

INTERNATIONAL BURCH UNIVERSITY  
FACULTY OF ENGINEERING AND INFORMATION TECHNOLOGIES  
DEPARTMENT OF ARCHITECTURE



FIRST CYCLE STUDY PROGRAM SPECIFICATION  
ACADEMIC YEAR 2016/2017

## 2. UNDERGRADUATE CURRICULUM OF DEPARTMENT OF ARCHITECTURE

First Semester				
CODE	COURSE NAME	T	P	ECTS
ARC 101	Basic Design	2	4	7
ARC 103	Graphic Communication I	2	2	5
CEN 137	Computer Literature and Skills	2	2	5
ELT 117	Advanced Reading and Writing I	2	2	5
MTH 101	Calculus I	3	2	6
BOS 101	Bosnian Language I*	2	0	2
TDE 191	Turkish Language I**	2	0	2
Total		13	12	30

\* Mandatory for Turkish students.

\*\* Mandatory for non-Turkish students.

Second Semester				
CODE	COURSE NAME	T	P	ECTS
ARC 104	Introduction to Architecture	2	2	4
ARC 114	Architectural Design I	2	4	6
ARC 115	Architectural Structures I	2	2	5
ARC 108	Statics	2	2	4
ELT 118	Advanced Reading and Writing II	2	2	5
ARC 105	Graphic Communication II	2	2	4
BOS 102	Bosnian Language II*	2	0	2
TDE 192	Turkish Language II**	2	0	2
Total		14	14	30

\* Mandatory for Turkish students.

\*\* Mandatory for non-Turkish students.

Third Semester				
CODE	COURSE NAME	T	P	ECTS
ARC 201	Internship – In architectural studio			
ARC 224	Architectural Design II	2	4	7
ARC 225	Building Construction Technology	2	2	4
ARC 437	Architectural Structures II	2	2	6
ARC 208	Building Materials	2	2	4
ARC 216	History of Art and Architecture I	2	2	5
ARC 375	Strength of Materials	2	2	4
Total		12	14	30

\* The students should apply to the proper Department with a written document from an Architectural Studio which affirm that he/she has been accepted for 30 days of work in this institution. This document have to be shown to the department before the evaluation date of the works.

Fourth Semester				
CODE	COURSE NAME	T	P	ECTS
ARC 234	Architectural Design III	2	4	7
ARC 206	Theory of Structures	2	2	4
ARC 254	Environmental Control Studio	2	2	4
ARC 226	History of Art and Architecture II	2	2	5
ARC 257	Steel Structures	2	2	5
XXX xxx	Non-Technical Elective	2	2	5
Total		12	14	30

Fifth Semester				
CODE	COURSE NAME	T	P	ECTS
ARC 301	Internship – In construction company	0	0	0
ARC 327	Architectural Design IV	2	4	5
ARC 325	Reinforced Concrete Structures	2	2	5
ARC 3xx	Technical Elective I	2	2	5
ARC 3xx	Technical Elective II	2	2	5
ARC 3xx	Technical Elective III	2	2	5
XXX xxx	Non-Technical Elective	2	2	5
Total		12	14	30

\* The students should apply to the proper Department with a written document from an Architectural Studio / Construction Site which affirm that he/she has been accepted for 30 days of work in this institution. This document have to be shown to the department before the evaluation date of the works.

Sixth Semester				
CODE	COURSE NAME	T	P	ECTS
ARC 354	Architectural Design V	2	4	5
XXX 3xx	Technical Elective IV	2	2	5
XXX 3xx	Technical Elective V	2	2	5
XXX 3xx	Technical Elective VI	2	2	5
ARC 362	Senior Design Project	0	6	5
XXX xxx	Non-Technical Elective	2	2	5
Total		10	18	30

Technical Elective Courses				
CODE	COURSE NAME	T	P	ECTS
ARC 303	City Planning and Urban Design	2	2	5
ARC 308	Building Systems	2	2	5
ARC 305	Environmental Design	2	2	5
ARC 311	Advanced Measuring Methods in Architecture I	2	2	5
ARC 306	Geometry and the Elements in Design	2	2	5
ARC 307	Design of Steel Structures	2	2	5
ARC 365	Historical Environment And Conservation	2	2	5
ARC 313	Building Construction Management and Economics	2	2	5
ARC 324	Architecture and City	2	2	5
ARC 331	Theory of Conservation	2	2	5
ARC 357	Computer Analysis of Building Structures	2	2	5
ARC 317	Environmental Aesthetics	2	2	5
ARC 332	Studio of Conservation and Restoration	2	2	5
ARC 364	Fundamentals of Site Planning	2	2	5
ARC 318	Problems of Traditional Building Materials	2	2	5
ARC 333	Introduction to Deterioration and Conservation	2	2	5
ARC 371	Computer Literacy in Architecture	2	2	5
ARC 316	Design Methods	2	2	5
ARC 344	Architect's Market Structure	2	2	5
ARC 322	Acoustics in Architecture	2	2	5
ARC 345	Landscape Research	2	2	5
ARC 319	Issues and Problems in Modernism	2	2	5
ARC 320	New Building Technologies	2	2	5
ARC 330	Understanding Tectonics	2	2	5
ARC 372	Computer Aided Drafting and Design	2	2	5
ARC 346	Landscape Design	2	2	5
ARC 336	Design with Climate	2	2	5
ARC 323	Lighting in Architecture	2	2	5
ARC 437	Architectural Composition	2	2	5
ARC 208	Building Element Design	2	2	5

Course Code : ARC 101	Course Title : BASIC DESIGN		
Level : Undergraduate	Year : I	Semester : I	ECTS Credits : 7
Status : Compulsory	Hours/Week : 6		Total Hours : 90
COURSE DESCRIPTION	<p>This course is a foundation course for all students of Department of Architecture. It deals with basic principles of design, which are communicated to students through theory conveyed into 2D and 3D abstract exercises. Topics refer to fundamental design principles and elements simulating architectural problems which enable students to think and resolve simple design requirements as well as form-function relationship, learning and understanding design process. Furthermore, the course covers theory of color, basic architectural elements, space relationship and organization/configuration. Focus is on developing and enhancing mental and manual skills of students, creativity and critical thinking</p>		

