

Course unit title:	Whole Life Management of Sustainable Construction		
Course unit code:	CESU210-1		
Type of course unit:	Compulsory (for Specialization in Sustainable Construction)		
Level of course unit:	Bachelor (1st Cycle)		
Year of study:	2		
Semester when the unit is delivered:	3 (Fall)		
Number of ECTS credits allocated :	5		
Name of lecturer(s):	Dr Christos Anastasiou		
Aim of the Course	The aim of this course is to provide training in managing whole life sustainability of the built environment to allow students to eventually contribute towards a more sustainable construction industry. The course seeks to prepare aspiring civil engineers to undertake the effective management of their projects to meet the challenges of a sustainable built environment.		
Learning outcomes of the course unit:	<ul style="list-style-type: none"> • Understand the basic concepts of sustainable development in construction • Be aware of the wider benefits of the environmental, social and economic benefits from sustainable construction to society. • Identify sustainable procurement routes and sustainable construction standards (LEED, BREEAM, CEN/TC 350, CEEQUAL, etc.) • Develop sustainable construction indicators and a sustainable construction index • Perform a holistic sustainability assessment, sustainable procurement, and innovation. • Be able to contribute to the development of a sustainability assessment method (along the lines of BREEAM or LEED) that would better suit differing climates and cultures. 		
Mode of delivery:	Face-to-face		
Prerequisites:		Co-requisites:	None
Course contents:	<p>Module 1: Sustainable development and construction</p> <ul style="list-style-type: none"> • Sustainable development fundamentals • Sustainable construction fundamentals • Management of sustainable construction • EU directives and policies • Sustainability of construction works CEN/TC 350 fundamentals <p>Module 2: Integrated Sustainability Assessment</p> <ul style="list-style-type: none"> • Sustainability assessment fundamentals • Sustainable construction indicators • Sustainability assessment tools • Integrated sustainability assessment toolkit <p>Module 3: Sustainable Procurement</p> <ul style="list-style-type: none"> • Sustainable procurement fundamentals • Impact of sustainable procurement on construction supply chain • Whole life costing • Sustainable procurement: EU initiatives • Sustainable construction in practices 		
Recommended and/or required reading:			
Textbooks:	<ul style="list-style-type: none"> • Whole Life Sustainability, Ian Ellingham and William Fawcett, RIBA Publishing, 2013, ISBN: 9781859464502. 		

References:	<ul style="list-style-type: none"> • An extensive reading list of relevant guides from such organizations as the EU, RIBA, RICS, BRE, and the USGBC.
Planned learning activities and teaching methods:	<p>The course is presented through theoretical lectures in class. The lectures present to the student the course content and allow for questions. The material is presented using visual aids (i.e. PowerPoint presentation slides, documentaries, etc.). The aim is to familiarize the student with the different and faster pace of presentation and also allow the instructor to present related material that would otherwise be very difficult to do. The learning process is enhanced with the requirement from the student to carry in-class discussions and tackling of hypothetical scenarios in small-group exercises. Homework Assignments, which are required as part of the students assessment for the course, allows students the opportunity to carry out independent work, synthesize basic concepts presented in class, as well as hone their writing and presentation skills. Besides from the notes taken by students in class, all of the course material is made available through the class website which is available through the University's E-learning platform ("Moodle"). The instructor is available to students during office hours or by appointment in order to provide necessary guidance.</p>
Assessment methods and criteria:	<ul style="list-style-type: none"> • Midterm Exams: 40% • Assignments: 10% • Final Exam 50%
Language of instruction:	English
Work placement(s):	No