

## PROGRAM INFORMATION

### Program Name and Degree Awarded

Master's in Architecture - with thesis (M.Arch)

Master's in Architecture - without thesis (M.Arch)

### Duration of Studies

2 years /4 Semesters

The program with thesis consists of 7 courses (21 credits); one seminar (non-credit) and a thesis (non-credit). One year is required for the thesis after completion of the courses and the seminar.

The normal time limit for completion of the program is two years.

The program without thesis consists of 10 courses (30 credits), and a term project.

### Total Credits / ECTS

21 local credits with thesis / 120 ECTS

30 local credits without thesis

### Language of Instruction

English

### Mission and Vision

The program's **mission** is to educate students who have cultivated critical thinking abilities and social awareness, and who can develop advanced professional and research skills to meet the demands of the contemporary world.

The **vision** of the program is to cultivate architects who possess a combination of competencies in design, technology and sustainable practices, are proficient in advanced design techniques and demonstrate a sense of social responsibility, and who are equipped to address possible future global issues.

### Program Objectives

The primary objectives of the Master of Architecture program are to cultivate architects who possess the capacity to analyze intricate global issues, demonstrate a commitment to sustainable practices, demonstrate a relentless pursuit of enhancing their technical proficiencies, and embody a profound sense of social responsibility and ethical principles.

### Program Learning Outcomes

#### 1. *Advanced design skills:*

The ability to develop innovative design solutions that combine form and function.

#### 2. *Creative problem solving:*

Exploring diverse design alternatives using critical thinking and imagination.

#### 3. *Contextual design:*

Designing solutions that respect and respond to the diverse needs of users, historical context, cultural values and environmental conditions.

*4. Theoretical Foundation:*

A strong understanding of architectural history, theory and current practices, including their impact on the built environment.

*5. Technical expertise:*

Knowledge of building systems, materials and emerging technologies, as well as their economic and regulatory impacts.

*6. Research methods:*

Understanding and application of research and design methodologies to conduct original research.

*7. Professional Responsibility:*

Understanding the ethical responsibilities and professional standards of the architectural profession.

*8. Sustainable Design:*

Integrating environmental principles into design to create responsible architecture that minimizes the impact on natural and artificial resources.

*9. Social Awareness:*

Recognizing the broader social impact of buildings and advocating for health, safety and well-being in the built environment.

## Curriculum

**1st Year Fall**

	COURSE CODE AND NAME	CREDIT	TYPE
1	ARCH506 DISASTER MANAGEMENT AND ARCHITECTURE	3	ELECTIVE
2	ARCH517 THEORY OF ARCHITECTURE	3	COMPULSORY
3	ARCH546 TRADITIONAL HOUSING BUILDINGS	3	ELECTIVE
4	CGCR501 RESEARCH METHODS	3	ELECTIVE

**1st Year Spring**

	COURSE CODE AND NAME	CREDIT	TERM	GRADE
5	ARCH502 DESIGN METHODS	3		COMPULSORY
6	ARCH522 SEMINAR	0		COMPULSORY
7	CGCR502 DATA ANALYSIS	3		ELECTIVE
8	ARCH548 HOUSING AND ENVIRONMENTAL STUDIES	3		ELECTIVE

**2nd Year Fall**

	COURSE CODE AND NAME	CREDIT	TERM	GRADE
9	ARCH530 THESIS	0		COMPULSORY

**Laboratory and Equipment Capacity (if applicable)**

Not applicable

**Career Opportunities**

After completing a Master's in Architecture, graduates can find different job opportunities like urban and regional planner, construction project manager, sustainable design consultant, etc. in offices or governmental agencies. They can also continue in their academic career.

**Contact Information**

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## COURSE CATALOGUE DESCRIPTIONS

### COMPULSORY COURSES

#### **ARCH 502 Design Methods (3, 0) 3**

The lecture covers a comprehensive knowledge reflection about design, design research and design methodology. Design as the third research field is investigated and clarified. The lecture discusses the importance of design research and empirical design investigation. Students analyze the leading design theories and learn to discuss them in a systematic manner. The lecture aims to assist students to understand significant eras in the design research field. The importance and relationship of theoretical and practical knowledge are explained and students learn to research design in an empirical approach.

