

NEAR EAST UNIVERSITY
GRADUATE SCHOOL OF APPLIED SCIENCES
ARCHITECTURE DEPARTMENT

BUILDING DESIGN PHD PROGRAMME

COMPULSORY COURSES

CODE	COURSE NAME	T	P	C
GCC603	RESEARCH METHODS & ETHICS (if not taken in the master program)	3	0	3
LOD602	EDUCATION FOR LEARNING			
ARC698	SEMINAR (MASTER)	-	-	-
ARC699	THESIS (MASTER)	-	-	-

ELECTIVE COURSES

CODE	COURSE NAME	T	P	C
ARC603	SPACE ANALYSIS	3	0	3
ARC604	PUBLIC SPACE ANALYSIS	3	0	3
ARC605	STRUCTURAL ANALYSIS	3	0	3
ARC606	MODULAR COORDINATION	3	0	3
ARC607	ARCHITECTURAL CRITICS & IDENTIFICATION OF THE CRITERIA	3	0	3
ARC608	HISTORY OF STYLES	3	0	3
ARC609	EUROPEAN ARCHITECTURE	3	0	3
ARC610	MEDITERRANEAN ARCHITECTURE	3	0	3
ARC611	TENDENCIES & STYLES IN XX. CENTURY ARCHITECTURE	3	0	3
ARC613	INTEGR.OF THE CONSTRUCTION SYSTEMS WITH FUNCT. SYSTEMS	3	0	3
ARC616	ENVIRONMENTAL DESIGN	3	0	3
ARC615	GEOGRAPHICAL INFORMATION SYSTEMS	3	0	3
ARC617	SPATIAL EXPLORATION: THEORY AND PRACTICE OF EMPIRICAL SPATIAL ANALYTICS	3	0	3
ARC618	ARCHITECTURAL DESIGN METHODS	3	0	3
ARC619	COMPUTER AIDED DESIGN AND APPLICATION I	3	0	3
ARC621	MUSEUM DESIGN	3	0	3
ARC622	MUSEOLOGY	3	0	3
ARC623	URBAN SUSTAINABILITY	3	0	3
ARC625	PHOTOGRAPHY IN ARCHITECTURE	3	0	3
ARC627	SYSTEM ANALYSIS	3	0	3
ARC628	OTTOMAN ARCHITECTURE	3	0	3
ARC629	COMPUTER AIDES DESIGN AND APPLICATION II	3	0	3
ARC630	CONSTRUCTION RESEARCH PROJECT 1	3	0	3
ARC631	ARCHITECTURAL DESIGN & PRACTICE	3	0	3
ARC632	MACRO & MICRO SCALE PROGRAMMING & PLANNING PRINCIPLES	3	0	3
ARC635	CONSTRUCTION RESEARCH PROJECT II	3	0	3
ARC636	TRADITIONAL CONSTRUCTION TECHNIQUES	3	0	3
ARC637	HISTORICAL DEVELOPMENT OF HOUSING	3	0	3
ARC638	CONSERVATION AND RESTORATION TECHNIQUES	3	0	3
ARC639	ARCHITECTURAL RESEARCH AND DOCUMENTATION	3	0	3
ARC640	CONSERVATION CONCEPTS	3	0	3

