



WYŻSZA SZKOŁA EKOLOGII I ZARZĄDZANIA W WARSZAWIE

UNIVERSITY OF ECOLOGY AND MANAGEMENT IN WARSAW

THE LIST OF COURSES 2022/2023

No	NAME OF THE COURSE	ECTS
WINTER SEMESTER		
AW1	ARCHITECTURAL DESIGN 1 - architecture of single - family houses	3
Acquiring the skill of preparing a concept design of a single-family building; the skill of composing the building into the existing urban context. Acquiring knowledge in the scope of function, engineering aspects and shaping the architectural forms of the above mentioned buildings.		
AW2	ARCHITECTURAL DESIGN (II) - complex function utility buildings and sites	7
A design of a selected public utility facility with complex (office and retail, accommodation and housing, etc.) functions.		
AW3	ARCHITECTURAL DESIGN (II) - large size and span objects	7
A design of a selected large size building with a complex structure (stadium, sports hall, show hall, trade hall, exhibition hall, etc.).		
AW4	INTERMEDIATE PROJECT 2 - URBAN DESIGN	4
Acquiring the skills to create conceptual designs of: multi-family housing estates, retail facilities and local spatial development plans for selected urban regions. Learning how to shape urban estates with diverse functions and programmes.		
AW5	URBAN DESIGN (II) - development of urban degraded areas	3
Acquiring the skill of spatial development of urban degraded areas as an instrument for the area structure enrichment.		
AW6	URBAN DESIGN (II) - conversion of urban multi-functional urban areas	7
Creating an information base on the current state of spatial development of the area including spatial, technical, cultural, environmental and legal aspects. Diagnosing functional-spatial and programme problems. Describing the urban development concept using the local plan provision.		
AW7	CONTEMPORARY ARCHITECTURE	2
Paying attention to different features of architecture depending on the function. Discussion about chosen works of contemporary architecture, presentation of different types of buildings and indicating analogies and differences in solving their situation as well as their functional and spatial type.		
AW8	THEORY OF ARCHITECTURE 1	1
Introduction to the basic issues of architectural theory and practice. Learning the basic rules of designing. Creating forms and solving functions as the basic skill of an architect.		

No	NAME OF THE COURSE	ECTS
AW9	HISTORY OF CONSTRUCTION OF CITIES 1	2
Development of the town-planning thought over centuries through discussing trends in the town building art in the aspect of social, geographical, political and economic conditions. Making students aware of the fact that balanced shaping of the town-planning structures is a way to achieve spatial order.		
AW10	PHYSICS OF STRUCTURES	2
The aim of the course is to teach physical grounds for heat penetration and mass through wall barriers and basics of building acoustics to students and teaching design of buildings and wall barriers ensuring comfort to their residents and moderate heating and cooling cost.		
AW11	STRENGTH OF MATERIALS	2
Conditions of equilibrium. Concepts and terms in the field of strength of materials. Straight bars subjected to axial forces. Calculations of flat trusses. Analysis of rod bending. Analysis of the rod twisted. Criterion of material failure. Fatigue. Stress concentration. The loss of stability. Numerical methods used in the analysis of tensile structures.		
AW12	STATICS	1
Scalars and vectors. Principles of statics. A static moment. Equilibrium conditions. Interactions with structures. Static schemes of bar systems. Geometrical characteristics of plane figures.		
AW13	HISTORY OF ART.	3
Knowledge of history of art from prehistoric to modern age in the perspective of facts and historic, religious and social events. Knowledge of epochs, styles of art and transformations in art. Knowledge of objects and masterpieces. Knowledge of artists.		
AW14	AUDITING and THERMOMODERNISATION	3
The main objective of the course is to master students' conceptual and detailed design skills in the field of architecture and structure of energy-efficient buildings and in the use of the best available construction, material and installation technologies that have a significant impact on energy performance, taking into account environmental and economic aspects.		
AW15	ARCHITECTURAL DETAIL II	2
Teaching the students to consider the details and be aware that details are an important building structure component constituting the basic structural unit of spatial development. Improvement of the skills in performing the design of selected architectural details (2-4 details) related to the semester project.		
AW16	CONSTRUCTION LAW	2
Introduction to digest of laws directly related to building investments. Demonstrating that they have an influence on each stage of the development phase.		
AW17	OLIMPIC ARCHITECTURE	2
Olympic Games in ancient Greece. Sports objects in ancient Rome, South America, China. Temporary sports objects used for organisation of Winter Olympic Games. Evolution in design of Winter Olympic Games objects. History of mobile and decomposable constructions. Theoretical basics and experiments concerning the construction of temporary structures. Demonstration of different methods of construction and application of currently available technological solutions. Presentation of design and execution guidelines and concept of temporary structure construction and method of its construction. Olympic Games in the new millenium. Olympic Games in Beijing 2008. Olympic Games in London 2012. Exhibitory Olympic Games in New Millenium. Dilemmas of architects and urban planners. Globalisation versus Glocalisation. Multiculture in olympic movement. Olympic revitalisation. Open test and study project of chosen mobile elements. Hand-made sketches in scale of 1:50, A3 format.		
AW18	ECONOMIC LAW	1
Legal conditions of individual and collective economic activity and their rights in the field of intellectual property.		
AW19	CONSERVATION OF ARCHITECTURAL MONUMENTS AND REVALORISATION	2