#### **ARCH 517 Theory of Architecture (3, 0) 3**

Architectural Theory is one of the most discussed topics nowadays. The intersection with history, the connection to historical events, and the undefined and most complicated repositioning of architecture increases its importance. The main objective of this course is to forward the necessary infrastructure of the relationship between architecture and society starting from 1960's to the student and to discuss about possible future scenarios. It is intended to create awareness, because criticality today is a dangerous zone, with its diversity of sources, with the outburst of architects, and their contributions to the profession both in theory and practice.

#### **ARCH 520 Term Project (for non-thesis)**

A term project in a master's degree program in architecture constitutes a comprehensive design study that combines theory, technology and cultural contexts to produce a design proposal. The content encompasses a lucid design concept, a thorough site analysis, meticulous technical details, and visual representations, with a prevailing focus on sustainability and contemporary issues. The overarching objective is to cultivate proficient design capabilities through the synthesis of intricate data and the demonstration of critical reasoning.

#### **ARCH 522 Seminar**

Main objectives of this course are; to get students experienced in technical presentation skills, to enable students on how to take benefit of feedback from the audience, to broadcast information to the teaching staff about the recent research being undertaken within the faculty.

#### **ARCH530 Thesis**

The composition of a master's thesis in architecture involves the identification of a particular design question, the undertaking of extensive research on theoretical sources and case studies, and the presentation of a creative conclusion that proposes a solution to the question. The thesis contains the following sections: a summary or abstract, an introduction, a literature review, a detailed methodology, a presentation of the research findings, a discussion of the results, and a conclusion. Each section is presented with clear documentation and a bibliography.

## **ELECTIVE COURSES**

### **ARCH 503 Semiotics of Architecture (3, 0) 3**

The lecture is to investigate the relationship and origins of Semiotics in architecture. Investigation of semiotical theories and their application in architecture helps students to criticize architecture from a different angle of view. Regardingly, it aims to explain architectural areas in relation with symbolism and communications (semiotics). The lecture gives a new perspective and scope to post graduate students, and open a new door to a different research field. The semiotics, connotations and denotations in architecture are investigated. The communicative aspects the hidden messages and metaphors of buildings are discussed.

### **ARCH 505 Communication in Architecture (3, 0) 3**

Studies related to communication studies all cultural phenomena as if they were systems of signs- on the hypothesis that all cultural phenomena are, in reality systems of sign or that culture can be understood as communication. More simply, communication studies deal with how meanings are made: as such, they are concerned not only with communication but also with the construction and maintenance of reality.

### **ARCH 506 Disaster Management and Architecture (3, 0) 3**

The world experienced too many disasters during 20th century. The examples showed that the post disaster deconstruction period continued very much according to political and economic aspects. The physical environment in all cases seemed to be reconstructed and revitalized, but first the people's well- being and security should be established; and at the same time their cultural and religious needs and social requirements should be put on a real basis. The course aims to discuss the aftermath of disasters from different aspects such as: guidance of housing, implementation of various construction models, interventions, temporary and permanent solutions, ways to relief trauma, roles of government and agencies, etc...

### **ARCH 507 Space Syntax Method for Spatial Analysis (3, 0) 3**

This course is the continuation of ARCH 515 Housing and Environment course, and mainly aims to analyse selected houses by using space syntax method. Thus, the course firstly makes an introduction to conceptual analyses of spatial design, than introduces the space syntax method to measure conceptual analyses syntactically by using the results of calculations of; mean depth (MD), mean integration (RA) , basic difference factor (BDF) , space link ratio (SLR) which will be interpreted socially to reveal lifestyles of households, under three special topics; (1) visibility, (2) integration, (3) movement control as liberated versus non-liberated spatial organizations. At the end of the course, students will be able to measure their conceptual analyses by mathematically and syntactically by using space syntax method and will be able to interpret their results socially.

