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STUDY GUIDE

DEPARTMENT OF ARCHITECTURAL ENGINEERING

DEMOCRITUS UNIVERSITY OF THRACE



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The cover of this Study Guide was designed by students of the Department: Christos Vogiatzis and Spyros Gourzoulidis.

Department of Architecture – Brief History of Establishment

The Department of Architecture, within the School of Engineering at the Democritus University of Thrace, was established by Presidential Decree No. 208/1999. In accordance with this decree, the mission of the Department is twofold:

- To promote and advance the scientific discipline of architectural engineering, with a particular emphasis on architectural design, building technology, urban and spatial planning, and the functional and aesthetic configuration of interior environments;
- To educate and train architectural engineers who are equipped to study and conduct research in the aforementioned fields.

The Department is committed to fostering a dynamic academic environment that combines theoretical knowledge with design innovation and technical expertise, preparing students for professional practice and scholarly inquiry in architecture and the built environment.



Upon completion of the study programme, graduates of the Department of Architecture are equipped with the knowledge, competencies, and skills necessary to apply the principles of engineering and the natural sciences, supported by contemporary technologies and digital tools. Simultaneously, they engage critically with the theoretical and historical foundations of the humanities, developing the capacity to articulate ideas, ethical perspectives, and symbolic meanings through the spatial, functional, and material organization of the built environment.

Architectural education is structured to ensure a dynamic balance between theoretical knowledge and practical application. It guarantees that students achieve comprehensive academic and professional preparation in accordance with internationally recognized standards, including the eleven key criteria outlined in Article 46 of Directive 2005/36/EC, as amended by Directive 2013/55/EU:

- The ability to design architectural projects that meet both aesthetic and technical requirements;
- A sound knowledge of the history and theories of architecture, as well as related disciplines in the arts, technologies, and humanities;
- A sufficient understanding of the fine arts as an element enriching architectural design;
- A solid grounding in urban planning, urban design, and the methods and techniques used in the urban development process;
- The ability to understand the relationships between people and buildings, as well as between buildings and their environment, and to design structures that respond harmoniously to human needs and scale;
- An awareness of the architect's role in society and the responsibilities associated with it, particularly in relation to social and community-sensitive design;
- Proficiency in documentation and the preparation of architectural studies and reports;
- An understanding of structural design and civil engineering principles relevant to building construction;
- Knowledge of building physics, technologies, and systems that ensure occupant comfort and environmental protection, in line with sustainable development principles;
- Technical competence in designing buildings that respond effectively to user needs while observing economic feasibility and regulatory frameworks;
- Familiarity with the industries, organizations, legal provisions, and procedures involved in the implementation of architectural projects and their integration into wider planning processes.

It is with great pleasure that we welcome you to the Department of Architecture at the Democritus University of Thrace—a vibrant academic community where creativity is nurtured, artistic expression is encouraged, and the acquisition of essential engineering knowledge and skills is actively supported.

Our faculty is fully committed to fostering a dynamic and inclusive learning environment that promotes intellectual growth, design exploration, and academic excellence. We will make every effort to support you in your studies and to equip you with the tools necessary for your academic and professional development.

We warmly welcome you to the extended academic family of Democritus University. We are committed to meeting your expectations, and we sincerely wish you a rewarding and successful academic journey.

Professor Dimitrios Polychronopoulos
Chair, Department of Architecture



1st
year

A01ΥΠ**ARCHITECTURAL COMPOSITION I: BASIC PRINCIPLES AND CONCEPTS OF ARCHITECTURE**

This is a year-long foundational course (in conjunction with B01ΥΠ) that introduces first-year students to the principles of architectural composition, both through theoretical exploration and applied design work. The course aims to stimulate critical thinking, unlock creative potential, and cultivate familiarity with fundamental tools and techniques of architectural representation.

A substantial component of the course is dedicated to the theoretical investigation of architectural composition. Through a conceptual “return” to the foundational elements of architecture, students engage with key compositional principles such as spatial structure, organizational logic, core concepts and properties of architectural space, as well as archetypal spatial configurations.

ECTS: 12
HOURS: 8
LECTURERS: Eleni Amerikanou - Professor
 Panos Loukas Exarchopoulos - Assistant Professor
**VISUAL ARTS I****A03ΥΠ**

This laboratory course introduces students to both the theoretical foundations—through lectures, presentations, and relevant bibliography—and primarily the practical aspects—through hands-on laboratory exercises—of the fundamental concepts of space, aesthetic form, and their interrelation.

The course aims to familiarize students with the use of representational tools and techniques as means of conceptual thinking and expression, as well as for the critical analysis, evaluation, and presentation of both the visible and invisible properties of objects, places, and spatial contexts.

Assignments include visual documentation and the presentation of objects and spaces through a variety of representational and narrative media, such as drawings, photographs, videos, animations, and written texts.

LECTURERS: Antonis Michailidis - Professor
 Panagiotis Kozokos - Associate Professor

ECTS: 4
HOURS: 4


A04ΥΠ**STRUCTURAL SCIENCE I – STATICS OF RIGID BODIES**

This is the first course in the annual study cycle, introducing the fundamental principles of equilibrium, types of structural elements and loads, as well as statically determinate and indeterminate structures. The course aims to consolidate the basic principles of Structural Mechanics and to promote the effective design of the load-bearing structural system in buildings.

Topics include support conditions and the internal forces of simple and complex statically determinate structures.

Covered subjects include: general principles, assumptions, and axioms of the statics of rigid bodies; concepts such as force, moment of force, and equilibrium of force systems; support conditions of rigid bodies; static determinacy; types of loads; reactions at supports; free body diagrams; types of simple structural elements; calculation of internal forces and the corresponding diagrams (normal force N , shear force Q , bending moment M) in statically determinate beams and frames; principles for composing complex statically determinate systems; calculation of reactions and internal forces in trusses; and the analysis of flexible structural elements.

ECTS: 3
HOURS: 4
LECTURER: Maria-Styliani Voutetaki - Associate Professor
**TECHNOLOGY I – BUILDING & MATERIALS****A05ΥΠ**

The course aims to provide students with an introductory understanding of building construction technology, encompassing both the stages of design and construction. It also seeks to establish foundational knowledge of conventional building materials and construction techniques.

LECTURER: Eleftheria Deligiannidou - Assistant Professor

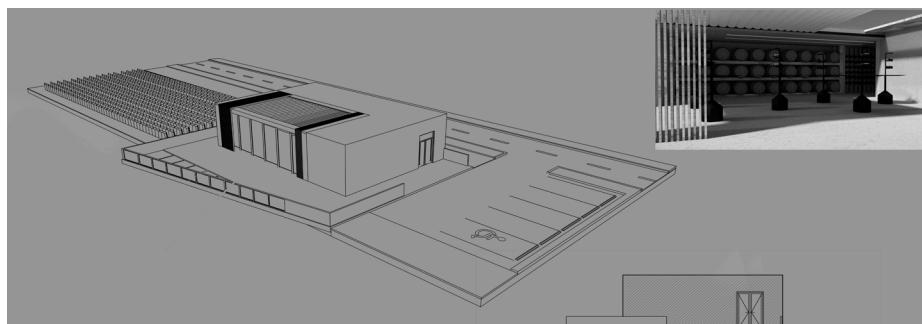
ECTS: 3
HOURS: 4


A06ΥΠ**DIGITAL REPRESENTATIONS I**

In recent years, digital tools have provided a wealth of representational and design instruments, enabling architects to conceive and depict increasingly complex forms beyond the reach of conventional methods. These technological advances have also contributed significantly to the morphological liberation of the architect's imagination.

This course aims to equip students with the skills and tools necessary to develop their design and compositional abilities without simply replicating the formal possibilities afforded by these technologies. Emphasis is placed on the relationship between form and function, semantic content, spatial experience, and the narrative dimension of space—key criteria for the semester's projects.