No	NAME OF THE COURSE	ECTS
	Basic concepts for the protection of monuments and outline views on maintenance, restoration and restoration of monuments. The methodology of conservation work, inventory conservation, research and studies, the types and scope of work of restoration and adaptation of historic to modern utility functions. Protecting the landscape.	
AW20	ARCHITECTURAL DESIGN 6 (CAD) - work place	5
	Creating a design of a building comprising special workstations. The additional target comprises teaching the students how to use the state-of-art tools of CAD as well as practical use of CADs in design.	
AW21	WOODEN CONSTRUCTIONS	2
	Basic concepts and definitions used in wooden civil engineering. Kinds and types of construction elements - general division, examples. Application of wood and wood derivatives on construction elements. Mechanic properties of wood. Methods of wood protection from biological corrosion. Types of wooden walls. Types of wooden ceilings. Types of roof structures. Laminated frame structures. Types of joints in wooden structures. Shaping holes in wooden ceilings and walls. Statics of wooden structures: wall, roof strength. Preparation of drawings of single-family house construction model with a wooden skeleton structure of a Canadian type, for established assumptions.	
AW22	COMPUTER LABORATORY	3
	Acquiring the skills of professional design of utility models. Creation, edition, analysis, documentation and render. In particular, students learn to design parametrically, to draw quickly, to build ergonomic objects with streamlined surfaces, to draft projects for 3D printing, to design realistic visualization for marketing purposes, and to prepare design documentation.	

No	NAME OF THE COURSE	ECTS
AW23	PRODUCT DESIGN	4
<p>Knowledge of factors influencing product shape. Acquaintance with the artistic, technological, cultural and economic conditions. Practical attempts to solve design problems. Conscious use of form and other means of expression to achieve the assumed goal.</p>		
AW24	GRAPHIC DESIGN BASICS	2
<p>To prepare assured, creative design work by developing; 1) a strong and substantial foundation of knowledge, 2) a fundamental proficiency in the use of essential design tools and instruments such as shape, composition, colour, typography, photography and illustration as well as graphic symbols and icons. To foster and promote individual talent and to master techniques of creative self-development. To cultivate teamwork skills, with a partner and within a group context.</p>		
AW25	SOCIAL DESIGN	4
<p>Introduction to the cultural, social, and economic contexts of designer profession. The analysis of needs and attempts to solve observed problems for example in the areas of education, health, environmental protection, and exclusion. Visualisation and presentation of formulated project proposals.</p>		
AW26	PRESENTATION DRAWING	4
<p>Acquiring theory and practical skills essential for the use of drawing as a design support tool, means of project presentation and technical, advertising illustration purposes. The visual message creation. Knowledge of the most important issues in the area of presentation drawing (prospective drawing, projections, construction of shadows and reflections, page composition, material presentation, human scale sketching, digital processing of handwritten drawings etc.)</p>		
AW27	CONSERVATION AND REVALORISATION OF HISTORIC GARDEN AND PARK PROJECTS	2
<p>Essential knowledge of theory and practical aspects of revalorisation methodology. Acquaintance with the principles and creation of historical garden project in practice. The knowledge of the historic assumptions, the need to preserve, revalorise and conserve them. The methodology of proceeding in the revalorisation of historic garden assumptions.</p>		
AW28	EFFECTIVE COMMUNICATION AND PORTFOLIO (II)	2
<p>Introduction to the art of self-presentation and personal brand building. Verbal and non-verbal signals. The discovery and creation of own history. Acquiring the ability to create a portfolio.</p>		
AW29	FURNITURE DESIGN PROPAEDEUTIC	4
<p>Acquiring skills of conscious design and spatial objects (furniture) choice that organise the interior space in functional, ergonomic and aesthetic terms, and meet the expectations of the interior utility program. Principles and methods of correlation of furniture and equipment design with functional interior design in the processes of interior architecture design.</p>		
AW30	ARCHITECTURAL DESIGN FOR INTERIOR ARCHITECTURE	4
<p>Acquiring the skill of preparing an object by taking into account means and factors such as shape, material, colour, light, time, and conditions like objectives, natural and cultural contexts and construction technology. Acquiring the skill of formation of architecturally inscribed form into the surrounding in connection with functions, structures, and construction details.</p>		

