Faculty of Architecture

WEST POMERANIAN UNIVERSITY OF TECHNOLOGY
IN SZCZECIN, POLAND

THE OFFER FOR INTERNATIONAL STUDENTS
FOR THE YEAR 2023/2024
SECOND DEGREE

	Course title	Person responsible for the course	Semester (winter/summer)	ECTS points	Hours
1	Architectural and urban design I	Adam Zwoliński	winter	5	60
2	Architectural and urban design II	Klara Czyńska	summer	4	45
3	ARCHITECTURAL DESIGN – public utility architecture	Leszek Świątek	winter/summer	5	60
4	Architectural design – revitalization I	Zbigniew Paszkowski	winter	6	75
5	Architectural design – revitalization II	Zbigniew Paszkowski	summer	6	75
6	Architecture psychology and perception of composition	Anna Pazdur-Czarnowska	winter/summer	5	60
7	City Management	Adam Zwoliński	winter/summer	7	90
8	Designing in a Virtual Reality Environment	Wojciech Pawłowski	winter/summer	4	45
9	ECO – ARCHITECTURAL DESIGN	Marek Wołoszyn	winter/summer	5	60
10	Preparatory course for the master’s diploma project	Zbigniew Paszkowski	winter/summer	2	15
11	Principles of the Visual Arts	Anna Pazdur-Czarnowska	winter/summer	4	45
12	Protection and conservation of architectural monuments	Zbigniew Paszkowski	winter/summer	6	75
13	Spatial and Regional Planning	Olga Gazińska	winter/summer	6	75
14	SPECIALISTIC ARCHITECTURAL DESIGN I	Krystyna Januszkiewicz	winter	4	45
15	SPECIALISTIC ARCHITECTURAL DESIGN II	Krystyna Januszkiewicz	summer	4	45

Course title	Architectural and urban design I		
Level of course	second cycle		
Teaching method	project / lecture		
Person responsible for the course	Adam Zwoliński	**E-mail address to the person**	azwolinski@zut.edu.pl
Course code (if applicable)	WBiA-AIU-2-01-W	**ECTS points**	5
Semester	winter	**Language of instruction**	english
Hours per week	4	**Hours per semester**	60
Objectives of the course	Individual abilities for solving design and planning problems in architectural and urban scale with particular contribution to urban context. Ability of consciouss taking advantages of existing urban structure. Awareness of architect and urbanist role and position in placemaking processes.		
Entry requirements	Completed courses on Urban Design, bachelor's degree, 5th and 6th semester. Basic knowledge on: urban composition, technical drawing in architectural and urban scale, general knowledge on urban development and history of architecture. Individual inclination and interest in conceptual solutions for urban problems.		
Course contents	INITIAL PHASE: Introduction to course - presentation of Main Project Theme. Key aspects of creation process. Organizational acivities. Initial creation process - mind games and abstract discussions for extended cognition of Project Theme. Local visions to project sites - on-site spatial analysis and discussion. Synthesis of spatial analysis in context and presentation of preliminary abstract ideas related to Project Theme Context congnition discussion panels: localization as a place, placemaking, SWOT analysis, feasibility and natural predispositions of project sites. ANALYTIC PHASE: Advanced urban and architectural analyses using manual and computer techniques: urban composition, morphology, space-use analysis, urban parameters. Introduction and basics of Space Syntax - spatial integration. DESIGN PHASE: Towards preliminary concept - final synthesis of analytic park, definition of Project Title, setting up hierarch of goals - spatial, functional, social - driving forces for idea definition. Setting up concept and context: general spatial and functional concept for project site in urban planning scale with connections matrix. Detailed urban and architectural concepts: physical and 3D virtual modelling, programming functional and social networks, detailed solutions, zoning, typologies and morphological layouts. FINAL PHASE: physical modelling, graphic design of final layouts and presentations. Visual field and visibility in urban structures. Visibility aspects of cities. Elements and basics of urban composition in context of protection / deterioration of specific urban areas. Local Plan of Spatial Development in context of protection of specific urban areas. The city as a process of spatial cognition. City revitalization. Theory of ideal city. Architecture of Prestige - place & time. The role and importance of public square in city. Contemporary sacral buildings - symbolism of forms.		
Assessment methods	General methods: classic problem methods - dedicated lecture. Activation methods: general problem discussion based on presented project solutions, public presentation of "best-practices" in local and international extent, simulation of problems for panel discussions. Final grade based on parial weighted grades for particular PHASES. Grade for public presentation and on-time submission of final project booklet.		
Recommended readings	1. Jackson J., A sense of place, a sense of time, Yale University Press, Yale, 1994 2. English Partnerships, Urban design compendium, Llewelyn-Davies, London, 2000 3. Gehl J., Life between buildings, Danish Architectural Press, Copenhagen, 2001		
Knowledge	Acquisition of expanded knowledge in the field of innovative solution of spatial, architectural and social problems based on a clearly defined idea corresponding to the assumed realities and conditions.		
Skills	Assessing knowledge and skills in: action planning, urban design process management from abstract to detailed phase, edition and promotion of urban ideas, thematic urban space design		
Other social competences	Acquiring competences in the field of architectural or urban design based on precisely defined problems and assumptions.		