Course Code : ARC 103	Course Title : GRAPHIC COMMUNICATION I		
Level : Undergraduate	Year : I	Semester : I	ECTS Credits : 5
Status : Compulsory	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>The course elaborates and explores methods of graphic representation of architectural project introducing students to the fundamental drawing techniques crucial to expressing any design idea. The focus of this course is on basic graphic representational elements and their integration into complex visual presentation. The course, through various practical exercises introduces students to the methods of representation of visual attributes of objects, spatial representational systems, proportion, drawing techniques.</p> <p>Additionally as part of this course, students must attend a freehand drawing class for 2 hours per week, which teaches them techniques of sketching, manual drafting, perspective drawing, shading etc.</p>		

Course Code : CEN 131	Course Title : Computer Literature and Skills		
Level : Undergraduate	Year : I	Semester : I	ECTS Credits : 5
Status : Compulsory	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>This course covers basic concepts in information technology of architectural programs, in specifics basics of 2D drawing – autoCAD, and 3D program – Sketch up.</p>		

Course Code : ELT 117	Course Title : ADVANCED READING AND WRITING I		
Level : Undergraduate	Year : I	Semester : I	ECTS Credits : 5
Status : Compulsory	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	This course is specifically designed for architecture students to improve their English communication in academic and work environments. Incorporating career-specific vocabulary and contexts, the course offers step-by-step instruction in four key language components; reading, listening speaking and writing. The course aims to improve students' vocabulary and reading comprehension by means of wide range of authentic reading passages, articles and vocabulary activities. A major part of the time is spared for academic writing and reading practiced by guided tasks.		

Course Code : MTH 101	Course Title : CALCULUS I		
Level : Undergraduate	Year : I	Semester : I	ECTS Credits : 6
Status : Compulsory	Hours/Week : 5		Total Hours : 75
COURSE DESCRIPTION	Calculus I: Functions, Limits, continuity and derivatives. Applications. Extreme values, the Mean Value Theorem and its applications. Graphing. The definite integral. Area and volume as integrals. The indefinite integral. Transcendental functions and their derivatives. L'Hopital's rule. Techniques of integration. Improper integrals. Applications. Parametric curves. Polar coordinates.		

Course Code : BOS 101	Course Title : BOSNIAN LANGUAGE I		
Level : Undergraduate	Year : I	Semester : I	ECTS Credits : 2
Status : Compulsory	Hours/Week : 2		Total Hours : 30
COURSE DESCRIPTION	This course is taught through the Bosnian Language. The course contains basic grammatical rules of the language. Everyday practical use of the language. This course is for Turkish students.		

Course Code : TDE 191	Course Title : TURKISH LANGUAGE I		
Level : Undergraduate	Year : I	Semester : I	ECTS Credits : 2
Status : Compulsory	Hours/Week : 2		Total Hours : 30
COURSE DESCRIPTION	This course is taught in Turkish Language. The course contains basic grammar rules of the language. Everyday practical use of the language. This course is for non-Turkish students. It covers following topics: Basic characteristic of written language Grammar Subjectivity and objectivity Free writing Guided writing		

Course Code : ARC 104	Course Title : INTRODUCTION TO ARCHITECTURE		
Level : Undergraduate	Year : I	Semester : II	ECTS Credits : 4
Status : Compulsory	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>The purpose of the course is to introduce the student to the scope and vocabulary of architecture. The student is expected to develop an understanding of the phenomenon of form in general and to identify the specificities of architectural form and its distinctions from other forms in nature and the human world at different scales and levels of space. These specificities and distinctions include perceptual values related with the corporeal, spatial and surface characteristics and use of principles of visual organization, use of structural principles and systems, and the utilitarian program of architecture.</p>		

Course Code : ARC 114	Course Title : ARCHITECTURAL DESIGN I		
Level : Undergraduate	Year : I	Semester : II	ECTS Credits : 6
Status : Compulsory	Hours/Week : 6		Total Hours : 90
COURSE DESCRIPTION	<p>This course is the continuation of Basic Design. The core of the studio is the development of both design thinking and proficiency with design tools and methods. It introduces a full range of ideas and issues that are embodied in the intellectual and creative process of architectural design. Throughout a series of research exercises, drawing assignments and sequence projects students will develop basic design skills including conceptualizing and representing architectural ideas and developing critic judgments about building design. The studio emphasizes development of conceptual design including concept and objective identification, design concept formation, generative processes, spatial and functional composition, and evaluation procedures. Architectural Design I is a course in which students are encouraged to showcase their creativity</p> <p>The course has a prerequisite of ARC 101 BASIC DESIGN.</p>		

Course Code : ARC 115	Course Title : ARCHITECTURAL STRUCTURES I		
Level : Undergraduate	Year : I	Semester : II	ECTS Credits : 5
Status : Compulsory	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>Introduction to the fundamental theories and methods of building structural system and the relationships among architectural design and technologies. Course examines structural systems, construction to provide understanding of impact of these systems on architectural form. Structural classifications. Basic structural elements. Structural systems. Principles of reliance. Characteristic parts of the building: terminology, function, Vertical structural elements, Horizontal structural elements, Foundations and foundation structures, principles of design and construction</p>		

Course Code : ARC 108	Course Title : STATICS		
Level : Undergraduate	Year : I	Semester : II	ECTS Credits : 4
Status : Compulsory	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>The subject of Statics deals with forces acting on rigid bodies at rest covering coplanar and noncoplanar forces, concurrent and nonconcurrent forces, friction forces and hydrostatic forces. Much time will be spent finding resultant forces for a variety of force systems, as well as analyzing forces acting on bodies to find the reacting forces supporting those bodies. Also, students will be able to understand normal and shear stresses and combined stress, as well as the basic approach to design of beams and determination of the deflections. It is expected from students to develop critical thinking skills necessary to formulate appropriate approaches to problem solutions.</p>		

Course Code : ARC 105	Course Title : GRAPHIC COMMUNICATION II		
Level : Undergraduate	Year : I	Semester : II	ECTS Credits : 4
Status : Compulsory	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>Learners gain skills in using manual methods, and develop an understanding of how to use graphics for clear and effective communication. A relation between various presentation mediums will be explained to help students develop their own graphic communication skills. It covers following topics: Spatial Relationships of Objects, Spatial Coordinates and Orthogonal Projections, Orthogonal Projections, Oblique Projection, Isometric Drawing, Axonometric Drawing, Roof, Spatial Construction, Planar projection, Roads, Basics of Perspective Drawing.</p>		

