



**University/Academy:** Arab Academy for Science, Technology & Maritime Transport  
**Faculty/Institute:** College of Engineering & Technology  
**Program:** B.Sc. Architectural Engineering and Environmental Design

### Form no. (12): Course Specification

#### 1- Course Data

Course Code: <b>AR 210</b>	Course Title: <b>Architectural Drawing</b>	Academic Year/Level: <b>2<sup>nd</sup> year / 3<sup>rd</sup> semester</b>
Specialization: <b>Architecture</b>	No. of Instructional Units	Prerequisite
	Credit <b>4</b>	Lecture <b>2</b> Tutorial <b>6</b>
		<b>ME151</b>

#### 2- Course Aim

The principal task of the architect is to design buildings which accommodate human activity. Drawing is its most expressive form. The course introduces the student to basic drawing skills and techniques. Fundamentals of architectural drawing are presented, and conventions of graphic representation are highlighted. A study of architectural orders, architectural composition through abstract shapes and forms, and orthographic projections are focused on. Students also learn presentation techniques including line drawings and tone drawings, as well as adding human effects such as furniture and plants to the drawings.

**The course aims to:**

- Provide the student with knowledge of drawing skills and techniques.
- Enhance the students' practical skills that enable them to identify and draw different building elements and components.

#### 3- Intended Learning Outcomes

<b>a- Knowledge and Understanding</b>	<p><b>Through knowledge and understanding, students will be able to:</b></p> <ul style="list-style-type: none"> <li>• Explain the role of architect in making suitable architectural drawings.</li> <li>• Define the components and elements of simple buildings according to orthographic projection principles.</li> <li>• Classify engineering drafting and presentation techniques in architectural drawings.</li> </ul>
<b>b- Intellectual Skills</b>	<p><b>Through intellectual skills, students will be able to:</b></p> <ul style="list-style-type: none"> <li>• Apply orthographic projection rules and solve architectural drawing problems.</li> <li>• Create architectural drawings with a degree of quality.</li> <li>• Suggest innovative presentation techniques in architectural projects.</li> </ul>
<b>c- Professional Skills</b>	<p><b>Through professional and practical skills, students will be able to:</b></p> <ul style="list-style-type: none"> <li>• Produce drawings of different building elements and components.</li> <li>• Produce high quality architectural drawings and accurate drafting.</li> <li>• Prepare architectural drawings through effective use of orthographic projection and presentation techniques.</li> </ul>
<b>d- General Skills</b>	<p><b>Through general and transferable skills, students will be able to:</b></p> <ul style="list-style-type: none"> <li>• Present and produce integrated and complete architectural drawings.</li> <li>• Gain the ability of self learning and self motivation in architectural drafting, communication methods and techniques.</li> <li>• Adopt an open-minded approach in the appraisal of design issues, requirements and opportunities.</li> <li>• Listen and critically respond to the views of others.</li> <li>• Transfer techniques and solutions from one field of architecture to another.</li> </ul>

#### 4- Course Content

- Week No.1** - Introduction to architectural drawing, media and tools, skills and techniques, and orthographic projection.  
- Line drawing values and tones.  
- Drawing of simple lines and circles.
- Week No.2** - Fundamentals of orthographic projection. Plan and section of a small room.  
- First Project: Historical and Traditional buildings, Loggia column plan & elevation.  
- A water color demonstration.
- Week No.3** - Elevation and section of the loggia.  
- Composition: 1st trial.
- Week No.4** - Composition of the project elements: 2nd trial.  
- Project presentation.
- Week No.5** - Project progress.  
- Project presentation.
- Week No.6** - Project progress.  
- Project submission and evaluation.
- Week No.7** -Continuation of the previous lecture and evaluation.  
Second Project.
- Week No.8** - Project two: Contemporary building (small housing unit).  
- Architectural plan components: walls, openings, stairs.  
- Architectural section, elevation, site plan and isometric.
- Week No.9** - Architectural furniture in plan (fixed and movable) and the architectural presentation and accessories in elevation, section and site plan (vegetation, water, sky...).  
- Different architectural treatment in plan, elevation, section and site plan  
- A presentation experiment.
- Week No.10** - Project progress.  
- Project presentation.
- Week No.11** - Project presentation
- Week No.12** - Continuation of the previous lecture and evaluation.  
- Project evaluation.
- Week No.13** - Project three: Contemporary building (two floor villa). Stair plan and section.  
- Presentation of the project.
- Week No.14** - Project presentation.  
- Project presentation.  
- Project evaluation.
- Week No.15** Revision.

