

Course unit title:	<b>DIGITAL TOOLS IV</b>		
Course unit code:	<b>APXE11</b>		
Type of course unit:	<b>Elective</b>		
Level of course unit:	<b>Diploma Degree of Architect - Engineer</b>		
Year of study:	<b>4</b>		
Semester when the unit is delivered:	<b>From 7 semester</b>		
Number of ECTS credits allocated :	<b>3</b>		
Name of lecturer(s):	<b>Charis Solomou</b>		
Learning outcomes of the course unit:	<ol style="list-style-type: none"> <li>1. The main learning outcome of the course is the understanding of the interrelation between digital tools, design process and representation methods.</li> <li>2. The ability to use different analogue and digital media within the design and representation process by knowing the implications and the advantages of each one.</li> <li>3. Practical knowledge about the technicalities of the use of certain digital design systems through the presentation and application of techniques on a design project.</li> <li>4. Comprehension of theories on digital design through the presentation and discussion of built projects and the comparison to students' proposals.</li> </ol>		
Mode of delivery:	Face-to-face		
Prerequisites:	APX311	Co-requisites:	None
Recommended optional program components:	None		
Course contents:	<p><b>Representation of Digital Design Tools, Techniques and Methodologies</b></p> <p>Design process is approached as a continuous effort to generate, investigate, clarify, and describe a built form in accordance to an initial abstract design concept. Digital tools contribute in four major stages of this process. These are a. abstraction, b. representation, and c. convergence.</p> <p>A. Abstraction. Refers to the connections between the personal intentions of the designer and the external information surrounding the object to be designed. Digital tools: recording of data and spatial information, analysis diagrams to discover the main concept, etc..</p> <p>B. Representation. Refers to the finding of the physical and geometrical characteristics that correspond to design intentions. Digital tools: Different Representations Techniques – Rendering, Collage, Real Make Modeling etc..</p> <p>C. Convergence. Refers to the presentation of the final outcome taking into account the design surroundings. Digital tools: 3d rendering, rapid prototyping, 3d printing, etc..</p> <p><b>Design Example with the Use of Representation Techniques</b></p> <p>The application of certain methodologies and techniques is approached with a design project with different representation digital tools. The course is using software such as Adobe InDesign, Illustrator, Photoshop and Premiere Pro.</p>		
Recommended and/or required	Branko Kolarevic (ed.), <i>Architecture in the Digital Age – Design and Manufacturing</i> ,		

reading:	Taylor & Francis, New York 2003.
Textbooks:	Lectures' Notebook  Adobe InDesign, Illustrator, Photoshop and Premiere Pro User's Guide and Tutorials.
References:	Peter Cachola Schmal (ed.), <i>Digital Real</i> , Birkhauser, Basel 2001.  Antoine Picon, <i>Digital Culture in Architecture</i> , Birkhauser, Basel 2010.  Neil Spiller (ed.), <i>Digital Architecture Now</i> , Thames & Hudson, London 2009.
Planned learning activities and teaching methods:	The taught part of the course is delivered to the students by means of lectures and computer-aided presentations. The students carry out examples of digital representation techniques. Lecture notes and presentations are available through the web for students to use in combination with the relevant textbooks.  Techniques are exemplified with different design examples on an individual basis. Students are requested to prepare a design studio portfolio presenting different aspects of their studio project. The course instructor makes comments and discusses the students' proposals and progress, at every stage of the process.
Assessment methods and criteria:	<ul style="list-style-type: none"> <li>• Participation 20%</li> <li>• First stage of the Coursework (presentation) 30%</li> <li>• Final Coursework 50%</li> </ul>
Language of instruction:	Greek English offered for Erasmus Students
Work placement(s):	