Course Code : ELT 118	Course Title : ADVANCED READING AND WRITING II		
Level : Undergraduate	Year : I	Semester : II	ECTS Credits : 5
Status : Compulsory	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>This course is continuation of ELT 117, of specifically designed English language course for architecture students to improve their English communication in academic and work environments. Incorporating career-specific vocabulary and contexts, the course offers step-by-step instruction in four key language components; reading, listening speaking and writing. The course aims to further improve students' vocabulary and reading comprehension by means of wide range of authentic reading passages, articles and vocabulary activities. A major part of the time is spared for academic writing and reading practiced by guided tasks.</p>		

Course Code : BOS 102	Course Title : BOSNIAN LANGUAGE II		
Level : Undergraduate	Year : I	Semester : II	ECTS Credits : 2
Status : Compulsory	Hours/Week : 2		Total Hours : 30
COURSE DESCRIPTION	Bosnian language course adopts a multi-level methodology that integrates the skills of reading, writing, listening, grammar, vocabulary and conversation. These skills are reinforced at all levels and Bosnian is the only teaching language used in the class, except when it is necessary to facilitate the explanation of a grammar rule or lexical phrase to a beginner.		

Course Code : TDE 192	Course Title : TURKISH LANGUAGE II		
Level : Undergraduate	Year : I	Semester : II	ECTS Credits : 2
Status : Compulsory	Hours/Week : 2		Total Hours : 30
COURSE DESCRIPTION	<p>This course is taught in Turkish Language. The course contains basic grammatical rules of the language. Everyday practical use of the language. This course is for non-Turkish students. It covers following subjects:</p> <ul style="list-style-type: none"> <li>Basic characteristic of written language</li> <li>Grammar</li> <li>Subjectivity and objectivity</li> <li>Free writing</li> <li>Guided writing</li> </ul>		

Course Code : ARC 201	Course Title : SUMMER PRACTICE AT ARCHITECTURAL STUDIO		
Level : Undergraduate	Year : II	Semester : III	ECTS Credits : 0
Status : Compulsory	Hours/Week : 0		Total Hours : 0
COURSE DESCRIPTION	This course makes students able to attend and professionally benefit from an architectural studio atmosphere. The student is expected to fully engage with the practice of a professional studio and get enough experience to be prepared for the after-graduation period.		



Course Code : ARC 224	Course Title : ARCHITECTURAL DESIGN II		
Level : Undergraduate	Year : II	Semester : III	ECTS Credits : 7
Status : Compulsory	Hours/Week : 6		Total Hours : 90
COURSE DESCRIPTION	<p>Studies for the identification of elements of architectural design and the development of sensitivity and awareness required for valid interpretations of natural and functional context. Semester project requires from students to provide design solution for a single residential unit. Lectures and practical sessions will deal with</p> <p>Analysis of a project brief.  Site Recording and Analysis  Context  Design Response and Conceptual Development / Volumetric Analysis  Functional Planning  Aesthetics  Materials  Prerequisite: ARC 214</p>		

Course Code : ARC 225	Course Title : BUILDING CONSTRUCTION TECHNOLOGY		
Level : Undergraduate	Year : II	Semester : III	ECTS Credits : 4
Status : Compulsory	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>This course offers an introduction to the history, theory, and construction of basic structural systems as well as an introduction to energy issues in buildings. It emphasizes basic systematic and elemental behavior, principles of structural behavior, and analysis of individual structural elements and strategies for load carrying. The course also introduces fundamental energy topics including thermodynamics, psychrometrics, and comfort. It is a required class for M. Arch. Students.</p>		

Course Code : ARC 437	Course Title : ARCHITECTURAL STRUCTURES II		
Level : Undergraduate	Year : II	Semester : III	ECTS Credits : 6
Status : Compulsory	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>The course is a continuation of introductory analysis of building structural systems. Course examines parts of structural systems in greater detail, such as windows, doors, stairs and roof. This course explores the relationship between building technologies, specifications of details and architectural design in practice.</p>		

Course Code : ARC 208	Course Title : BUILDING MATERIALS		
Level : Undergraduate	Year : II	Semester : III	ECTS Credits : 4
Status : Compulsory	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>The course provides basic knowledge of building and construction materials, their origin, production, properties, application and installation as well as their advantages and disadvantages versus other materials. The specific attention is paid to structural materials, energy efficient materials and state of the art materials related to the modern architectural design</p> <ul style="list-style-type: none"> <li>• Foundations, Earth materials, geotextiles, drainage, piles, diaphragms</li> <li>• Wood, Wood products, plastic lumber, wood fasteners, glued laminated timber</li> <li>• Wood Heavy timber frame, light frame, interior and exterior finishes</li> <li>• Brick masonry Mortar, brick</li> <li>• Stone and concrete masonry, Stone, Stone masonry and Concrete masonry units, Masonry wall</li> <li>• Waterproof and thermal insulations (rock wool, glass wool, polystyrene, polyurethanes...)</li> <li>• Concrete, Cement, Reinforcing</li> <li>• Mid-term Examination</li> <li>• Precast and sitecast concrete Prestressed elements, joining, casting concrete, Lightweight concrete</li> <li>• Steel Material, steel framing, fireproofing</li> <li>• Roofing and roofing materials application</li> <li>• Cladding, Flooring, Suspended Ceilings</li> <li>• Exterior wall systems, Interior finishes, walls, partitions, gypsum systems</li> </ul>		

Course Code : ARC 216	Course Title : HISTORY OF ART AND ARCHITECTURE I		
Level : Undergraduate	Year : II	Semester : III	ECTS Credits : 5
Status : Compulsory	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>By the end of the course the student is expected to have a basic chronological sense of major architectural developments and be able to recognize and rationalize changes in form and material with a contextual approach.</p> <ul style="list-style-type: none"> <li>• Art in world history, introductory remarks.....Purpose of art .....The beginnings of art: Prehistory - the Stone Age</li> <li>• Art and Architecture in "time-cut" 3500 BCE</li> <li>• Art and Architecture in "time-cut" 2500 BCE</li> <li>• Art and Architecture in "time-cut" 1500 BCE</li> <li>• Art and Architecture in "time-cut" 800 BCE</li> <li>• Art and Architecture in "time-cut" 400 BCE</li> <li>• Art and Architecture in "time-cut" 0- Beginning of the new era</li> <li>• Art and Architecture in "time-cut" 200 CE</li> <li>• Art and Architecture in "time-cut" 400 CE</li> <li>• Art and Architecture in "time-cut" 600 CE</li> <li>• Art and Architecture in "time-cut" 800 CE</li> </ul> <p>Art and Architecture in "time-cut" 1000 CE....Art and Architecture in "time-cut" 1200 CE / Intro</p>		

Course Code : ARC 375	Course Title : STRENGTH OF MATERIALS		
Level : Undergraduate	Year : II	Semester : III	ECTS Credits : 4
Status : Compulsory	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	Strength of Materials encompasses all of the issues and programs and is an essential way of approaching building projects. Understanding Strength of Materials concepts will enable students to think and practice in an integrated fashion to meet the demands of today's as well as tomorrow's high-performance bldg. project.		

