

**Philadelphia University**  
**Faculty of Engineering and Technology**  
**Department of Architecture**  
**First Semester (2021/2022)**

Course Syllabus

<b>Course Title:</b> Architectural Design 3 (In-Person Learning)	<b>Course code:</b> 0660352
<b>Course Level:</b> 3 <sup>rd</sup> year	<b>Course prerequisite (s):</b> Architectural Design 2
<b>Lecture Time:</b> Sunday & Tuesday 8:10 – 12:00 @61306	<b>Credit hours:</b> 4

Academic Staff Specifics

Name	Rank	Office Number and Location	Office Hours	E-mail Address
Dr. Afnan Saleh	Assistant professor	61-316	Sunday and Tuesday, 10:10-11:00	<a href="mailto:a.saleh@philadelphia.edu.eg">a.saleh@philadelphia.edu.eg</a>

**Course description:**

This course shall continue with future progress and complexity in aesthetic qualities but with more emphasis on architectural and functional aspects that are related to circulation, concept, materials and climatic considerations. This takes place through designing actual and specific projects in place of ordinary and absolute formation. Thus, it deals with a design of building which have a direct relation with actual life experience of the students such as residential.

**Course Content**

no	Course Topics	Learning outcome
1	Site analysis	
2	Case studies analysis	
3	Residential buildings	
4	Design concept	
5	Developing the design concept into clear architectural plans	
6	Design image	
7	Site planning	
8	Design concept	
9	Using proper architecture representation	
10	Oral, written and graphic expression of design thinking process	

## **Course objectives:**

Enhancing the student ability of designing residential buildings through floor plans, sections, elevations, and a scale model. The course explores issues such as site planning, climatic design, sustainability, building layout, structural principles, materials, energy conservation, solar strategies, and what makes a building a beautiful expression of its occupant's lifestyle. The acquired skills of the fundamentals of a design process can be applied in future design courses. The course objectives are:

1. Ability to create design concept drawings for residential projects
2. Ability to create working drawings for residential projects
3. Brief understanding of construction technology and materials
4. Develop 3D images
5. Learn principles of passive solar design, environmental design
6. Understand the rules and regulations for council approval
7. Understand building sustainability for Jordanian conditions

## **Course components**

Presentations and lectures are planned according to the selected project site

### **Books;**

### **Support material;**

Various illustrations on Data Show, books, magazines, articles, and YouTube.

Visiting Architects and interviews

Online discussions using the official eLearning site.

### **Homework and laboratory guide:**

A series of exercise sheets designed to achieve the course objectives. Each sheet includes exercise description, exercise objective, required instruments and materials, and guiding instructions and the time of work to produce required submittals.

## **Teaching methods:**

(Lectures, discussion groups, tutorials, problem solving, debates, etc)

This course follows the process of enhancing the student's talents and practical experience. In order to achieve this, the followings should be taken into consideration;

- Each exercise objectives are explained in details to ensure the student's ability to be involved in the experiment.

- The student needs a strong desire, patience, perseverance, commitment, and most of all practice so to gain confidence in his/her ideas and abilities.
- Exercises are designed in a way that provides the student with analytical skills enabling him/her with the ability to start the architectural design process.
- Architectural design is a continuous process of decision making. Accordingly, this course requires and enhances the student's decision making, self-assessment, problem solving, and presentation skills.

### **Program Learning Outcomes (PLO):**

- KP1 Understanding of the theoretical and applied research methodologies and practices used during the design process.
- SP1 Ability to investigate and comparatively evaluate relevant information, solutions and decide relevant conclusions related to a specific project or assignment.
- SP3 Ability of design thinking using abstract ideas to interpret information and reach relevant conclusions to propose architectural forms based on appropriate design fundamentals and to make integrative design decisions within a complex architectural project.