The course fosters the cultivation of design maturity, free from representational or technological constraints, encouraging students to use digital tools as means for morphological exploration and the expansion of their imaginative and visual-creative capacities.

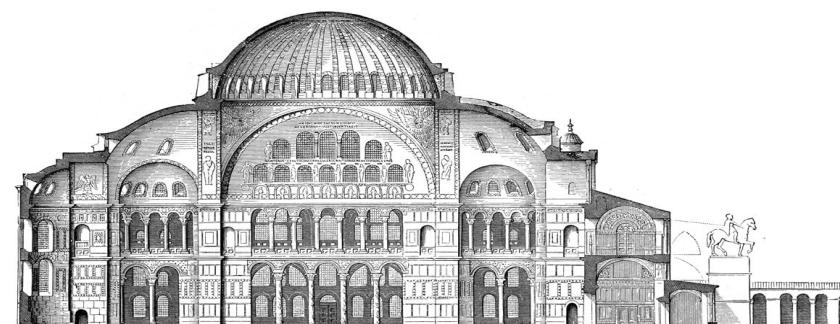
ECTS: 3
HOURS: 4
LECTURER: Dimitris Giouzepas - Assistant Professor
**A07ΥΠ****HISTORY OF ARCHITECTURE I: FROM PREHISTORY TO THE POST-BYZANTINE PERIOD**

A diachronic exploration of transformations in the built environment of the Eastern Mediterranean.

Architecture in the Greek world: Prehistoric architecture; Ancient Near East, Egypt, and Mesopotamia; Minoan, Cycladic, and Mycenaean civilizations; Geometric and early Archaic periods; Ancient Greece (Archaic, Classical, and Hellenistic eras); Roman architecture.

Early Christian and Byzantine architecture: Historical background, theological foundations, materials and techniques, forms and functional elements, architects and patrons. Examination of architecture during the Early Christian period, Byzantine architecture, and its diffusion across both Western and Eastern regions.

LECTURER: Aikaterini Ritzouli- Assistant Professor

ECTS: 5
HOURS: 4


Β01ΥΠ**ARCHITECTURAL COMPOSITION II – BASIC PRINCIPLES AND CONCEPTS OF ARCHITECTURE**

The course aims to introduce first-year students to the principles of composition, organization, and representation of architectural space, familiarizing them with the processes, methodologies, and techniques of architectural design through the exploration of carefully selected small-scale projects.

ECTS: 12
HOURS: 8
LECTURERS: Eleni Amerikanou - Professor
 Georgios Papagiannopoulos - Associate Professor
 Panos Loukas Exarchopoulos - Assistant Professor
**VISUAL ARTS II****Β03ΥΠ**

This course aims to further familiarize students with practical methods and techniques for documenting and presenting perceptual—primarily visual—characteristics that convey meaning and emphasize the distinctive “character” of objects and spatial situations at both individual and collective levels.

Light, color, geometry, relief, and material textures are examined both theoretically and, primarily, through practical inquiry, to understand their role in shaping the aesthetic and semantic content of space. Through scaled design and implementation projects of spatial structures, students explore ways to manipulate these elements to impart a specific aesthetic character and foster the creation of desired atmospheres in interior and surrounding environments.

LECTURERS: Antonis Michailidis - Professor
 Panagiotis Kozokos - Associate Professor

ECTS: 4
HOURS: 4


B04ΥΠ**STRUCTURAL SCIENCE II – MATERIAL STRENGTH**

The course aims to provide analysis and understanding of the constitutive stress-strain relationships of structural materials in load-bearing building elements (including stresses and strains under simple and complex loads), the determination of reactions in statically indeterminate structures through compatibility conditions of deformations, and the fundamental principles of seismic action analysis.

ECTS: 3
HOURS: 4

LECTURER: Maria-Styliani Voutetaki - Associate Professor

**B05ΥΠ****TECHNOLOGY II – INTRODUCTION TO BIOCLIMATIC DESIGN**

The course aims to familiarize students with the theoretical foundations and problem-solving techniques in the Physics of Structures, alongside the application of insulating materials in building construction.

It covers theoretical aspects related to visual, thermal, and acoustic comfort in buildings, including sound propagation, modes of heat transfer, vapor diffusion, and comprehensive evaluation of insulating materials for building protection.

Furthermore, the course addresses technical solutions concerning building orientation, the design of openings and shading devices, as well as the implementation of sound barriers.

ECTS: 3
HOURS: 4

LECTURER: Eleftheria Deligiannidou - Assistant Professor



B06ΥΠ**DIGITAL REPRESENTATION II**

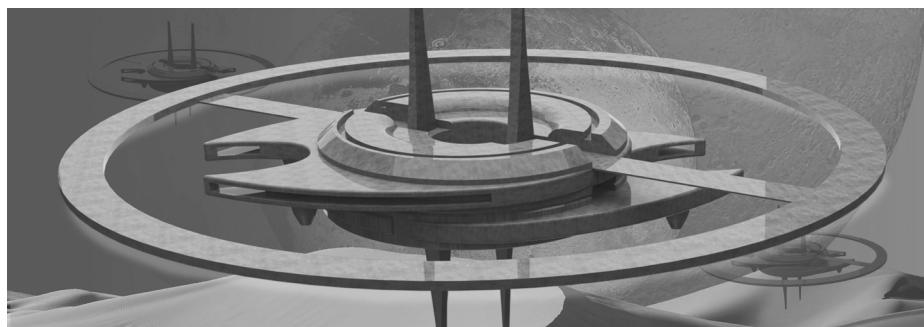
In recent years, digital tools have provided architects with a broad array of representational and design instruments, enabling the creation and depiction of increasingly complex forms that traditional drawing methods cannot adequately capture. These technological advancements have also contributed to the formal liberation of the architect's imagination.

The aim of this course is to equip students with the necessary tools to develop their design and compositional skills, avoiding mere replication of the formal possibilities offered by digital technologies. Key objectives include exploring the correlation between form and function, semantic content, spatial experience, and the narrative dimension of space.

The course aspires to cultivate design maturity in students, ensuring that their creative expression is not constrained by representational or technical limitations. Digital tools are approached both as instruments for formal investigation and as means for expanding imaginative and visual expression.

ECTS: 3
HOURS: 4

LECTURER: Dimitris Giouzepas - Assistant Professor

**ART HISTORY: MODERN ART (1770–1945)****B07ΥΠ**

From Empirical Realism to Social Realism:

Flemish Art

The Italian Renaissance

Baroque

Art in the 18th Century

Art in the 19th Century: Neoclassicism, Romanticism, Orientalism, Realism

LECTURER: Ioannis Kolokotronis- Professor

ECTS: 5
HOURS: 4



2nd
year

This course focuses on the architectural design of a residence intended for the permanent accommodation of four individuals, located within the urban area of Xanthi. Through the processes of conceptualization and design, students are encouraged to approach architectural space as a place of habitation—a “container of life”—shaped around the needs, routines, and aspirations of its inhabitants.

As a familiar and deeply personal environment, the dwelling offers students the opportunity to connect their own memories and lived experiences with a design subject that presents considerable compositional challenges and specific functional requirements.

ECTS: 12
HOURS: 7

LECTURERS: Dimitris Polychronopoulos - Professor
Panagiotis Gouliaris - Associate Professor
Christos Koutelis - Assistant Professor



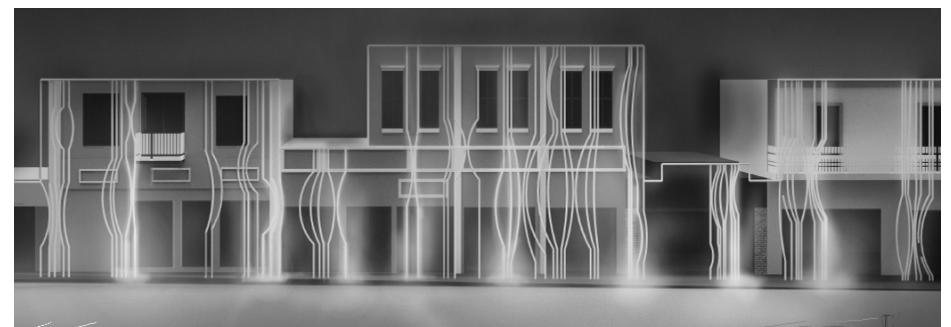
This semester focuses on the investigation and critical reflection of the relationship between the perceptual and conceptual dimensions of aesthetic form, as conceived within a specific context or emerging through the processes of shaping and representation.

