



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 543	Course Title: Introduction to Site Planning & Housing	Academic Year/Level: 5th year / 9th semester
Specialization: Architecture	No. of Instructional Units Credit 3 Lecture 2 Tutorial 2	Prerequisite AR442

2- Course Aim

This course is divided into two seven-week segments. Students begin by studying the first segment, the site planning segment, which will explore various techniques of site analysis to determine size and form of development in a given area. After this comes the housing segment which will elaborate on the design and development of housing sites with considerations to different types of housing.

The course aims to:

- Provide the student with the main knowledge of the basic techniques of site analysis and design.
- Develop an understanding of the different housing types and the related influencing factors.
- Enhance the student's practical skills regarding geological, topographical, hydrological, environmental, aesthetic and legal aspects.

3- Intended Learning Outcomes

a- Knowledge and Understanding	Through knowledge and understanding, students will be able to: <ul style="list-style-type: none">• Distinguish the architectural design data for housing and residential development• Illustrate housing standards & criteria through design projects.
b- Intellectual Skills	Through intellectual skills, students will be able to: <ul style="list-style-type: none">• Suggest better and more meaningful living environments.• Analyze problems, find alternatives & choose the most appropriate solutions.• Investigate and develop the site based on analysis and gained knowledge.
c- Professional Skills	Through professional and practical skills, students will be able to: <ul style="list-style-type: none">• Prepare planning drawings and presentations• Prepare site planning projects for residential neighborhoods and resorts• Design projects and present them appropriately (orally, visually, graphically...etc.)
d- General Skills	Through general and transferable skills, students will be able to: <ul style="list-style-type: none">• Present reports, discuss findings, defend his/her ideas, and communicate effectively in writing, verbally and through drawings and models.• 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.• Adopt an open-minded approach in the appraisal of design issues, requirements and opportunities.

4- Course Content

- Week No.1** Introduction & Definition, Planning, site planning.
- Week No.2** Site analysis:
Site planning process – problem definition – impact assessment
Planning – site analysis. (Site investigation – site evaluation – analysis)
- Week No.3** Site planning criteria and considerations
Streets and lot layout – function of roads -- hierarchy of roads – roads classification.
- Week No.4** Circulation system
- Week No.5** Sub-division and land planning.
Definition – streets and lots – lots proportions – block length –
Sidewalks - planning module
- Week No.6** Network and facilities.(A)
Types of facilities (educational – commercial – social and culture – recreational)
- Week No.7** Continuation of the previous lecture and evaluation.
- Week No.8** Residential building types and grouping
Types of single family house- type of apartment- combination of apartments –
Types of apartments buildings – villas – townhouses –clustering of different types of buildings
- Week No.9** Community Facilities.
Maximum distance for communities facilities – Accessibility standards – Educational
Facilities – social and cultural facilities, land area requirements for community facilities.
- Week No.10** Land use intensity:
Land area – building area – floor area – floor area ratio – building heights – Residential density.
- Week No.11** Special cases of site planning
Different case studies
- Week No.12** Continuation of the previous lecture and evaluation.
- Week No.13** Housing sectors
Types of Apartments buildings – combination of housing types.
- Week No.14** Research
- Week No.15** Revision

5- Teaching and Learning Methods

The course comprises a combination of lectures, research assignment, project work, discussion sessions and studio project 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:

- One project per semester; students must be present for at least 4 esquires under the supervision of tutors.
- Student must present an accumulative esquire for another project.
- Student must present his/her research.

Asses No.	Procedures used		Start Week No.	Subm. Week No.	Weighting of Asses.
	Type	To assess			
1	Assignment	Knowledge and understanding.	2	2	5%
2	Assignment	Knowledge and understanding.	3	3	10%
3	Assignment	Intellectual and practical skills.	4	4	5%
4	Assignment	Intellectual and practical skills.	5	5	10%
5	Assignment	Intellectual and practical skills.	6	6	5%
6	Assignment	Practical and transferable skills.	8	8	15%
7	Project	All skills.	8	12	50%
Total					100%

8- List of References:

a- Course Notes	Students are encouraged to take notes.
b- Required Books (Textbooks)	<ul style="list-style-type: none"> • JOSEPH De Chiara, <i>Timer Saver Standard for Residential Development</i>, Mc Graw Hill, 1984
c- Recommended Books	<ul style="list-style-type: none"> • G.L.C Study, <i>An Introduction to Housing Layout</i>, The Architectural Press, 1983 • Horacio Caminos, <i>Urbanization Primer for Design of Site & Services</i>, Project, N.Y.- 1975 • Jams A. Lagro, Jr., <i>Site Analysis: Linking Program and Concept in Land Planning and Design</i>, John Wiley & Sons, New York, 2001 • KEVIN Lynch, <i>Image of the City</i>, Cambridge, Mass., The MIT Press, 1965. • Nasamat A. Kader & S. Eltoony, <i>In Design & Planning of Residential Site</i>, Cairo, 1984 • Mc Connel, <i>Residential Density</i>, London, 1969
d- Periodicals, Web Sites, etc.	N/A