ARC641	OCCUPATIONAL SAFETY AND HEALTH MANAGEMENT	3	0	3
ARC642	CONTEMPORARY CONSTRUCTION	3	0	3
ARC643	CONSTRUCTION AND MATERIAL	3	0	3
ARC644	CONSTRUCTION AND EQUIPMENT	3	0	3
ARC645	CONSTRUCTION & ORGANIZATION	3	0	3
ARC646	STRUCTURAL SYSTEMS	3	0	3
ARC647	STEEL CONSTRUCTION	3	0	3
ARC648	INDUSTRIAL CONSTRUCTION SYSTEMS	3	0	3
ARC649	CONSTRUCTIONAL DEFECTS	3	0	3
ARC651	CULTURAL ISSUES IN DESIGN	3	0	3
ARC654	PREFABRICATION AND PREFABRICATED BUILDINGS I	3	0	3
ARC655	CONSTRUCTION SYSTEMS OF TRADITIONAL TURKISH HOUSE	3	0	3
ARC656	EVALUATION OF HISTORICAL ENVIRONMENT	3	0	3
ARC657	VERNACULAR ARCHITECTURE	3	0	3
ARC658	CONSERVATION PROJECT I	3	0	3
ARC659	CONSERVATION PROJECT II	3	0	3
ARC660	SOLAR ARCHITECTURE I	3	0	3
ARC665	PREFABRICATION AND PREFABRICATED BUILDINGS II	3	0	3
ARC666	EFFECTS OF ORIENTATION AND THERMAL COMFORT	3	0	3
ARC667	SOLAR ARCHITECTURE II	3	0	3
ARC668	CONSTRUCTION SYSTEMS	3	0	3
ARC670	ARCHITECTURE IN CONTEXT			
ARC677	VERNACULAR ARCHITECTURE AND SUSTAINABILITY II	3	0	3
ARC678	UNIVERSAL DESIGN, HISTORY AND THEORY	3	0	3
ARC680	TOTAL QUALITY MANAGEMENT	3	0	3
ARC681	USER'S NEEDS	3	0	3
ARC682	ARCHITECTURE AND IDENTITY	3	0	3
ARC683	SUSTAINABLE ARCHITECTURE I	3	0	3
ARC684	SUSTAINABLE ARCHITECTURE II	3	0	3
ARC685	PRODUCT DESIGN	3	0	3
ARC686	ARCHITECTURAL PSYCHOLOGY	3	0	3
ARC687	THERMAL COMFORT IN HOUSING	3	0	3
ARC689	CRITICAL THEORIES ON PRODUCTION OF URBAN SPACE	3	0	3
ARC694	SUSTAINABLE URBAN DEVELOPMENT	3	0	3
ARC695	NEW DESIGNS IN HISTORICAL ENVIRONMENT	3	0	3

T: Weekly Theoretical Course Hour

P: Weekly Practical Course Hour

C: Course Cred

**DEPARTMENT OF ARCHITECTURE
BUILDING DESIGN GRADUATE PROGRAMME**

COURSE NAME : Research Methods

COURSE CODE : GCC 603

COURSE CREDIT : 3

COMPULSORY/ ELECTIVE : Compulsory

CONTENTS OF THE COURSE: Introduction to research, publications and ethics, data presentations, statistical analysis, experimental design, descriptive social surveys, descriptive case studies, analytical models and correlation, predictive modeling, landscape assesment techniques, research paper publishing and ethics.

COURSE NAME : Methods In Architectural Design

COURSE CODE : ARC618

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Forming the relation among environment-space-structure, in architectural design. Forming the design decisions principles on case studies.

COURSE NAME : Structural Systems

COURSE CODE : ARC646

COURSE CREDIT : 3

COMPULSORY/ ELECTIVE : Elective

CONTENTS OF THE COURSE: System, structure, construction and definition of other terms. The phases and development of structural systems. The ability of construction materials those supplies balancing, solid block, the carcass and complex systems and the inspection of these systems according to the technology of contemporary construction. The definition of superficial structural systems, the importance and the principles of working system.

COURSE NAME : Space Analysis

COURSE CODE : ARC603

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Definition of space concepts. Examples of different spaces. The relation between space and function. Differentiations of requirements and aesthetics during the history.

COURSE NAME : Public Space Analysis

COURSE CODE : ARC604

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Definition of space and public space concepts is made. The relationship between space and function is examined. Examples of different public spaces are explored. Needs and aesthetic differences are determined throughout history.

COURSE NAME : Structural Analysis

COURSE CODE : ARC605

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Definition of structural. Various structure elements and the relation between them. Improvement and development of structural elements under different circumstances through history.

COURSE NAME : Moduler Coordination

COURSE CODE : ARC606

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: The aim of the course is to emphasize the importance of standardization in building components together with the discipline of “Dimensional Coordination” which is the most important factor in the industrialization of the building process, the course also explains the modular concept and deals with the size and location of components and elements of construction by referring to examples and by providing some modular design practices.

COURSE NAME : Architectural Critics & Identification Of The Criteria

COURSE CODE : ARC607

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Concepts of architectural criticism. Research of criticism. Demonstration of concepts for art and architectural compositions required for architecture function formation. Studies on mass and facade analyses on built architectural buildings

COURSE NAME : History Of Styles

COURSE CODE : ARC608

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Explanation of the subject. Historical frame . Period style , regional, personal style and relations between each other. Form in plastic arts. Principal elements and particularities of style formation. Methodology of style critic. From prehistory up to modern time; the chronology of cultural environment.

