

COURSE OUTLINE

1. GENERAL

SCHOOL	ENGINEERING		
DEPARTMENT	ARCHITECTURE		
LEVEL OF COURSE	UNDERGRADUATE		
COURSE CODE	ARC_04 00	SEMESTER OF STUDIES	4 TH FOURTH
COURSE TITLE	ARCHITECTURAL DESIGN 4		
INDEPENDENT TEACHING ACTIVITIES		TEACHING HOURS PER WEEK	ECTS CREDITS
Lectures - Theory		1	12
Laboratory Work (Project)		7	
COURSE TYPE	Field of Practice (Architectural Design) and Skills Development (Architectural Analysis and Representation)		
PREREQUISITE COURSES:	Architectural Design 2 (2nd semester)		
TEACHING AND ASSESSMENT LANGUAGE:	Greek		
THE COURSE IS OFFERED TO ERASMUS STUDENTS	Yes (in English)		
COURSE WEBPAGE (URL)	https://eclass.upatras.gr/courses/ARCH591/		

2. LEARNING OUTCOMES

Learning outcomes
<p>Upon successful completion of the course, students will acquire:</p> <p>Understanding the complexity of architectural design They understand the diversity and interdependence of the parameters involved in the production (design) of original architectural interventions of small and medium scale. More specifically, knowledge and understanding of the multifaceted approach of architecture to the relatively simple, yet fundamental, architectural program of housing. (in this semester particularly the core project involves the proposal for a relatively small house in a hilly terrain.)</p> <p>Basic scientific and technical knowledge of architectural elaboration Students have sufficient basic knowledge <i>a.</i> about the appropriate architectural elaboration of a small building to meet the needs of the users, <i>b.</i> about the shaping of its relationships and interdependencies with the immediate surroundings (soil, climate, city, landscape), <i>c.</i> about its material and construction solution, and finally <i>d.</i> about how the proposal situates itself as an architectural work within its historical and cultural context.</p> <p>Historical background and understanding of context They also have knowledge of historical precedents. Through analysis of exemplary 20th century residences, they understand how their authors have responded to the issue of housing, assessing the parameters of the environment, and the cultural, social, value context of their time, how they made</p>

use of their own references (historical well-known examples or anonymous tradition), and how and why they revise and renew the typology of residence. They learn to examine the references comparatively.

This understanding is supported by theoretical and scientific material of appropriate level (2nd year of undergraduate studies) that equips students with theoretical and practical knowledge (technical and artistic) and brings them into direct and multifaceted contact with contemporary views on architecture in general and specifically on residential architecture in the Greek region, the Mediterranean, and at an international level.

Synthesis and creative application of knowledge

Students can apply the knowledge they have acquired, synthesizing it to produce design proposals for a relatively simple architectural space of low to medium complexity, applying design methods and experimentation with material constructions. They practice creative and innovative problem-solving.

Formulation through design of a general concept and arguments

Students are able to formulate a coherent central concept, and then to elaborate it consistently and thoroughly through design, and finally to present it in a complete and integrated manner using the basic means of architectural design (drawings, models, images, etc.). They have been trained in a comprehensive way of practicing architecture, where they learn to formulate design arguments, develop and support them, and tackle architectural problems.

Research, observation and interpretation

They have cultivated the ability, through on-site or other research, to systematically and creatively observe the existing man-made or natural environment within which they are asked to formulate their architectural interventions (city, suburbs, countryside). They can collect, record and evaluate data about the site/context and proceed in subjective conclusions and interpretations through mapping, diagrams, analytical and special plans.

During the semester, students cultivate basic intellectual and practical skills such as:

identification of the basic architectural problems posed by both the specialized study topic given to them, as well as by their own conceptual framework and system of principles.

intuitive thinking and creative experimentation in order to approach the object of study and solution with architectural skill and innovation.

communication with the means available to architects, which allow them to present their research (bibliographic and design), ideas and studies in a comprehensive manner. That is, design skills, construction of prototypes and material tests, representations in general, but also cultivation of the oral and written language that frames the design work.

research and acquisition of new knowledge on their subject of study, knowledge that they will need in the next stages of their studies (Architectural Design courses 5-9, Diploma Thesis, etc.) with a high degree of autonomy.

General Abilities

Students cultivate through the course more general abilities, such as:

Search, analysis and synthesis of data and information, using the necessary technologies.

Design and project management. They acquire the ability to effectively manage the resources at their disposal, within the relatively limited time available.

Decision-making. They acquire the ability to prioritize complex problems and parameters of the mental construction of their work and take responsibility for their choices and decisions.

Autonomous work. They cultivate the ability to take individual initiative to guide their research and their development in the field of Architectural Design.

Adaptation to new situations, and promotion of free, creative and inductive thinking.

Exercise of criticism and self-criticism. They have the ability to think critically, that is, to form judgments and reflections on social, ethical, and value-based issues related to the subject of the course, and to draw up a conceptual framework and system of principles and with this to inform/justify their design choices accordingly.

They learn to **respect the natural environment**, and embrace **diversity, and multiculturalism**.

Finally, they cultivate **noble competition** and the **desire for distinction and excellence** that leads them to further development.

