Faculty of Engineering & Technology

Elective 1 \ Computer Applications for Architects 1

Information :

Course Code :	ARC E01	**Level :**	Undergraduate	**Course Hours :**	3.00- Hours

Department : Department of Architectural Engineering

Instructor Information :

Title	Name	Office hours
Lecturer	Hala Ali Nabil Mohamed Ali	1
Assistant Lecturer	Sameh Ibrahiem Abdul Samie Ahmed Emam	1
Teaching Assistant	Kamal Abdeleziz Ali Selim	1

Area Of Study :

1-Train students to preform using simple computer drafting software to visualize architecture projects in 2D digital forms, by the aid of programs such as ñAutoCADò
2-Prepare students to use computer rendering programs to produce raster graphics by the aid of programs such as ñPhotoshopò
3-Train students to use computer modeling software to visualize architecture projects in 3D digital forms, make 3D & 2D rendered graphics by the aid of programs such as ñRevitò

Description :

Computer as a tool designed for change: Computer aided drafting, Creation and editing of primitives ï Accuracy ï Organization ï 2D and 3D drawing.
Computer aided Design: Modeling, and Visualization. Architectural rendering: Scenes, Materials and mapping. Using Photo editing applications in Architectural rendering.

Course outcomes :

a.Knowledge and Understanding: :	
1 -	Identify different architectural computer drafting, modeling, rendering, and presentation techniques.
2 -	Define Characteristics of raster & vector graphics.
3 -	Identify different types of textures and materials.
4 -	Identify the different uses of 2D & 3D computer interfaces.
b.Intellectual Skills: :	
1 -	Visualize graphical forms in two and three dimensions
2 -	Differentiate between raster and vector graphics.
3 -	Choose proper tools for modeling, rendering, and presenting architectural projects.
c.Professional and Practical Skills: :	
1 -	Prepare 2D, 3D, and rendered drawings and presentations.

2 -	Use Photoshop software in assigning materials and furniture layers into architectural plans & Elevations.
3 -	Build architectural digital models using Revit software.
d.General and Transferable Skills: :	
1 -	Do simple Search for information.
2 -	Manage time to meet deadlines.

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Introduction to Computer applications in Architecture.	4	2	2
Introduction to AutoCAD	4	2	2
Drawing & Editing Commands in AutoCad	16	8	8
Photoshop 2D Architectural Presentations.	8	4	4
Introduction to BIM, & Revit	4	2	2
3D Drawing & Editing Commands in Revit Software	16	8	8
3D Modelling for a Building (Final Project)	8	4	4

Teaching And Learning Methodologies :

Interactive Lectures.

Lab Work

Course Assessment :

Methods of assessment	Relative weight %	Week No	Assess What
Assignments/Lab Work	20.00		
Final examination	40.00		
Mid-term examination(s)	30.00		
Participation.	10.00		

Course Notes :

1. Students Lecture Notes
2. Handouts

Recommended books :

Manual of AutoCAD 2014, PhotoShop, & Revit Software 2017.
Help Menu of AutoCAD 2014, PhotoShop, & Revit Software 2017

Periodicals :

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Web Sites :

www.ASCAAD.com