Faculty of Engineering & Technology

Graduation Project Studies

Information :

Course Code :	ARC 501	**Level :**	Undergraduate	**Course Hours :**	2.00- Hours

Department : Department of Architectural Engineering

Instructor Information :

Title	Name	Office hours
Lecturer	ETHAR ESSAM MAHMOUD ALY ELSHINAWY	1
Lecturer	DINA MAHMOUD ABDELRASHID NOSEIR	1

Area Of Study :

Upon successful completion of the course, the student should be able to:

1.Prepare the preliminary studies to the Graduation Project that includes the basic criteria of design in addition to a fully developed architectural program
2.Develop different techniques of information gathering and data analysis in relation to a specific design theme
3.Develop knowledge and skills in the different processes of site selection, collecting necessary data and information, and performing analytical studies of program and site for the project and other similar projects
4.Prepare a detailed comprehensive report including similar projects, program requirements, analysis, site analysis and design standards and criteria.

Description :

The course aims at preparing the preliminary studies to the final design studio (the Graduation Project) that includes the basic criteria of design, the formulation and development of the program, site evaluation, collecting necessary data and analytical studies of program and site. This is an integrated study that combines the collective outputs of previous architectural, technical, environmental, urban design and planning studies and knowledge acquired through the years of study.

Course outcomes :

a.Knowledge and Understanding: :	
1 -	Identify problems, list clientsôneeds and requirements and gather relevant information .
2 -	Develop an architectural program according to client's needs.
b.Intellectual Skills: :	
1 -	Compare, analyze and criticize different case studies, evaluate design alternatives and conclude results based on analytical thinking.
2 -	Ability to derive different alternative solutions and reach architectural decisions considering balanced costs, benefits, technology applicability, safety, quality, reliability, site constraints, urban planning context and environmental impact.
c.Professional and Practical Skills: :	
1 -	Identify data and requirements for designing a certain building type.
2 -	Conduct research and collect data from different resources.

3 -	Use appropriate techniques for representation.
4 -	Utilize a mix of different media (drawings, photographs, images, diagrams, text, and sketches) to illustrate the analysis underlying the different aspects of projects of the same building type, as well as the required design standards and criteria for the chosen project type.
d.General and Transferable Skills: :	
1 -	Write technical reports in accordance to standard scientific guidelines.
2 -	Present reports and projects, and deliver presentations demonstrating efficiency in IT capabilities.
3 -	Communicate effectively with other people using visual, graphic, written and verbal means.
4 -	Discuss conclusions and results of researches or assignments.
5 -	Work in a self-directed manner.
6 -	Work under stressful environments and within constraints of time and budget.
7 -	Analyze problems and use innovative thinking in their solution.
8 -	Search for information and adopt life-long self learning.

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Projects data collection, site visits. and data review	9	6	3
Data Analysis.	6	4	2
Two pre-presentations of research work.	12	8	4
Development and follow up.	6	4	2
Final presentation, finishing and representation of researches.	9	6	3

Teaching And Learning Methodologies :

Lectures and presentations on different elements and aspects of the design problem, focus is on selected projects of similar building types.

Site visits to selected projects as well as to similar building types.

Information collection from different sources.

Research assignments.

Class discussions, sessions and research critiques.

Course Assessment :

Methods of assessment	Relative weight %	Week No	Assess What
Attendance & Participation	10.00		
Final Research Submission	60.00		
First preliminary research submission	15.00		
Second preliminary research submission	15.00		

Course Notes :

No course notes are required

Recommended books :

ÅNeufert, E.: ArchitectsôData; The Handbook of Building Types, Third Edition, Blackwell Publishing, 2002, The Alden Group Ltd., Oxford & Northampton, metric edition.
ÅChiara, J. & Time Saver Standards for Architectural Design
ÅRamsey, C.; Ray, J. & Hoke, Jr.: Architectural Graphic Standards, Tenth Edition, AIA. John Wiley & Sons Inc., 2000, NJ. USA
ÅArchitectural Magazines and Projects
ÅArchitecture: Form ï Space and Order. By Francis D.K. Ching

Periodicals :

ÅArchitecture
ÅArchitectural Record
ÅArchitectural Review
ÅArchitecture dâaujourdhui

Web Sites :

Åwww.architecturalrecord.com
Åwww.greatbuildings.com