



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: AR 211	Course Title: Architectural Design 1	Academic Year/Level: 2nd year / 4th semester
Specialization: Architecture	No. of Instructional Units Credit 4 Lecture 2 Tutorial 6	Prerequisite AR210

2- Course Aim

This course is an introduction to the fundamentals of architectural design through the design process, definition, analysis, concepts, development and presentation. Students begin by studying different building forms and their relation to human activity, scale and furniture as a means of creating space. Next, they learn to conduct spatial analysis. Training includes simple projects focusing on the functional relationships and the use of space. The student should be able to present his/her different design concepts based on their acquired presentation skills.

The course aims to:

- Provide the student with the main knowledge of architectural design steps.
- Assist the students to interact with problems in architectural design at an elementary level.
- Emphasize on the understanding of functional relationships and the use of space.

3- Intended Learning Outcomes

a- Knowledge and Understanding	Through knowledge and understanding, students will be able to: <ul style="list-style-type: none"> • Associate functional relations with the use of a space. • Express an ability to define architectural design problems. • Express his/her own design through architectural drawings.
b- Intellectual Skills	Through intellectual skills, students will be able to: <ul style="list-style-type: none"> • Plan architectural design phases systematically. • Analyze architectural problems, find alternatives and choose the most appropriate solutions. • Innovate, evaluate and develop the design of three-dimensional objects and spaces.
c- Professional Skills	Through professional and practical skills, students will be able to: <ul style="list-style-type: none"> • Produce hand-made 3D models. • Perform architectural presentations (orally, visually, drawings, etc..) and master its techniques. • Prepare architectural design drawings and presentation.
d- General Skills	Through general and transferable skills, students will be able to: <ul style="list-style-type: none"> • Work in an interdisciplinary environment and elaborate with others. • Express personal opinions freely and correctly in oral, graphic and written forms. • Work coherently and successfully as a part of a team in projects, assignments, etc. • Independently seek knowledge, set aims, targets, objectives and plan to meet them with a deadline (time management). • Adopt an open-minded approach in the appraisal of design issues, requirements and opportunities. • Listen and critically respond to the views of others. • Transfer techniques and solutions from one field of architecture to another.

4- Course Content

- Week No.1** First Project: Introduction, definitions.
- Week No.2** Research: Area Analysis, Furniture Elements (dimensions and use spaces).
- Week No.3** Unit Designs.
- Week No.4** Unit Designs.
- Week No.5** Unit grouping, Site development.
- Week No.6** Drafting, presentation and final submission.
- Week No.7** Drafting, presentation and final submission.
- Week No.8** Second Project: Data collection, functional & site analysis.
- Week No.9** Drafting, presentation and final submission.
- Week No.10** Project Development: Main building (introduction, definitions area analysis and furniture elements).
- Week No.11** Project Development: Main building (introduction, definitions area analysis and furniture elements).
- Week No.12** Final approval & presentation.
- Week No.13** Final approval & presentation.
- Week No.14** Drafting, presentation and final submission.
- Week No.15** Student projects evaluation.

5- Teaching and Learning Methods

The course comprises a combination of lectures, class activities, studio project work, examples analyzed, supervisions (small group teaching), research assignments and seminars.

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

Students must present: two projects per semester - for each project the student must present at least 3 sketches under the supervision of the tutors. There will also be a two-day duration project and a six-hour exam throughout the semester.

Students have to present a portfolio in the final jury which will demonstrate their learning outcomes throughout the academic semester and a selection of previous phases of the projects in an appropriate form of documentation and presentation. Methods of documentation may include: drawings; photographs; multi-media material; quantitative & qualitative data; 3D models or prototypes; web-based material. All presented materials and work should be recorded in graphic form and submitted to a standard suitable for assessment purposes

Asses No.	Procedures used		Start Week No.	Subm. Week No.	Weighting of Asses.
	Type	To assess			
1	Assignment	Knowledge and understanding	1	1	15%
2	Portfolio exam.	Knowledge and understanding Transferable skills	4	4	5%
3	Project	All skills	1	7	10%
4	Assignment	Intellectual thinking skills	8	8	15%
5	Exam. of studio project work	All skills	11	11	5%
6	Oral exam.	All skills	8	12	20%
7	Portfolio exam.	All skills	15	15	10%
8	Exam. of studio project work	Knowledge and intellectual skills Practical skills	16	16	10%
Total					100%

8- List of References:

a- Course Notes	Notes are handed out to the students throughout the semester.
b- Required Books (Textbooks)	<ul style="list-style-type: none"> • NEUFFERT Ernst - <i>Architect's Data</i> - 2nd ed. - Blackwell - Oxford - 1980.
c- Recommended Books	<ul style="list-style-type: none"> • CALLENDER John Hancock - <i>Time Saver Standards for Standards For Architectural Design Data</i> - 6th ed. - McGraw - HillSingapore - 1982. • CERVER Francisco Asensio - <i>Plans of Architecture: House Details</i> - Wiley - N.Y - 1998. • DEVIDO Alfredo - <i>House Design: Art and Practice</i> - Wiley - N.Y - 1996. • DOUBILET Susan - <i>American House Now: Contemporary Architectural Design</i> - Thames & Hudson - London - 1997. • <i>HOME PLANNERS GOLD: 200 of our Finest Home Plans in Full Color</i> - Home Planners Inc - Tuscon, Arizona - 1995.
d- Periodicals, Web Sites, etc.	http://www.arcspace.com