Emphasis is placed on understanding the potential of various visual, audiovisual, and narrative media and techniques—used individually or in combination—as tools for identifying, evaluating, and presenting both the visible and invisible parameters that define the “physiognomy” and “identity” of particular places and spatial conditions.

The ultimate goal is the creation of representative visual, audiovisual, or plastic forms that, through selective reconstruction of reality and information gathered via observation, highlight the unique aesthetic and conceptual qualities of space as experienced and internalized on both individual and collective levels.

LECTURERS: Antonis Michailidis - Professor
Panagiotis Kozokos - Associate Professor

ECTS: 4
HOURS: 4



Γ04ΥΠ

STRUCTURAL ENGINEERING III – STEEL, TIMBER AND COMPOSITE STRUCTURES

The course analyzes the structural organization, design, and implementation of steel, timber, composite/mixed structures, as well as load-bearing masonry and other specialized construction types. Its aim is to familiarize students with the potential of these structural systems to fulfill and support architectural design requirements.

It introduces fundamental principles for the structural organization of steel, timber, composite, and masonry-based systems, along with special structures, in relation to the formal and functional demands placed on the structural system. Topics include the systematic classification of structural systems and selection criteria.

The course also covers basic dimensioning principles for tension and compression members, bending, shear, combined bending and axial forces, buckling, and torsion.

ECTS: 3
HOURS: 4

LECTURER: Aikaterini Baltzopoulou - Professor



BUILDING CONSTRUCTION I

Γ05ΥΠ

The aim of the course is to enable students to recognize and understand the structural and overall constructive dimensions and configurations of architectural works. Simultaneously, it seeks to develop the necessary skills to critically assess and verify design proposals from a constructional perspective.

LECTURERS: Eleftheria Deligiannidou - Assistant Professor
Christos Koutelis - Assistant Professor

ECTS: 5
HOURS: 4

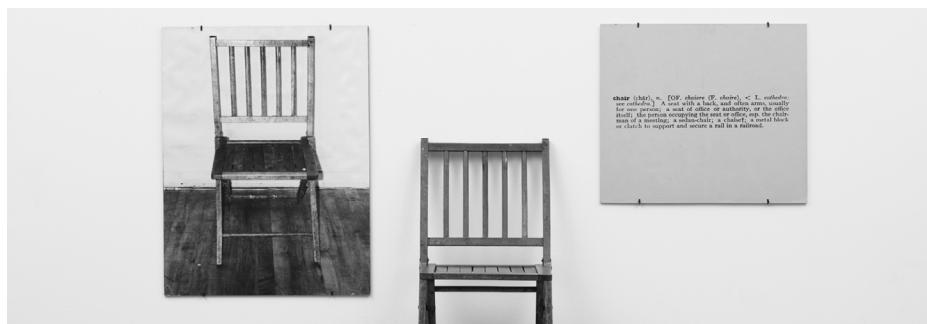


Art movements after 1945:

Abstract Expressionism, European Abstraction, Neo-Dada, Pop Art, Art and Technology, Nouveau Réalisme, Minimal Art, Conceptual Art, Process Art, Arte Povera, Site-specific Art, New Realism, and Ethnic Art.

ECTS: 5
HOURS: 4

LECTURER: Ioannis Kolokotronis- Professor



The course content directly addresses issues of collective housing as both an architectural and social phenomenon, alongside the topic of vertical building development. The central focus is the design of a small apartment building within a dense urban environment. The building will comprise 5–10 apartments of varying sizes, designed to accommodate the diverse needs of potential residents. Additionally, the design must incorporate a public-use space such as a gallery, multipurpose hall, or similar facility.

The transition from the single dwelling unit, covered in Architectural Composition III in the previous semester, to a collective housing complex is a deliberate pedagogical decision. This enriches the design process through the exploration of individual unit types and arrangements, their interrelationships, and a deeper understanding of the inherent principles, challenges, and contradictions of such a project—broadening students' design and compositional skills.

ECTS: 12
HOURS: 7

LECTURERS: Dimitris Polychronopoulos - Professor
Stavros Dendrinos - Associate Professor
Christos Koutelis - Assistant Professor



This course continues the thematic exploration of the previous semester, focusing on the function and impact of architectural and visual arts interventions, as well as their communicative potential within the physical environment—particularly in the urban context.

Fieldwork assignments emphasize the development of design programs involving visual or broader aesthetic interventions, which may also have a functional character. These interventions can take the form of installations, temporary or permanent actions, or architectural constructions, prioritizing aesthetic coherence and a direct relationship with the specific site or urban environment studied and interpreted previously.

The primary objective is to explore the potential of such interventions to comment on, highlight, challenge, or generate new spatial values and qualities. Concurrently, students are expected to substantiate the role of artistic activity within social space and the relevance of architectural design to everyday life and contemporary perceptions of urban living.

LECTURERS: Antonis Michailidis - Professor
Panagiotis Kozokos - Associate Professor

ECTS: 4
HOURS: 4



Δ04ΥΠ**STRUCTURAL ENGINEERING IV – REINFORCED CONCRETE AND SEISMIC DESIGN**

This course covers the fundamental concepts of reinforced concrete structures, including the properties and mechanical behavior of concrete and reinforcing steel. It introduces the basic principles of designing reinforced concrete elements, focusing on dimensioning critical cross-sections for bending, shear, torsion, and punching shear. The course addresses second-order effects, serviceability limit states related to deformations, and crack width control.

Key design principles for structural components such as one-way and two-way slabs, ribbed slabs, beams, columns, and foundations are examined. The curriculum also covers constructional arrangements for seismic-resistant design, along with analysis and design principles for seismic actions. Topics include the morphology of structural systems and relevant construction requirements.

Students participate in practical exercises based on ongoing construction projects to apply and consolidate theoretical knowledge.

ECTS: 3
HOURS: 4
LECTURER: Aikaterini Baltzopoulou - Professor
**BUILDING CONSTRUCTION II****Δ05ΥΠ**

The course aims to develop students' awareness of the fundamental relationship between architectural design and structural construction by examining the various stages involved in building construction. It cultivates both analytical and synthetic construction skills, alongside proficiency in relevant building design tools.

LECTURERS: Eleftheria Deligiannidou - Assistant Professor
Christos Koutelis - Assistant Professor

ECTS: 5
HOURS: 4


Δ06ΥΠ**PROTECTION, ANALYSIS AND DOCUMENTATION OF HISTORIC SETTLEMENTS**

This course promotes an analytical approach to architectural values and the dialogue between past and present. It aims to expand students' knowledge of cultural heritage through the study and analysis of both individual architectural works and entire settlements.

Emphasis is placed on deepening the understanding of architectural composition in existing buildings through documentation methods, critical observation, and analysis of creative and construction processes.

The objective is to foster recognition and appreciation of traditional settlements in the country, highlighting the enduring value of architectural forms and the necessity of their protection.

ECTS: 3
HOURS: 4
LECTURERS: Anastasia Kapandriti - Assistant Professor
 Aikaterini Ritzouli- Assistant Professor
**Δ07ΥΠ****HISTORY OF ARCHITECTURE II: THE WEST (9th–19th century & 20th–21st century)**

Modern Architecture:

Industrial City – Classical Rationalism.

Futurism. Expressionism in Germany.

Main Modernism: Dutch De Stijl School. The Bauhaus School.

Suprematism, Constructivism, Rationalism in the Soviet Union.

Purism.

International Style.

Architecture and the State.