### **ARCH 508 Sustainable Building Design and Health (3, 0) 3**

Sustainable building design and health is a post-graduate theory based course that provides students with the opportunities to gain a deeper understanding of the underlying principles of environmentally conscious designs. It exposes students to the most innovative sustainability strategies and real-world green/healthy building examples. Students will be conversant with the concept of designing the built environment to minimize negative environmental impact through

skilful and sensitive design that concurrently complies with a dynamic balance of principles of social, economic, and ecological sustainability. To be acquainted with the rudimentary principle of sustainable building design concepts, this course focuses on green building strategies covering energy-efficient landscaping; water conservation and management; energy conservation and efficiency; renewable energy; health aspects of buildings; materials and resources; negative effects of environmental pollution (air, thermal, water, noise etc.) and prevention strategies; building durability; and climate responsive/adaptive buildings. This will be accomplished through weekly class lectures, as well as engaging students in discussions, research of related literature and submissions, for a better understanding of environmentally sustainable design and its practical implications on occupants' health and well-being.

### **ARCH 509 Philosophy of Design (3, 0) 3**

Philosophy in design is concerned with principles and approaches to philosophy of design. The purpose of the course is to discuss and understand different paradigms within the architectural discourse and theories in an extensive way, and to be able to conduct alternative readings over theoretical texts. The method of the course can take different forms; e.g. it can be based on epistemological thresholds or taxonomies concerning architectural theories, or it can follow the basic readings in architectural philosophy, or it can be based on the present knowledge areas of architecture.

### **ARCH 510 Sustainable Urban Growth (3, 0) 3**

The main objective of the course is to create consciousness of understanding the urban context and growth behaviour. It is crucial to determine sustainable urban growth policies targeting better living conditions for future generations. Identification of the unique characteristics of the cities is an important step to be taken for this goal. Developing while maintaining the continuity of the natural, cultural and economic resources is defined as one of the important difficulties encountered to achieve a sustainable urban growth. This course suggests contemporary planning strategies and testified methods to determine growth problems of the urban areas.

### **ARCH 511 Solar Radiation and Energy Efficient Building Design (3, 0) 3**

The main aim of the course is to prepare the students to think critically and develop an understanding and consequent new ideas about sustainability and sustainable architectural practices. During the design period of the buildings, heating, conditioning and lighting energy is the most passive to reduce energy discussion of system alternatives, making heating, conditioning and lighting costs, to become an earring optimization of alternatives, heating, conditioning and lighting systems.

The aim of this course is to teach design principles of buildings which provide optimum benefit from solar radiation. To evaluate building performance related with the gained knowledge basic solar data for the design of building process and determination of the optimum values of the design parameters of the buildings, calculation energy loads of buildings and evaluation, principles of solar house design, types of solar houses, examples, discussion on regulation and standards, application.

### **ARCH 512 Psychology and Space Perception (3, 0) 3**

The main purpose of this course is to define the space perception and perception process in architecture. It aims to teach the dimensions and dimensions of the mental relationship

established with spaces and spatial environments and to express the results of such an experience. Concepts of space psychology (privacy, personalization,) are also introduced.

### **ARCH 513 Planning And Urban Design (3, 0) 3**

This both practical and theoretical course will include a series of design studies supported by lectures, which explore current urban design theories and methods, introduce students to the analysis of urban problems in any context, and enable them to produce alternative design solutions for an analysed area. Urban design analytical theories will be developed through design exercises and lectures based on morphology, perception, behaviour, and urban form theories. Urban design typologies, based on cultures located in different geographical settings with distinct climatic conditions will be analysed through an historical review of 'current' urban design theory.

### **ARCH 514 Cultural Heritage, Conservation and Regeneration of Traditional Sites and Buildings (3, 0) 3**

The course focuses on the history of the conservation theory, scientific approach to the conservation methodology, contemporary conservation approach, conservation policies and role of international organizations and charters in heritage conservation. It provides an introduction to definition of cultural heritage and aspects of tangible and intangible cultural heritage. The course also includes analysis of restored historic sites and buildings, research, observation through analysis and criticism of different case studies. Different methods of conservation and projects in different scales is discussed within the scope of the course.

### **ARCH 515 Housing and Environmental Studies (3, 0) 3**

This course is divided into several components enabling students to study contemporary issues affecting the development of housing within the built environment worldwide. Global environmental issues, urban and rural housing issues, housing delivery systems, rural community planning and development, energy conservation and the exploitation of natural sources of energy, especially solar energy, form the content of course components. Special emphasis will be given to the development needs of the TRNC, by examining its current urban and rural housing problems, by studying future development plans, and by comparing the country to other developing countries experiencing similar problems.