Course title	Architectural and urban design II		
Level of course	second cycle		
Teaching method	project		
Person responsible for the course	Klara Czyńska	**E-mail address to the person**	Klara.Czynska@zut.edu.pl
Course code (if applicable)	WBiA-AiU-2-02-S	**ECTS points**	4
Semester	summer	**Language of instruction**	english
Hours per week	3	**Hours per semester**	45
Objectives of the course	The scope of the course The scope of the workshops is to elaborate concept of spatial arrangements of waterfront area functional linked to the city system of recreational areas based on water sport resources and programs in this range. The attention should be given to the existing and potential natural, landscape resources, shaped architectural forms based on of undertaken analytical investigations.		
Entry requirements	Participation in the workshop: Urban designing CS1-XIV/4 (4 semester);		
Course contents	The purpose of the course is to teach students in the range of: identification and solution to the problems of given urban unit related to the waterfront areas, setting goals for design in urban and architecture scale objects characterized by waterfront functions in the aspect of recreation and tourism development playing important role for the city and its region as developing successful strategies for the implementation of urban design initiatives. Design workshops are preceded by a discussion concerning principles that capture the process of shaping the spatial structure of water recreation and tourism (with special reference to cross-border metropolitan region Szczecin) The main topic of the workshop is to develop the concept of the functional structure of water tourism and recreation areas (with a focus on physiognomic elements of the existing landscape and character of local identity).		
Assessment methods	Teaching methods: Seminars problem, didactic discussion of specific issues related to development of selected elements of the spatial structure of tourism and recreation in waterfront areas. Assessment: Evaluation takes place through the public presentation of the development concept including the results of local vision, planning analysis, description of the concept, and some graphics including external and internal conditions of the selected area predestined for development of recreation and tourism, and final result - urban and architectural concept of the selected area.		
Recommended readings	1. Edgell David L., Maria del mastro Allen, Ginger Smith, Jason Swanson, Tourism Policy and Planning, Buterwarth Heinemann, 2007 2. Gordon, L. A. D., Planning, design, and managing change in urban waterfront redevelopment, Town Planning Review, Vol. 67, 2011, Vol. 67		
Knowledge	Knows the idea of sustainable development and implements it in the field of architecture and urban planning.		
Skills	Assessing knowledge and skills in: urban design process in relation to sustainable development, space order, proper functional organisation adequate to undertaken matter of project. Understanding of environmental responsibility of architects and urban planners.		
Other social competences	Is ready to work with a single- and multi-discipline team, also a more extended one consisting of specialist from more distinct disciplines.		

Course title	ARCHITECTURAL DESIGN – public utility architecture		
Level of course	second cycle		
Teaching method	project / lecture		
Person responsible for the course	Leszek Świątek	**E-mail address to the person**	lswiatek@zut.edu.pl
Course code (if applicable)	WBiA-AIU-2-03-S	**ECTS points**	5
Semester	winter/summer	**Language of instruction**	english
Hours per week	4	**Hours per semester**	60
Objectives of the course	Gaining knowledge about design mechanisms and processes related to public buildings, fostering abilities to mix functions and solve complex design tasks including engineering issues in architecture		
Entry requirements	Competence in architectural project preparation on a small scale, on the first degree studies level, with technological, material and esthetical specification of solutions.		
Course contents	Medium and large scale developments in urban settings or medium and large scale autonomous developments. Complex program with mixed functions. Complex cultural setting – location with heritage properties. One main design task per semester, optionally one to two subtasks supplementing the course (depending on complexity of the main task). Self evaluation, critical analysis, criteria setting, mixture of architectural and engineering solutions combined with culturally enriching spatial proposals. Lectures concerning medium and large scale developments in urban settings or medium and large scale autonomous developments. Critical analysis, criteria setting, mixture of architectural and engineering solutions combined with enriching spatial proposals.		
Assessment methods	1. Ability to perform individually successful application of civil engineering knowledge in architectural and urban design work 2. Knowledge of building law, and technical guidelines as well as copyrights (authorship legal aspects) 3. Knowledge of technological premises of architectural and urban design 4. Well-established opinion on aesthetics within architectural theory 5. Knowledge and proficient application of architectural and urban composition 6. Ability to perceive and form space according to human scale perspective 7. Ability to work with technical information, sorting, selecting, applying 8. Ability to design efficiently and with knowledge of particular types of buildings 9. Ability to form architectural solutions in an attractive and culturally enriching way 10. Ability to experiment within architecture 11. Ability to integrate basic engineering knowledge from other disciplines 12. Apt hierarchization of architectural problems Completing of semester project (large scale drawings, illustrations and digital version on CD, saved in PDF extension) and a project book, containing drafts regarding project, inspirations and resources, consultations, final presentation.		
Recommended readings	1. Bohl C.C., Place Making. Developing Town Center, Main Streets and Urban Villages, Urban Land Institute, Washington, 2002 2. Hascher, R., Jeska, S. i Klauck, B., Office Buildings. A Design Manual, Birkhauser, Basel, Birkhauser, Basel, Basel, 2002 3. Laseau P., Laseau, P.: 2001, Graphic Thinking for Architects and Designers,, John Wiley and Sons, New York, 2001 4. Rapoport A., Rapoport, A.: 2005, Culture, Architecture, and Design, Locke Science Publishing Company, Chicago, 2005		
Knowledge	Knowledge concerning designing process of large scale architectural objects and public space.		
Skills	Abilites concerning designing process of large scale architectural objects and public space.		
Other social competences	Competence concerning designing process of large scale architectural objects and public space.		