COURSE NAME : European Architecture

COURSE CODE : ARC609

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Introduction to western architecture. Reasons of its formation. Developments during history. Influences with Anatolian Turkish Architecture

COURSE NAME : Mediterranean Architecture

COURSE CODE : ARC610

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Introduction to western architecture. Reasons of its formation. Influences.

COURSE NAME : Tendencies & Styles In XX. Century Architecture

COURSE CODE : ARC611

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: The definition and researches of trends in 20th century-seminaries about subjects.

COURSE NAME : Integration Of Construction Sys. With Functional System

COURSE CODE : ARC613

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Application of new-airconditioning, heating, electrical and fire extinguisher systems in old buildings. Analysis of coordination and administrative problems and analysis of present problems which will be the base for new administration.

COURSE NAME : Geographic Information Systems

COURSE CODE : ARC 615

COURSE CREDIT : 3

COMPULSORY/ELECTIVE: Elective

CONTENTS OF THE COURSE: It is important to analyze and monitor architectural components of historical and cultural urban quarters for different temporal periods. Geographic Information Systems (GIS) have capability to develop spatial databases for analyzing and monitoring processes. In this course, architectural evaluation steps by using GIS are explained. Additionally, a final project also implemented by students.

COURSE NAME : Environmental Design

COURSE CODE : ARC616

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: The basic principles and definition of concepts frequency distribution. Exemplifying methods hypothesis test, regression, correlation and trend analyses, indexes, inspection of statistics and comments. Development of linear and unlinear amphine models and analysis. Orthogonal polynoms. Direct research and simplex methods. Industrial and building production.

COURSE NAME : Spatial Exploration: Theory and Practice of Empirical Spatial Analytics

COURSE CODE : ARC617

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: The course focuses on quantitative methodological approaches in urban design, planning, and development. In the beginning, the course focuses on establishing an understanding of data collection methods, proper analysis, and statistical significance. The data collection methods regarding morphological aspects of urban form is presented. Furthermore, the course explores spatial analytical methods such as space syntax, street centrality, visual graph analysis, and agent-based modeling. Space syntax is introduced as a bottom-up configurational approach toward understanding complex systems by exploring their fundamental components. The natural theory of movement, movement economy, land use, the dual structure of urban form is the key components of these analyses. The local and global movements of people and vehicular accessibilities are shown using graph analysis. Visual graph analysis is explored as a tangible tool for quantifying human perception and the associated qualities with it. Agent-based modeling is introduced as a powerful computational tool for analyzing potential human movement based on their field of vision. The empirical aspects of all aforementioned methods are explored in case studies and the possibility of applying mix-methods and multi-disciplinary approaches are practiced by students.

COURSE NAME : Computer Aided Design & Application I

COURSE CODE : ARC619

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Introduction to architecture up-to-date designing and drawing programs on computer.

COURSE NAME : Museum Design

COURSE CODE : ARC621

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Today museums are the best places to visit in order to explore both for touristic and educational purposes. They serve to the economy of the countries as well as educational purposes for both locals and foreigners. Global understanding of contemporary museum design is a total complex to serve multi-purpose such as research, educational programs, permanent and temporary exhibitions, seminars and lectures. The aim of this course is to explore museology from early historical examples up to contemporary approaches by examining selected examples.

COURSE NAME : MUSEOLOGY

COURSE CODE : ARC622

COURSE CREDIT : 3

COMPULSORY/ELECTIVE: Elective

CONTENTS OF THE COURSE: Today museums are the best places to visit in order to explore both for touristic and educational purposes. They serve to the economy of the countries as well as educational purposes for both locals and foreigners. Global understanding of contemporary museum design is a total complex to serve multi-purpose such as research, educational programs, permanent and temporary exhibitions, seminars and lectures. The aim of this course is to explore museology from early historical examples up to contemporary approaches by examining selected examples.

COURSE NAME : Urban Sustainable

COURSE CODE : ARC623

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: The course will examine the principles and practices of sustainable development in the context of urban development. We will examine the theory, politics, and practices shaping urban and regional sustainability initiatives. The course has been divided into three main parts: Part one: (theories of urban sustainability) we will examine the roots of urban sustainability as an agenda, some of its utopian precursors, and the various ways in which sustainability has been (re)defined by scholars, policy makers, and planners. Part two (policies) we will focus on urban sustainability initiatives and discuss concepts of governance, as well as community participation. And part three (strategies) lessons and examples of creating green cities, sustainable neighbourhoods, and green infrastructure. This course is not only about learning theories, policies, and strategies but also assists students to learn and conduct a comprehensive research regarding this topic. Therefore, as the course goes on, they practice defining research scope, problem statement, and questions, conducting comprehensive literature review and data collection, learning to write short analytical essays on their reading contents, and writing a descriptive-analytical essay on urban sustainability.

