Course Unit Title	BUILDING ENVIRONMENTAL SERVICES
Course Unit Code	CEH310
Course Unit Details	BSc Quantity Surveying (Required Courses) -
Number of ECTS credits allocated	6
Learning Outcomes of the course unit	 By the end of the course, the students should be able to: Outline environmental issues and building services and the concepts of: basic environmental control systems and issues, and develop an intuitive understanding of how to apply these concepts to the design of buildings, water supply, waste-water disposal, storm water disposal, heating, etc. for the design of buildings. Apply design procedures for buildings using environmental issues and services location. Analyse environmental factors and their significance in building design. Evaluate case studies: building services, urban design, sustainability issues. Design case study for building services.
Mode of Delivery	Face-to-face
Prerequisites	NONE Co-requisites NONE
Recommended optional program components	NONE
Course Contents	Water Supply: - Uses - Sources - Quality - Treatment - Storage and distribution Sanitary Appliances: - Regulation - Materials - Appliances Pipes: - Properties and applications of materials - Sizing and gradients - Examples Drainage and Sewage: - Principles - Performance criteria - Drainage systems - Examples - Sewage disposal

	Heat and Thermal Installation: - Thermal phenomena of significance in buildings - Heat insulation - Examples - Thermal installation
Recommended and/or required reading:	
Textbooks	Burberry P. "Environment and Services", Longman, 1997
References	
Planned learning activities and teaching methods	The course will be presented through theoretical lectures in class. The lectures will present to the student the course content and allow for questions. Part of the material will be presented using visual aids. The aim is to familiarize the student with the different and faster pace of presentation. Exercises and assignments will be given as homework which will be part of their assessment. Besides from the notes taken by students in class, all of the course material will be made available through the class website and also through e-learning. Finally the instructor will be available to students during office hours or by appointment in order to provide any necessary tutoring.
Assessment methods and criteria	Coursework 40% Final Exam 60%
Language of instruction	English
Work placement(s)	NO