Course Code : ARC 234	Course Title : ARCHITECTURAL DESIGN III		
Level : Undergraduate	Year : II	Semester : IV	ECTS Credits : 7
Status : Compulsory	Hours/Week : 6		Total Hours : 90
COURSE DESCRIPTION	<p>This course will introduce students to the fundamental concepts required for the design and drafting of public building by working through the steps required for an office building project. Students will work individually and collaboratively with the lecturers to put disciplinary knowledge and expertise into practice through a specific company/brand project. Lectures will introduce a broad range of issues including design process, human factors, context, site, environment, culture, diversity, accessibility, technologies, materiality, space standards for office environment etc. At each step of the way, there will be an introduction to relevant information related to standards and technicalities of public building design, separation of public and private spaces, as well as standards for office space planning, and underground garage.</p> <p>The Office Shell – Introduction  Office Core  Core Size &amp; Location  Main Circulation - Standards  Office Shell  Grids &amp; Partitions  Office Layout &amp; Landscape – Diagrams  Office Layout /Open Plan Layout  Space Standards  Space Standards  The office environment  Integrated services for office buildings  Design Solutions – Floor Plans/ Examples from Practice  Design Solutions – Elevations / Examples from Practice  Design Solutions – Elevations / Examples from Practice  Technical Drawing Description  Communicating Design  Presentational Techniques  Communicating Design  Presentational Techniques  Prerequisite: ARC 234.</p>		

Course Code : ARC 254	Course Title : ENVIRONMENTAL CONTROL STUDIO		
Level : Undergraduate	Year : II	Semester : IV	ECTS Credits : 4
Status : Compulsory	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>Students will be provided with knowledge on aspects of building environment controls related to architectural planning and design. Aspects on comprehensive fire prevention and control; and influence of building materials with respect to pollution, environmental degradation will be discussed. Topics:</p> <ul style="list-style-type: none"> <li>• Course Introduction. Architectural form as an environmental control system. CLIMATE as an context.</li> <li>• DESIGN STRATEGIES Streets. Open spaces. Buildings.</li> <li>• DESIGN STRATEGIES Buildings. Zoned organizations. Location. Rooms and courtyards. Size and shape. Walls .Roofs. Floors. Windows.</li> <li>• The Luminous Environment Fundamentals of LIGHT Lighting and human failings. Lighting in Cultural and Art Centers. Daylighting. Electric lighting.</li> <li>• ACOUSTICS Design Fundamentals of Sound. Noise isolation and control.</li> <li>• RENEWABLE TECHNOLOGIES. Low energy techniques for housing. Advanced and ultra-low energy houses.</li> <li>• Sustainable design. Solar architecture. PASSIVE SYSTEM. Passive house.</li> <li>• EXISTING housing: a challenge and opportunity. STUDENTS PRESENTATIONS A brief overview of one example from practice. / Renewable technologies , Passive design etc. /</li> <li>• HVAC System VENTILATION. Natural Ventilation HVAC : VENTILATION</li> </ul>		

Course Code : ARC 206	Course Title : THEORY OF STRUCTURES		
Level : Undergraduate	Year : II	Semester : IV	ECTS Credits : 4
Status : Compulsory	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>Static analysis of statically undetermined systems, propped cantilever, continuous beams, pinned frames and arches, fixed frames and arches, statically undetermined trusses using Flexibility (Force) method, Three-Moment Method (Clayperon's equations), Displacement Method of analysis (The Slope Deflection Method and Stiffness Method of Analysis) and Moment Distribution Method or Cross Method and Computer Methods.</p>		

Course Code : ARC 257	Course Title : STEEL STRUCTURES		
Level : Undergraduate	Year : II	Semester : IV	ECTS Credits : 4
Status : Compulsory	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>The behaviors and properties of structural steels. Principles of steel structural design. Design methods of steel structures emphasizing load and resistance factor design. Design procedures and specifications of steel members subjected to tension, compression, flexure and torsion. Composite steel-concrete design and construction. Design building codes and seismic provisions of steel structures.</p>		



Course Code : ARC 226	Course Title : HISTORY OF ART AND ARCHITECTURE II		
Level : Undergraduate	Year : II	Semester : IV	ECTS Credits : 5
Status : Compulsory	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	The course represents an introduction into the architecture of the New Century, making in parallel an overview of art history with particular emphasis on the interpretation of space in architecture, sculpture and painting from the Renaissance until today. Given the temporal extension of the program, different periods will be represented through their fundamental works.		

Course Code : ARC 301	Course Title : SUMMER PRACTICE AT CONSTRUCTION SITE		
Level : Undergraduate	Year : III	Semester : V	ECTS Credits : 0
Status : Compulsory	Hours/Week : 0		Total Hours : 0
COURSE DESCRIPTION	Building construction procedures and techniques and active participation in construction work. The student can engage in archaeological site work with the approval of the Department.		

Course Code : ARC 327	Course Title : ARCHITECTURAL DESIGN IV		
Level : Undergraduate	Year : III	Semester : V	ECTS Credits : 5
Status : Compulsory	Hours/Week : 6		Total Hours : 90
COURSE DESCRIPTION	The course establishes foundations for architectural design of multifamily housing engaging issues of space, organization, circulation, use, structure and material. The focus of this course is integration of basic architectural elements and conceptual spatial strategies into larger architectural structures with complex urban, social, cultural and economic characteristics. The topic of housing is treated from a wide range of perspectives: urban context, spatiality and form, functionality and aesthetics. Prerequisite: ARC 234.		

