

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



**SECOND CYCLE STUDY PROGRAM SPECIFICATION**

**2016/2017**

<b>Course Code :</b> ARC 555	<b>Course Title : Course Title : ARCHITECTURAL DESIGN VI</b>		
<b>Level :</b> MASTER	<b>Year :</b> I	<b>Semester :</b> I	<b>ECTS Credits :</b> 6
<b>Status :</b> Compulsory	<b>Hours/Week :</b> 6		<b>Total Hours :</b> 86
<b>COURSE DESCRIPTION</b>	The courses Architectural design VI – VIII enable students to understand the principles of design process of high complex buildings dispositions and practical exercises of design process for the buildings with sport, cultural, commercial and other purposes such as: shopping malls and other commercial buildings, facilities for sport and recreation and buildings for the culture. Through presentation of world known examples of these buildings, students will learn the principles and methods of its designing, as well as needs, different dispositions and types, standards and etc. The final result of this course is student's independent work on the project of building from mentioned types above. .		

<b>Course Code :</b> ARC 512	<b>Course Title : Course Title : ARCHITECTURE OF THE CITY</b>		
<b>Level :</b> MASTER	<b>Year :</b> I	<b>Semester :</b> I	<b>ECTS Credits :</b> 6
<b>Status :</b> Elective	<b>Hours/Week :</b> 3		<b>Total Hours :</b> 44
<b>COURSE DESCRIPTION</b>	This course will enable students to see, describe and understand the complex historical, cultural and social conditions of the different layers of the city. It will put in focus major episodes in the design and building of the city, examining the ways in which city-builders attempted to shape and arrange buildings according to ideal views of what the city should be and how it should function. At the same time, the course will examine the ways in which these episodes emerged out of and responded to the pre-existing layers of the city. The purpose is to combine historical research with creative approaches to the environment and its meanings. The course will allow students to develop familiarity with the architectural history, while also using that knowledge to think about the urban environment in new ways.		

<b>Course Code :</b> ARC 559	<b>Course Title : Course Title : ENERGY EFFICIENT ARCHITECTURE</b>		
<b>Level :</b> MASTER	<b>Year :</b> I	<b>Semester :</b> I	<b>ECTS Credits :</b> 6
<b>Status :</b> Elective	<b>Hours/Week :</b> 3		<b>Total Hours :</b> 44
<b>COURSE DESCRIPTION</b>	The course of Energy and Environmental architecture provides basic knowledge about the sustainable architecture, energy efficiency of buildings, materials used and method of construction of sustainable buildings research. It covers following topics: <ul style="list-style-type: none"> <li>• Energy sources and improving the environment, the overall situation and development strategy. Conventional and renewable energy sources and their impact on security.</li> <li>• Ecology as a starting point and framework within which energy is important for urban planning and architectural design.</li> <li>• Historical development and technology exploiting solar energy.</li> <li>• Active (installation) systems, photovoltaic cells, hybrid and passive solar architectural elements and systems</li> </ul>		