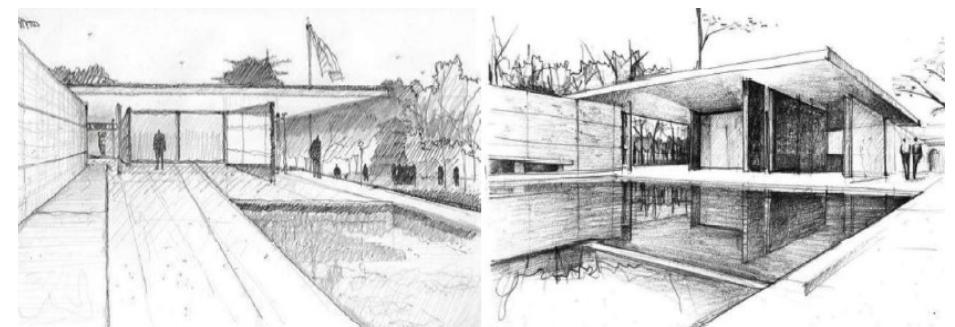
Contemporary Architecture in Europe and Greece:

Late Modernism, Neo-Expressionism, Brutalism,

Neo-Rationalism, Postmodernism, Deconstruction, Critical Regionalism.

Interwar, postwar and contemporary architecture in Greece.

LECTURER: Anastasia Kapandriti - Assistant Professor

ECTS: 3
HOURS: 4


3rd
year

E01ΥΠ ARCHITECTURAL DESIGN V

This course directly addresses collective housing as both an architectural and social phenomenon, alongside vertical building development. The central design project involves a small apartment building within a dense urban environment, comprising 5 to 10 apartments of varying sizes to meet diverse resident needs. Additionally, the project includes a public-use space, such as a gallery or multipurpose hall. The transition from individual housing units, studied in Architectural Design III during the winter semester, to a collective housing complex is a deliberate pedagogical choice. This shift enriches the design process through exploring unit types, spatial arrangements, relationships, and the challenges and contradictions inherent in collective housing, thereby broadening students' design and compositional skills.

ECTS: 12
HOURS: 7

LECTURERS: Theoni Xanthi - Professor
Stavros Dendrinos - Associate Professor
Georgios Papagiannopoulos - Associate Professor

**E02ΥΠ** ARCHITECTURAL DESIGN AND NEW TECHNOLOGIES I –
BUILDING INFORMATION MANAGEMENT SYSTEMS (BIM)

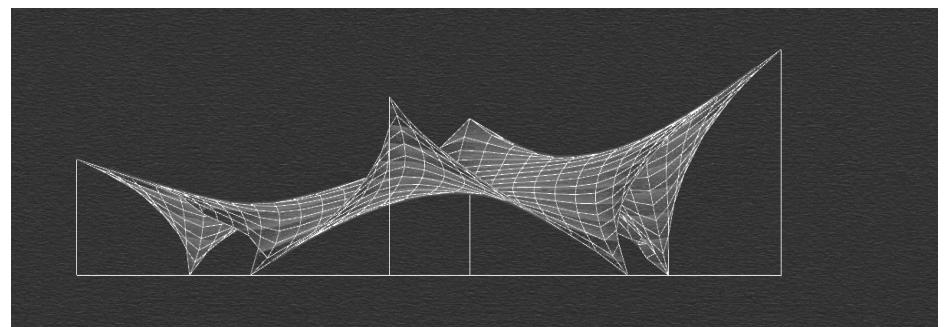
In recent years, there has been a significant shift in how architects work, communicate, and collaborate with other engineering disciplines involved in architectural projects. Building Information Modeling (B.I.M.) software is not merely a complex supportive design platform but a comprehensive system for designing, organizing, communicating, and managing architectural projects. It enables diverse project teams to update and be updated simultaneously in real time throughout the design and construction process.

Since every design tool embodies a new way of perceiving architecture itself, a thorough understanding of BIM is essential to fully grasp the new possibilities it offers in architectural production.

Third-year students have the maturity to comprehend such a complex tool and gain valuable experience with a working model that is gradually becoming dominant in architectural practice. This experience enables them to apply BIM at various stages and scales—from preliminary studies and general layouts to detailed execution plans and construction details.

LECTURER: Dimitris Giouzepas - Assistant Professor

ECTS: 6
HOURS: 5



The course aims to familiarize students with the theoretical foundations and technical solutions related to energy design and energy efficiency in buildings. Additionally, it addresses the resolution of complex construction challenges in multi-storey buildings with large floor areas and mixed-use functions.

ECTS: 3
HOURS: 4

LECTURER: Eleftheria Deligiannidou - Assistant Professor



Introduction to the fundamental concepts of the defining elements of the city in relation to the cultural, economic, social, and historical factors that shape them. Examination of methods for identifying and representing the urban environment. A systematic approach to the basic concepts of the functional and morphological organization of cities. Presentation of methodologies for representing the urban context as a means of perceptual induction, critical inquiry, and structured communication of lived experience.

LECTURER: Georgios Patrikios - Assistant Professor

ECTS: 3
HOURS: 4



Ε05ΥΠ

ARCHITECTURAL THEORY

The course “Architectural Theory” explores key architectural concepts and elements that have consistently and contextually shaped architectural thought—both in the creation of architectural works and their critical interpretation. Through the study and analysis of drawings by prominent architects, comparative critiques of architectural works, and the connection to the humanities, the course aims to highlight the essential role of theory in architectural practice.

ECTS: 3
HOURS: 4

LECTURER: Aikaterini Ritzouli- Assistant Professor



Ε02ΕΠ

MORPHOLOGICAL INVESTIGATION AND MANAGEMENT
OF EXISTING STRUCTURES IN HISTORIC ENVIRONMENTS

This course focuses on the architectural design of integrating contemporary constructions within historic urban complexes or archaeological sites. It acknowledges that the protection and enhancement of historic buildings and ensembles, along with active design interventions, constitute a specialized field requiring advanced knowledge and creative approaches grounded in solid theoretical foundations. This is in accordance with internationally accepted guidelines such as the Venice Charter, the Amsterdam Declaration, the Granada Convention, and the Washington Charter for Historic Towns, among others.

In this course:

- a) Theoretical issues related to the morphological investigation and analysis of individual historic buildings and urban ensembles are developed through lectures, site visits, and practical exercises;
- b) The morphological integration of new constructions into historic settlements is examined as a crucial factor for protecting the form and character of these areas;
- c) Representative examples of contemporary structures integrated into historic environments are presented;
- d) Practical workshop applications are conducted, focusing on the design and integration of a new building within a historic urban ensemble.

LECTURER: Anastasia Kapandriti - Assistant Professor

ECTS: 3
HOURS: 4



This course focuses on the applied exploration of the relationship between aesthetic form and specific conceptual content or ideas. The assignments aim to deepen both the theoretical understanding and practical skills developed in previous semesters. Practices, media, and techniques covering the entire process—from critical analysis and initial conception, through the design process, to the assembly and presentation of the final proposal—are employed to ensure successful completion. The final proposal is supported by comprehensive design software that addresses the process, the final outcome, and its presentation.

ECTS: 3
HOURS: 4

LECTURER: Dimitris Giouzepas - Assistant Professor



This course focuses on the applied investigation of the relationship between aesthetic form and a specific conceptual content or idea, emphasizing their potential for integration into a functional object. The coursework aims to further consolidate both theoretical and practical knowledge acquired in previous semesters. A range of practices, media, and techniques is employed, covering the entire process—from critical analysis and initial conceptualization to design development and the structured presentation of the final proposal. The final project is supported by comprehensive design tools that ensure coherence in process, outcome, and presentation quality.