Course title	Architectural design – revitalization I		
Level of course	second cycle		
Teaching method	project / lecture		
Person responsible for the course	Zbigniew Paszkowski	**E-mail address to the person**	zbigniew.paszkowski@gmail.com
Course code (if applicable)	WBiA-AiU-2-05-W	**ECTS points**	6
Semester	winter	**Language of instruction**	english
Hours per week	5	**Hours per semester**	75
Objectives of the course	C-1 Preparation for the architectural design in the build environment , C- 2 Developing skills, methods and rules in design of adaptations of historic buildings C - 3 Developing methods and rules in protection, preservation and contemporary areal transformations within the monumental protection areas		
Entry requirements	W-1 Student have to be absolvent of engineur studies (S1)		
Course contents	T-P – 1 Group design activities, aiming in sensitive approach toward the existing cultural environment TP -2 Presentation of historic research methods focused on analysis of historic source materials and information. TW- 1 Presentation of spatial, social, technical, environmental and functional problems and solutions connected to revitalization of inner city historic areas on hand of chosen Polish and international examples TW – 2 Presentation of spatial, social, technical, environmental and functional problems and solutions in transformation of post industrial areas in contemporary developing cities on hand of chosen Polish and international examples		
Assessment methods	M-1 Analytical studies, appropriate to the needs described for the design performance. The design concept in the synthetic form, considering the external circumstances, functional and spatial program and preliminary conditions of the project M-2 information based lecture M-3 problem based lecture S-1 P active presence at the design classes and lectures S-2 P evaluation of individual input of the student into the elaboration of historic-urban analysis (1 Semester) S-2 P evaluation of individual input of the student into the elaboration of historic-urban analysis (1 Semester)		
Recommended readings	1. Cuthbert A.R., Designing Cities. Critical Readings in Urban Design, Blackwell Publishing, 2003 2. Alexander Ch., A Pattern Language. Towns-Buildings-Construction, Oxford University Press, 1977 3. Interreg Central Europe, Hanbook on Public-Private partnership in Biuld Heritage Revitalisation Projects, 2017 4. Gehl J., Public Spaces - Public Life		
Knowledge	Theoretical preparation for architectural design in the existing cultural environment, designing adaptation and transformation of historical areas under conservation protection. Understanding the complexity of spatial planning in the historical and cultural areas, conservation zones, the ability to gather the necessary material initial for undertaking reconstruction and design activities, revalorization in areas with numerous stratifications cultural skills, the ability to develop a concept of revaluation historic complex and / or its revitalization.		
Skills	Ability to collect and cope with different data, methodological approach. Design in urban scale, focused on design in the build environment cityscape under monumental protection.		
Other social competences	Is able to design in the existing cultural environment.		

Course title	Architectural design – revitalization II		
Level of course	second cycle		
Teaching method	project / lecture		
Person responsible for the course	Zbigniew Paszkowski	**E-mail address to the person**	zbigniew.paszkowski@gmail.com
Course code (if applicable)	WBiA-AiU-2-06-S	**ECTS points**	6
Semester	summer	**Language of instruction**	english
Hours per week	5	**Hours per semester**	75
Objectives of the course	Preparation for architectural design in existing cultural historic environment, adaptative design, transformation of interiors and spaces of historic buildings.		
Entry requirements	W-1 Student have to be absolvent of engineur studies (S1)		
Course contents	TP-2 Elaboration of interior design project in the historic building according to the conservation authority guidelines Historic analytical survey of the interiors of indicated historic building with focus on the interior design values		
Assessment methods	M-1 Analytical studies, appropriate to the needs described for the design performance. The design concept in the synthetic form, considering the external circumstances, functional and spatial program and preliminary conditions of the project M-2 information based lecture M-3 problem based lecture S-1 P active presence at the design classes and lectures S-2 P evaluation of individual input of the student into the elaboration of historic-interior analysis		
Recommended readings	1. Peter B. Dedek, Historic Preservation for Designers, BLOOMSBURY		
Knowledge	Theoretical preparation for architectural design in the existing cultural environment, designing adaptation and transformation of historical areas under conservation protection. Understanding the complexity of spatial planning in the historical and cultural areas, conservation zones, the ability to gather the necessary material initial for undertaking reconstruction and design activities, revalorization in areas with numerous stratifications cultural skills, the ability to develop a concept of revaluation historic complex and / or its revitalization.		
Skills	Ability to collect and cope with different data, methodological approach. Design in urban scale, focused on design in the build environment cityscape under monumental protection.		
Other social competences	Is able to design in the existing cultural environment.		