	<ul style="list-style-type: none"> <li>• Bioclimatic approach to spatial planning, urban design and architecture. Prerequisites: air, microclimate, geographic characteristics, insulation, topographic and other natural and artificial factors. Physics building.</li> <li>• Energy rational, low energy and energy efficient architecture.</li> <li>• Passive solar architecture (PSA) - specific types; self-sufficient, "smart" homes</li> <li>• Natural day lighting as a way to use passive solar energy.</li> <li>• Calculation methods, dimensioning, design and simulation</li> <li>• Energy and environmental restoration of newer and historic architecture. 11<sup>th</sup></li> <li>• The architecture and ecology. The ecological approach to local and global level</li> <li>• Healthy building, hygiene materials.</li> <li>• Natural House. Permaculture.</li> <li>• Energy-efficient passive solar building material. Production and architectural elements. Perspectives of development</li> </ul>
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<b>Course Code :</b> ARC 521	<b>Course Title : Course Title : THE COMPLEX INSTALATION SYSTEMS</b>		
<b>Level :</b> MASTER	<b>Year :</b> I	<b>Semester :</b> I	<b>ECTS Credits :</b> 6
<b>Status :</b> Elective	<b>Hours/Week :</b> 3		<b>Total Hours :</b> 44
<b>COURSE DESCRIPTION</b>	<p>This Course presents a preview in the choice of optimal solution for water and waste-water installation. To find the satisfying solutions for installation. To introduce the internal and external factors affecting the convenience of staying in a particular architectural and structural area, with special emphasis on labor and production units. It covers following topics</p> <p>introduction to Building Services and Installations  Water Supply and Waste Water Systems  Equations in communal hydraulics and basic calculations  Pressure losses in pipelines  Sanitary elements in buildings and their characteristics  Sanitary elements in buildings and their characteristics  Basic Calculation steps for family house  Midterm Exam  Midterm Exam  Drawings and specifications  Drawings and specifications  Fittings on the pipelines  Basic Calculation for Complex Buildings  Basic Calculation for Complex Buildings  Final project preparation</p>		

<b>Course Code :</b> ARC 561	<b>Course Title : Course Title : INTERIOR DESIGN</b>		
<b>Level :</b> MASTER	<b>Year :</b> I	<b>Semester :</b> I	<b>ECTS Credits :</b> 6
<b>Status :</b> Elective	<b>Hours/Week :</b> 3		<b>Total Hours :</b> 44
<b>COURSE DESCRIPTION</b>	<p>This course deals with fundamental concepts of designing public interiors, from functional and aesthetic elements, principles and design elements, to the selection and organization of materials, furniture, floors and walls design, light, and acoustics. Additionally it deals with technical systems and introduce advanced technology and importance of sustainable design in interior space. It deals with developing professional presentational skills relevant to interior design projects, starting from presenting concepts through presentation boards to 2D and 3D graphical presentations. It also teaches students to prepare conceptual and working drawings for the given project, including all necessary graphic and textual requirements.</p>		

<b>Course Code :</b> ARC 556	<b>Course Title : Course Title : ARCHITECTURAL DESIGN VII</b>		
<b>Level :</b> MASTER	<b>Year :</b> I	<b>Semester :</b> II	<b>ECTS Credits :</b> 6
<b>Status :</b> Compulsory	<b>Hours/Week :</b> 6		<b>Total Hours :</b> 86
<b>COURSE DESCRIPTION</b>	<p>This course focuses on the recognition of the role that culture of sport and leisure had in the history of civilization. The sports facilities are here understood as multipurpose structures designed to accommodate, in addition to the sporting event, organized activities for the exchange of goods or services for commercial purposes, and leisure.</p> <p>This course aims to promote awareness and promotion project aimed at promotion of sports, whether existing or to be programmed from scratch, interpreted as a cultural heritage of a civilization through a design of a specific sports building. Contents: Sports buildings through history, Open and Closed Swimming Pool and Swimming Courts Design, Sports Halls, Design of seating places, Types of Sports Halls, Lighting Solutions, Stadiums.</p>		

<b>Course Code :</b> ARC 577	<b>Course Title : Course Title : MOBILIARY</b>		
<b>Level :</b> MASTER	<b>Year :</b> I	<b>Semester :</b> II	<b>ECTS Credits :</b> 6
<b>Status :</b> Elective	<b>Hours/Week :</b> 3		<b>Total Hours :</b> 44
<b>COURSE DESCRIPTION</b>	<p>The aim of the course is to familiarize students with basic knowledge of the design and manufacture of furniture and other furnishing objects. It is a hands on course which explores the intersection of architecture, art, and design through a specific furniture design project. Lectures will explore the history of furniture design through solutions made by a variety of architects and artists, ranging from Pierre Chareau, Marcel Breuer, Eileen Gray to Ludwig Mies van der Rohe, Alvar Aalto, Charles and Ray Eames. More contemporary design works and interpretations (Peter Pearce, Morphosis, Richard Meier, and Herman Miller) will also be discussed. Furthermore the course will deal with furniture design phases, furniture design theory, ergonomics, concept and form, possibilities and limitations of materials, graphic requirements of furniture design projects, as well as professional practice and marketing.</p>		

