



**SALAHADDIN UNIVERSITY**  
**COLLEGE OF ENGINEERING**  
**DEPARTMENT OF ARCHITECTURE**

**Architectural Design 1<sup>st</sup> stage**

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# 1. General Information

## Architectural Design

Course Title	Architectural Design I
Course Code	4101
College	Engineering
Department	Architectural Engineering
No. of Credits	8
Pre-requisites Course	
Pre-requisites Course Code	
Course Coordinator(s)	Dr. Hardi K. Abdullah
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Teaching staff	Hardi K. Abdullah Suhaib Jalal Hawar Himdad Zenab K. Majid Fenk D. Miran Ahmad Nawzad Laree Shawqi
Class Hours	10
Course Type	Compulsory
Offer in Academic Year	2021 2022

## **2. Course Description**

The typical route to qualify as an architect in department of Architecture is through a combination of academic studies and practical exercises and experience. Initially, a system is required to fulfill certain requirements. Hence, a natural way to begin thinking about architecture as a system is to start from the essential requirement of the system. As Architectural Graphics is an introduction to the techniques, methodologies and graphic tools used in conveying architectural ideas. Graphic skills are considered one of the main elements of presentation, which in turn leads to a better self-explanation and ideas description.

During the semester, students first begin with simple drawings involving basic techniques, as the semester progresses, the complexity of assignments does as well. Drawings will be discussed and demonstrated in lecture and applied in as practical exercises at studio. Thus, at the end of the year, students will have a package of their studio and homework as well as a clear idea of different techniques in graphics.

## **3. Course Objectives**

The course will cover elementary Architecture design practical exercises and texts of selective topics from books, Architecture periodicals and Internet publications. Reading these texts will help to develop student's ability to cope with architecture primary principles, in addition to establishing academic reading skills for the students, and the foundation of basic knowledge and understanding of Design in Architecture by practical exercise and readings. The course will give the students basic understanding of the subjects of primary elements, forms and shapes in architecture, basic rules of ordering, grouping and composition, basic rules of harmony, scale and transformation of forms and at the end of the year the student will have an exercise that is less abstract and more realistic to be in touch with the basic knowledge of function, circulation and building construction.

## **4. Learning Outcomes**

At the end of the semester, students would be able to understand the primary elements characteristics, the primary shapes and forms, demonstrate material representation by hatch and finally will be able to create physical architectural composition.

## 5. Course Content

### Workload/ Lectures Hours

Salahuddin University - College of Engineering – Department of Architecture

Fall Semester

08 November 2021 – 26 December 2021

#### Architectural Design I

Weeks	Content Description		Work Load/ Lectures (hrs.)
Week 1	Theoretical	- Course book introduction - Introduction to Architectural design - Introduction to architectural drawing tools and materials and their application	1
	Practical	-Introducing the tools necessary for inscribing lines and the instruments available for guiding the eye and hand while drawing. - Drawing exercises (practicing simple line patterns)	9
Week 2	Theoretical	Primary elements characteristics Primary elements: Point, Line Architectural drafting: Drawing techniques + drawing lines	1
	Practical	Drawing exercises (practicing simple line patterns) - Primary elements/ point and line - Line pattern exercise	9
Week 3	Theoretical	Primary elements characteristics Primary elements: Plane, Volume Basics of architectural drawing & abstraction	1
	Practical	Drawing exercises - Primary elements/ plane and Volume -Drawing lines, angles and shapes Exercise <b>Introduction to the first design project (Primary elements model)</b>	9
Week 4	Theoretical	Forms and properties of forms Basics of architectural drawing & abstraction ADDITIVE FORM	1
	Practical	Forms and properties of forms Basics of architectural drawing & abstraction Drawing exercises (practicing properties of forms and primary shapes) Line types, weights and quality Exercise <b>Second project points with additive forms</b>	9
Week 5	Theoretical	Primary shapes and surfaces - Representing materials	1
	Practical	Drawing exercises (practicing properties of forms and primary shapes) Material representation Drawing exercises (practicing properties of forms and primary shapes)	9

		practicing cubs modeling	
Week 6	Theoretical	Primary solids - Rendering tonal values: -Hatching, crosshatching, scribbling and stippling -Value scale	1
	Practical	Physical modeling: using card and paper works to create the primary solids -Individual work. Third project primary form with subtraction Cubical composition	9
Week 7	Theoretical	Regular and irregular forms. Architectural drawing systems: -Multi view Drawings (top, front and side) Regular and irregular form	1
	Practical	-Drawing exercises (practicing properties of forms and primary Shapes). Orthographic projection	9
Week 8	Theoretical	Transformation of form -Subtractive and additive forms -Centralized, linear, radial, clustered form -Multi view Drawings (top, front and side)	1
	Practical	Physical composition using cubical units: The students are requested to create different cubical forms and spaces through applying theoretical concepts (individual work). -Orthographic projection Fourth project irregular , dynamic additive form Cubical composition	9
Week 9	Theoretical	Form and space Multi view Drawings	1
	Practical	-Cubical composition: Ambiguity state -Cubical composition: Subtraction -Orthographic projection exercises Fifth project cubical composition transformation of form (organization relationships between elements)	9
Week 10	Theoretical	Form and space Multi view Drawings	1
	Practical	-Cubical composition: Space creation (Final submission). -Orthographic projection exercises	9
Total Hours of Work Load Lectures			150

## 6. ECTS

Subject	Education Activity	No.	Description		Activity Type	No. Weeks
Semester	1	Theory	face to face	15	1	15
	2	Preparation (0.5 theory)	out of class	15	0.5	7.5
	3	Practical	face to face	15	9	135
	4	Preparation (1.5 practical)	out of class	15	1.5	22.5
Assignment	5	Report	out of class	1	2	2
	6	weekly presentations	out of class	10	2	20
	7	Submission/prelim	out of class	1	8	8
	8	Submission/pre-final	out of class	1	10	10
	9	Submission/Final	out of class	1	13	13
Assessment	10	Quiz	out of class	2	2	4
	11	Day sketch	out of class	1	3	3
			Face to face hours/15 weeks			150
			Out of class hours/15 weeks			90
			Total hours			240
ECTS (Total hours/ 30)						8

## 7. Course Assessment Tools

Final grade for this module will be calculated as following:

First semester:100% for semester balance

- Assignments (including all studio-works, home-works , group activities ,day sketch and daily quizzes , Class discussion and participation) 65%

- Weekly final submission 15%

-Prelim, Pre-final, and Final project submission 15%

-Attendance 5%

Student's attendance is required in all classes.

## 8. Text books & references:

Reading is vital and fundamental for students, both as part of the course fulfillment and personal development as a designer or an architect. There are many architectural books, magazines and journals that are worth reading.

Textbooks required for Design communication module are :

1. Architecture: Form, Space and Order, Francis Ching, Forth Edition
2. Neufert Architects Data Fourth Edition - By Wiley Blackwell
3. "Time Saver Standards for Architectural Design Data" by John Hanock
4. Architectural Graphics, 4 th Edition by Francis D.K. Ching (Required)
5. Graphics for Architecture, by Kevin Forseth
6. Architectural Drawing: A Visual Compendium of Types and Methods

## 9. Course policy

- Regular attendance is required according to the university rules.
- Daily participation and conducting assignments are required.
- Reading the materials & teachers notes daily.
- The participation of the student will be taken in consideration and it will be evaluated by the lecturer.
- As for the practical part of the material there will be daily degrees for the assignments given and they will have a considerable effect on the final degree.