

Course Title	<b>COMPUTER AIDED ARCHITECTURAL DRAWING I</b>			
Course Code	<b>CAD 201</b>			
Course Type	<b>Compulsory</b>			
Level	Undergraduate			
Year / Semester	Year 2 / Semester 3			
Teacher's Name	Antonios Papagelopoulos			
ECTS	6	Lectures / week	3	Laboratories / week
Course Purpose and Objectives	<p>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:</p> <ul style="list-style-type: none"> <li>- Introducing students to basic concepts of 2d representation, that apply both in analogue and digital interfaces.</li> <li>- Introducing learners to the basic concepts of 3D digital space design, as a means of understanding and capturing the properties of space</li> <li>-Familiarising students with digital design tools that appear within the framework of a wide array of cad platforms</li> <li>- In connecting the design requirements and objectives of space issues with specialized digital design environments based on geometric and semantic entities.</li> </ul>			
Learning Outcomes	<p>On the completion of the course, students will be able to:</p> <ul style="list-style-type: none"> <li>- Become familiar with the general operating principles of digital design independent of software,</li> <li>- Analyze and calculate qualitative and quantitative characteristics of the aesthetics, function and behavior of the digital model,</li> <li>- Integrate digital design into the decision-making process in a productive and successful way,</li> <li>- Present their personal design ideas in an accurate and comprehensible way,</li> <li>- Select and use appropriate digital media for the ontological modeling of space features.</li> <li>- Have knowledge of the tools and techniques of 3D digital design and how they are used to ensure the successful completion of such studies.</li> </ul>			

	<p>- Understand the basic functions common to various cad platforms, enabling a broader understanding of their potentials and limitations.</p> <p>- Incorporate cad knowledge in design and representation projects.</p>		
Prerequisites	-	Required	-
Course Content	<p>Introduction to digital design theory, methodologies and computer aided design processes.</p> <p>Analysis of the principles and procedures of digital representational methods in two and three dimensions.</p> <p>Determination of digital representational methods, in the cognitive contexts of space design.</p> <p>Development on the effects of digital technology in relation to the conceptual categories of design methodology.</p> <p>Exploration of a range of digital environments as part of their advancement of their skills</p> <p>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.</p> <p>Interaction with 3D digital models of CAD environments and introduction to architectural design environments based on an integrated information model.</p> <p>Application of specialized software through laboratory topics of scalable complexity.</p>		
Teaching Methodology	<p>•Reading and resolving problems •Working on problem-solving •Attendance and participation in class •Monitor discussions •Writing and reply on 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</p>		
Bibliography	<p>Allaback, Sarah. Mission 66 Visitor Centers: The History of a Building Type. Washington: U.S. Department of the Interior, National Park Service, 2000.</p> <p>Curl, James Stevens. Classical Architecture: An introduction to its vocabulary and essentials, with select glossary of terms. London: B.T. Batsford, 1992</p> <p>Lever, Jill and Harris, John, Illustrated Dictionary of Architecture (faber and faber, 1993)</p>		

	<p>Pevsner, Nikolaus, Pevsner's Architectural Glossary (Yale, 2010)</p> <p>Contemporary Architects. New York: St. James Press, 1994.</p> <p>International dictionary of architects and architecture. Detroit: St. James Press, 1993. 2 vol.</p> <p>Key Modern Architects: 50 short histories of modern architecture. London ; New York : Bloomsbury Visual Arts, 2018.</p> <p>Makers of 20th Century Modern Architecture: a Bio-critical Sourcebook. Westport, Conn.: Greenwood Press, 1997.</p>								
Assessment	<table> <tr> <td>Participation</td> <td>10%</td> </tr> <tr> <td>Midterm Exam</td> <td>30%</td> </tr> <tr> <td>Quizzes</td> <td>20%</td> </tr> <tr> <td>Final Exam</td> <td>40%</td> </tr> </table>	Participation	10%	Midterm Exam	30%	Quizzes	20%	Final Exam	40%
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