3. COURSE CONTENT

The fourth semester is following the third semester as an extension of research through design on the **subject of habitation and residence**. In contrast to the third where the students study collective habitation in the urban environment, in the fourth semester the students approach the issue of autonomous, private habitation in the countryside or in a suburban environment, with the aim of introducing them to knowledge of analysis and intervention in the natural or partly man-made landscape.

Throughout the 4th semester the students elaborate in stages and in increasing detail a topic, whose object is the **original design of a private residence in relation to the landscape that surrounds it**.

The work on the project begins with preliminary exercises of analysis of important examples of 20th-century houses, and at the same time perform material and design experimentations that attempt to bring forth the desired (for each person) programmatic structure of the residence and the idea for its deployment in the environment.

In a second phase, the students formulate the core concept of their house and intervention, which clarifies: **a. the programmatic structure of the residence** (identity and desires-needs of residents, functions hosted, spatial and functional needs and peculiarities), **b. the typological structure** (hierarchy and relationships of the parts between them, distinction of private and non-private zones, organization of movements and correlation of spaces), **c. the integration into the environment** (form of the residence and its dialogue with the surroundings, adaptation to the terrain, climatic adaptation), **d. the material and construction philosophy** (choices of basic materials and construction methods, and resource management), **e. the integration and utilization of references** that enrich and strengthen the idea.

Guided by the core concept, students then continue to a more detailed architectural elaboration of their projects through which they achieve the most complete possible building resolution for the residence and the surrounding space, a more systematic and detailed study of forms, proportions, the organization and design of openings, and the further elaboration of the structural, construction and material logic.

The elaboration of the project comes to completion with the editing and evaluation of the work produced during the entire semester and the preparation of the final presentation material of the topic, which must be supported with the necessary sketches, drawings, material models to scale, with illustrations and representations and oral and written language.

An analytic structure of the content of the course, divided in thirteen weeks follows:

- I. Introduction to the topic, the structure and schedule of the course, basic concepts
- II. Analysis of reference houses / Critical discussion / construction of model of the ground
- III. Creative workshop, experimentation on models, preliminary discussion on concept
- IV. Lecture 1 / Design studio, Typology of house
- V. Lecture 2 / Design studio, Programmatic and Functional Program configuration
- VI. Lecture 3 / Design studio, Circulation Realms, Organization of outdoor spaces
- VII. Lecture 4 / Design studio, Strengthening the concept

VIII.	Midterm presentation (concept and proposals)
IX.	Lecture 5 / Design studio – Building Plans, Elaboration and Refinement
X.	Lecture 6 / Design studio – Building Sections and Facades, Elaboration and Refinement
XI.	Design Seminar, Materials and Structural Philosophy
XII.	Lecture 7 / Design studio, Methods and techniques for Visual Presentation of the Design Concept
XIII.	Developing presentation material

4. TEACHING AND LEARNING METHODS - ASSESSMENT

TEACHING METHOD	Laboratory work face to face and seminars in small groups.	
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	Specialized architectural design software for drafting and modeling (in two and three dimensions) and digital image processing. Student posts on the course's site. Support learning through the e-class platform.	
TEACHING ORGANIZATION	Activity	Work-load during semester
	Lectures and seminars	13
	Design Workshops, Analysis of reference works, Site visit and analysis, Introductory exercises and presentations,	91
	Core project development, Autonomous study	196
	Course Total (25 hrs of work-load per ECTS unit)	300
STUDENT ASSESSMENT	<p>I. Final public Submission and Presentation (50%). It consists of drawings, models and digital audiovisual material. The final project submission and presentation is evaluated for the integration and degree of completion of the required material, its originality in addressing the goals and the quality of the representational media.</p> <p>II. Attendance, progress and participation (50%). The overall assessment of the student's progress in the course takes into consideration his/her participation in the Interim Exams and Workshops, as well as his/her Consistent and regular attendance and progress of the work throughout the semester.</p>	

5. RECOMMENDED LITERATURE

<p><i>Books:</i></p> <ul style="list-style-type: none"> - Αρτινός, Α., Η ετεροτοπία της καλύβας, Αθήνα: Σμίλη, 2014.

- Le Corbusier, Ένα μικρό σπίτι, Αθήνα: Libro, 1998.
- Heidegger, M., Κτίζειν, Κατοικείν, Σκέπτεσθαι, Αθήνα: Πλέθρον, 2008.
- Sennett, R., Η τυραννία της οικειότητας, Αθήνα: Νεφέλη, 1999.
- Λέφας, Π., Αρχιτεκτονική και κατοίκηση: Από τον Heidegger στον Koolhaas, Αθήνα: Πλέθρον, 2008.
- Λαδά, Α. (επιμ.), Κατοικία: σχεδιάζω, κατασκευάζω, σκέπτομαι, Θεσσαλονίκη: University Studio Press, 2015.
- Φατούρος, Δ., Ένα συντακτικό της αρχιτεκτονικής σύνθεσης, Θεσσαλονίκη: Επίκεντρο, 2007.
- Καλογήρου, Ν. (επιμ.), Σύγχρονες ελληνικές κατοικίες, Θεσσαλονίκη: Μαλλιάρης Παιδεία.
- Φιλιππίδης, Δ., Νεοελληνική αρχιτεκτονική, Αθήνα: Μέλισσα, 1984.