LECTURER: Antonis Michailidis - Professor

ECTS: 3
HOURS: 4



E06EP

VISUAL ARTS V – AESTHETIC INTERVENTIONS IN PUBLIC SPACE

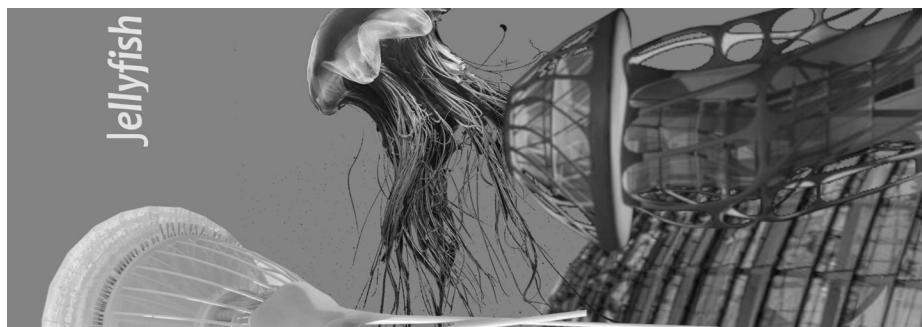
This course focuses on the applied negotiation of the relationship between aesthetic form and specific conceptual content or ideas, as they are expressed through artistic interventions in public space.

The projects aim to further consolidate the theoretical and practical knowledge acquired in previous semesters.

A variety of practices, media, and techniques are employed throughout the entire process—from critical analysis and conceptual development to the design process and the final presentation of the proposal. The final project is supported by comprehensive design tools that ensure consistency and completeness in terms of process, outcome, and presentation.

ECTS: 3
HOURS: 4

LECTURER: Panagiotis Kozokos - Associate Professor



E07EP

SPECIAL TOPICS IN MICRO-ENVIRONMENTAL DESIGN I

This course addresses compositional issues related to the “close-up,” tactile perception and experience of architectural space, highlighting the transition from small to large design scales. This shift fundamentally influences the qualities of the realized architectural project. The aim is to develop students’ capacity to navigate fluidly between different design scales—from overall layout to detailed articulation—while ensuring coherence and unity in the architectural composition at every level.

LECTURERS: Eleni Amerikanou - Professor
Panos Loukas Exarchopoulos - Assistant Professor

ECTS: 3
HOURS: 4



The course focuses on highlighting photography as a medium that synthesizes and structures the architect's way of seeing. Throughout the course, the concept of the Photographic Landscape is examined as both a form of representation and a creative expression, open to multiple interpretative approaches depending on the context (urban, natural, etc.). It is shaped by social and cultural factors, embodying a specific way of viewing characterized by unique techniques and compositional features. In this sense, photography transcends its straightforward representational function to become a defined and structured mode of perceiving visible reality.

The course aims to familiarize students with the process of transforming the empirical environment into photographic imagery. Its purpose is to reinforce the understanding that certain aspects of cultivating the gaze are unique to the photographic medium and cannot be substituted by other artistic or creative forms of expression.

ECTS: 3
HOURS: 4

LECTURERS: Dimitris Polychronopoulos - Professor
Panagiotis Gouliaris - Associate Professor



ΣΤ01ΥΠ ARCHITECTURAL DESIGN VI

The course focuses on collective housing as both an architectural and social phenomenon. The core design assignment involves developing a small multi-storey residential building in a dense urban environment. The project includes designing 5 to 10 residential units of varying sizes to meet diverse inhabitant needs, along with a ground-level public space such as a gallery, cultural hub, or multipurpose venue. This transition from the individual dwelling unit (addressed in Architectural Design III) to a collective housing complex represents a deliberate pedagogical step, enriching the design process through the study of unit typologies, layouts, interrelations, and the challenges inherent to such projects. Through this, students enhance their design thinking, spatial composition, and architectural skills across scales and programs.

ECTS: 12
HOURS: 7

LECTURERS: Theoni Xanthi - Professor
Christos Koutelis - Assistant Professor



BUILDING CONSTRUCTION IV – BUILDING PROTECTION AND MEP SYSTEMS

The course aims to familiarize students with technical solutions for building protection, including thermal insulation, sound insulation, and waterproofing. It also introduces fundamental design requirements for mechanical, electrical, and plumbing (MEP) systems in conventional buildings, encompassing water supply, drainage, electrical power, central heating, and mechanical rooms.

Special emphasis is placed on the challenges posed by multi-storey buildings with large footprints and complex mixed-use programs. Students are expected to understand the integration of protective construction methods with MEP design, contributing to the overall functionality and sustainability of contemporary architectural projects.

ΣΤ03ΥΠ

LECTURER: Eleftheria Deligiannidou - Assistant Professor

ECTS: 3
HOURS: 4

MARGARETE LIHOTZKY

Όταν λυθεί η συνάρτηση των πραγμάτων,
τότε το έργο μπορεί να ξεκινήσει

Ορθολογισμός στο νοικοκυρίο, 1926



ΣΤ04ΥΠ URBAN PLANNING II

This course provides an introduction to methodologies for urban intervention and addresses key theoretical approaches to urban design. It presents the most important tools used in the context of urban planning and urban regeneration.

Through hands-on engagement with specific research areas, students develop the ability to identify the potentials, limitations, and implications of implementing different urban planning strategies within complex and ever-changing urban environments. The course also promotes an understanding of the critical role of social actors and their involvement in the power dynamics that shape spatial policies.

ECTS: 3
HOURS: 4

LECTURER: Georgios Patrikios - Assistant Professor



ART THEORY

ΣΤ05ΥΠ

This course explores theoretical and historical approaches to art, covering topics such as art and the economy, museums and artworks, cultural management, public space and public art, private art collections, and art criticism.

The course aims to provide students with a critical understanding of how art functions within broader socio-economic, institutional, and spatial frameworks.

LECTURER: Ioannis Kolokotronis - Professor

ECTS: 3
HOURS: 4



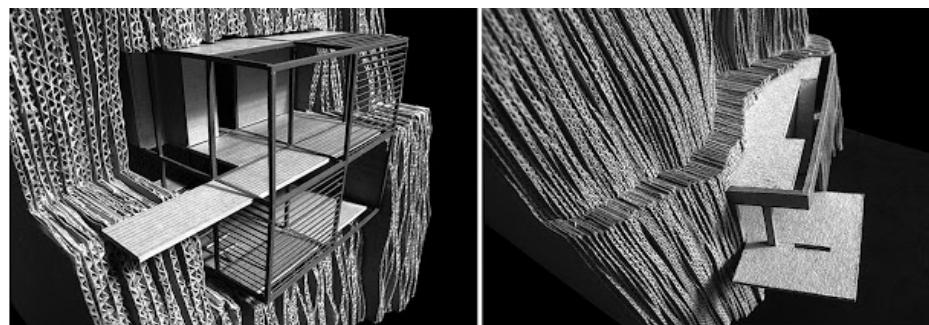
This course investigates theoretical issues concerning the clarification of key concepts and the perceptual interpretation of landscape. Students engage in a small-scale design project within a defined spatial context, focusing on the integration of architectural form into the landscape.

Through the exploration of landscape interpretation and architectural adaptation to specific topographies, the course encourages the development of both personal and collective design perspectives. The emphasis moves beyond conventional site planning to understanding the conditions under which architecture arises in a particular place—considering not only the “plot” but also the broader geographic, physical, and cultural context.

Particular emphasis is placed on the role of terrain in shaping a dialectical relationship between architecture and landscape, anchoring design decisions in the specificity and character of place.

ECTS: 6
HOURS: 5

LECTURERS: Maria Grigoriadou - Associate Professor
Christos Koutelis - Assistant Professor



The course focuses on the applied exploration of the relationship and methods connecting aesthetic form with specific conceptual content or ideas. The assignments aim to deepen the theoretical and practical knowledge developed in previous semesters.

Practices, tools, and techniques covering the entire process—from critical analysis and conception of the initial idea to the design, composition, and presentation of the final proposal—are employed to ensure successful completion. The final proposal is supported by integrated design software, encompassing the entire process, the final outcome, and its presentation.