### **Course Learning Outcomes (CLO):**

#### **Knowledge and understanding:**

CLO6 – CLO8 – CLO9

#### **Intellectual Skills**

CLO5

#### **Professional and Practical Skills**

CLO 1 – CLO 2 – CLO 3 – CLO 5 – CLO 7

#### **General and Transferable Skills**

CLO10

#	Course Learning Outcomes (CLO):	Program Learning	Learning Taxonomy
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		<b>Outcomes (PLO):</b>	<b>Understanding</b>	<b>Ability</b>
1	Ability to apply the basics of site analysis for residential buildings	KP1 SP1	<input type="checkbox"/> التذكر (Remembering) <input type="checkbox"/> الفهم (Understanding)	<input type="checkbox"/> التطبيق (Application) <input type="checkbox"/> التحليل (Analysis) <input type="checkbox"/> التقييم (Evaluation) <input type="checkbox"/> التركيب والابتكار (Synthesis: Creating)
2	Ability to find and analyze proper case studies	KP1 SP1	<input type="checkbox"/> التذكر (Remembering) <input type="checkbox"/> الفهم (Understanding)	<input type="checkbox"/> التطبيق (Application) <input type="checkbox"/> التحليل (Analysis) <input type="checkbox"/> التقييم (Evaluation) <input type="checkbox"/> التركيب والابتكار (Synthesis: Creating)
3	Ability to use architectural design standards	KP1 SP1	<input type="checkbox"/> التذكر (Remembering) <input type="checkbox"/> الفهم (Understanding)	<input type="checkbox"/> التطبيق (Application) <input type="checkbox"/> التحليل (Analysis) <input type="checkbox"/> التقييم (Evaluation) <input type="checkbox"/> التركيب والابتكار (Synthesis: Creating)
4	Ability to create design concept for residential projects	SP3	<input type="checkbox"/> التذكر (Remembering) <input type="checkbox"/> الفهم (Understanding)	<input type="checkbox"/> التطبيق (Application) <input type="checkbox"/> التحليل (Analysis) <input type="checkbox"/> التقييم (Evaluation) <input type="checkbox"/> التركيب والابتكار (Synthesis: Creating)
5	Ability to create working drawings for residential projects	SP3	<input type="checkbox"/> التذكر (Remembering) <input type="checkbox"/> الفهم (Understanding)	<input type="checkbox"/> التطبيق (Application) <input type="checkbox"/> التحليل (Analysis) <input type="checkbox"/> التقييم (Evaluation) <input type="checkbox"/> التركيب والابتكار (Synthesis: Creating)
6	Introductory understanding of contemporary construction technology and materials used in Jordanian housing industry	SP1 SP3	<input type="checkbox"/> التذكر (Remembering) <input type="checkbox"/> الفهم (Understanding)	<input type="checkbox"/> التطبيق (Application) <input type="checkbox"/> التحليل (Analysis) <input type="checkbox"/> التقييم (Evaluation) <input type="checkbox"/> التركيب والابتكار (Synthesis: Creating)
7	Ability to develop 3D images	SP3	<input type="checkbox"/> التذكر (Remembering) <input type="checkbox"/> الفهم (Understanding)	<input type="checkbox"/> التطبيق (Application) <input type="checkbox"/> التحليل (Analysis) <input type="checkbox"/> التقييم (Evaluation) <input type="checkbox"/> التركيب والابتكار (Synthesis: Creating)
8	Understand the rules and regulations for council approval	SP1 SP3	<input type="checkbox"/> التذكر (Remembering) <input type="checkbox"/> الفهم (Understanding)	<input type="checkbox"/> التطبيق (Application) <input type="checkbox"/> التحليل (Analysis)

				<input type="checkbox"/> التقويم (Evaluation) <input type="checkbox"/> التركيب والابتكار (Synthesis: Creating)
9	Ability of applying some aspects of sustainability for Jordanian conditions	SP1 SP3	<input type="checkbox"/> التذكر (Remembering) <input type="checkbox"/> الفهم (Understanding)	<input type="checkbox"/> التطبيق (Application) <input type="checkbox"/> التحليل (Analysis) <input type="checkbox"/> التقويم (Evaluation) <input type="checkbox"/> التركيب والابتكار (Synthesis: Creating)
10	Ability to present and communicate design effectively and clearly with confidence.	SP1 SP3	<input type="checkbox"/> التذكر (Remembering) <input type="checkbox"/> الفهم (Understanding)	<input type="checkbox"/> التطبيق (Application) <input type="checkbox"/> التحليل (Analysis) <input type="checkbox"/> التقويم (Evaluation) <input type="checkbox"/> التركيب والابتكار (Synthesis: Creating)

### Assessment instruments

Work for the class will include extensive reading, two short written exercises, a longer final paper, and three exams (two in-classes and the other a final). It is essential that all reading be completed in advance of each class. There will be an occasional pop quiz on the day's assigned readings. These readings will affect your class participation grade; if you don't do the readings, you can't participate in class discussion.

Allocation of Marks			
	Assessment Instruments	Wight	Mark
First Exam	Jury 1	20%	20%
Second Exam	Jury 2	20%	20%
Reports	Exercises 1, 2, 3, 4, 5, 6 and 7 (During the studio discussions)	10%	20%
	Sketch design (1 & 2)	10%	
Final Exam	Exercises 8 and 9 (During the studio discussions)	10%	40%
	Exercise 10 (within the final jury) The final jury	30%	
<b>Total</b>		<b>100%</b>	<b>100%</b>

Engineering student should have the ability of time management. Consequently, assignments and exercises should be submitted on time. A bonus of 5% of the students' grade will be awarded to those who submit their projects on time. A penalty of 5% of the students' grade will be inflicted for each day of delay (weekends included).