### **ARCH 516 War, People and Place (3, 0) 3**

The course is designed to introduce and explore the war, people and place relationship. It aims to explain war, conflict, place attachment, home perception, home-making and place-making terminologies and their interaction.

### **ARCH 518 Green Buildings Principles and Practices (3, 0) 3**

The aim of this course is to analyse the environmental impact of the rapidly developing field of sustainable building strategies, passive design principles and performance of buildings. The built environment has a profound effect on natural resources and human health. Until recently, the impacts of energy, material, resource, waste, and human health and productivity have not been considered into design and construction process of buildings. The course will emphasize the use of objective criteria for assessing building sustainability, the Zero Carbon/Carbon Neutral strategies and other sustainability details.

**ARCH 528 Professional Practices and Construction Management (3, 0) 3**

The objective of this course is to introduce students to principles of professional architecture practice and to construction management functions (planning, organisation, staffing, leading, controlling, etc). This course will attempt to examine the effects of managerial skills (technical, human, conceptual and design) on the quality of the built environment. The aim is to make students-practitioners aware of the advantages of efficient management of practices and construction projects, which are productivity, effectiveness, and efficiency.

**ARCH 533 Quality Management in Architecture (3, 0) 3**

This course deals with the following topics: production, building production, sectoral characteristics, building component, project concept. system concept and theory, building production process, process phases and characteristics, management concept, management approaches, manager, management actions and factors, planning, design, problem solution. decision taking, control, communication organization, coordination, productivity, standardization, restrictions: time, technology, what is quality? can quality be managed, fit for purpose, design/quality/designer/ client relations, case studies in quality systems, quality assurance, quality management quality planning, quality control, quality indicators, seminar.

**ARCH 535 19<sup>th</sup> Century Inventions and Its Reflections (3, 0) 3**

19th Century is the miraculous invention of humanity. Architecture as a profession was appeared in its known content at 19th Century. Technological or scientific developments in this century defined a new mould of human mind. In the framework of 19th Century's Reason brings set up a new paradigm in each one differently at Architecture, Science, Art and etc. ARCH 535 Course content includes to discussions about Music, Fiction, Cinema, Science, Art, and naturally Modern Architecture

**ARCH 537 Computer Applications in Architecture (3, 0) 3**

This course aims to introduce contemporary use of computers in architectural design professional practice and academic studies. The course focus on methods and representations for design, applications of digital technologies to design and application practice, design production automation systems, software for computer aided design, database, simulation and data exchange among them. Students will take subjects and do research in theory and applications of computation and computer technologies including computer graphics, digital modelling and rendering, generative design, CAD technologies, Building Information Modelling, and the design process and management systems. Ability to working with Autocad and Sketch-up is a prerequisite for the course.

**ARCH 539 Human Factors in Environmental Control (3, 0) 3**

Current topics on climatic design, acoustics, illumination, fire and air quality will be discussed. Human factor in climatic control, illumination in perception of space, human behaviour during fire, acoustical conditions in auditoriums will be handled. Synthesis study in environmental control will be made.

**ARCH 544 Aesthetics and Ethics in Architecture (3, 0) 3**

The course aims to introduce students to the aesthetic philosophy with a historical view on the subject and the main principles of aesthetics together with the concept of ethics. The understanding of the mutual relationships between aesthetics and ethics will be given by analytical studies and exercises on the subject.

**ARCH 546 Traditional Housing Buildings (3, 0) 3**

Analyse of traditional urban house and its settlement pattern, characterization of traditional house according to their determination criteria, set out principles of conservation and preservation about traditional housing and research on different cases from Anatolia and Cyprus Cities.

**ARCH 548 Environmental Consideration and Design Process (3, 0) 3**

This course is divided into several components enabling students to study contemporary issues affecting the development of housing within the built environment worldwide. Global environmental issues, urban and rural housing issues, housing delivery systems, rural community planning and development, energy conservation, sustainability, resilience, ecological design and the exploitation of natural sources of energy, especially solar energy, form the content of course components.