LECTURER: Dimitris Giouzepas - Assistant Professor

ECTS: 3
HOURS: 4



ΣΤ05ΕΠ VISUAL ARTS VI – APPLIED OBJECT DESIGN

The course focuses on the applied exploration of the relationship and methods connecting aesthetic form with specific conceptual content or ideas. The assignments aim to further consolidate the theoretical and practical knowledge developed in previous semesters.

Practices, tools, and techniques covering the entire process—from critical analysis and conception of the initial idea to the design, composition, and presentation of the final proposal—are employed to ensure successful completion of the course. The final proposal is supported by integrated design software, encompassing the entire process, the final outcome, and its presentation.

ECTS: 3
HOURS: 4

LECTURER: Antonis Michailidis - Professor

**ΣΤ06ΕΠ** VISUAL ARTS VI – AESTHETIC INTERVENTIONS IN PUBLIC SPACE

The course focuses on the applied exploration of the relationship between aesthetic form and specific conceptual content or ideas. The assignments aim to further consolidate the theoretical and practical knowledge developed in previous semesters.

Practices, tools, and techniques encompassing the entire process—from critical analysis and conception of the initial idea to the design, composition, and presentation of the final proposal—are employed to ensure the successful completion of the course. The final proposal is supported by integrated design software, covering the entire workflow, the final outcome, and its presentation.

LECTURER: Panagiotis Kozokos - Associate Professor

ECTS: 3
HOURS: 4



This course addresses the architectural organization of spaces and microenvironments within building units of limited size, intended for common or specialized uses (residential, commercial, work, educational, recreational spaces, outdoor areas, etc.). It is the second of two compulsory elective semester courses and follows “Special Topics in Microenvironments I,” sharing the same overall objective. However, the subject matter is expanded to further develop students’ experience and compositional skills, enabling them to engage with more complex and varied architectural proposals focused on the organization and requirements of individual spaces characterized by distinctive features and specialized microenvironments.

ECTS: 3
HOURS: 4

LECTURERS: Eleni Amerikanou - Professor
Theoni Xanthi - Professor



The moving image is increasingly employed for the representation, understanding, and presentation of architectural work. Moreover, architects, leveraging their iconoclastic skills, often engage in the production of audiovisual works, even when these are not directly related to spatial design.

It is evident that temporal recording and spatial movement offer qualities that contribute to a different—and more complete—perception of architectural space, elements that static visual representation cannot fully capture. Additionally, sound qualities can emphasize or alter users’ perception of space.

Student engagement and hands-on experience with audiovisual media can provide numerous educational benefits related to the representation and perception of space, as well as the production and enhancement of spatial qualities that cannot be designed or conveyed through conventional design tools.

The course combines theoretical readings with experimental applications, covering a broad spectrum of architectural aspects revealed through audiovisual recordings and representations.

LECTURER: Dimitris Giouzepas - Assistant Professor

ECTS: 3
HOURS: 4



ΣΤΟ9ΕΠ

PHOTOGRAPHIC COMPOSITION II

The course focuses on highlighting photography as a medium that synthesizes and structures the architect's way of seeing. Throughout the course, the concept of the Photographic Landscape is examined as both a form of representation and a creative expression, open to multiple interpretative approaches depending on the context (urban, natural, etc.). It is shaped by social and cultural factors, embodying a specific way of viewing characterized by unique techniques and compositional features. In this sense, photography transcends its straightforward representational function to become a defined and structured mode of perceiving visible reality.

The course aims to familiarize students with the process of transforming the empirical environment into photographic imagery. Its purpose is to reinforce the understanding that certain aspects of cultivating the gaze are unique to the photographic medium and cannot be substituted by other artistic or creative forms of expression.

ECTS: 3
HOURS: 4

LECTURERS: Dimitris Polychronopoulos - Professor
Panagiotis Gouliaris - Associate Professor



4th
year

The subject of study concerns the architectural composition of a specialized building complex with a strong public character and social impact, aimed at reinforcing collective memory and promoting citizen education (e.g., Museum, Library, Arts Center, Exhibition/Trade/Leisure Center, etc.).

The course aims to synthesize the multiple and interrelated parameters involved in architectural design into a cohesive building complex—integrated in terms of function, meaning, and significance—that expresses a recognizable “place” of existence and reference, while simultaneously integrating with its immediate and broader environment, thereby restoring and reinforcing connections with it.

ECTS: 12
HOURS: 7

LECTURERS: Georgios Papagiannopoulos - Associate Professor
Panos Loukas Exarchopoulos - Assistant Professor

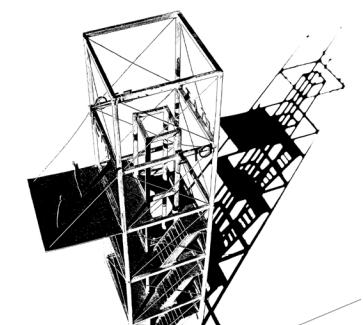
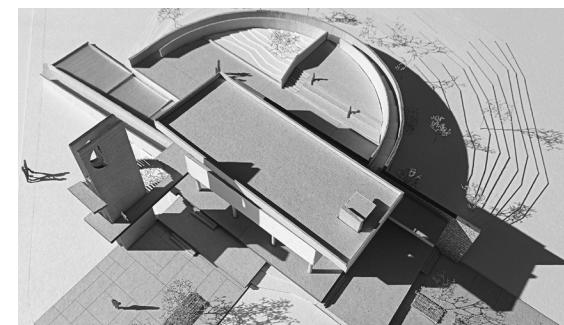


The subject matter concerns the focused study of the design of interior and/or outdoor spaces across various building categories (e.g., cafés, apartments, shops, exhibition spaces), as well as special constructions and elements (e.g., furniture, fixed and movable equipment, signage). The course aims to deepen the understanding of spatial detail, highlighting its decisive contribution to expressing the desired character of each architectural proposal.

Through detailed investigation of the elements that compose and give identity to architectural space, students will become familiar with smaller-scale design, materials and their properties, construction details, as well as issues of symbolic expression and the “communication” of architectural components.

LECTURERS: Eleni Amerikanou - Professor
Panos Loukas Exarchopoulos - Assistant Professor

ECTS: 6
HOURS: 4



ΖΟ3ΥΠ

SPATIAL PLANNING

Introduction to the basic concepts and thematic levels of spatial planning and regional development. A review of the history of spatial planning in Greece, including references to the responsible authorities and the institutional framework.

Special emphasis is placed on current spatial planning policy within the framework of the European Union, as well as on the main sectoral policies that directly influence spatial planning and regional development.

Conceptual approaches to space, planning, development, and the programmatic region are examined.

A detailed presentation of the content, objectives, responsible authorities, and instruments of spatial planning and its implementation is provided.

A critical review of the Greek experience is offered, considering both national policies and those outlined by the EU in relation to spatial planning.

ECTS: 4
HOURS: 4

LECTURER: Georgios Patrikios - Assistant Professor



ΖΟ4ΥΠ

DOCUMENTATION AND RESTORATION – REUSE OF HISTORIC BUILDINGS AND COMPLEXES I

Through theoretical approaches and the presentation of applied studies, the course aims to familiarize students with both the theoretical and methodological issues related to the restoration, redesign, and reuse of historic buildings and complexes, as well as the specialized techniques and materials involved. The assimilation of this knowledge is assessed through written examinations at the end of the semester. In parallel, students undertake practical exercises involving the documentation, drafting, representation, analysis, and recording of a representative building from the historic center of Xanthi. The objective is to develop students' ability to observe, analyze, and understand the historical and aesthetic values of historic buildings through systematic study and documentation of their types, forms, and distinctive structural systems. The exercise is developed throughout the semester, presented, and submitted at its conclusion.