### **Documentation and academic honesty**

The students are trusted to act honorably. Those who are in violation of the academic honesty can be subjected to standard penalty for a first offence includes issuing "No Pass" or "No Credit" for the exercise in which the violation occurred. The standard penalty for a multiple violation includes "No Pass" or "No Credit" for the course. Examples of conduct which to be regarded as being in violation include unpermitted collaboration and representing the work of another as one's own work.

### **Course academic calendar**

Week No.	Dates	Subject	CLO	Readings and homework	Expected workload
1.	October 17-21	Introduction Site analysis	CLO1	Project brief Exercise 01	(8) studio (0) assignments (0) field work
2.	October 24-28	Site analysis Case studies	CLO1 CLO2	Exercise 01 Exercise 02	(8) studio (8) assignments (4) field work
3.	October November 31/10- 4/11	Case studies Standards	CLO2 CLO3	Exercise 02 Exercise 03	(4) studio (8) assignments (0) field work
4.	November 7-11	Standards Jury -1	CLO3 CLO10 (CLO1- 2-3)	Exercise 03 First exam grades	(8) studio (12) assignments (0) field work
5.	November 14-18	Sketch design Concept	CLO4 CLO2	Exercise 04 Sketch Design 01	(8) studio (6) assignments (0) field work
6.	November 21-25	Concept Plans	CLO5 CLO4 CLO1-2- 3	Exercise 04 Exercise 05	(8) studio (6) assignments (0) field work
7.	November December 28/11- 2/12	Plans	CLO5 CLO6 CLO3 CLO9	Exercise 05	(8) studio (12) assignments (0) field work
8.	December 5-9	Sections and elevations Sketch design	CLO5 CLO7	Exercise 06 Sketch Design 02	(8) studio (12) assignments (0) field work

Week No.	Dates	Subject	CLO	Readings and homework	Expected workload
9.	December 12-16	Site plan	CLO5 CLO1-2-3 CLO8 CLO9	Exercise 07	(8) studio (12) assignments (0) field work
10	December 19-23	3d modeling Prefinal Jury	CLO7 CLO10 CLO4-5-6-8-9	Exercise 08 Second exam grades	(8) studio (12) assignments (0) field work
11.	December 26-30	Images	CLO7	Exercise 08	(8) studio (6) assignments (0) field work
12.	January 2-6	Details Mood board	CLO4 CLO5	Exercise 09	(8) studio (6) assignments (0) field work
13.	January 9-13	Presentation	CLO10	Exercise 10	(4) studio (12) assignments (0) field work
14.	January 16-20	The final work Final jury	CLO10	Exercise 10 The final jury	(8) studio (12) assignments (0) field work
15.	January 23-27	FINALS			(0) studio (0) assignments (0) field work
16.	January February 30-2	FINALS			(0) studio (0) assignments (0) field work

### **Expected workload:**

Architectural Design courses are the most important courses for the architectural engineering student. This course involves creative tasks that require patience and continuous practicing which implies spending extra time (not less than 10 hours/week) in working on projects and exercises.

Total expected workloads = 232 hours

### **Attendance policy:**

Absence from lectures and/or tutorials shall not exceed 15% (=4 full sessions). Students who exceed the 15% limit without a medical or emergency excuse acceptable to and approved by the Dean of the relevant college/Faculty shall not be allowed to take the final examination and shall receive a mark of

zero for the course. If the excuse is approved by the Dean, the student shall be considered to have withdrawn from the course.

## **References**

Invited specialists and context related stakeholders

### **Books**

**Dechiara, Joseph and Hancock, John. 1973.** *Time-saver Standards for Building Types*. New York: McGraw-Hill, 1973.

**Fawcett, A. Peter. 1998, 2003.** *Architecture: design notebook*. s.l.: Architectural Press, 1998, 2003.

**Neufert, Ernst and Neufert, Peter. 2002.** *Neufert's Architects' Data*. s.l.: Blackwell Publishing Professional, 2002.

**The American Institute of Architects . 2007.** *Architectural Graphic Standards*. s.l.: John Wiley & Sons Ltd., 2007.

### **Journals**

ARQ: Architectural Research Quarterly

Architectural Record

Architectural Review

### **Websites**

<https://architizer.com>

<https://thinkarchitect.wordpress.com/>

<http://www.archdaily.com/>

[www.dezeen.com](http://www.dezeen.com)