No	NAME OF THE COURSE	ECTS
AW31	HISTORY OF ARCHITECTURE AND GARDEN DESIGN	2
<p>Knowledge of history of garden art and its relationship with the history of art and architecture. Knowledge of diversity of architecture and garden art in different ages and civilisations. Stylistic variation in architecture and ancient, medieval, modern and contemporary gardens.</p>		
AW32	BASICS OF EXHIBITION DESIGN	3
<p>Preparing for independent creative and professional design activities in terms of trade and problem exhibitions. Basic structure of the design process. Function and form of design art work.</p>		
OW1	ENGLISH LANGUAGE COURSE	2
<p>Obtaining knowledge of English language at B2 language proficiency level according to the Common European Framework of Reference for Languages, as well as developing competencies of using specialized language and the terminology related to the field of study.</p>		
OW2	POLISH LANGUAGE COURSE	2
<p>Obtaining knowledge of Polish language at B1 language proficiency level according to the Common European Framework of Reference for Languages, as well as developing competencies of using specialized language and the terminology related to the field of study.</p>		

No	NAME OF THE COURSE	ECTS
SUMMER SEMESTER		
AS1	ARCHITECTURAL DESIGN 2 - architecture of single - family houses	3
Acquiring the skill of preparing a concept design of a single-family building; the skill of composing the building into the existing urban context. Acquiring knowledge in the scope of function, engineering aspects and shaping the architectural forms of the above mentioned buildings.		
AS2	ARCHITECTURAL DESIGN 4 (CAD) - modernisation of buildings	4
Familiarising students with working on an existing object with its own history and technical conditions. The students are supposed to perform the functional object inventory and suggest their own ideas for its function or adjust the object to the functions indicated by the lecturer.		
AS3	ARCHITECTURAL DESIGN 8 (CAD) - public utility buildings	4
Acquiring the skills within the technology of the future building and combining that technology with its attractive body design. The additional target comprises teaching the students how to use the state-of-art tools of CAD as well as practical use of CADs in design.		
AS4	ARCHITECTURAL DESIGN (II) - modernisation of architectural facilities	4
Analysis of location conditions, conceptual drawings, architectural and conceptual design of a building, e.g. a selected historical mansion block in Warsaw.		
AS5	INTERIOR DESIGN 1	3
General aspects of interior design: the human being as the reference point, architectural facility, flat ergonomics, lighting, manner of perceiving the reality, natural interiors, living space. Improvement of the designer's skill in simple interior designs.		
AS6	INTERIM PAPER - URBAN DESIGN 2	4
Acquiring the skills to create conceptual designs of: multi-family housing estates, retail facilities and local spatial development plans for selected urban regions. Learning how to shape urban estates with diverse functions and programmes.		
AS7	URBAN DESIGN (II) - development of urban degraded areas	3
Acquiring the skill of spatial development of urban degraded areas as an instrument for the area structure enrichment.		
AS8	THEORY OF ARCHITECTURE 2	1
Introduction to the basic issues of architectural theory and practice. Learning the basic rules of designing. Creating forms and solving functions as the basic skill of an architect.		
AS9	ENERGY-EFFICIENT CONSTRUCTION	4
Fundamentals of complex processes of heat exchange. Transport of energy in buildings. Passive buildings and zero-energy, sustainable construction. Thermal comfort. Thermal protection of the building in winter and summer conditions. The energy performance of the building. The heat balance of buildings. The use of energy from renewable sources - heat pumps, solar collectors, photovoltaic systems, wind energy. Solar radiation, passive and active solar energy. Transparent and reflective materials transparent in buildings. Energy storage accumulation.		

