AMERICAN UNIVERSITY
OF CYPRUS

Course Code	Course Name	ECTS Credit
CAD 201	Computer-Aided Architectural Drawing I	6
Pre-Requisite	**Course Type**	**Language of Instruction**
-	Compulsory	English
Year of Study	**Level of Course**	**Mode of Delivery**
2nd	3rd Semester	On Campus

Course Objectives:

The course is the main introductory course in the conceptual framework of digital architectural design and in particular the methodologies and procedures of three-dimensional modeling and space design.

The course material aims to:

- Introducing students to basic concepts of 2d representation, that apply both in analogue and digital interfaces.
- Introducing learners to the basic concepts of 3D digital space design, as a means of understanding and capturing the properties of space
- Familiarizing students with digital design tools that appear within the framework of a wide array of CAD platforms
- In connecting the design requirements and objectives of space issues with specialized digital design environments based on geometric and semantic Entities

Learning Outcomes:

- Become familiar with the general operating principles of digital design independent of software,
- Analyze and calculate qualitative and quantitative characteristics of the aesthetics, function, and behavior of the digital model,
- Integrate digital design into the decision-making process productively and successfully,
- Present their design ideas in an accurate and comprehensible way,
- Select and use appropriate digital media for the ontological modeling of space features.
- Know the tools and techniques of 3D digital design and how they are used to ensure the successful completion of such studies.
- Understand the basic functions common to various CAD platforms, enabling a broader understanding of their potential and limitations.
- Incorporate CAD knowledge in design and representation projects.

Teaching Methodology:

- Reading and resolving problems
- Working on problem-solving
- Attendance and participation in class
- Monitor discussions
- Writing and replying to objective type questions
- Solving unstructured questions and case studies
- Brief oral presentation before starting a new chapter and reply to queries from students
- Homework for revision purposes
- Interaction and collaborative learning
- Simulation game
- Elaboration of a specific design project
- Elaboration of an individual representation exercise

Course Content:

- Introduction to digital design theory, methodologies and computer-aided design processes.
- Analysis of the principles and procedures of digital representational methods in two and three dimensions.
- Determination of digital representational methods, in the cognitive contexts of space design.
- Development of the effects of digital technology about the conceptual categories of design methodology.
- Exploration of a range of digital environments as part of the advancement of their skills
- Investigation of a series of digital environments in the context of the possibility of digital models to be an active link between design and implementation from the conceptual design phase.
- Interaction with 3D digital models of CAD environments and introduction to architectural design environments based on an integrated information model.
- Application of specialized software through laboratory topics of scalable complexity.

Assessment Methods:

Participation, Midterm Exam, Final Exam, Quizzes

Required Textbooks/Reading:

Title	Author(s)	Publisher	Year
The History of a Building Type. Washington: U.S. Department of the Interior	Allaback, Sarah.		2000
Classical Architecture: An introduction to its vocabulary and essentials, with select glossary of terms	Curl, James Stevens	: B.T. Batsford,	1992
Illustrated Dictionary of Architecture	Lever, Jill and Harris, John		1993
Pevsner's Architectural Glossary	Pevsner, Nikolaus		2010
Contemporary Architects		St. James Press	1994
International dictionary of architects and architecture.		St. James Press,	1993
Key Modern Architects: 50 short histories of modern architecture		Bloomsbury Visual Arts	2018
Makers of 20th Century Modern Architecture: a Bio-critical Sourcebook.		Greenwood Press,	1997