Course Code : ARC 325	Course Title : REINFORCED CONCRETE STRUCTURES		
Level : Undergraduate	Year : III	Semester : V	ECTS Credits : 5
Status : Compulsory	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	Combined bending and compression, development and anchorage of reinforcement, deflections, design of slabs including one-way and two-way, design of footings, retaining walls, introduction to prestressed concrete, design of multi-story buildings.		

Course Code : ARC 354	Course Title : ARCHITECTURAL DESIGN V		
Level : Undergraduate	Year : III	Semester : VI	ECTS Credits : 5
Status : Compulsory	Hours/Week : 6		Total Hours : 90
COURSE DESCRIPTION	<p>This course will investigate the social, programmatic, tectonic and phenomenological characteristics of educational institutions as a building typology. The proposed theme is quite challenging since the students need to respond to the numerous building standards, laws and regulations in one hand, and in the other hand they should be able to provide a space which inspires and fosters children's creativity. The focus of the studio is on the user based design and on in-depth study of special needs of one community group resulting in detailed and complex program. The issue of children is of primary importance. What do they do, how do they learn, what is the relationship between space and creativity? The design process involves exploring the meaning of "child-orientated environment" as a basis for prosperous community. Therefore investigations of this studio will not be limited purely on architecture but they will include the study of current innovative approaches to education and learning such as Montessori and Waldorf learning method.</p> <p>Students will be challenged to deepen their investigations into spatial, functional and aesthetic compositions started during previous semesters with special focus on following: standards, dimensional and zoning requirements, measurements, site assessment and analysis and phenomenological experiences (colours, light and shadow, silence and noise).</p>		

Course Code : ARC 362	Course Title : SENIOR DESIGN PROJECT		
Level : Undergraduate	Year : III	Semester : VI	ECTS Credits : 5
Status : Compulsory	Hours/Week : 6		Total Hours : 90
COURSE DESCRIPTION	<p>The course involves the application and integration of previously acquired knowledge through the preparation of the final design project. By means of independent work as well as by work with a mentor in the selected module that can range from any type of architectural design, urban or interior design project, students will demonstrate their capability and knowledge of working as associates in the preparation of project documentation or architectural supervision of works after graduation.</p>		

## TECHNICAL ELECTIVES COURSES

Course Code : ARC 303	Course Title : CITY PLANNING AND URBAN DESIGN		
Level : Undergraduate	Year : III	Semester :	ECTS Credits : 5
Status : Elective	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>The concepts of: settlement, urbanization, planning; subjects of the contemporary city planning, the legal dimension of planning. Course intends to:</p> <ul style="list-style-type: none"> <li>• Demonstrate a systematic and critical understanding of the theories, principles and practices of City Planning and Urban Design</li> <li>• Critical review of the city development and urban planning</li> <li>• Understanding of the development of Cities/Towns through History: Background, Concept, Genesis, Postulates, Principles, Criteria</li> <li>• Critically review of social, economic, environment, religion and cultural roles of the city/town development</li> <li>• Creatively application of the knowledge in the research and analysis work</li> <li>• Understanding of the Contemporary approaches in the City development and urban planning</li> <li>• Demonstrate a systematic and critical understanding of street and squares, public and stationary traffic, infrastructure, waste management, zoning of the cities</li> <li>• Basic understanding of basic sustainable urban planning and green cities gradation, dominance, balance, unity.</li> <li>• Basic understanding of collaboration between Urban, Peri Urban and Rural</li> <li>• Demonstrate skills to actively participate in the presentation and peer review and constructive communication with colleagues</li> </ul>		

Course Code : ARC 308	Course Title : BUILDING SYSTEMS		
Level : Undergraduate	Year : III	Semester :	ECTS Credits : 5
Status : Elective	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>Evaluation of building systems in terms of resource utilization/speed/quality. Principles in building system selection. Practices: Analysis of building systems. Definition of Building Production System (BPS). Elements of BPS: resources, process and product. Constraints of BPS: environment, aims, criteria. Development of BPS from standpoints of resources, process, product and organization in parallel with social and technological changes. Characteristics of building sector. The product characteristics and demand characteristics in the building production. Evaluation of building systems in terms of resource utilization/speed/quality. Principles in building system selection. Practices: Analysis of building system, comparative analysis of resource utilization of specific building systems, process analysis of specific systems.</p>		





Course Code : ARC 305	Course Title : ENVIRONMENTAL DESIGN		
Level : Undergraduate	Year : III	Semester :	ECTS Credits : 5
Status : Elective	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>The course provides a broad introduction to design, covering how we interact with the environment around us, how to make things fit and feel better (ergonomics), materials and methods of assembling them, and determining the ecological costs of these decisions.</p> <p>The course includes case studies, design projects and experiments. It provides methods for determining needs, developing research teams, and finding solutions to difficult design problems. It also looks closely at the systems implications of design.</p>		

Course Code : ARC 311	Course Title : ADVANCED MEASURING METHODS IN ARCHITECTURE		
Level : Undergraduate	Year : III	Semester :	ECTS Credits : 5
Status : Elective	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>Measuring method are necessary to develop every design project. The methods of making a thorough measured and descriptive survey of a building by means of various techniques and instruments are given in a series of lectures. Practical exercises are carried out on the site. The methods of making a thorough measured and descriptive survey of a building by means of various techniques and instruments are given in a series of lectures. Practical exercises are carried out on the site.</p>		

Course Code : ARC 306	Course Title : GEOMETRY AND THE ELEMENTS IN DESIGN		
Level : Undergraduate	Year : III	Semester :	ECTS Credits : 5
Status : Elective	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>This course will examine the fundamental design principles and elements that have been shaping architectural design over history, from various geometrical elements and patterns to building typologies giving students insight into the methods and tools which architects use both individually and collaboratively to put knowledge into practice. Design assignments will introduce a broad range of issues including fundamental design elements, form, space, function, rhythm, gradation, connectivity, typology, diversity, materiality, human factor, context, site, social influences, feasibility, environment and culture.</p>		