COURSE NAME : Photography In Architecture

COURSE CODE : ARC625

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: History and technical aspects of photography color and light, accessories and materials. Developing and printing in dark room. Indoor and outdoor shoots

COURSE NAME : System Analysis

COURSE CODE : ARC627

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Temporary system analyzing. Definition and of problem. System cost analyzing. Classification. Settling of questioning data. Choosing of computers system. Controlling and managing of project.

COURSE NAME : Ottoman Architecture

COURSE CODE : ARC628

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Foundation of Ottoman State. Developing periods and getting smaller periods. Political, economical, cultural dates, art and architectural media. Political relationships with eastern and western countries, art and architectural effects. Architectural periods; early Ottoman, classic, late classic periods. 18th century Tulip period. Western movements in 19th Century and its architectural reflections. National Architecture period. Social structure, art and architecture in early Republic period. Important architect's buildings.

COURSE NAME : Computer Aided Design and Application II

COURSE CODE : ARC629

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Creating new commands with Autolisp language. Introduction to Autoshade programming and its commands. Practices.

COURSE NAME : Construction Research Project I

COURSE CODE : ARC630

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Studies made by the student and her/his advisor in the context of the topic they determined.

COURSE NAME : Construction Research Project I

COURSE CODE : ARC630

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Studies made by the student and her/his advisor in the context of the topic they determined.

COURSE NAME : Architectural Design & Practice

COURSE CODE : ARC631

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Forming the relation among environment-space-structure, in architectural design . Forming the design decisions principles on case studies.

COURSE NAME : Macro And Micro Scale Programming And Planning Principles

COURSE CODE : ARC632

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Introduction to discipline of planning and programming in architecture and description of concepts. According to building types; planning and

programming relationship, and description of planning and programming concepts are analyzed. Programming approaches and periods, organization systems, activities systems and their relations are examined. Analytic studies of program capacity, dimensions of spaces, users' needs, structure of programming, and changes during life-cycle are considered. Comparison of building programming methods and techniques. Research and analytical studies on applied examples according to typology.

COURSE NAME : Construction Research Project II

COURSE CODE : ARC635

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Studies made by the student and her/his advisor in the context of the topic they determined.

COURSE NAME : Traditional Construction Techniques

COURSE CODE : ARC636

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Load – Bearing Wooden construction techniques. Masonry construction technique. Adobe and brick examples. Sub-masonry construction technique. Stone and wooden supports, examples. Wooden structure construction techniques. Definitions of Traditional building elements, their classifications according to structural properties. Studs and columns, materials and construction techniques, components and ornamentation methods. Foundations, materials and components. Slabs, materials and components, arches, cantilevers, roof covers, vaults, domes, etc.

COURSE NAME : Historical Development Of Housing

COURSE CODE : ARC637

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Search of the historical impact of the environmental factors and productivity and life style on housing. The analysis of the impact of technological and socioeconomically changes and development on housing.

COURSE NAME : Conservation And Restoration Techniques

COURSE CODE : ARC638

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Terminology, sources. Conceptual approach to restoration methods and techniques. Basic methods of conservation and restoration. Restoration of building elements. Analysis of materials and construction technology. Restoration throughout disciplines. Use of traditional materials and techniques in restoration. Urgent precautions for conservation. Conservation and restoration techniques in masonry structural system. Conservation and restoration techniques in structural wood system. Conservation methods for wood and masonry materials.

COURSE NAME : Architectural Research and Documentation

COURSE CODE : ARC639

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Studies made by the student and her/his advisor in the context of the topic they determined.

COURSE NAME : Conservation Concepts

COURSE CODE : ARC640

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Definition of conservation concept. Cases which causes conservation. Anti-conservative ideas. Historical development of the theory of architectural conservation; consciousness after the industrial revolution and the conservation cult of the late 19th century; conservation and the unity of style; destruction for the sake of restoration and the anti-restoration theory; conservation theory of the early 20th century; analytical approach towards the structures and the original materials; importance of recording and documentation; conservation concepts of the first half of the 20th century and the Venice Charter; Amsterdam Declaration and conservation of the urban historic sites and historic centers; Lausanne Charter and conservation and anastylosis in archaeological sites; authenticity, changing criteria and concept of authenticity in architectural conservation; re-use of the traditional buildings.

