

MODULE OUTLINE

1. GENERAL INFORMATION

SCHOOL	SCHOOL OF APPLIED ARTS AND SUSTAINABLE DESIGN		
PROGRAM COURSE	PROTECTION OF CULTURAL HERITAGE AND MONUMENTS OF NATURE FROM THE EFFECTS OF CLIMATE CHANGE		
LEVEL OF STUDY	POSTGRADUATE		
MODULE CODE	CCC63	YEAR OF STUDY	2 nd
MODULE TITLE	RESILIENCE STRATEGIES FOR NATURAL AND HISTORIC HERITAGE LANDSCAPES		
INDEPENDENT TEACHING ACTIVITIES <i>in case credits are awarded for separate components/parts of the course, e.g. in lectures, laboratory exercises, etc. If credits are awarded for the entire course, give the weekly teaching hours and the total credits</i>		HOURS	CREDIS
Weekly teaching hours: 18-19 * 30 weeks		560	20 ECTS
COURSE TYPE Compulsory, Optional, Optional mandatory	Optional. Leads to specialization for natural landscapes and monuments of nature		
PREREQUISITE MODULES:	1 st year course modules		
LANGUAGE OF INSTRUCTION AND EXAMS	English		
THE MODULE IS OFFERED TO ERASMUS STUDENTS	No		
MODULE WEBSITE (URL)	https://www.eap.gr/en/protection-of-cultural-heritage-and-monuments-of-nature-from-the-effects-of-climate-change/topics/#ccc63 Each module has its own space in the Learning Management System of EAP (https://study.eap.gr/login/index.php), with controlled access (use of code) for students and teaching staff.		

2. LEARNING OUTCOMES

<p>Learning Outcomes</p> <ul style="list-style-type: none"> The course learning outcomes, specific knowledge, skills and competences of an appropriate (certain) level, which students will acquire upon successful completion of the course, are described in detail. It is necessary to consult:
<p>Upon successful completion of the course, students will:</p> <ol style="list-style-type: none"> 1. Familiarize with problems in natural and cultural heritage and learn to identify them. 2. Learn how to study diachronic changes of culturally interesting landscapes 3. Understand the landscape evolution 4. Learn how to monitor heritage landscapes and how to combine collected information make conclusions.

5. Learn to study interventions, conservation and restoration of the environment and cultural heritage
6. Familiarize with adaptation and mitigation strategies for natural and cultural landscapes
7. Understand geomorphological processes such as chemical weathering, deposition, erosion and their impact on historical heritage landscapes

General Competences
Taking into consideration the general competences that students/graduates must acquire (as those are described in the Diploma Supplement and are mentioned below), at which of the following does the course attendance aim?

<i>Search for, analysis and synthesis of data and Project planning and management information by the use of appropriate technologies,</i>	<i>Respect for diversity and multiculturalism</i>
<i>Adapting to new situations</i>	<i>Environmental awareness</i>
<i>Decision-making</i>	<i>Social, professional and ethical responsibility and sensitivity to gender issues</i>
<i>Individual/Independent work</i>	<i>Critical thinking</i>
<i>Group/Team work</i>	<i>Development of free, creative and inductive thinking</i>
<i>Working in an international environment</i>	<i>.....</i>
<i>Working in an interdisciplinary environment</i>	<i>(Other.....citizenship, spiritual freedom, social Introduction of innovative research awareness, altruism etc.)</i>

Search for, analysis and synthesis of data and information by the use of appropriate technologies,
 Adapting to new situations
 Decision-making
 Individual/Independent work
 Project planning and management
 Critics and self-assessment
 Development of free, creative and inductive thinking
 Team work
 Working in an international environment
 Working in an interdisciplinary environment
 Development of new scientific ideas
 Respect for diversity and multiculturalism
 Respect for the natural environment

3. MODULE CONTENT

This course deals with climate change impacts on natural and historic landscapes, identification of potential problems in natural heritage and historic landscapes, monitoring of heritage landscapes and adaptation and mitigation strategies.
 The key subjects of the module are:

1. Climate change impacts on natural and historic landscapes
2. Technologies and techniques to identify potential problems in natural heritage and historic landscapes
3. Monitoring of heritage landscape
4. Adaptation and mitigation strategies for natural heritage and historic landscapes