Course Code : ARC 307	Course Title : DESIGN OF STEEL STRUCTURES		
Level : Undergraduate	Year : III	Semester :	ECTS Credits : 5
Status : Elective	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	Principles, analysis and methodologies for conceptual and detailed design of steel structures. Emphasis on the role of mechanics in modern structural engineering design specifications with a focus on load and resistance factor design. Topics include behavior and design of hot-rolled and cold-formed steel: connections, members, frames and advanced analysis techniques. Principles of basic design concepts. Definition of loads (dead, live, wind, snow and earthquake loads). Material characteristics of steel. Behavior of individual elements, tension members, compression members, beams and columns. Types and behavior of connections, connection design and details. Use of steel in architectural design. Behavior and analysis of large span steel structures		

Course Code : ARC 365	Course Title : HISTORICAL ENVIRONMENT AND CONSERVATION		
Level : Undergraduate	Year : III	Semester :	ECTS Credits : 5
Status : Elective	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	Conservation concepts in site scale, single building, building groups and conservation methods in urban scale from a historical view. Conservation and restoration applications in Europe. Areal work and restoration projects in practice in Bosnia sites. History and theory of conservation.; evaluation of historic buildings and sites. Historic building survey, inspection and recording. Diagnosis of building failures. Restoration techniques (consolidation of materials and structures, reintegration, renovation, reconstruction). Introduction to urban conservation methodology. Listing buildings and spaces of architectural and historic importance, urban conservation plans, and integrated conservation. National legislation concerning conservation.		

Course Code : ARC 313	Course Title : BUILDING CONSTRUCTION MANAGEMENT AND ECONOMICS		
Level : Undergraduate	Year : III	Semester :	ECTS Credits : 5
Status : Elective	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	Organizational/Personnel Management work study and production processes. Industrial Psychology. Application of computers in Construction Management Techniques of time and motion studies. Actors taking part in the process of building production in Construction sector, their authorities and responsibilities. The evolution of the building sector in the world. Basic concepts related to construction management. The techniques of construction management and project management, cost in building-production; applications of cost estimation and quantity calculation, cost-benefit analyses.		

Course Code : ARC 324	Course Title : ARCHITECTURE AND CITY		
Level : Undergraduate	Year : III	Semester : VI	ECTS Credits : 5
Status : Compulsory/Elective	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>This course will explore how we learn about the architecture and the city. At the interface of art, architecture, urban design and landscape, between urban and curatorial practice, the students will get acquainted with the ways how we read, explore and interpret the architecture and the city. The major focus will be on the physical form, through architectural and urban history, theory, typologies and representation in art and mass media, questioning the possibilities that the display of architecture and city opens in the creation of knowledge and urban culture.</p> <p>This general education course will introduce some key ideas drawn from interdisciplinary studies. Its core aim is to raise students' interests in encountering and imagining urban space through different ways. The lectures are divided into four parts:</p> <p>The shape of the city. The first part introduces how cities are conceptualized and how their historical development is understood; this is an introductory section familiarizing the class with the issues to be covered in the course.</p> <p>Urban theories. In the second part, key topics concerning urban theories, restructuring and transformation will be discussed; we will look at some dominant factors influencing urban form and urban culture.</p> <p>City representation: literature, painting, film. Mass Media. The third section will explore the relationship between cultural productions (the visual arts, novels, poems, essays, film, architecture and urban planning) and the context within which they were produced. We will discuss how paintings, novels and movies express the individual experience of urban condition, and how they in turn shape the individual's expectations of those experiences. The presence of architecture and city in publicity and mass media will be analyzed as a part of urban branding and destination creation.</p> <p>City on display: City museums and urban curating. The fourth section concerns the multiple ways through which we encounter and interact with the city. It takes 'practices' – urbanistic, artistic, curatorial, everyday - as ways of 'reading' and explores the possibilities of their enhancing through the activities of city museums and urban curating.</p> <p>The course will be concluded by class presentations and discussions.</p>		

Course Code : ARC 331	Course Title : THEORY OF CONSERVATION		
Level : Undergraduate	Year : III	Semester :	ECTS Credits : 5
Status : Elective	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>Basic concepts of theory of conservation. Historical background, contemporary international regulations, charters, declarations. Terminology in conservation.</p> <p>The course begins with an overview of the process of preservation, as described by a model for heritage stewardship, in which a structure's significance and needs are assessed within the context of the capacity (and needs) of its steward. Next, each component of an architectural conservation assessment is considered in the context of architectural styles, building technology, materials, geographical, consideration and other factors. Related assignments address styles, general conservation issues (through field work) and building-specific issues (through site work). Then, the physical properties, craft and production techniques, performance and conservation of specific material/systems are addressed. Work is placed in the context of conservation standards and treatments. Site visits supplement lectures and readings.</p>		

Course Code : ARC 357	Course Title : COMPUTER ANALYSIS OF BUILDING STRUCTURES		
Level : Undergraduate	Year : III	Semester :	ECTS Credits : 5
Status : Compulsory/Elective	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	This class investigates the use of computers in architectural design and construction. It begins with a pre-prepared design computer model, which is used for testing and process investigation in construction. It then explores the process of construction from all sides of the practice: detail design, structural design, and both legal and computational issues.		

Course Code : ARC 317	Course Title : ENVIRONMENTAL AESTHETICS		
Level : Undergraduate	Year : III	Semester :	ECTS Credits : 5
Status : Compulsory/Elective	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	In this class, students will explore ecologically motivated art such as earthworks, land projects, performance and ephemeral works and ecofeminist works among others. Since environmental or eco artists typically collaborate with landscape architects, urban planners, local officials and experts in other disciplines, such as ecologists, geographers, and anthropologists, students will be expected to consider a wide range of disciplines. Sustainability through grass roots efforts, industry and governmental institutions will also be helpful in framing class discussion. A theoretical course conducted in discussions on assigned readings and research. Aims to introduce students to environmental concerns and issues of aesthetic related to the environment and to social and urban experiences. Apart from the discussions, students are asked to submit papers related to the environment, short stories, drawing and visual documentation.		

Course Code : ARC 332	Course Title : STUDIO OF CONSERVATION AND RESTORATION		
Level : Undergraduate	Year : III	Semester :	ECTS Credits : 5
Status : Compulsory/Elective	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	The discipline of architectural conservation and restoration covers restoration, alteration, management and renewal of both historic and latter-day settlement and buildings. Architects' working methods for inspecting and analyzing buildings are studied, as well as the planning of new architecture in the encounter with existing settlement. The subject field includes close studies of traditional building trades and their application to refurbishment. Current research focuses on the design process, methods of planning and investigation in preservation and renewal using traditional materials and methods, and design programs and studies for the management and development of existing built environments.		

