

## COURSE OUTLINE

### 1. GENERAL INFORMATION

<b>FACULTY/SCHOOL</b>	School of Plant Sciences		
<b>DEPARTMENT</b>	Department of Crop Science		
<b>LEVEL OF STUDY</b>	Postgraduate		
<b>COURSE UNIT CODE</b>	120101	<b>Semester:</b>	W-1
<b>COURSE TITLE</b>	Materials and Technology in Landscape Architecture		
<b>INDEPENDENT TEACHING ACTIVITIES</b> <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>	<b>WEEKLY TEACHING HOURS</b>	<b>ECTS</b>	
Lectures and Design Tutorials	2	3	
<i>Add rows if necessary. The organization of teaching and the teaching methods used are described in detail under section 4</i>			
<b>COURSE TYPE</b> <i>Background knowledge, Scientific expertise, General Knowledge, Skills Development</i>	Scientific expertise		
<b>PREREQUISITE COURSES:</b>			
<b>LANGUAGE OF INSTRUCTION:</b>	Greek		
<b>THE COURSE IS OFFERED TO ERASMUS STUDENTS</b>	No		
<b>COURSE WEBSITE (URL)</b>			

### 2. LEARNING OUTCOMES

<p><b>Learning Outcomes</b></p> <p><i>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:</i></p> <p><b>APPENDIX A</b></p> <p><i>Description of the level of learning outcomes for each level of study, in accordance with the European Higher Education Qualifications' Framework.</i></p> <p><i>Descriptive indicators for Levels 6, 7 &amp; 8 of the European Qualifications Framework for Lifelong Learning and</i></p> <p><b>APPENDIX B</b></p> <p><i>Guidelines for writing Learning Outcomes</i></p>
<p>The course serves as the fundamental introductory lesson on the hard materials utilized by landscape architects for the construction of outdoor spaces. Special emphasis is placed on capturing and presenting details of small-scale constructions and urban outdoor equipment. Additionally, importance is given to introductory concepts of topography concerning the shaping of the terrain. Upon successful completion of the course, the student will be able to design and present construction details related to outdoor spaces, such as pavements, pergolas, seating areas, walls, and stairs, as well as shape the relief of a landscape through cut &amp; fill techniques.</p> <p>Upon completion of the course, students will:</p>

- acquire specialized knowledge about the types of hard materials used in Horticulture and Landscape Architecture,
- understand the properties and characteristics of hard materials,
- be able to depict and present design details of small-scale constructions and urban outdoor equipment,
- be capable of designing various elements used in outdoor spaces, such as pavements, pergolas, seating areas, walls, and stairs,
- have the ability to synthesize and capture the relief (cut & fill) of a landscape.
- propose new landscape structures by synthesizing and integrating them with the existing landscape.

### 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?*

*Search for, analysis, and synthesis of data and information by the use of appropriate technologies,  
Adapting to new situations  
Decision-making  
Individual/Independent work  
Group/Team work  
Working in an international environment  
Working in an interdisciplinary environment  
Introduction of innovative research*

*Project planning and management  
Respect for diversity and multiculturalism  
Environmental awareness  
Social, professional and ethical responsibility and sensitivity to gender issues  
Critical thinking  
Development of free, creative and inductive thinking  
.....  
(Other.....citizenship, spiritual freedom, social awareness, altruism etc.)  
.....*

Search for, analysis and synthesis of data and information by the use of appropriate technologies  
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### 3. COURSE CONTENT

Establish the concepts of construction details, processing, and composition of construction materials for the creation of functional and aesthetically pleasing outdoor spaces. Develop synthetic skills in creating construction designs by combining various materials. Introduce basic elements of topography, topographic maps, contour lines, and the shaping of the terrain relief. Analyse the characteristics and properties of the main materials used in Landscape Architecture and their combinations. The advantages and disadvantages of using these materials are mentioned, along with information about their availability in the market and details about their erosion and durability. The construction of major outdoor infrastructures and furniture in Landscape Architecture is analyzed (floors and surfaces, steps, walls, water surfaces, pergolas, seating areas, etc.).