COURSE NAME : Contemporary Construction

COURSE CODE : ARC641

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Occupational safety and health management is a post-graduate theoretical course on the safety, health and welfare of individuals in the workplace. It focuses on how to avoid particular pre-existing conditions causing a problem in an occupational environment, and the preventative measures that can be taken to eliminate those problems. Often, people encounter health and occupational problems in their workplace due to the detrimental effect the work physical environment may pose to them, suggesting that the workplace and working environment need to be analysed and studied in order to minimize or eliminate these occupational problems. At the end of this course, it is anticipated that students will be conversant with the goals of occupational safety and wellness programs, including fostering a safe and healthy workplace environment. They will also realize a wide array of workplace hazards (e.g., fire, ergonomic, mechanical and machine, noise and vibration, violence, bloodborne pathogens and bacterial hazards, musculoskeletal disorders and cumulative trauma disorders), including physical and psychosocial hazards, and how these risks can be prevented or eradicated to improve the health and safety of people at the workplace. This course will be delivered through weekly lectures, as well as engaging students in discussions, research of related literature and submissions.

COURSE NAME : Contemporary Construction

COURSE CODE : ARC642

COURSE CREDIT : 3
COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Industrialized Systems: The technologies those are applied in a construction site. The technologies those are based on factory production. (Standardization several, systems based on cement material, production in prefabrication, the information about the problems of transportation and mounting.

COURSE NAME : Construction and Materials
COURSE CODE : ARC643
COURSE CREDIT : 3
COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: The application possibility of construction materials according to the construction system and technology. The theory. The physical and chemical properties of materials. The strengthening of constructional system of building.

COURSE NAME : Construction & Equipment
COURSE CODE : ARC644
COURSE CREDIT : 3
COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Introduction to equipments which effect design and construction directly. Conceptual knowledge about elements and components of systems related with heating, ventilating, lighting and communicating; how they can be part of structure, space and/or other constructional segments of building. Finding out possible problems and solutions that can be faced throughout the period of design, construction and usage of these systems. General dimensional information about equipments and methods of determining dimensions. Specifications of fitting different equipments and their relationship with the building. Examining important applications and researches.

COURSE NAME : Construction & Organization
COURSE CODE : ARC645
COURSE CREDIT : 3
COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Management and concepts of management about building and construction. Cooperative planning of building production and administration economics. Design decisions directed towards application. Evaluating the results of design and construction field. Relations between production and legality of business. Developing a method which will provide an organic relationship among the design, construction and production organization together with the constructional segments.

COURSE NAME : Steel Construction
COURSE CODE : ARC647
COURSE CREDIT : 3
COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: The history of steel buildings. Information about properties of steel. The design principles of steel buildings. The determination of static system

and comparison with other systems. The designing principles of plane structural systems, space frame systems, cable systems, and steel – carcass systems.

COURSE NAME : Industrial Construction Systems

COURSE CODE : ARC648

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: The dimensional studies with theoretic and practical scales. The techniques, information about materials, information about equipments, application, consultation. Definition of three dimensional studies, principles and methods, kinematic models, mass models, ergonomic models, presentation models, prototypes, selection of model according to the aim. Techniques of making models. The relation between model-users model-function the photographing of model, films, videos and simulation techniques.

COURSE NAME : Constructional Defects

COURSE CODE : ARC649

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Definition of building and constructional defects. The systems of traditional and developed building types. The inspection of relations between construction and material, labour, constructor design and economy. Analyzing details and design mistakes and researching the solutions. The research and analysis on examples.

COURSE NAME : Cultural Issues in Design

COURSE CODE : ARC651

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Definition of Cultural Issues in relation with Architectural Design. Examining spatial behavior within a cultural context. Discussion of components of culture as a way of life of a typical group, a system of symbols, meanings and cognitive schemata and a set of adaptive strategies for survival related to ecology and resources. Reviewing the scope of cultural studies; comprising technology, knowledge and value systems. Research on related theories and examples from different places and groups.

COURSE NAME : Prefabrication & Prefabricated Buildings I

COURSE CODE : ARC654

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: The definition of prefabricated construction and its aims. The structural systems used in prefabricated buildings. Materials. Loads to be considered in this type of buildings. Prefabricated elements. Joints of elements. Connections. “Frame” and “Framed bearing wall” structural systems. Generally, building design principles, and building heights. Types of structural elements. Connection types. Load transfers at connection areas, and details. Rigid structural systems. Static and dynamic calculations. Determination of elements and dimensioning. Stability. Construction principles. Condensation problems and solutions.