Course Code : ARC 326	Course Title : FUNDAMENTALS OF SITE PLANNING		
Level : Undergraduate	Year : III	Semester :	ECTS Credits : 5
Status : Compulsory/Elective	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>An integrated theory and applications course which provides an exposition of theoretical principles associated with the site planning process, and then involves students in hands-on exercises. The inter-relationship between site planning decisions and their potential consequences will be demonstrated through practical exercises.</p> <p>Studies the techniques of site planning in four parts. Starts with an analysis of the main physical site elements, continues with the analysis, relation and location of activities on a site. Alternative choices for vehicular and pedestrian circulation systems are studied in the third section. The architectural design elements of site design, criteria for the evaluation of good site design, and practical know-how on site design constitute the fourth section.</p>		

Course Code : ARC 318	Course Title : PROBLEMS OF TRADITIONAL BUILDING MATERIALS		
Level : Undergraduate	Year : III	Semester :	ECTS Credits : 5
Status : Compulsory/Elective	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>The main principle of a performance based building regulatory system is that there should be proof of performance of the proposed material, component or system. Thus, the approach may require verification tests and documented data to be provided to regulatory authorities. Most traditional building materials and methods do not have standard test methods that can be used to verify their performance and this tends to discourage wide use. However, it has widely been accepted that "history-in-use" is an important facet of a lot of these building materials and methods and it should be adequate proof of compliance to regulatory requirements.</p>		

Course Code : ARC 333	Course Title : INTRODUCTION TO DETERIORATION AND CONSERVATION		
Level : Undergraduate	Year : III	Semester :	ECTS Credits : 5
Status : Compulsory/Elective	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>This course is designed to introduce course participants to the history and theory of architectural conservation and to uncover the operation of those ideas in current conservation practice. The course aims to develop the participants' knowledge of the principles and methods of sound conservation practice. On completion of the course participants will be able to:</p> <p>Understand the ideas underpinning architectural conservation</p> <ul style="list-style-type: none"> <li>• Understand the relationship between these ideas and principles of practice that have developed (as expressed in national and international charters)</li> <li>• Recognise the expression of these ideas and principles in the legislation</li> <li>• Understand the relationship between ideas about architectural conservation and the processes of identifying heritage resources and assessing their significance.</li> </ul> <p>Adopt and adapt these ideas and principles appropriately in practice</p>		

Course Code : ARC 371	Course Title : COMPUTER LITERACY IN ARCHITECTURE		
Level : Undergraduate	Year : III	Semester :	ECTS Credits : 5
Status : Compulsory/Elective	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>This course is designed for students who want to learn computer tools and office productivity tools such as Word, PowerPoint and Excel. Topics covered will enable students to understand computer-based work, create and edit word documents, create powerful presentations using PowerPoint, and customize spreadsheets using Excel.</p> <p>An introduction to computer basics. Both theory and practice of operating systems, word-processors, spread-sheets and data-base programs are covered to provide an understanding of state-of-art of the computer technology.</p>		

Course Code : ARC 316	Course Title : DESIGN METHODS		
Level : Undergraduate	Year : III	Semester :	ECTS Credits : 5
Status : Compulsory/Elective	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>Design processes using architectural projects as case studies; assigned projects; design experience includes schematic design: program development, concept formulation, design methodologies, graphic and verbal communication skills; core design studio for professional degree candidates.</p> <p>The course focuses on definitions of design and different methods to define and solve design problems. An overview of quantitative methods, such as decision theory and optimization; qualitative methods, such as decision trees and pattern languages are discussed. Methods that help in finding creative solutions, such as brainstorming and synectics are covered..</p>		

Course Code : ARC 344	Course Title : ARCHITECT'S MARKET STRUCTURE		
Level : Undergraduate	Year : III	Semester :	ECTS Credits : 5
Status : Compulsory/Elective	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>This course gives details of architect's employment and earnings, including regional variations. It includes regulations information on bonus payments, fringe benefits and holidays.</p> <p>This course aims to prepare the senior students to the market conditions that they will experience after graduation: Defines the role of the architect through economic, social and cultural parameters of the market structure; investigates the rules and regulations affecting the architect's services in both the private and the government sectors.</p>		

Course Code : ARC 322	Course Title : ACOUSTICS IN ARCHITECTURE		
Level : Undergraduate	Year : III	Semester :	ECTS Credits : 5
Status : Compulsory/Elective	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>This practical course applies the latest research on sound behavior, high-performance materials, and audiovisual systems to a wide variety of building types and uses. Case studies draw on the experience as acoustical engineers, and explain what can't be seen, only heard.</p> <p>Nature of sound, acoustic design criteria, measurements, sound absorption, reverberation, airborne and solid-borne sound transmission, speech privacy, mechanical equipment noise, good hearing requirements, auditorium design, building project evaluations. Fundamental Concepts. Sound measurement. Sound in large spaces. Geometrical room acoustics. Statistical room acoustics. Reverberation time. Impulse response acoustical design criteria. Clarity index. Room impression. Initial time delay gap. Design of rooms for speech and for music. Room acoustics equation. Steady state levels in rooms. Demonstrations. Case studies and architectural details.</p>		

Course Code : ARC 345	Course Title : LANDSCAPE RESEARCH		
Level : Undergraduate	Year : III	Semester :	ECTS Credits : 5
Status : Compulsory/Elective	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>The purpose of this course is to develop among upper level graduate students in architecture the techniques and intellectual skills necessary to complete an original, academically acceptable research. While preparing the student to undertake the research process, the course aims as much as anything at developing the student's abilities to critically think about, and frame, landscape architecture.</p> <p>The main aim of this course is to present a general layout of landscape architecture. Besides, the methodology of planning of urban areas, national parks, recreation centers, sport areas, highways, are the usual subjects of this course. Erosion control, both living and non-living materials and their characteristics and standards are also presented..</p>		

Course Code : ARC 319	Course Title : ISSUES AND PROBLEMS IN MODERNISM		
Level : Undergraduate	Year : III	Semester :	ECTS Credits : 5
Status : Compulsory/Elective	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>In this course the complex relations between the Western architectural production of early twentieth century and its material and intellectual contexts is explored. We start by delving into the concepts of `aesthetic modernism` and `social modernity`. After setting the scene through an analysis of social, economic and intellectual background of what come to be known as `Architectural Modernism`, each week the course focuses on specific (architectural) productions and problems with the aim of acquainting the students with different `modernisms` as well as cases that deviate from the `Modernist` norms.</p>		