### 4. TEACHING METHODS--ASSESSMENT

#### MODES OF DELIVERY

*Face-to-face, in-class lecturing, distance teaching and distance learning etc.*

The teaching of the coursetakes place in-person, in a well-equipped classroom/studio, complete with the necessary audiovisual equipment for conducting lectures and presentations, as well as drafting tables and computers. These computers have suitable design software installed to assist in teaching the course. Additionally, teaching can also be conducted remotely through video conferencing.

<p><b>USE OF INFORMATION AND COMMUNICATION TECHNOLOGY</b>  <i>Use of ICT in teaching, Laboratory Education, Communication with students</i></p>	<p>Slide Presentations in PowerPoint format are used for teaching purposes.  Video projection.  Use of appropriate design software (such as AutoCAD, 3D Studio Max, Google SketchUp, Rhinoceros 3D, etc.).  Use of suitable image editing and presentation creation software (such as Adobe Photoshop, CorelDRAW, etc.).  Communication with students is facilitated through email.  The learning process is supported through the digital platform Microsoft Teams.  Access to online databases is provided for research purposes.</p>															
<p><b>COURSE DESIGN</b>  <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 self-directed study are given following the principles of the ECTS.</i></p>	<table border="1"> <thead> <tr> <th data-bbox="719 557 1075 600">Activity/ Method</th> <th data-bbox="1082 557 1433 600">Semester workload</th> </tr> </thead> <tbody> <tr> <td data-bbox="719 609 1075 645">Lectures</td> <td data-bbox="1082 609 1433 645">20 hours</td> </tr> <tr> <td data-bbox="719 654 1075 719">Completion of individual and group assignments at home</td> <td data-bbox="1082 654 1433 719">26 hours</td> </tr> <tr> <td data-bbox="719 728 1075 792">Design tutorials</td> <td data-bbox="1082 728 1433 792">6 hours</td> </tr> <tr> <td data-bbox="719 801 1075 837">Educational visit</td> <td data-bbox="1082 801 1433 837">6 hours</td> </tr> <tr> <td data-bbox="719 846 1075 882">Individual design work</td> <td data-bbox="1082 846 1433 882">17 hours</td> </tr> <tr> <td data-bbox="719 891 1075 965"><b>Total of Course (25 hours of workload per ECTS)</b></td> <td data-bbox="1082 891 1433 965"><b>75 hours</b></td> </tr> </tbody> </table>		Activity/ Method	Semester workload	Lectures	20 hours	Completion of individual and group assignments at home	26 hours	Design tutorials	6 hours	Educational visit	6 hours	Individual design work	17 hours	<b>Total of Course (25 hours of workload per ECTS)</b>	<b>75 hours</b>
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<p><b>STUDENT PERFORMANCE EVALUATION/ASSESSMENT METHODS</b>  <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>The evaluation language is Greek (and English if required). The assessment is done through design exercises. The grade is derived from the submission of designs and supplementary tasks related to home-based work in combination with significant completion within the classroom (studio), under the direct supervision and guidance of the instructors. The evaluation criteria focus on accuracy, clarity, and aesthetic presentation of design proposals.</p>															

**5. SUGGESTED BIBLIOGRAPHY:**

- *Suggested Bibliography:*  
Littlewood, M. (1993). Landscape Detailing Volume 1. Enclosures. Routledge.  
Littlewood, M. (1993). Landscape Detailing Volume 2. Surfaces. Routledge.  
Littlewood, M. (1997). Landscape Detailing Volume 3. Structures. Routledge.  
Littlewood, M. (2001). Landscape Detailing Volume 4. Water. Routledge.  
Sharky, B. G. (2014). Landscape Site Grading Principles: Grading with Design in Mind. John Wiley & Sons.  
Harris, C. W., & Dines, N. T. (1998). Time-saver standard for landscape architecture 2nd edition. McGraw Hill.

- *Related Scientific Journals:*

- Landscape Architecture Magazine
- Topos

- Landezine
- 'scape
- The American Society of Landscape Architects
- Journal of Landscape Architecture
- Landscape Research
- Landscape Journal
- Landscape and Urban Planning
- Land (MDPI)
- Sustainability (MDPI)