

Course unit title:	Architectural Technology V		
Course unit code:	APX332		
Type of course unit:	Compulsory		
Level of course unit:	Diploma Degree of Architect - Engineer		
Year of study:	3		
Semester when the unit is delivered:	6 (Spring)		
Number of ECTS credits allocated :	5		
Name of lecturer(s):	Prof. Panayiotis Touliatos, Marios Pelekanos, Nikos Georgiou		
Learning outcomes of the course unit:	<ol style="list-style-type: none"> <li>1. Identify, by on site measurement, an existing traditional building structural system. Analyze its basic principles of design from the constructural point of view.</li> <li>2. Review traditional building practices. Record the pathology and vulnerability of historical buildings and their ability to undertake dynamic loads.</li> <li>3. Relate the various effects on the constructural system through ages with its behavior during dynamic load. Identify the role of proper planning.</li> <li>4. Manage information from multiple sources. Analyze monuments by interpretation of findings. Identify primary and secondary structural members, connections and components. Distinguish additions, repairs and modifications. Analyze the loading bearing system.</li> <li>5. Identify causes of deterioration and damages. Distinguish construction phases. Develop immediate measures for protection and restoration proposals.</li> </ol>		
Mode of delivery:	Face-to-face		
Prerequisites:	APX131,APX133,APX231,APX233	Co-requisites:	None
Recommended optional program components:	None		
Course contents:	Identification and measurement of a selected traditional building leads to its constructural analysis, a basic prerequisite for the understanding of its behaviour in loads and stresses through the ages. In particular, the course deals with the traditional building systems, their pathology and vulnerability and especially their ability to undertake dynamic loads. It also stresses the importance of pointing out the weakness and vulnerability of a historical building, by a thorough constructural analysis of its bearing system and building method.		
Recommended and/or required reading:	<b>European Timber Constructions</b> , EU Raphael Programme (Management of the European Wooden Building Heritage), A. Soikkeli, P, Touliatos, C.B. Cestari, University of Oulu, University Press 2000, ISBN 951-42-5659-X.		
Textbooks:	Prof. P.Touliatos, <b>Research on the antiseismic behavior of traditional structures in Greece</b> , National Technical University Athens, Antiseismic Protection Organisation Greece, 2001.		
References:	Prof. P. Touliatos, <b>Architecture and Earthquakes</b> , National Technical University Athens, 2004.  <b>Venice Chart</b> (1964), ICOMOS, 1994.		

	<p>Prof. P. Touliatos, <b>Identification and Analysis of Local Historical Constructural Systems</b>, Ministry of Culture, Technical Chamber of Greece.</p> <p>Prof. P. Touliatos, <b>The Holy Monastery of Doheiaris, Mount Athos, Greece</b>, National Technical University Athens, 2008.</p>
Planned learning activities and teaching methods:	<p>The taught part of the course is delivered to the students by means of lectures and computer-aided presentations. Lecture notes and presentations are available through the web for students to use in combination with the relevant textbooks.</p> <p>Lectures are supplemented with project work carried out on a team basis. Students, in teams of 10-12 persons, are requested to measure and produce plans of an existing historical monument, analyze its constructural system and propose methods of restoration. During the semester, course instructors are making comments and corrections on the students' work, at every stage of the process.</p>
Assessment methods and criteria:	<ul style="list-style-type: none"> <li>• Project 70%</li> <li>• Final Examination 30%</li> </ul>
Language of instruction:	<p>Greek</p> <p>English offered for Erasmus Students</p>
Work placement(s):	