Course title	Architecture psychology and perception of composition		
Level of course	second cycle		
Teaching method	project / lecture		
Person responsible for the course	Anna Pazdur-Czarnowska	**E-mail address to the person**	Anna.Pazdur-Czarnowska@zut.edu.pl
Course code (if applicable)	WBiA-AIU-2-07-W	**ECTS points**	5
Semester	winter/summer	**Language of instruction**	english
Hours per week	4	**Hours per semester**	60
Objectives of the course	The aim of the course is to provide the student with the basic aspects of the perception of composition and its influence on the architectural space. Basic laws of architecture psychology, including emotional influence of the shapes, texture and colors, the development of the esthetic and emotional sensitivity by presentation of a range of critics on the art and historic evolution of the beauty concept is included into the course. Additionally the course comprises the interdisciplinary activities and exercises.		
Entry requirements	Competence in architectural design		
Course contents	Syllabus of workshop: 1.Creation of the personal list of adjectives describing positive and negative influence of the architecture, shapes and colors. 2. Presentation of the rules for time-based perceptive impressions basing on the analysis of the diagram of impressions on the “way of approach” to the selected architectural object. 3. Creation of the composition transposition form the selected other type of art (e.g. music) to the architectural composition as the 3D model or design on the architectural board. 4. Design of the colours used for the stained-glass with indication of its emotional influence. 5. Selection of the personal most inspiring projects and designs in architecture – 10+1 objects. 6. Project of the historic building transposition of the cultural space into the contemporary design. 7. Creation of the diagram of perception for the selected object (by testing of the emotional influence and scheme of impression). Lecture syllabus: The program of lectures includes selected contemporary aspects of the architectural composition, aesthetics, perception, psychology of architecture, <Poe> studies, critics of architecture. Subject areas: 1. Introduction. Brief outline of the course objectives in the light of the psychology of architecture and design workshop of the contemporary architect. 2. Emotional influence of the architectural space in relations to the psychological perception. 3. Psychology of perception and beauty - defining the art composition basing on the evolution of the beauty concept including the psychology of perception. Objectivity, subjectivity, and relationism. 4. Architectural composition. Demonstration of the simple forms In the context of the architectural composition. 5. Structure of the architectural composition, its canons and principles In the context of the architectural perception. 6. Structure of the architectural composition in the context of the four conventions. 7. Significance of the interdisciplinary actions in perception of composition; music and architecture; meaning of the rhythm. 8. Introduction to the visual perception in the context of the psychology of architecture and concepts in phenomenon of the energy of space. Bipolarity of perception: impression and rationalization (3 step process of perception: analysis, organization and synthesis). Concept of the emotional superimposition, activation of the frequencies for the memory energy. 9. Visual perception, laws, principles, limitations. Significance of the objective and subjective aspects of perception. 10. Visual perception – visual illusion In architectural perception. 11. Psychology of colours. 12. Influence of colors including stained-glass. 13. Meaning of the perception zones in the psychological structure of space. 14. Perception of the cardinal direction in architectural perception. 15. Architecture of tomorrow In the light of the energetic field theory and perception of the space energy in the context of the chaos theory and quantum physics		
Assessment methods	Participatin i Lectures, seminaes Particpation in workshops adeqate to program. Oral and written exam, grade, essays, project work, continuous assessment.		
Recommended readings	1. Holl S. Pallasmaa J. Perez-Gomez A., "Questions of Perception: Phenomenology of Architecture 2nd Edition", Wiliam K Stout, 2007, ISBN-13: 978-0974621470, ISBN-10: 0974621471 2. Perren C. Mlecek M., "Perception in Architecture: Here and Now", Cambridge Scholar Publishing, Cambridge, 2015 3. Pallasmaa J., "The eyes of the skin", Wiley, 2012, SBN: 978-1-119-94128-6 4. Plummer H., "The experience of architecture", Thames & Hudson, 2016 5. Rossi A., "The Architecture of the City (Oppositions Books)", The MIT Press, 1984		
Knowledge	Has his/her own aesthetic views within the scope of theory of architecture and urban planning.		
Skills	In his/her work, pursues an individual artistic attitude which is manifested through his/her approach to reality and modern art.		
Other social competences	Understands non-technical aspects of design and planning activity, consciously shapes the influence on broadly understood environment and social relations.		

Course title	City Management		
Level of course	second cycle		
Teaching method	laboratory class / project / lecture		
Person responsible for the course	Adam Zwoliński	**E-mail address to the person**	azwolinski@zut.edu.pl
Course code (if applicable)	WBiA-AiU-2-08-S	**ECTS points**	7
Semester	winter/summer	**Language of instruction**	english
Hours per week	6	**Hours per semester**	90
Objectives of the course	General ability of management of investment processes in local and city scale, awareness of individual business characteristics.		
Entry requirements	Completed course on Urban Design, 1st semester.		
Course contents	Development company establishment: legal structure, investment plans, partnership applications, European Funds application, human resources allocation. Preparation of masterplan in city scale for investment strategy of company. Definition and evaluation of strategic areas and spatial prognoses for development. Preparation of architectural projects of particular developments. Calculation of construction costs and timing. Scheduling and integration with financial schemes. Preparation of individual presentations for Student President Elections. Organization of elections. Development of company Website. Lont-term investment strategy scheduling and programming - groupwork. Optional spatial concepts for investments, scheduling od construction processes, strategic partnership establishment. Scheduling short-term detailed investment plans for 2-3 years. Architectural scale concepts, detailed scheduling of investments, partnership strategies and financing strategies. Urban and architectural design for each investment. City Management - present and future approaches. Feasibility studies in city management. Harmonious urban eco-systems. New role of local authorities and information systems. Local planning and investment scheduling. Inner-city revitalization. Technological parks and business districts. Technical infrastructure management. City real-estate and housing management. PPP - Public Private Partnerships		
Assessment methods	Problem solution method, comparative analysis, activation methods: extra points for active participation in discussions. Individual Website simulation method. Grade for written exam. Aggregate grade for 1st and 2nd ranking - submission of reports.		
Recommended readings	1. Ridin Y., The Purpose of Planning - Creating Sustainable Towns and Cities, Policy press and Development, 2011 2. Payne G., Davidson F., Urban Projects Manual, Liverpool University Press, Liverpool, 2000 3. Lynch K., Hack G., Site Planning, MIT Press, Massachussets, 1984		
Knowledge	Acquisition of expanded knowledge in the field of city management, spatial planning, investment processes, legal conditions for spatial planning and the activities of business entities in the public and development investments sector.		
Skills	Assessing knowledge and skills in: organization and characteristics of urban development processes, project scheduling, urban planning in scale of city, city promotion, preliminary cost calculation, management		
Other social competences	Effective use of imagination, intuition, creative attitude and independent thinking in order to solve complicated design problems. Effective use of imagination, intuition, creative attitude and independent thinking in order to solve complicated design problems.		

