     |   |
|-----|---|
| 1 - | Identify data and requirements for designing a certain building type. |
| 2 - | Use appropriate graphic and modeling techniques for representation    |
| 3 - | Submit professional good looking complete drawings.                   |

**d. General and Transferable Skills :**

|     |  |
|-----|--|
| 1 - | Communicate effectively with other people using visual, graphic, written and verbal means. |
| 2 - | Work in a self-directed manner.  |
| 3 - | Work coherently and successfully as a part of a team in projects, assignments.             |
| 4 - | Manage time and meet deadlines.  |
| 5 - | Analyze problems and use innovative thinking in their solution.                            |
| 6 - | Use the Internet in searching for information about specific building types.               |

**Course Topic And Contents :**

| Topic   | No. of hours | Lecture | Tutorial / Practical |
|---|--------------|---------|----------------------|
| Project data collection, site visits and data review    | 20           | 5       | 15                   |
| Research presentations                                  | 8            | 2       | 6                    |
| Five Design Sketches                                    | 20           | —       | 20                   |
| Design Development and follow up                        | 32           | 8       | 24                   |
| Final drawings, finishing and representation of project | 40           | —       | 40                   |

**Teaching And Learning Methodologies :**

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|--|
| Lectures.  |
| Design studios.                                  |
| Research assignments.                            |
| Information collection from different sources    |
| Class discussions, sessions and design critiques |

**Course Assessment :**

| Methods of assessment  | Relative weight % | Week No | Assess What |
|------------------------|-------------------|---------|-------------|
| Attendance             | 5.00              |         |             |
| Final Project          | 20.00             |         |             |
| Final-term examination | 20.00             |         |             |
| Participation          | 5.00              |         |             |
| Sketches               | 50.00             |         |             |

**Course Notes :**

No course notes are required

**Recommended books :**

"Ramsey, C.; Ray, J. & Hoke, Jr.: Architectural Graphic Standards, Tenth Edition, AIA. John Wiley & Sons Inc., 2000, NJ. USA  
"Chiara, J. & Time Saver Standards for Architectural Design  
"Architectural Magazines and Projects  
"Architecture: Form . Space and Order. By Francis D.K. Ching

**Periodicals :**

"Architecture  
"Architectural Record  
"Architectural Review  
"Architecture d'aujourd'hui

**Web Sites :**

"www.architecturalrecord.com  
"www.greatbuildings.com