COURSE NAME : Construction Systems Of Traditional Turkish House

COURSE CODE : ARC655

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: House's formation, taking shape and development in Turkish life culture. The concept of XIX. Century Traditional Turkish House which has typical characteristics. Plan, function, elevation formations, material, construction techniques and decorate about Turkish House. Local peculiarities. Making analyze on Turkish House with contemporary life.

COURSE NAME : Evaluation Of Historical Environment

COURSE CODE : ARC656

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Concept of historical environment / Definitions / Explanation and classification of site/Determined elements of historical environment, jointly value, urban points, established seems/settlings of edge. Archaeological areas. Historical towns which have life. Rural settlings. Landscape. Reasons of depravation about historical environment. Unplanning and planning mistakes. Natural and artificial worn. Functional and economical obsolete.

COURSE NAME : Vernacular Architecture

COURSE CODE : ARC657

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Evaluation of traditional architecture. Features of vernacular architecture. Relationship between traditional and vernacular architecture. Differences in vernacular architecture and its reasons.

COURSE NAME : Conservation Project I

COURSE CODE : ARC658

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Historic survey and analysis of the monument in terms of history of art and architecture; the survey and documentation of the present condition of a historic monument with drawings and photographs; the restitution of the original building; the stages of its transformations through time; structural deformation and material deterioration characteristics; conservation problems in terms of materials; the discussion and evaluation of various methods of intervention such as cleaning, strengthening, renovation, etc. for the studied monument.

COURSE NAME : Conservation Project II

COURSE CODE : ARC659

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Spatial analysis on the building's environment. Preparing the street silhouettes. Establishment of conservation problems on urban scale. Analytic establishment on single building scale. Establishments on original construction details. Examining the convenience of functions that will be applied to building. Determining the conservation decisions on scale of single building and environment and project making.

COURSE NAME : Solar Architecture I

COURSE CODE : ARC660

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: This course will study about energy and kind of energy, nonrenewable and renewable energy and using of energy in Architecture. Solar energy is kind of renewable energy and it will address the following issues: Solar radiation, solar cells, pyranometers, geometry of the earth and sun, reckoning of time, geometry of collector and solar beam, all of the angles, effects of the earth's atmosphere, active and passive system architecture (Trombe wall, double glass, green house), conception effective energy: climate parameters, conception parameters (choice location for building, orient and shape of building, organization of inner spaces, optics and thermophysical characteristic of building shell, heat transfer and heat transfer for plane wall and composite wall. This course will also study heat exchange of buildings.

COURSE NAME : Prefabrication & Prefabricated Buildings II

COURSE CODE : ARC665

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Explanation of prefabrication. The classification of the prefabricated elements which are produced in construction site and factory in terms of moulds. The purpose of application of tunnel formwork and sliding formwork. The production technology and costing economy. The determination of other production systems according to the cost economy. The determination of panel systems. The factors those effect the system. The analyze of the inputs during design, production, transportation and mounting. The completely industrialized building production systems. The machine transportation and mounting. The completely industrialized building production systems. The machine technologies. Cell systems. Analyzes of structural and constructional systems. The inspection of examples.

COURSE NAME : Effects of Orientation & Thermal Comfort

COURSE CODE : ARC666

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: The general description of relation between climate-design. Climate types-directions and principles of building shaping. The role of hot-dry, hot-wet weather and local topography. Collection and gathering evaluation of weather result. Drawing technique of bioclimatic graphic "Hottest region diagram" movements of earth. Definition of sun and angles of sunlights. Techniques to find angles by calculation, diagram, equipment observation. Effects of sunradiation on earth. Calculation techniques of local

latitude and amount of radiation. Determining the dimensions of vertical and horizontal control elements. Determining the critical periods of sun controls; dimensions of critical periods for daily sunlight angles, to decrease the results of monthly critical periods to one dimension, to get common dimensions from the results of yearly critical period. Shaping elevations (facades) for sunlight angles and other natural evaluation. Shaping and optimum directioning of building according to the common results of evaluations (sol-air principle, surface-film reflection) Special definition of weather differentiation and town (city) designing. Building thermal comfort (natural and artificial climatization) to work the collectors according to the weather properties.