## 5- Teaching and Learning Methods

The course comprises a combination of:  
Lectures, studio project work, discussion sessions, and practical training.

## 6-Teaching and Learning Methods for Students with Special Needs

- Consulting with lecturer during office hours.
- Consulting with teaching assistant during office hours.
- Private Sessions for redelivering the lecture contents.
- For handicapped accessibility, please refer to program specification.

## 7- Student Assessment

Asses No.	Procedures used	Start Week No.	Subm. Week No.	Weighting of Asses.
	Type			
1	- Drawing of simple forms.	1	1	5%
	- Drawing of simple lines (horizontal & vertical)& circles (lead holder on canson sheet)	1	1	
2	- Orthographic projection (plan - section - elevation and isometric for small room - lead holder on canson sheet).	2	2	
	- Plan - section - elevation and isometric for small room - ink pen on Canson sheet.	2	2	
3	- Project 1: Parthenon/Loggia column - plan and elevation.	2	2	
	- Column of the Parthenon/Loggia - and water color exercise.	2	3	
4	- Complete evaluation and half detailed elevation of the Parthenon/Loggia (lead holder on photo hall board).	3	3	
	- Complete elevation and half detailed elevation of the Parthenon/Loggia - Parthenon/Loggia plan & section (pen with diluted ink and water color photo hall board)	4	4	
5	- Composition of the project elements.	4	4	
	7th week exam	7		10%
	Project Evaluation	7		15%
6	- Project (2): Modern building - simple housing unit plan (lead holder on canson sheet).	8	8	5%
	- Architectural plan components (ink pen on canson sheet)	8	8	
	- Project (3) research	8	13	
7	- Housing unit section - elevation - site plan and isometric.	8	8	
8	- Plan furniture - section - elevation and site plan presentation	9	9	
	Project Evaluation	12		10%
	12th week exam	12		5%
	Project (3)evaluation	15		7%
	Attendance			3%
	Final exam	16		40%

## 8- List of References:

<b>a- Course Notes</b>	Notes are handed out to the students regularly.
<b>b- Required Books (Textbooks)</b>	• CHING, Francis.D.K., Design Drawing, 3rd ed., Van Nostrand Reinhold, N.Y., 1998.
<b>c- Recommended Books</b>	• ALBERT, Greg, Basic Drawing Techniques, Cincinnati, Ohio: North Light book, 1991. • CHING, Francis D.K., <i>Architecture, Form, Space and Order</i> , 2nd edition, Van

	<p>Nostrand Reinhold, New York,1996.</p> <ul style="list-style-type: none"> <li>• CHING, Frank, <i>Architectural Graphics</i>, 3rd ed., Van Nostrand Reihold, N.Y., 2003.</li> <li>• GAIR, Angela, <i>The Beginner's Guide Drawing: A Complete Step-by-Step Guide to Techniques and Materials</i>, New Holland Pub., London, 1994.</li> <li>• UDDIN, M., <i>Axonometric and Oblique Drawing: A 3D Construction - Rendering and Design Guide</i>, McGraw-Hill, N.Y.,1997.</li> <li>• McGRATH, B., GARDNER, J., <i>Cinematics - Architectural Drawing Today</i>, John Wiley &amp; Sons - England - 2007.</li> </ul> <p>• جبر - سمعان: منهجية الرسم المعماري - بيروت: دار قابس ١٩٩٦</p>
<b>d- Periodicals, Web Sites, etc.</b>	N/A