<b>Course Code :</b> ARC 572	<b>Course Title : Course Title : METHODOLOGY OF CONDUCTING SCIENTIFIC RESEARCH</b>		
<b>Level :</b> MASTER	<b>Year :</b> I	<b>Semester :</b> II	<b>ECTS Credits :</b> 6
<b>Status :</b> Compulsory	<b>Hours/Week :</b> 3		<b>Total Hours :</b> 44
<b>COURSE DESCRIPTION</b>	<p>This course presents the basic knowledge related to quantitative and qualitative research methods. To use these methods in different professions. Special focus will be put on the research analysis of works and methods that can be used for analysing the architectural works. This course will give students a good basis for starting their researches.</p> <ul style="list-style-type: none"> <li>- Hypothesis formulating</li> <li>- Samples taking</li> <li>- Research design</li> <li>- Gathering data and gathering strategy</li> <li>- Validity and reliability of data and methods for managing used in researching,</li> <li>- Qualitative analysis of data</li> <li>- Non-parametric analysis of data</li> <li>- Factorial analysis of data</li> <li>- Dentological analysis of data</li> <li>- Use of data</li> </ul>		

<b>Course Code :</b> <b>ARC 5</b>	<b>LANDSCAPE ARCHITECTURE</b>		
<b>Level :</b> MASTER	<b>Year :</b> I	<b>Semester :</b> II	<b>ECTS Credits :</b> 6
<b>Status :</b> Elective	<b>Hours/Week :</b> 3		<b>Total Hours :</b> 44
<b>COURSE DESCRIPTION</b>	The course introduce theories, methods and applications of landscape design. Further, course explore the importance of the form, forces and features of the natural and man-made landscape. Students will be exposed to critical concepts associated with planning, design and environmental issues. In examining a landscape designed for multiple functions (ecological, economic, and social) course addresses importance of sustainable landscape solutions.		

<b>Course Code :</b> <b>ARC 553</b>	<b>Course Title : Course Title : ARCHITECTURAL SURVEY METHODS</b>		
<b>Level :</b> MASTER	<b>Year :</b> I	<b>Semester :</b> II	<b>ECTS Credits :</b> 6
<b>Status :</b> Elective	<b>Hours/Week :</b> 3		<b>Total Hours :</b> 44
<b>COURSE DESCRIPTION</b>	This course aims to achieve the perception of students and the connection between architecture and geodesy, with a special focus on the possibility of using geodetic methods and techniques in architecture, conservation of heritage, urban and regional planning. Surveying methods of data collection includes a full range of procedures such as the orthogonal method, the polar method or tacheometry, terrestrial and aerial photogrammetry, remote sensing, leveling, trigonometric determination of height, using global positioning satellites (GPS), etc. During the processing of data collected by surveyors they use computers, and processed data become a part of various spatial information systems (GIS). Results surveying is usually displayed on the maps that serve other professionals, including architects and planners for their needs. However, in the architectural survey can be successfully used tools, instruments and techniques like in surveying, and that is major focus of the course.		

<b>Course Code :</b> <b>ARC 597</b>	<b>Course Title : Course Title : MASTER THESIS</b>		
<b>Level :</b> MASTER	<b>Year :</b> II	<b>Semester :</b> I and II	<b>ECTS Credits :</b> 24
<b>Status :</b> Compulsory	<b>Hours/Week :</b>		<b>Total Hours :</b>
<b>COURSE DESCRIPTION</b>	A Master's Thesis is a research project resulting in a substantive paper that involves original collection or treatment of data and/or results. The Master's Thesis, involves original research and exemplifies an original contribution to scholarship. Students are obliged to prepare thesis proposal with academic support of his/her mentor, upon which they can commence with their research work. In order to be able to approach thesis defense, it is obligatory for the students to publish one paper with their mentor.		