

## COURSE OUTLINE

### 1. GENERAL

<b>SCHOOL:</b>	Engineering		
<b>ACADEMIC UNIT:</b>	Industrial Design and Production Engineering		
<b>LEVEL OF STUDIES:</b>	Undergraduate		
<b>COURSE CODE:</b>	<b>7010</b>	<b>SEMESTER</b>	<b>7</b>
<b>COURSE TITLE:</b>	Art, Technology and Culture		
<b>INDEPENDENT TEACHING ACTIVITIES</b>		<b>WEEKLY TEACHING HOURS</b>	<b>ECTS CREDITS</b>
Theory (Lectures)		3	3
Laboratory		1	2
		<b>4</b>	<b>5</b>
<b>COURSE TYPE:</b>	Special background, skill development		
<b>PREREQUISITES COURSES:</b>	No		
<b>LANGUAGE OF INSTRUCTION and EXAMINATIONS:</b>	Greek		
<b>IS THE COURSE OFFERED TO ERASMUS STUDENTS</b>	No		
<b>COURSE WEBSITE (URL)</b>	<a href="https://eclass.uniwa.gr/courses/IDPE212/">https://eclass.uniwa.gr/courses/IDPE212/</a>		

### 2. LEARNING OUTCOMES

<b>Learning Outcomes</b>
<p>Upon successful completion:</p> <ul style="list-style-type: none"> <li>- Students will have sufficient basic and advanced knowledge of general principles of technology applied in the study of artworks, archaeological artifacts and cultural goods.</li> <li>- They will possess advanced knowledge and skills about new technologies applied in Cultural Heritage materials in a way that demonstrates professionalism.</li> <li>- They will be able to solve complex and unpredictable problems related to the proper selection of a method for studying an archaeological material or artwork.</li> <li>- Also, they will be able to solve specific problems related to cultural heritage</li> <li>- He will have developed a critical awareness of the various issues when Technology is applied on Cultural Heritage</li> <li>- They will be able to develop new knowledge and processes and integrate cutting-edge knowledge from different scientific fields.</li> <li>- In terms of skills, they will be able to manage complex work environments and problems and develop new approach strategies.</li> </ul>
<b>General Competences</b>
<ol style="list-style-type: none"> <li>1. Search for, analysis and synthesis of data and information, with the use of the necessary technology</li> <li>2. Adapting to new situations</li> </ol>

3. Decision-making
4. Working independently
5. Team work
6. Working in an international environment
7. Working in an interdisciplinary environment
8. Production of new research ideas
9. Project planning and management
10. Respect for difference and multiculturalism
11. Respect for the natural environment
12. Production of free, creative and inductive thinking

### 3. SYLLABUS

Art as an expression of thoughts and feelings, as aesthetics

Technology as a mean of implementation, as tools and processes, as skills and applied Knowledge.

Interdisciplinary approach of the relation of art, culture and technology

History of art. Art movements. Evolution of Technology.

Tangible and intangible cultural heritage.

Fine arts and new technologies

Applied arts and industrial design.

Special subjects of art and technology: non-destructive analyses of cultural heritage materials for revealing their chemical composition. Archaeometry. 3D digitalization and 3D printing. Reconstruction and Photogrammetry.

### 4. TEACHING and LEARNING METHODS – EVALUATION

<b>DELIVERY</b>	Face-to-face and distance learning	
<b>USE OF INFORMATION AND COMMUNICATION TECHNOLOGY</b>	<ul style="list-style-type: none"> <li>• Use of ICTs in theoretical teaching and use of ICTs in lecturing</li> <li>• Use of ICTs for the communication with students via the e-class platform</li> </ul>	
<b>TEACHING METHODS</b>	<i><b>Method description / Activity</b></i>	<i><b>Semester Workload</b></i>
	Lectures	39
	Laboratory work	30
	Non-guided personal study	81

	<b>Course Total (30h/ECTS)</b>	<b>150</b>
<b>STUDENT PERFORMANCE EVALUATION</b>	<p><b>Language of Assessment</b> Greek</p> <p><b>Description</b> Final exams with several type of questions such as multiple choice, short-answer questions and problem solving.</p> <p><b>Student assessment methods</b></p> <ul style="list-style-type: none"> <li>• Final Exams: 70%</li> <li>• Final written laboratory work/essay/reports: 30%</li> </ul> <p>The assessment criteria are announced to students at the beginning of the semester and are published on the course webpage in the e-Class platform.</p>	

## 5. ATTACHED BIBLIOGRAPHY

### - Suggested bibliography:

1. Liritzis I.(ed) New technologies applied to archaeological sciences, Dardanos Publications. 2008
2. Mpounia A, Nikonanou N. Oikonomou M, Technology In The Service Of Cultural Heritage, Apostolakis publications. 2008
3. Arnheim, Rudolf, Art and Visual Perception: A psychology of the creative eye; The New Version, University of California Press, 1997

### - Related academic journals:

- *Journal of Archaeological Science, Elsevier*
- *Journal of Cultural Heritage, Elsevier*
- *Heritage, MDPI*