**ARCH 501 Research Methods (3+0) 3**

* Research paradigms in Architecture
* Qualitatite & quantitative research methodologies
* Techniques of data collection, data processing & interpretation of research findings
* Reporting & communication of research results

**ARCH 503 Project I(Tezli Program için) (3+0) 3**

* Architectural studies in relation to a given text, theme or a concept, as a preparation to the Final Thesis
* Practice on transforming ideas into architectural form and space in particular

**ARCH 502 Project II(Tezli Program için) (3+0) 3**

* Architectural studies in relation to a given text, theme or a concept, as a preparation to the Final Thesis
* Practice on transforming ideas into architectural form and space in particular

**ARCH 505 Architectural Design I (Sadece Tezsiz Program için) (4+4) 6**

* Research by design. Studying diverse technology approaches on environmental issues, and sustainability
* Utilizing innovative and creative tools for adaptable architectural solutions

**ARCH 504 Architectural Design II(Sadece Tezsiz Program için) (4+4) 6**

* Research by design. Studying diverse technology approaches on environmental issues, and sustainability
* Utilizing innovative and creative tools for adaptable architectural solutions

**ARCH 506 Statistics(3+0)3**

Statistical concepts and models, data types, concept of probability, Random Variables, Random Event, Two Dimensioned and Conditioned Sample Spaces, Clustering Concept, Multivariate Distributions Parameters of Multivariate Distributions, Frequency Analysis, Parameter Estimations, Distributions of Discrete Random Variables.

**ARCH 507 Architectural Planning(3+0) 3**

* Planning and programming in Architecture
* Needs and their hierarchy (Maslow)
* Types of Activities
* Activity clusters
* Concept of Process, interrelations between clusters
* Circulation models
* Space syntax
* Functional analysis, function-space requirement relations, performance requirements, time and motion requirements, preparing architectural programme charts
* Case studies

**ARCH 508 Advanced Modelling (3+0) 3**

* Advanced computer modelling techniques
* Developing algorythms for exploring and creating innovative textures, structures and forms in 2D and 3D

**ARCH 509 Introduction to Project and Construction Management (3+0) 3**

* Construction / Project Management Concepts
* Processes and Concepts of Management
* Disciplines and knowledge areas involved in the construction management process, roles, techniques (scope management, time management, cost management, quality management, human resource management, information systems management, contract administration, etc..)
* General structure of construction firms and their business environment; organizational structures of construction firms; definitions and applications of techniques used in time and cost management
* Processes involved in contract administration for construction projects; types of contracts

**ARCH 510 The Frontiers of Modern Architecture and Urban Design in the Early 20th Century (3+0) 3**

This graduate seminar provides a critical review of the modern movements in architecture in the early twentieth century. It explores the cultural, social and political background of the “first machine age” by studying exemplary works, design principles and institutions of modern architecture. In this seminar, we will discuss the birth of new representational techniques in architectural drawing, which inspired many contemporary art and architectural movements; utopian city designs by well-known architects, such as Frank Lloyd Wright (“Broadacre City”), Bruno Taut (The “Stadtkrone”) and Le Corbusier (“The Radiant City”); and the influential Bauhaus school as the crystallization of the avant-garde movements. Our inquiry is not limited, historically or geographically, to the so-called Western world. We will also expand the discussion, which usually begins and ends in Western Europe and North America to the “non-West”, i.e., The Middle-East, East Asia, and North Africa, in order to consider the influence of European modernism in a global context as well as conceptions of modern architecture that emerge from the meeting or even clash of "European" and "non-European" cultural values and forms.