Course title	Designing in a Virtual Reality Environment		
Level of course	second cycle		
Teaching method	project / lecture		
Person responsible for the course	Wojciech Pawłowski	**E-mail address to the person**	Wojciech.Pawlowski@zut.edu.pl
Course code (if applicable)	AIU-II-21W	**ECTS points**	4
Semester	winter/summer	**Language of instruction**	english
Hours per week	3	**Hours per semester**	45
Objectives of the course	To familiarize students with the essence of using prepared solid models to navigate in Virtual Reality and Augmented Reality environments Creating awareness of the selection of appropriate software for communication between the finished model and the VR and AR environment Ability to move in a VR and AR environment Ability to prepare animations based on the VR and ARR environment		
Entry requirements	Knowledge of basic CAD software (e.g. Archicad, Vectorworks, Revit, SketchUp) Ability to model in a CAD environment General knowledge of graphic programs		
Course contents	Model development in a selected CAD program for later use in a VR environment Basic material processing in programs supporting VR visualization Export of the complete 3d model to the VR environment Settings of individual parameters for VR scenes Preparation of the hardware for the VR presentation Preparation of animations based on a VR model Cooperation on the VR model Principles of preparing models for use in the VR and AR environment Introduction to software for communication of the CAD model environment with the VR and AR environment. - Enscape, Lumion, Twinmotion, Iris Preparation of light scenes in a VR environment Preparation of animation paths based on known VR software Implementation of animations based on known VR software Preparation of the hardware for the VR presentation The possibility of cooperation in a VR environment		
Assessment methods	Lecture and introductory exercises Problem lecture, conversation lecture, practical exercises Lecture and exercises using specialized CAD and VR software Mandatory presence Completing a semester task based on the use of VR technology Preparation of presentations on a selected topic in the field of VR		
Recommended readings	1. Kelly S. Hale, Kay M.Stanney, Handbook of virtualmenvironments - second edition, CRC Press, USA, 2015 2. Michael Secrist, Sarah Jones, Architectural Visualization: Its Relevance to the Unbuilt World: A resource for developers, architects, interior designers, home builders, and other industry professionals, ISBN: 1981944974, 2018		
Knowledge	The student has basic knowledge about the selection of VR software for the relevant project tasks and how to use them.		
Skills	The student can generate a model in a VR environment, create on this basis the animation and visualization screenshots		
Other social competences	The student is able to assess the quality and method of preparation of the model for the purposes of the VR environment. He can choose the right software according to the expected results.		

Course title	ECO – ARCHITECTURAL DESIGN		
Level of course	second cycle		
Teaching method	project / lecture		
Person responsible for the course	Marek Wołoszyn	**E-mail address to the person**	Marek.Woloszyn@zut.edu.pl
Course code (if applicable)	WBiA-AiU-2-09-W	**ECTS points**	5
Semester	winter/summer	**Language of instruction**	english
Hours per week	4	**Hours per semester**	60
Objectives of the course	Gaining knowledge about life cycles and design mechanisms and processes, mastering a skill of variant modeling of processes and simulation in the created architectural space. Teaching the formation of space for public facilities, taking into account the principles of sustainable design, acquiring the ability to plan the concept of energy facilities and the basis of ecological building certification.		
Entry requirements	Diploma of 1st degree studies in the field of architecture and urban planning		
Course contents	The aim of the subject is to create an architectural space with consideration of the important ecological factors, in particular the energy conservation, and to introduce the sustainable design, where environmental sensitivity is the key paradigm for design strategies. Choice of the subject of small scale and range of description, an analysis of potential possibilities of design solution, an analysis of critical points, research on function variability and mobility, material solutions, an analysis of building structures in the context of the life cycle and ecological profile for the accepted solutions. Exercises Students at a specific location are to develop a public utility building project based on the principles of sustainable design, including passive, energy-saving systems, specifying data for ecological (energy) certification of the planned facility. For a juxtaposition with the designed building, calculate the energy demand of a standard building with identical cubic capacity. The paradigm of sustainable development and its consequences for architecture. Sustainable development, sustainable development, concepts and definitions of the subject. Examples of solutions for architectural objects that meet the principles of sustainable development. Location and environment, local interest, local community. Life cycle of building materials, selection of materials. "Healthy" buildings and their life cycle. Saving raw materials and electricity (water, wood, electricity, etc.). Modern glass and the possibility of using in energy-saving construction. Renewable energy and its impact on architecture and urban planning. Continued Renewable energy and its impact on architecture and urban planning. Passive buildings. Existing classifications of construction on the principles of sustainable development: LEED, BREEAM, SBTool, DGNB, others. Continued Existing classifications of construction on the principles of sustainable development: LEED, BREEAM, SBTool, DGNB, others. Checking the message. Exam.		
Assessment methods	Classes consist of study and project work during classes, at the beginning of which a project task is formulated, which should be solved by the method of subsequent approximations. Individual corrections, homeworks, closures and progress reviews of project work are carried out. Completing of term project (A3 format, min.4 large-scale illustrations and digital version on CD, saved in PDF extension) and a project book, containing drafts regarding project, inspirations and resources, presenting development of the work during the project exercises. Completion of the exercises is based on: grades from control closures (35%) and evaluation of the project ending the given semester (65%). The final project prepared is a work presenting both the correctness of the solution to the design problem as well as the technical and workshop skills related to the issues of energy efficiency and ecological certification.		
Recommended readings	1. T. Herzog, „Solar Energy in Architecture and Urban Planning”, Prestel, Munich, 1996 2. Anik, Bonstra, Mak, Handbook of sustainable building: An environmental preference method of selecction material for use in construction and refurbishment, James & James, London, 1996 3. T. Herzog, „Solar Energy in Architecture and Urban Planning”, Prestel, Munich, 1996 4. Daniels K., Low - Tech, Light - Tech, High - Tech. Building in the information Age, Bildhauser Publishers Basel, Basilea, 1999 5. Daniels K., Low - Tech, Light - Tech, High - Tech. Building in the information Age, Bildhauser Publishers Basel, Basilea, 1999 6. Edwards B., Sustainable Architecture - European Directives and Building Design, Architectural Press, Oxford, 1999 7. Edwards B., Sustainable Architecture - European Directives and Building Design, Architectural Press, Oxford, 1999 8. Wołoszyn M., Implication oin architectural design of dowtown block revitalization, Instytut Techniki Budowlanej, Warszawa, 2004		