LECTURERS: Anastasia Kapandriti - Assistant Professor
Aikaterini Ritzouli- Assistant Professor

ECTS: 5
HOURS: 5

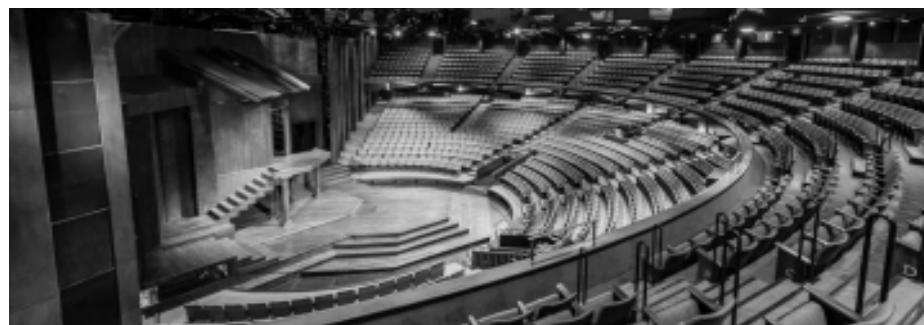


The course aims to familiarize students with the challenges of Theatrical Design within the field of Architectural Technology. A series of lectures covering historical and theoretical content includes:

- Space as an element of the theatrical code
- Theatres and theatrical machinery in antiquity
- Medieval theatre and popular theatres of the Renaissance (Elizabethan stage, commedia dell'arte)
 - Renaissance theatre (basic principles of theatrical design by S. Serlio, the Olimpico and Farnese theatres)
 - Italian stage arrangements (scenographic applications and machinery)
- Theatre of the Baroque period and the 19th century (opera houses, scenographic realism, proscenium and curtain, theatrical lighting, Bayreuth theatre)
- Pioneers of the 20th century (A. Antoine, E. Piscator, C. Stanislavski, A. Appia, G. Craig, M. Reinhardt, J. Copeau, V. Mejerchol'd, Bauhaus theatre)
- Forms of contemporary theatre (proscenium theatre, arena theatre, open stage theatre, flexible theatre)
 - Stage infrastructure and technical equipment of modern auditoriums

ECTS: 3
HOURS: 4

LECTURER: Nikolaos Barkas - Professor



The course focuses on the identification of load-bearing structural elements made of reinforced concrete and/or masonry that have sustained damage, as well as on the selection of appropriate methods for their repair and/or strengthening. The aim is to develop structural judgment and skills that integrate architectural form with structural performance, applicable both in the design of new constructions and in interventions on existing buildings.

LECTURER: Maria-Styliani Voutetaki - Associate Professor

ECTS: 3
HOURS: 4



For architectural representations to achieve a deeper and more comprehensive description of space, as well as to enhance the appeal and competitiveness of architectural work, it is necessary to employ tools beyond the conventional means traditionally used by architects. Today, computers and multimedia offer a broad range of such tools and resources, and this course focuses on their presentation and exploration.

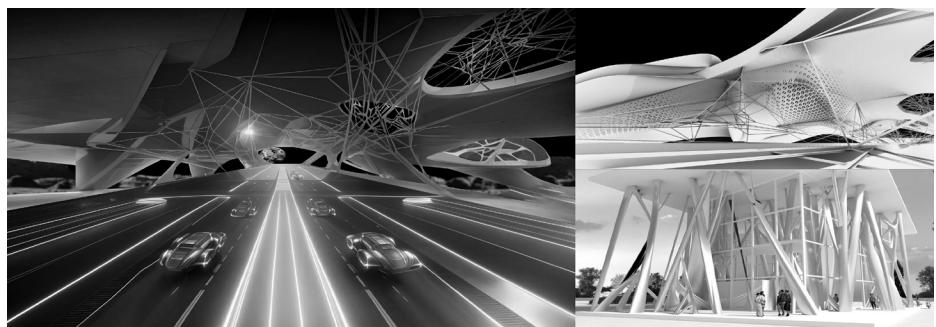
Modern 3D design software not only provides practical and flexible means for producing three-dimensional forms but also introduces new geometric models for creating and representing space, such as NURBS (Non-Uniform Rational B-Splines). These forms arise from relational geometric definitions and move beyond analysis through elementary linear segments or planar meshes.

Furthermore, beyond purely geometric dependencies, 3D spatial design can result from the integration of geometry and code, allowing for variations in form generation as well as the interconnection and interdependence of design information. Thus, design transitions from a fixed, structured process to a dynamic and flexible one.

Within the framework of the course, students will have the opportunity to experiment with parametric design tools and use visual scripting to produce morphologically complex spatial forms of high sophistication.

ECTS: 3
HOURS: 4

LECTURER: Dimitris Giouzepas - Assistant Professor

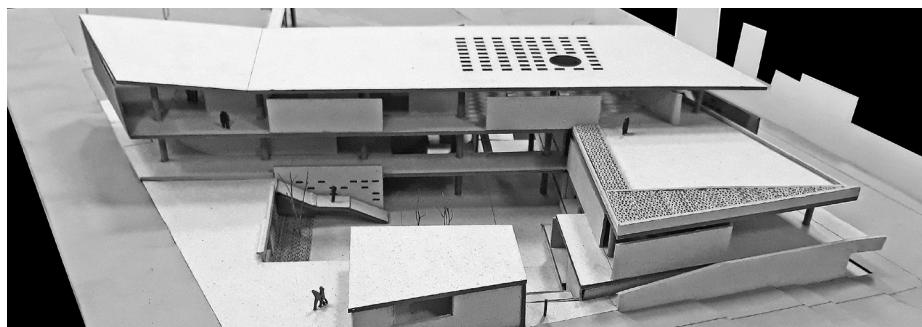


The subject of study focuses on the architectural composition of a special building complex with a strong public character and social foundation, aimed at enhancing community engagement and citizen participation (e.g., City Hall, Cultural Center, Mixed-Use Building, Office Building, etc.). The course's objective is to establish design coherence and a distinctive style that will permeate and emphatically characterize the architectural proposal as a whole.

By examining a multitude of interrelated parameters and exploring essential aspects of the design process, the course promotes a comprehensive and multifaceted approach to a broad spectrum of architectural design issues.

ECTS: 12
HOURS: 7

LECTURERS: Georgios Papagiannopoulos - Associate Professor
Panos Loukas Exarchopoulos - Assistant Professor

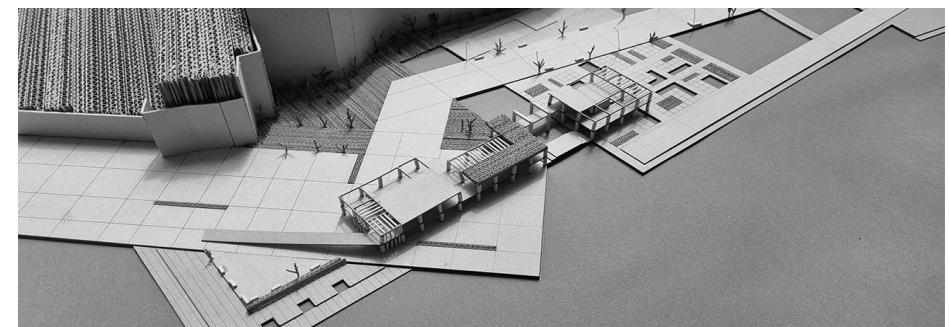


The course focuses on public urban space and the development of students' theoretical and design skills. It emphasizes achieving a deeper understanding of the parameters that shape and form urban space, enabling students to undertake as "conscious" a programming process as possible, alongside its compositional expression within the public realm.

The aim of the course is to explore the relationships between the urban and social characteristics of the city, issues of structural relationships, and the interaction between the natural and built environments — the dynamic interface between nature and the city.

LECTURERS: Maria Grigoriadou - Associate Professor
Panagiotis Gouliaris - Associate Professor

ECTS: 11
HOURS: 8



Η04ΥΠ**ARCHITECTURAL DESIGN AND NEW TECHNOLOGIES II – VIRTUAL INTERACTIVE ENVIRONMENTS**

In the contemporary era, a significant portion of designed space concerns immaterial or non-physical environments, which are often created outside the traditional scope of architectural practice. The immaterial nature of such spaces largely frees architects from conventional constraints such as structural adequacy, functionality, and regulatory compliance.