No	NAME OF THE COURSE	ECTS
AS10	MECHANICS OF STRUCTURES	2
Knowledge of shaping structures and construction systems considering the engineering aspects. Acquiring ability to draw static diagrams of construction and calculation.		
AS11	ERGONOMICS	2
Acquiring knowledge of ergonomics and ways of applying them in the process of creation of the new product and demonstrating importance of the ergonomics as a factor having an influence on achieving an innovative product with desirable high quality.		
AS12	ARCHITECTURAL DETAIL (II)	2
Teaching the students to consider the details and be aware that details are an important building structure component constituting the basic structural unit of spatial development. Improvement of the skills in performing the design of selected architectural details (2-4 details) related to the semester project.		
AS13	BUILDING INSTALLATIONS	3
Mastering the basics of building and designing building installations that significantly affect the comfort of use and the safety of room operation. Teaching the basics of rational operation of building installations. Water supply , water intakes. Pumping pressure tank. Principles of hydraulic calculations. Construction of internal water and sewage systems. Theoretical basis of ventilation and air conditioning. Calculation of the factors that cause changes in indoor air. Air distribution in ventilated.		
AS14	REGIONAL PLANNING	1
Acquiring general knowledge of basic planning documents related to regional planning (at the regional level) and ability to diagnose a development condition of the area and define directions of development of its main structural elements (in the regional scale).		
AS15	COMPUTER MODELING	3
Introduction to BIM. The BIM model as an information database. Branch 3D models: architecture, construction, installations. User interface. Working with models. Modifying views and graphics. Correct principles of creating a 3D model. Analytical model. 2D documentation generation. Preparing list of materials and products. Design of a simple building object.		
AS16	SOCIAL DESIGN	4
Introduction to the cultural, social and economic contexts of designer profession. The analysis of needs and attempts to solve observed problems for example in the areas of education, health, environmental protection, and exclusion. Visualisation and presentation of formulated project proposals.		

No	NAME OF THE COURSE	ECTS
AS17	PRODUCT DESIGN	4
Knowledge of factors influencing product shape. Acquaintance with the artistic, technological, cultural and economic conditions in relation to designer profession. Practical attempts to solve design problems. Conscious use of form and other means of expression to achieve the assumed goal.		
AS18	PACKAGING DESIGN	4
The aim of the course is to make students familiar with a process of creating a brand with special attention to be paid to a role of packaging in this process and with market changes as the background phenomena. Students gain the practical knowledge how to design and create a packaging.		
AS19	PACKAGING TECHNOLOGY	3
The aim of the course is to enable the students to get the fundamental knowledge about the materials used in a packaging industry and the requirements connected with their production, bringing onto the market, utilization and disposal. Fundamentals of packaging industry and printing techniques.		
AS20	BASICS OF FURNITURE DESIGN	3
Introduction to the furniture design process. Acquaintance with materials using in furniture, their characteristics, ways of treatments, and basic wood construction connectors. Acquaintance with the principles of project documentation based on norms related to the technical furniture drawing.		
AS21	DIPLOMA SEMINAR	3
Localisation-law, historical, natural, cultural, social, planning, functional-spatial conditionings of an area elaborated in diploma work. Analysis of chosen examples or architecture and urban planning as potential design inspirations. Initial design of land management. For an architectural project - relations between an object and its surroundings, for an urban project - programme-space assumptions.		
AS22	BASICS OF EXHIBITION DESIGN	3
Preparing for independent creative and professional design activities in terms of trade and problem exhibitions. Basic structure of the design process. Function and form of design art work.		
OS1	ENGLISH LANGUAGE COURSE	2
Obtaining knowledge of English language at B2 language proficiency level according to the Common European Framework of Reference for Languages, as well as developing competencies of using specialized language and the terminology related to the field of study.		
OS2	POLISH LANGUAGE COURSE	2
Obtaining knowledge of Polish language at B1 language proficiency level according to the Common European Framework of Reference for Languages, as well as developing competencies of using specialized language and the terminology related to the field of study.		