	9. Wołoszyn M., Implication oin architectural design of dowtown block revitalization, Instytut Techniki Budowlanej, Warszawa, 2004
Knowledge	The student got to know the technical and technological conditions of designing and planning. The student got to know modern materials and technologies, the latest global realizations and trends in contemporary architecture and urban planning. The student got acquainted with the idea of sustainable development and implements it in the field of architecture and urban planning.
Skills	Understanding of the basic principles of sustainable architecture, regenerative design as well as understanding holistic approach to integrated, responsible design processes. Ability to assess and select appropriate building service systems, renewable energy concepts, efficient structural systems and application of building components, materials and assemblies. Understanding of environmental responsibility of architects and urban planners.
Other social competences	Student understands the non-technical aspects of design and planning activities, is able to shape the investment and its impact on the broadly understood environment and social relations.

Course title	Preparatory course for the master’s diploma project		
Level of course	second cycle		
Teaching method	lecture		
Person responsible for the course	Zbigniew Paszkowski	**E-mail address to the person**	zbigniew.paszkowski@gmail.com
Course code (if applicable)	WBiA-AiU-2--012--S	**ECTS points**	2
Semester	winter/summer	**Language of instruction**	english
Hours per week	1	**Hours per semester**	15
Objectives of the course	C1. Shaping the skills to formulate scientific statements and to formulate research methods in the area of architectural design, bearing in mind the future master diploma project		
Entry requirements	The whole knowledge, skills and competence of students gained during the bachalor studies (S1) and master degree studies (S2) Abilities to present in the design course the design, workshop and methodological skills concerning the architectural design, considering the cultural , technical, social and environmental points of view		
Course contents	Description of potential problems and themes for the diploma projects, their scope and forms of presentation 2 Description of scientific work methodology and estimation of the initial schedule of the design work		
Assessment methods	Elaboration of the scientific problem in spatial, functional, structural, formal, social, environmental or/and heritage oriented sense, acordingly formulation of the functional program Structural analyses Design initialisation by sketching, physical modelling 2D CAD drawings, graphic and engineering content 3D CAD modelling and rendering resuming - evaluation of completion and quality of the semester design as a base for continuation in the future master diploma project		
Recommended readings	1. Gambarelli G., Łucki Z., How to prepare diploma thesis and doctor thesis work, Universitas 2. Ferre A., Sakamoto T., others, Verb Matters, Actar 3. Rogers R., Cities for a Small Planet, Faber&Faber		
Knowledge	He is familiar with the catalog of applicable legal acts, normatives and general principles of building art, is able to reach source materials in the context of changing regulations and legislation regarding the investment process as well as design methods and available technologies, material solutions and publicly discussed architectural theories.		
Skills	Knowledge on design methods, tools, prescriptions, limits and relations to other problems. Abilities: • to analyze areas, buildings, written and archive documents, • to prepare presentation on given topic, • to elaborate personal workshop in design.		
Other social competences	Shows initiative and creativity in undertaking design tasks, aspires to take responsibility for shaping space as a common good.		

Course title	Principles of the Visual Arts		
Level of course	second cycle		
Teaching method	project / lecture		
Person responsible for the course	Anna Pazdur-Czarnowska	**E-mail address to the person**	Anna.Pazdur-Czarnowska@zut.edu.pl
Course code (if applicable)	WBiA-UiA-2-013-W	**ECTS points**	4
Semester	winter/summer	**Language of instruction**	english
Hours per week	3	**Hours per semester**	45
Objectives of the course	Expansion of the student’s knowledge on the issues included into the visual arts from the primitive societies to the contemporary time; increasing personal sensitivity in art, indication of the association with the history of architecture, introduction of the terminology.		
Entry requirements	Knowledge of the history of art from the dawn of history to the present day Ability to analyze in terms of cross-cutting issues		
Course contents	Prehistory Art antiquity of Greece and Rome Art of Ancient Egypt Romanesque art Gothic Renaissance Baroque Classicism Impressionism Postimpressionism Summary Prehistory Art antiquity of Greece and Rome Art of Ancient Egypt Romanesque art Gothic Renaissance Baroque Classicism Impressionism Postimpressionism Colloquium Summary		
Assessment methods	information lecture evaluation summary		
Recommended readings	1. M. Bussagli, Rome art and architecture, Konneman, Cologne, 1999 2. H. Honiur, A world history of art, Laurence King, London, 1991 3. C. Barocas, Egypt, Cassell, Lonon, 1978 4. B. D Agostino, Greece, Cassell, Lonon, 1978		
Knowledge	Knowledge of the history of art from the dawn of history to the present day Ability to analyze in terms of cross-cutting issues		
Skills	Knowledge of the history of art from the dawn of history to the present day Ability to analyze in terms of cross-cutting issues		
Other social competences	Knowledge of the history of art from the dawn of history to the present day Ability to analyze in terms of cross-cutting issues		

