



UNIVERSITY OF NICOSIA

ΠΑΝΕΠΙΣΤΗΜΙΟ ΛΕΥΚΩΣΙΑΣ

University of Nicosia, Cyprus

Course Code ARCH-441	Course Title History and Theory of Sustainable Design	ECTS Credits 4
Department Architecture	Semester Fall	Prerequisites ARCH-141, ARCH-142, ARCH-242
Type of Course Major Requirement	Field Architecture	Language of Instruction English
Level of Course 1 st cycle	Year of Study 4th	Lecturer(s) Dr Petros Lapithis
Mode of Delivery Face-to-face	Work Placement N/A	Co-requisites none

Objectives of the Course:

- To present the core theories underpinning sustainability
- To reconsider the question of what qualifies as sustainable design
- To explore related issues such as responsibility in sustainable design, pace of change (energy efficiency, recyclability), appearance, geography (local and global conditions).
- To provide a theoretical background of the impact of climate on building design and the use of energy efficient building design principles for building design and energy rating.
- To develop an awareness of the world's climate and solar radiation and how they impact on the energy rating and design of buildings.
- To relate issues of sustainability in architectural design to other related disciplines including engineering, construction, urban planning, landscape architecture, sustainable science, art history, and sociology.
- To emphasize the importance of sustainability on an international, national and individual basis.
- To encourage students to develop their own direction and solutions, imaginatively and creatively, through research, supported by full-time studio tutors and leading practitioners.

Learning Outcomes:

- After completion of the course students are expected to be able to:
- To apply the specific knowledge into architectural design
 - To apply the sustainable impact of materials
 - Synthesize social, cultural and political needs and requirements
 - To study the human and social impact of the built environment upon the inhabitants of that environment: physically, emotionally and psychologically.
 - To create architectural designs that satisfy both aesthetic and technical requirements
 - Analyze of the profession of architecture and the role of the architect in society.
 - Assess the physical problems and technologies and of the function of buildings so as to provide them with internal conditions of comfort and protection against the climate
 - Develop the necessary design skills to meet building users' requirements within the constraints imposed by cost factors and building regulations
 - Assess the industries, organisations, regulations and procedures involved in translating design concepts into buildings and integrating plans into overall planning.
 - Asses of the core theories underpinning sustainability
 - To explore related issues such as responsibility in sustainable design, pace of change (energy efficiency, recyclability), appearance, geography (local and global conditions).

Course Contents:

- Sustainable Architecture, Sustainable living
- Sustainable Urban Design & Landscape Architecture
- Sustainable Materials & Construction
- Sustainable Energy, Alternative energy, renewable resources
- Art and Sustainability
- Energy Policies and Strategies
- Corporate commitment and energy policy
- Energy terms and concepts.
- Climate change
- Energy Use in Buildings
- Energy Scenarios for Europe and Cyprus
- Economic analysis of Energy Efficiency
- Greenhouse Science and Policy.
- Global and Regional Sustainability

Learning Activities and Teaching Methods:

Lectures, Studio Presentations, Studio Tutorials, Practical Exercises and Assignments, Projects

Assessment Methods:

Assignments, Diagrams, Presentations, Sketchbook, Homework, Project, Mid-Term, Final Project

Required Textbooks/Reading:

Authors	Title	Publisher	Year	ISBN

Recommended Textbooks/Reading:

Readings will be from a variety of sources related to sustainability, economy and culture.