This freedom of design offers students the opportunity to experiment with form and to explore additional qualities of space, including its semantic content and narrative dimension. Students are encouraged to conceive space as an interactive, experiential environment and to pursue aesthetic qualities and atmosphere through scenographic or conceptual approaches.

Moreover, the use of interactive virtual reality software enables virtual spaces to become more vivid, providing immersive spatial experiences. These tools are increasingly essential across various disciplines related directly or indirectly to architecture, representing the most advanced means of representation, communication, and promotion of architectural work.

However, the potential of interactive representational tools cannot be fully realized without appropriate theoretical grounding and critical study. Therefore, in addition to experimenting with these tools and designing space, students are also expected to theoretically contextualize their work in relation to their design proposals.

ECTS: 4
HOURS: 5
LECTURER: Dimitris Giouzepas - Assistant Professor
**Η01ΕΠ****URBAN PLANNING III – CONTEMPORARY URBAN IDENTITIES**

This course addresses the key concepts of Urban Programming, Urban Management, and Urban Governance in relation to Urban and Physical Planning in contemporary cities. It introduces the management of a range of non-spatial factors that interact closely with spatial, social, and economic dimensions, shaping both the current identity and the future development of the city. The course combines theoretical exploration with practical analysis and includes a critical examination of the primary forms and manifestations of these concepts in various contexts.

LECTURER: Georgios Patrikios - Assistant Professor

ECTS: 3
HOURS: 4

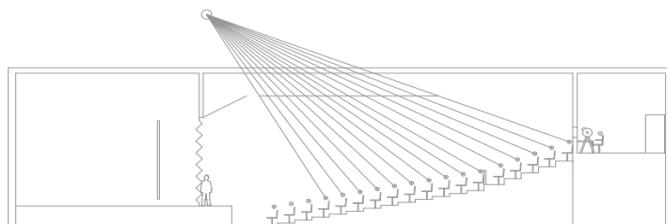

Η03ΕΠ

ARCHITECTURAL ACOUSTICS

This course, within the field of Architectural Technology, aims to familiarize students with the principles and challenges of acoustic design in spaces with specialized requirements.

ECTS: 3
HOURS: 4

LECTURER: Eleftheria Deligiannidou - Assistant Professor



PUBLIC OUTDOOR SPACES

Η04ΕΠ

This course addresses issues of critique, theory, and design of public outdoor spaces. In addition to highlighting and examining the various interactions that shape the dialectics of contradictions and transformations within the city, the course aims to develop students' compositional and design skills concerning the aesthetic, morphological, and functional formation of public urban spaces. Through this educational process, students gain a deeper understanding of the concepts underpinning the "architecture of the city."

LECTURER: Maria Grigoriadou - Associate Professor

ECTS: 3
HOURS: 4



Η05ΕΠ

DOCUMENTATION, RESTORATION, AND REUSE OF HISTORIC BUILDINGS AND COMPLEXES II

The course includes lectures and presentations primarily focused on the in-depth analysis of completed restoration and redesign projects, covering all stages from study and planning to construction and the adaptive reuse of historic buildings and complexes.

Through these case studies, students have the opportunity to examine and discuss both the construction techniques and restoration methods applied to historic structures, as well as contemporary architectural interventions and the integration of modern technologies that allow such buildings to meet current functional and societal needs.

In parallel, as part of the design assignment, students build upon the analysis conducted during the winter semester to develop proposals for the preservation and restoration of the historic building's fabric, while also designing new structures and spaces that accommodate contemporary uses. These exercises are developed progressively throughout the semester and are presented and submitted at its conclusion.

ECTS: 3
HOURS: 4

LECTURERS: Anastasia Kapandriti - Assistant Professor
Aikaterini Ritzouli- Assistant Professor



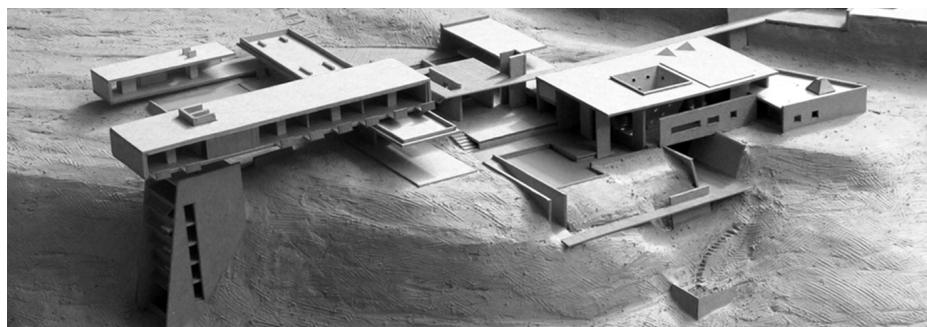
5th
year

The course aims to familiarize students with emerging areas of knowledge related to architecture as both a professional practice and a mode of aesthetic perception. It engages students with complex topics, where architectural design is approached as a comprehensive, multi-parameter process across all stages. Particular emphasis is placed on the synthesis and integration of knowledge acquired in previous years, toward a unified and holistic understanding of architectural design.

A central focus of the course is the multifaceted interpretation of landscape and the exploration of the boundary between the "natural" and the "artificial" within architectural practice. Students are encouraged to investigate alternative relationships between tourism and hospitality infrastructures and their unique environmental contexts, as well as to creatively reimagine the overlapping structures and scales that define them.

ECTS: 12
HOURS: 7

LECTURERS: Dimitris Polychronopoulos - Professor
Stavros Dendrinos - Associate Professor, Maria Grigoriadou - Associate Professor, Panagiotis Gouliaris - Associate Professor



This course prepares students to successfully meet the requirements of the Research Seminar in the 9th semester and the Diploma Thesis in the 10th semester. The knowledge acquired is also essential for any theoretical or practical task involving scientific writing.

The following indicative theoretical units will be covered:

1. Scientific writing (general principles, issues of originality, plagiarism, etc.)
2. Collection and management of bibliographic sources
3. Text editing (handling of images, abbreviations, citation styles, and references)
4. Primary and secondary sources
5. Writing other professional forms of communication (CVs, internship application letters, etc.)
6. Presentation of writing samples from various scientific disciplines and publications

Throughout the course, students will participate in individual and group exercises aimed at practicing the expected deliverables. The course will also feature guest lectures by external experts, addressing both theoretical aspects of scientific writing and practical matters concer

LECTURERS: Ioannis Kolokotronis - Professor
Anastasia Kapandriti - Assistant Professor
Aikaterini Ritzouli- Assistant Professor

ECTS: 4
HOURS: 4



Development of research processes, methodologies, and key issues in selected scientific fields related to the needs and means of constructing the human environment. The course involves the in-depth investigation and documentation of a critical topic situated within the knowledge areas and scientific domains of one or more Departments. Particular emphasis is placed on critical analysis and the formulation of proposals for improving design and construction techniques.

Weekly meetings with supervising instructors, combined with independent student research, lead to a documented project that is subsequently presented publicly. During the scheduled hours indicated in the syllabus, only feedback, individual or group guidance, and corrections will be provided. Further details can be found in the chapter Regulations for the Conduct of Research Work – Seminar.

ECTS: 14
HOURS: 8



The topics, titles, and most importantly the content and core objectives of the Diploma Thesis must, from both a scientific-research and primarily a synthetic-creative perspective, lead to a comprehensive architectural outcome. This outcome represents the culmination of the student's long-term academic efforts and embodies the peak of an education grounded in the cumulative knowledge acquired throughout the five-year, unified and uninterrupted course of study at the University.

The objectives of the Diploma Thesis, along with all matters concerning its assignment, implementation, and evaluation, are outlined in the corresponding chapter: Regulations for the Diploma Thesis.

ECTS: 30
HOURS: 25