**ARCH 511 Architecture, Narrative and the City(3+0) 3**

Architectural texts, as well as others that relate to architecture, city and urban space are one of the main sources to understand the idea behind buildings, formation of architectural spaces, and their various representations in different regions of the world. Yet how far do these texts address the ways in which the architectures of distinct world regions have been affected by cultures, building traditions and civilizations elsewhere? This graduate seminar provides an introduction to architectural thinking and writing through a comparative and inter-cultural perspective. In addressing contemporary discourses on architecture, the city and urban design in a global context, we will divide the course into different geographical locations, and read passages that will enable the students, both aesthetically and intellectually, to associate the imaginative spaces of texts with the real spaces of architecture and cities. Among the cities we will examine are Delhi in India, Jakarta in Indonesia, Beijing in China, New York in the US, Berlin, London and Paris in 1930s Europe, Brasilia in 1950s Brazil, Algiers in Colonial Algeria, and Istanbul in early twentieth century Turkey.

**ARCH 512 Avant-Garde Movements in Architecture And Art (3+0) 3**

Public spaces are the concrete architectural and urban settings in which the “dialectical motion of modernity” became visible. In this graduate seminar we will focus on the impact on the urban scene in the 1920s and 1930s of radically innovative movements in the arts, especially but not only in architecture, associated at the time and subsequently with the “avant-garde.” By examining the emergence, transformation, and diverse representations of modern public space in the European context, we will see their “occupation” by new art techniques that have altered perceptions of reality, the influences of the reduction of art to a “black square,” utopian city designs, the idea of “anti-art,” and the high-tech world of Deconstructivism. Through the exploration of specific cases of art and architectural production and representation, the seminar will also investigate the architectural avant-garde’s re-appropriation of modern public space as a key site of political action.

**ARCH 513 History of Urban Form (3+0) 3**

This course provides an introduction to the city as a collective work of architecture built over time. To this end, this course is about urban form and urban process seen in a historical perspective. This course seeks to develop a fundamental understanding of theories and principles involved in the making of urban form; develop an operational understanding of political and economic policies on the development of the city over time; and develop a critical framework and the ability to apply that framework toward intervention in the city as architects, planners, engineers, and as citizens. The course is organized chronologically from the city in the ancient world to the city in the industrial age finally to the city of modernity. As such, emphasis is placed upon those ideas and factors having the greatest influence on current architectural and city planning thought and practice both in Turkey and around the world, with a critical view to the open question of the role of architecture and city planning in the future of the city.

**ARCH 514 Morphology of Built Space (3+0) 3**

This course aims to introduce the basic principles of built space and its elementary social logic. Through case studies, this course intends to analyze the strategic architectural decisions about built form and its spatial organization, and develop an awareness of their social consequences. The course is organized in a lecture-studio format, where students will be able to develop a fundamental understanding of the patterns and elements of built space and the ability to apply this knowledge towards design.

**ARCH 515 Contract Administration (3+0) 3**

This course aims to introduce principles of administration of construction contracts; formation of construction contracts and subcontracts; contract administration of different phases of construction projects; subcontracting; options for project delivery; analysis of selected contracts; contract disputes, arbitration, mediation, litigation; contract claims; risk allocation in construction contracts; international contracting.

**ARCH 516 Human Resource Management in the Construction Sector (3+0) 3**

This course aims to introduce the development of modern organizational and management theory, human resources theory, strategic approaches to managing HR in the construction industry, concepts such as employee relations and participation, workforce diversity, empowerment, health and safety and welfare, job performance measurement, leadership effectiveness, motivation theories, human resource development, conflict resolution, managing groups in the construction firm and the project, organizational change and learning, job design and satisfaction-productivity trade-offs (job enlargement, job enrichment, job rotation).

**ARCH 517 Executive and Group Decision Making in the Construction Sector (3+0) 3**

Decision making is a management tool used to help managers/practitioners. The course aims to introduce concepts and methods for making complex decisions in business and government, identifying criteria and alternatives, setting priorities, allocating resources, strategic planning resolving conflict, group and individual decision-making approaches and support systems, performance and decision effectiveness.

**ARCH 518 Sustainability and Green Building (3+0) 3**

**ARCH 519 Ecological Urbanism (3+0) 3**

**ARCH 520 Conceptual Frameworks in Architecture (3+0)3**

Architectural concepts that deal with social, economic and social dynamics, and their correlations with structural and spatial readings of architecture.