Course Code : ARC 320	Course Title : NEW BUILDING TECHNOLOGIES		
Level : Undergraduate	Year : III	Semester :	ECTS Credits : 5
Status : Compulsory/Elective	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>Construction systems reduced to the smallest possible number of identical elements have long been used by architects to build structures as well as dismantle and change them as quickly, efficiently, and economically as possible. Think of the architecture of the nomads, the Crystal Palace designed by the architect John Paxton for the London World s Fair of 1851, or the modern construction systems of the nineteenth and twentieth centuries in steel, concrete, and wood.</p> <p>Presentation of special construction techniques and equipment in building activities. This lecture course aims to present an over and view of large scale construction activities from feasibility studies to construction, erection, monitoring of special structures.</p>		

Course Code : ARC 330	Course Title : UNDERSTANDING TECTONICS		
Level : Undergraduate	Year : III	Semester :	ECTS Credits : 5
Status : Compulsory/Elective	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>This course is about explaining the principles and applications of tectonic theory. An advanced tutorial study on outstanding examples of architecture. Analysis of selected works. Aims at an understanding of construction techniques, materials and detailing, as well as the cultural and spiritual intentions of the architect.</p>		

Course Code : ARC 372	Course Title : COMPUTER AIDED DRAFTING AND DESIGN		
Level : Undergraduate	Year : III	Semester :	ECTS Credits : 5
Status : Compulsory/Elective	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>This course presents all common methods of computer/automated graphical construction most helpful to the architecture student, describing, in easy-to-understand terms, a wide range of hardware platforms that will run a single set of software options.</p> <p>The purpose of the course is to introduce computer aided graphics applications. Two dimensional and three dimensional representation techniques are presented. Drawing, rendering, animation programs are covered. Students are expected to fully represent a project in computer environment.</p>		

Course Code : ARC 346	Course Title : LANDSCAPE DESIGN		
Level : Undergraduate	Year : III	Semester :	ECTS Credits : 5
Status : Compulsory/Elective	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>Landscape Design Fundamentals will provide students with the basic skills for graphical representation of the landscape, including the development of site plan, section, elevation, and perspective views. The course will encourage the exploration of sustainable landscape solutions at the site scale based on the concept that a landscape designed for multiple functions (ecological, economic, and social) will meet the needs of society, while minimizing the negative impacts on the future environment.</p> <p>The nature and use of natural and man-made landscape materials to develop an understanding of the making of exterior spaces and of their sequential development. A Cultural and Architectural History with stone circles and ziggurats, and traces design's evolution through to today's suburbs and theme parks. An encyclopedic account of man-made landscapes around the world. Examples of Japanese gardens, Golf Courses, and so on.</p>		

Course Code : ARC 326	Course Title : DESIGN WITH CLIMATE		
Level : Undergraduate	Year : III	Semester :	ECTS Credits : 5
Status : Compulsory/Elective	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>The course addresses the issue of climatic considerations and their significance in the design process of the built environment emphasizing the necessity of different architecture for different climates. Definition of climatic problems, effect of topography and surrounding elements on microclimate; different climatic regions, examples of vernacular architecture are the main topics. A design project considering site selection/topography/landscape/ orientation and microclimate/micro space in urban and rural context is the output.</p>		

Course Code : ARC 323	Course Title : LIGHTING IN ARCHITECTURE		
Level : Undergraduate	Year : III	Semester :	ECTS Credits : 5
Status : Compulsory/Elective	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>This course is aiming to educate students of architecture in the observation, analysis, description, manipulation, and evaluation of daylight, and artificial lighting, as well as its effect on the quality of interior spaces. At the same time it explores the technologies employed in generating, distributions and controlling light in illuminated environments. Through lectures and practical sessions, the course will introduce the students with lighting design concepts as well as technical and practical aspects of lighting design applications, including the physics of light, lamp technology, luminaire typologies, calculations, and health effects of light.</p> <p>Basic principles related to light and color in architecture; importance of light and color as design factors; light and vision; light sources and lighting methods; lighting fundamentals; visual comfort; design of artificial lighting systems; types of lighting, luminaries and applications.</p>		

Course Code : ARC 437	Course Title : ARCHITECTURAL COMPOSITION		
Level : Undergraduate	Year : III	Semester :	ECTS Credits : 5
Status : Compulsory/Elective	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>The course addresses issues of architectural composition and form. Leaving aside demands of program and site in order to concentrate on formal relationships at multiple scales. This course tends to develop "the language of architecture" through form at the same time to encourage confidence in personal and formal.</p> <p>Origin and characteristics of the architectural composition Resources of composition. Space, basic element of constitution of architecture. Basic elements of composition: Shape, line, area, volume, size, interval, intensity, Basic principles of composition: Proportion, symmetry and asymmetry, balance, penetration.. Formal properties of composition—number, geometry, proportion, hierarchy, and orientation Directions in perception of form. Notes on the plan. Type. The square. Layering. Linear forms. Core and shell. Frame and object. Clusters. Subtractive spaces and the deep wall. Articulated skin. Typological similarities of architectural forms that cut across cultural, social, historical, and geographic boundaries</p>		

Course Code : ARC 209	Course Title : BUILDING ELEMENT DESIGN		
Level : Undergraduate	Year : III	Semester :	ECTS Credits : 5
Status : Compulsory/Elective	Hours/Week : 4		Total Hours : 60
COURSE DESCRIPTION	<p>Building Element Design encompasses all of the issues and programs and is an essential way of approaching building projects. Understanding Building Element Design concepts will enable students to think and practice in an integrated fashion to meet the demands of today's as well as tomorrow's high-performance building projects.</p> <p>Analysis, design and integration of building elements. External wall systems (walls in contact with atmosphere and ground), window and door systems, floor systems (ground, intermediate and exposed-soffit floors, suspended ceilings, raised floors), vertical circulation systems (ramps and stairs), roof systems (flat and sloping roofs), partition systems (fixed and moveable partitions). Design of building element systems within the frame work of constructional design requirements, criteria and resources. Integration of building element systems in line with the holistic approach. Application-studio work: Analysis, design and integration of of each building element and its components according to pre-defined criteria and constraints.</p>		