COURSE NAME : Solar Architecture II

COURSE CODE : ARC667

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: The fields those the solar system are used. The heating of using water, the heating of heating water, the heating of using and heating water all together, climating cooling and heating of buildings. Heating of swimming pools. Distillation and supplying drinking water. Drying fruits and vegetables. Production of electric-power. The conversion of solar energy to other kinds of energies. Thermal conversion systems. The heat properties and conduction properties of construction materials. The hydrogen energy. Examples on solar architecture.

COURSE NAME : Construction Systems

COURSE CODE : ARC668

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Constructional systems concept. Basic elements of constructional system; sources, time, product. Compulsories; system's environment, aims, criterias. Changes of constructional systems under the effect of sources, time , product, organization, simplicity to complexity, smaller scales to larger scales, singularity to plurality. Parallel changes on constructional systems together with social and technological changes. Properties of construction sector. Role of product and demand on the formation of constructional systems. Relationship between technology and organization. Evaluation of constructional systems, considering source–usage, speed and quality. Principles on the choice of constructional systems. Applied subjects; construction system analysis; comparisons of constructional systems according to source-usage; time analysis of different systems.

COURSE NAME : Architecture in Context

COURSE CODE : ARC670

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Architecture in relation with social, political, economical, cultural, technological boundaries. Examining spatial behavior within context and discussion of architectural design approaches that can be defined as other or architecture with-out defined boundaries of context.

COURSE NAME : Vernacular Architecture and Sustainability II

COURSE CODE : ARC677

COURSE CREDIT : 3
COMPULSORY/ELECTIVE: Elective

CONTENTS OF THE COURSE: Examining the architectural characteristics and spatial qualities of vernacular architecture in different regions of the world. Understanding the different effects like geographical location, topography and climate on vernacular buildings in contributing on sustainability.

COURSE NAME : Universal design, history and theory
COURSE CODE : ARC678
COURSE CREDIT : 3
COMPULSORY/ ELECTIVE : Elective

CONTENTS OF THE COURSE: The course commences with introducing theories and concepts of universal design (UD), inclusive design, and human-centred design (HCD). At this stage, theories and definitions by scholars will be discussed while the students present their short essays weekly in regards to the main question of each session. The learning process includes three stages of awareness training based on bibliographical study, subjective experience through case study analysis, and learning from case study synthesis. The next main topic of the class is practicing universal design which includes universal design principles, design for human performance, social participation, and design with nature.

COURSE NAME : Total Quality Management
COURSE CODE : ARC680
COURSE CREDIT : 3
COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: This course focuses on the essence, principles, and practices of total quality management (TQM). Some of the ideas and topics that are covered are: process improvement; process orientation; service quality; human resources; customer satisfaction programs; quality function deployment; process control and capability; role of inspection; economics of quality; productivity measurement; learning and organizational performance measures; and teachings of Deming, Juran, and Crosby.

COURSE NAME : User's Needs
COURSE CODE : ARC681
COURSE CREDIT : 3
COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: "User's needs" as a course includes environmental factors which are required for individual or communal activities. Physical and psycho-social needs and user needs according to building typologies are also examined within the frame of performance criteria

COURSE NAME : Architecture And Identity
COURSE CODE : ARC682
COURSE CREDIT : 3
COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Architectural identity changes according to the different geographic areas and sites in which different societies live. Aim of the course is the examination and identification of factors that are the causes of the formation and change of architectural identity. Definition of cultural identity, personal identity, group identity, social identity, environmental identity, urban identity, institutional identity and architectural identity

and interactions between them. The main notions of human, environment and culture, relations between them and their effects on “architect profile” and “architectural identity”, the visual architectural identity components.

COURSE NAME : Sustainable Architecture I

COURSE CODE : ARC683

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: The course provides opportunities for participants to engage in current debates about the potential role of architecture in an era of climate change. Also this course will be set aside to provide an insight into the awareness and culture on which sustainability is based, presenting the different contexts in which it can be applied, retracing the history of the exploitation of renewable resources right up to an overview of current transnational energy policies. You will engage in research, academic rigorous discipline, and be expected to generate evidence-based design decisions and design guidance.