Course title	Protection and conservation of architectural monuments		
Level of course	second cycle		
Teaching method	project / lecture		
Person responsible for the course	Zbigniew Paszkowski	**E-mail address to the person**	zbigniew.paszkowski@gmail.com
Course code (if applicable)	WBiA-AiU-2-015-W	**ECTS points**	6
Semester	winter/summer	**Language of instruction**	english
Hours per week	5	**Hours per semester**	75
Objectives of the course	Preparation for the architectural design in the build environment Developing skills, methods and rules in design of adaptations of historic buildings Developing methods and rules in protection, preservation and contemporary areal transformations within the monumental protection areas		
Entry requirements	Student have to be absolvent of engineur studies (S1)		
Course contents	Scientific description of historical and iconographic research. Conceptual design of adaptation of a building under protection for a new functions or design of a new object in a historic context, including historical conditions and conservation guidelines. History of protection and conservation of historical ensembles and cultural landscape Theories and methods of revalorization of historical ensembles		
Assessment methods	Detailed elaboration of design drawings, including dimensioning, architectural detail and technical solution. information based lecture problem based lecture active presence at the design classes and lectures evaluation of individual input of the student into the elaboration of the chosen exam topic		
Recommended readings	1. Fitch, James Marston, Historic Preservation: Curatorial Management of the Built World, University Press of Virginia, Charlottesville, VA, 1990 2. Munoz Vinas, Contemporary Theory of Conservation, Elsevier/Butterworth Heinemann, Amsterdam, 2005 3. Stipe, Robert E. (ed.), A Richer Heritage: Historic Preservation in the Twenty-First Century, The University of North Carolina Press, Chapel Hill, NC, 2003 4. Tyler, Norman, Ted J. Ligibel, and Ilene R. Tyler, Historic Preservation: An Introduction to its History, Principles, and Practice, W.W. Norton & Company, New York, 2009		
Knowledge	Student has knowledge about the history and philosophy of monument protection, has knowlage of law and rules in this area and duties of a designer who is working in the protected areas.		
Skills	Student has ability to prepare conservation and renovation projects. Student has knowlage how to design adaptation and transformation of historical objects under conservation protection.		
Other social competences	The student is aware of the value of cultural heritage, including especially the heritage of Polish culture and foreign cultures. The student understands non-technical aspects of the impact of heritage protection. The student understands the links between heritage protection and improving the quality of life and the environment.		

Course title	Spatial and Regional Planning		
Level of course	second cycle		
Teaching method	project / lecture		
Person responsible for the course	Olga Gazińska	**E-mail address to the person**	olga.gazinska@zut.edu.pl
Course code (if applicable)	WBiA-AiU-2-017-S	**ECTS points**	6
Semester	winter/summer	**Language of instruction**	english
Hours per week	5	**Hours per semester**	75
Objectives of the course	The scope of the workshop is to elaborate regional concept of spatial arrangement for coastal areas and Odra River Estuary based on the results of comprehensive regional analysis and sustainable development scenarios. Special attention will be paid to transboundary regions. Lectures comprise theoretical basis and methods used in regional planning and support workshops. The course programme aims analysis of existing spatial arrangement and spatial development trends of Western Pomerania Voivodship with the focus to selected problem areas with special focus to transboundary relations.		
Entry requirements	Participation in workshops: Urban designing CS1-XIV/4 (4 semester);		
Course contents	Method and techniques applied in the teaching program, as well as theoretical background and methods used in regional planning presented during lectures and workshops allows students to possess skills and competence in: Elaboration of egzogenic and indogenic diagnosis and recognition of conditions for further development, elaboration of strategic analysis and construction of three development scenarios, elaboration of spatial development concept for selected region taking in consideration completed analysis and worked out scenarios. The scope of the workshop is to elaborate regional concept of spatial arrangement for coastal areas and Odra River Estuary based on the results of comprehensive regional analysis and sustainable development scenarios. Special attention will be paid to transboundary regions. Lectures comprise theoretical basis and methods used in regional planning and support workshops. The course programme aims analysis of existing spatial arrangement and spatial development trends of Western Pomerania Voivodship with the focus to selected problem areas. Method and techniques applied in the teaching program, as well as theoretical background and methods used in regional planning presented during lectures and workshops allows students to possess skills and competence in: Elaboration of egzogenic and indogenic diagnosis and recognition of conditions for further development, Elaboration of strategic analysis and construction of three development scenarios, Elaboration of spatial development concept for selected region taking in consideration completed analysis and worked out scenarios. Lectures are relevant to specific of regional planning also in the aspect of transboundary relations.		
Assessment methods	The lectures include the genesis and basic elements of the plans in regional scale against, the rules and conditions of town and country planning, organization and operation of the planning system in Poland (taking into account the specific nature of transborder regions). The corresponding on theoretical background exercises are conducted in the form of workshop towards the development of spatial conceot of the coastal and Odra Estuary areas in cross-border region, based on the analysis of exogenous and endogenous conditions, analysis of the development potential of the development scenarios. Assessment: Assessment takes place through the public presentation of seminar work based on a selected topic in the field of regopnal and spatial planning.		
Recommended readings	1. Cullingworth B. Nadin V, Town and Country Planning in the UK, Routledge;, Oxon, 2002 2. Duhr S. Colomb C. Nadin V, European spatial planning and territorial cooperation, Routledge, xon, 2010 3. Friedmann John;, Essays in Planning Theory, Taylor & Francis Ltd Routledge, London, 2006 4. Levy John M.;, Contemporary Urban Planning, Prentice Hall, 2012 5. Yvonne Rydin, The Purpose of Planning - Creating Sustainable Towns and Cities,, Policy press and Development., 2011		
Knowledge	Within the scope necessary for independent performance of design and planning tasks, knows the planning system applicable in Poland, its legal conditions and the process of determining the local spatial regulations.		
Skills	Acquisition of knowledge concerning basic elements of the regional plans structure an planning procedures on the background of planning conditions, organization and operation of spatial planning system. Acquisition of skills and competence in preparing development plans.		
Other social competences	Is ready to work with a single- and multi-discipline team, also a more extended one consisting of specialist from more distinct disciplines.		