4. TEACHING METHODS--ASSESSMENT

<p align="center">MODES OF DELIVERY</p> <p><i>Face-to-face, in-class lecturing, distance teaching and distance learning etc.</i></p>	<p>Distance education with five Group Counseling Meetings (OSS) during the academic year on weekends.</p>	
<p align="center">USE OF INFORMATION AND COMMUNICATION TECHNOLOGY</p> <p><i>Use of ICT in teaching, Laboratory Education, Communication with students</i></p>	<p>We use :</p> <ol style="list-style-type: none"> 1. Remote meetings tools (cisco webex), 2. Presentation software (e.g. power point), 3. Specialized software in the subjects under study (SQLite, Diagram Drawing Tools, etc.). <p>Additionally, the students use office automation tools, web browsers and e-reader for digital books.</p>	
<p align="center">MODULE DESIGN</p> <p><i>Description of teaching techniques, practices and methods: Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, Internship, Art Workshop, Interactive teaching, Educational visits, projects, Essay writing, Artistic creativity, etc</i></p> <p><i>The study hours for each learning activity as well as the hours of selfdirected study are given following the principles of the ECTS.</i></p>	<p>Activity</p>	<p>Annual Workload</p>
	<p>5 OSS (* 4 hours)</p>	<p>20</p>
	<p>5 Horizontal tutorial OSS (* 2 hours)</p>	<p>10</p>
	<p>Activities and Multiple Choice Exercises (32 x0.5 hours)</p>	<p>16</p>
	<p>Preparation of Assignments (4 assignments * 15 hours)</p>	<p>60</p>
	<p>Examination</p>	<p>3</p>
	<p>Individual study</p>	<p>451</p>
	<p>Total module workload (hours)</p>	<p>560</p>
<p align="center">STUDENT PERFORMANCE EVALUATION/ASSESSMENT METHODS</p> <p><i>Detailed description of the evaluation procedures.</i></p> <p><i>Language of evaluation, assessment methods, formative or summative (conclusive), multiple choice tests, short- answer questions, open-ended questions, problem solving, written work, essay/report, oral exam, presentation, laboratory work, other.....etc.</i></p> <p><i>Specifically defined evaluation criteria are stated, as well as if and where they are accessible by the students</i></p>	<p>Four (4) written assignments in English language during the academic year, the average of the grades of which participates in the formation of the final grade by 30%, if the latter is acceptable concerning final or repeated exams. Students need to have successfully completed the written assignment obtaining an average grade of at least 50%, in order to be eligible to the final exams. Final written examinations, that participate in the formation of the final degree by 70%.</p> <p>All the criteria are posted, both in each written assignment (in the: https://study.eap.gr/login/index.php), as well as in the general regulation of HOU at: https://www.eap.gr/wp-content/uploads/2022/03/kanonismos-spoudwn-isxys-apo-to-didaktiko-etos-2022-2023.pdf</p>	

(6) SUGGESTED BIBLIOGRAPHY

- Suggested bibliography:

1. Bandarin, F., & Van Oers, R. (Eds.). (2014). Reconnecting the city: the historic urban landscape approach and the future of urban heritage. John Wiley & Sons.
2. Climate Adaptation Futures - Proceedings of the 2010 International Climate Change Conference (pp.311-321).
3. Taylor, K., & Lennon, J. (2012). Managing Cultural Landscapes. Routledge, pp. 1-70 & 190-340. ISBN 9780415672252
4. Bailey, G. N., Harff, J., & Sakellariou, D. (Eds.). (2017). Under the sea: archaeology and palaeolandscapes of the continental shelf (Vol. 20). Cham: Springer.
5. Evans, A. M., Flatman, J. C., & Flemming, N. C. (Eds.). (2014). Prehistoric archaeology on the continental shelf: a global review. Springer.
6. Church, J., Wilson, S., Woodworth, P., & Aarup, T. (2007). Understanding sea level rise and variability. Wiley-Blackwell, ISBN: 978-1-444-33452-4
7. Graham, E., Hambly, J., & Dawson, T. (2017). Learning from loss: Eroding coastal heritage in Scotland. *Humanities*, 6(4), 87.
8. Nicu, I. C., Rubensdotter, L., Stalsberg, K., & Nau, E. (2021). Coastal Erosion of Arctic Cultural Heritage in Danger: A Case Study from Svalbard, Norway. *Water*, 13(6), 784.
9. Nicu, I. C., Stalsberg, K., Rubensdotter, L., Martens, V. V., & Flyen, A. C. (2020). Coastal erosion affecting cultural heritage in Svalbard. A case study in Hiorthhamn (Adventfjorden)—An abandoned mining settlement. *Sustainability*, 12(6), 2306.
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15. Caner-Saltik, E. N. (2018). Atmospheric Weathering of Historic Monuments and Their Related Conservation Issues. In *MATEC Web of Conferences* (Vol. 149, p. 01009). EDP Sciences.
16. Cuca, B., & Agapiou, A. (2018). Impact of land-use change and soil erosion on cultural landscapes: the case of cultural paths and sites in Paphos district, Cyprus. *Applied Geomatics*, 10(4), 515-527.
17. González, P. A. (2013). Cultural parks and national heritage areas: Assembling cultural heritage, development and spatial planning. Cambridge Scholars Publishing, pp. 1-36. ISBN: 1-4438-5246-5
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-Related scientific Journals:

1. Climatic Change, Springer
2. Nature Climate Change
3. Climate
4. Geohazards
5. Heritage
6. Geoscience
7. Quaternary
8. Climate and Atmospheric Science
9. Remote Sensing