COURSE NAME : Sustainable Architecture II

COURSE CODE : ARC684

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Constructional systems concept. Basic elements of constructional system; sources, time, product. Compulsories; system’s environment, aims, criterias. Changes of constructional systems under the effect of sources, time , product, organization, simplicity to complexity, smaller scales to larger scales, singularity to plurality. Parallel changes on constructional systems together with social and technological changes. Properties of construction sector. Role of product and demand on the formation of constructional systems. Relationship between technology and organization. Evaluation of constructional systems, considering source–usage, speed and quality. Principles on the choice of constructional systems. Applied subjects; construction system analysis; comparisons of constructional systems according to source-usage; time analysis of different systems.

COURSE NAME : Product design

COURSE CODE : ARC685

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE : The BSc Product Design programme is one half of the study area of Product Design. This course area focuses on and helps you develop the key skills that are needed to allow you to work within the product design industry with specialist focus on the technical aspects related to product operation and production. You will develop your skills in a well-equipped and stimulating environment that constantly encourages you to push yourself and your skill development.

COURSE NAME : Architectural Psychology

COURSE CODE : ARC686

COURSE CREDIT : 3

COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE : The aim of the course is teaching the relation of psychology and architecture in context of human-environment-behaviour in detail. Basic needs of human beings, user needs. Human-environment-behaviour interaction, human behaviour in built environment and its psychological basics. Theories of Human-environment relations. Concepts of privacy, personal space, personal distance and their influence on space design. The psychological basics and process of architectural design. Cultural, psychological and functional factors and their influence on human-environment relation will also be discussed in the frame of design solutions and examples.

COURSE NAME : Thermal Comfort in Housing
COURSE CODE : ARC687
COURSE CREDIT : 3
COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Effects of sunradiation on earth. The general description of relation between climate-design in housing. Collection and gathering evaluation of weather result. Definition of sun and angles of sunlights. Determining the critical periods of sun controls; dimensions of critical periods for daily sunlight angles, to decrease the results of monthly critical periods to one dimension, to get common dimensions from the results of yearly critic period.

COURSE NAME : CRITICAL THEORIES ON PRODUCTION OF URBAN SPACE
COURSE CODE : ARC689
COURSE CREDIT : 3
COMPULSORY / ELECTIVE : ELECTIVE

CONTENTS OF THE COURSE: Theories of urban space, production and reproduction of urban space, social justice in spatial dimension, urban geographies, critical discussion upon capital-based urban space transformations, uneven urban development, capital-intensive urbanization, right to the urban space.

COURSE NAME : Sustainable Urban Development
COURSE CODE : ARC694
COURSE CREDIT : 3
COMPULSORY/ELECTIVE: Elective

CONTENTS OF THE COURSE: This course is about understanding sustainable urban development policies and implementations in urban-neighbourhood scale. It also gives relative research methods for monitoring sustainable development targets in urban zones. Additionally, relative sustainable city, spatially sustainable urban growth implementations from different countries are explained by various references.

COURSE NAME : New Designs in Historical Environment
COURSE CODE : ARC695
COURSE CREDIT : 3
COMPULSORY / ELECTIVE : Elective

CONTENTS OF THE COURSE: Design Principles (approaches) of new buildings designed in historical environment. Explanation of historical environment, importance of historical environment as a design criteria. Explanation of different design approaches of new designs in

historical environment. Discussions of the different design principles over examples built in different historical environments. Role and importance of New Designs in Historical Environments.

COURSE NAME : **TERM PROJECT (MASTER)**
COURSE CODE : **ARC697**
COURSE CREDIT : **non- credit**
COMPULSORY / ELECTIVE : **Compulsory (for without thesis programme)**
CONTENTS OF THE COURSE: A comprehensive research and a report on the selected architectural subject.

COURSE NAME : **SEMINAR (Ms)**
COURSE CODE : **ARC698**
COURSE CREDIT : **non- credit**
COMPULSORY / ELECTIVE : **Compulsory**
CONTENTS OF THE COURSE: Information on presentation and discussion, method and techniques. Decision of common rules. Deciding subjects related to themes, self criticism and evaluation on subjects. Learning presentation and discussion methods and techniques for scientific researches. Application of experiences on a subject.

COURSE NAME : **THESIS (MASTER)**
COURSE CODE : **ARC699**
COURSE CREDIT : **non- credit**
COMPULSORY / ELECTIVE : **Compulsory**
CONTENTS OF THE COURSE: A comprehensive research on the selected field of architecture. A completed Master's thesis must present the author's ideas clearly, precisely and correctly. The thesis should guide a reader to understand: i) what the master's thesis proposes, ii) why it is relevant to the field, iii) how the systematic approach explores the master's research question, and iv) what conclusions are reached.