Course title	SPECIALISTIC ARCHITECTURAL DESIGN I		
Level of course	second cycle		
Teaching method	project		
Person responsible for the course	Krystyna Januszkiewicz	**E-mail address to the person**	Krystyna.Januszkiewicz@zut.edu.pl
Course code (if applicable)	WBiA-AiU-2-018-W	**ECTS points**	4
Semester	winter	**Language of instruction**	english
Hours per week	3	**Hours per semester**	45
Objectives of the course	The aim of the course is to increase knowledge and skill in design of sports facilities. Additionally developing skills in implementation of digital tools during design process. Course integrate architecture and structural engineering students. Finally students will have opportunity to practice public presentation.		
Entry requirements	Intermediate skills in architectural design. Basic knowledge of technical aspects such as construction, MEP, law regulations. Operative in architecture design programs - not necessary course programs.		
Course contents	The aim of the course is to increase knowledge and skill in design of sports facilities. Additionally developing skills in implementation of digital tools during design process. Course integrate architecture and structural engineering students. Finally students will have opportunity to practice public presentation.		
Assessment methods	Lecture and workshop (design studio) Assessment will be made on 3 oral presentations prepared on different stages of project. Final presentation on A0 boards. Presentation will include all the aspects of thesis defence including questions and project discussions with other students. Elements of evaluation based on thesis requirements.		
Recommended readings	1. Benedikt M., Cyberspace: First Steps, The MIT Press, Cambridge, 2001 2. Bollinger K., Grohman M., Tessmann O., Form, Force, Performance. Multi-parametric Structural Design, John Wiley & Sons, London, 2008, Vol. 78, No. 2–3 3. Burns K., Surface: Architecture’s Expanded Field, John Wiley & Sons, London, 2003, Vol. 73, No. 2 4. Burry M., Between Surface and Substance, John Wiley & Sons, London, 2003, Vol. 73, No. 2		
Knowledge	Basic understanding of parametric design process. Understanding of main principles in sport facilities design. Basic 3d modeling skills in Rhino and Grasshopper. Extended oral and verbal presentation skills.		
Skills	Basic understanding of parametric design process. Understanding of main principles in sport facilities design. Basic 3d modeling skills in Rhino and Grasshopper. Extended oral and verbal presentation skills.		
Other social competences	Basic understanding of parametric design process. Understanding of main principles in sport facilities design. Basic 3d modeling skills in Rhino and Grasshopper. Extended oral and verbal presentation skills.		

Course title	SPECIALISTIC ARCHITECTURAL DESIGN II		
Level of course	second cycle		
Teaching method	project		
Person responsible for the course	Krystyna Januszkiewicz	**E-mail address to the person**	Krystyna.Januszkiewicz@zut.edu.pl
Course code (if applicable)	WBiA-AiU-2-019-S	**ECTS points**	4
Semester	summer	**Language of instruction**	english
Hours per week	3	**Hours per semester**	45
Objectives of the course	The aim of the course is to increase knowledge and skill in design of sports facilities. Additionally developing skills in implementation of digital tools during design process. Course integrate architecture and structural engineering students. Finally students will have opportunity to practice public presentation.		
Entry requirements	Intermediate skills in architectural design. Basic knowledge of technical aspects such as construction, MEP, law regulations. Operative in architecture design programs - not necessary course programs.		
Course contents	Project covers functional, formal and structural studies of multifunctional sport facility including various sport activities (hokey rings, multi-purposes halls, hotels, aquatic centres, tourist complexes, etc). During course reference to urban, cultural and regional context will be emphasise. Structural analysing techniques will be introduced.		
Assessment methods	Lecture and workshop (design studio) Assessment will be made on 3 oral presentations prepared on different stages of project. Final presentation on A0 boards. Presentation will include all the aspects of thesis defence including questions and project discussions with other students. Elements of evaluation based on thesis requirements.		
Recommended readings	1. Benedikt M., Cyberspace: First Steps, The MIT Press, Cambridge,, 2001 2. Bollinger K., Grohman M., Tessmann O., Form, Force, Performance. Multi-parametric Structural Design, Architectural Design, London, 2008, Vol. 78, No. 2–3, pp. 20–25. 3. Burns K., Surface: Architecture’s Expanded Field, Architectural Design, London, 2003, Vol. 73, No 2, pp. 86–92. 4. Burry M., Between Surface and Substance, Architectural Design, London, 2003, Vol. 73, No 2, pp. 8–19.		
Knowledge	Basic understanding of parametric design process. Understanding of main principles in sport facilities design. Basic 3d modeling skills in Rhino and Grasshopper. Extended oral and verbal presentation skills.		
Skills	Basic understanding of parametric design process. Understanding of main principles in sport facilities design. Basic 3d modeling skills in Rhino and Grasshopper. Extended oral and verbal presentation skills.		
Other social competences	Basic understanding of parametric design process. Understanding of main principles in sport facilities design. Basic 3d modeling skills in Rhino and Grasshopper. Extended oral and verbal presentation skills.		