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 415**	Course Title: **Architectural Design 5**			Academic Year/Level: **4th** year / **8th** semester
Specialization: **Architecture**	No. of Instructional Units			Prerequisite
	Credit **4**	Lecture **2**	Tutorial **6**	**AR414**

2- Course Aim

This course is a continuation of design, but with more complex projects that have to be oriented to one of the modern **architectural trends**. Students should create new ideas, concepts, forms, and thinking methodologies using computer skills.

The course aims to:

- Encourage the student to deal with the complexity of the design projects and themes through higher levels of projects to be designed, where they have to be oriented to one of the modern architectural styles.

3- Intended Learning Outcomes

a- Knowledge and Understanding	**Through knowledge and understanding, students will be able to:** • Deal with new trends in architecture. • Describe the relationship between buildings and their environments. • Establish a contextual approach to problem solving and incorporating the study of the surrounding built environment.
b- Intellectual Skills	**Through intellectual skills, students will be able to:** • Determine and address the issues raised by preparing a complete set of drawing for a relatively sophisticated building including different architectural requirements, and weighing up how such concerns should inform the development and refinement of design proposals. • Suggest a variety of design ideas and ambitions, then investigate how they can be articulated and refined in the design process. • Create a conceptual design related to the project aim and location. • Evaluate and learn from the work of others.
c- Professional Skills	**Through professional and practical skills, students will be able to:** • Produce drawings using the conventions of architectural representation in an appropriate media to explore, test and convincingly communicate design ideas. • Produce architectural research that uses technical and theoretical literature effectively. • Use IT skills in a relevant and creative manner for design, analysis and communication.
d- General Skills	**Through general and transferable skills, students will be able to:** • Write structural reports in accordance with the standard scientific guidelines. • Present research in seminars and communicate effectively in writing, verbally and through drawings. • Work coherently and successfully as a part of a team in projects.

	• 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	Project 1: Introduction and project definition.
Week No.2	Submission of the 1st research: data collection.
Week No.3	Submission of the 1st research: similar examples.
Week No.4	Sketch design (preliminary design concept).
Week No.5	Design development: plans.
Week No.6	Design development: plans.
Week No.7	Continuation of the previous lecture and evaluation.
Week No.8	Design development: plans.
Week No.9	Design development: elevations and sections.
Week No.10	Design development: elevations and sections.
Week No.11	Submission of the 1st project.
Week No.12	Continuation of the previous lecture and evaluation. Project 2: introduction and project definition.
Week No.13	Design development: plans.
Week No.14	Design development: elevations and sections.
Week No.15	Submission of the 2nd project.

5- Teaching and Learning Methods

The course comprises a combination of:
Lectures, class activities, seminars, examples analysed, studio project work, site-visits, and group work.

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, two one-day duration projects and a six-hour exam.
Students have to present a portfolio during the final jury which will demonstrate the learning outcomes throughout the academic semester and a selection of previous phases of the projects in appropriate form of documentation and presentation. Methods of documentation may include: drawings; photographic material; 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 explained to a standard, suitable for assessment purposes.

Asses No.	Procedures used		Start Week No.	Subm. Week No.	Weighting of Asses.
	Type	To assess			
1	Research	Knowledge and practical skills Transferable skills	1	3	5%
2	One day project	Knowledge and practical skills Intellectual thinking skills		7	10%
3	Project	All skills	1	11	15%
4	One day project	Knowledge and practical skills Intellectual thinking skills		12	5%
5	Collab. Project	All skills	12	15	15%
6	Practical exam.	Intellectual and practical skills		16	20%
7	Oral exam.	Transferable skills		16	20%
Total					100%

8- List of References:

a- Course Notes	Notes are handed out to the students throughout the semester.
b- Required Books (Textbooks)	• BAKER, Geoffrey, H., *Design Strategies in Architecture: An Approach to the Analysis of Form*, 2nd ed., Van Nostrand Reinhold, London, 1996.
c- Recommended Books	• WATSON, Donald, *Time Saver Standards for Architectural Design Data: The reference of architectural fundamentals*, 7th ed., McGraw Hill, U.S.A. 1997. • MATSUBARA, Hipoakj, *Mastering New Architectural Rendering Techniques,* Graphic Sha, Osaka, 1996.
d- Periodicals, Web Sites, etc.	N/A