Subject description

Faculty of Architecture, WUT 2020, **Architecture** studies

Architecture for Society of Knowledge speciality

DESIGN STUDIO 3		**ASK3-P-Ds3**	**MSc level**	**semester 3**
Classes: **project**	Hours/semester **100**	Student's workload hours: **82**	Status: **obligatory** Level: **Advanced Group: arch / urb design**	ECTS: **8**
				Exam: **no**

Unit delivering this subject: Katedra Projektowania Architektonicznego
Pracownia Projektowania Architektonicznego Wspomaganego Komputerem

Subject coordinator: **mgr inż. arch. Sławomir Kowal**

Learning outcomes and subject delivery methods

Objective of the course:

The subject is a summary of practical experience gained during the ASK course. As the last project carried out directly before the diploma thesis - allows developing authorial design methods. An essential element of the study is to highlight the support of used methodology by advanced CAD tools both in the area of shaping forms and processes as well as architectural communication.

General description of the course:

The assumption behind the design is the performance of an architectural or urban planning task of medium complexity (e.g. a public building design with a floor area of approximately 5,000 m2) during which advanced visualisation of selected solutions in a virtual reality environment is applied.
In the initial design phase, following the definition of fundamental qualities of the structure, participants isolate parts (physical or ideas) of the concept that shall be developed in the virtual layer. The virtual space may be provided with functionality in selected situations, which underscores the interactive character of the concept.

Scope of taught competencies:

- Introduction to shaping a multi-component design studio skill set
- Integration of traditional and digital tools
- Modelling the functionality of CAD tools
- Process simulation as a tool for corresponding with users
- Three–dimensional visualisation in line with design needs
- Skill in creating an interactive design layer

Learning outcomes:

No. of the outcome/ area	Description
Knowledge	
W_01	Student has a structured, theoretically founded, detailed knowledge of construction, technology, installations, building physics - covering fundamental complex issues in architectural and urban planning
W_02	Student has a structured, theoretically-grounded detailed knowledge of the role and importance of the natural environment in architectural and urban planning; the need for sustainable development; the threats to the environment and

	cultural landscape
W_03	Student has a structured, theoretically founded detailed knowledge of the presentation of architectural, urban and planning projects and knowledge of information technologies and workshop skills including related artistic disciplines (graphics, sculpture, drawing, painting, music) required for design
W_04	Student knows and understands the basic concepts and principles in the field of copyright protection and the need to manage intellectual property resources; can use the resources of standards, laws and ordinances related to architectural, urban and planning
Skills	
U_01	Student solves complex engineering tasks, integrating knowledge in various fields of science - including history, history of architecture, art history, cultural heritage, spatial and other; and apply a systemic approach taking into account non-technical aspects.
U_02	Student can, by a given program: taking into account the requirements of users, technical and non-technical aspects; design a complex architectural object and urban complex; creating and transforming space, giving it new values
U_03	Student can pursue his artistic concepts in the field of the studied field of study and specialities
U_04	Student continues to develop the skills of the workshop enabling the implementation of own artistic concepts to the extent sufficient to maintain and expand the ability to create, implement and express their artistic concepts in architectural and urban design
Social competences	
KS_01	Student understands the need and knows the possibilities of continuous education (third cycle studies, postgraduate studies, courses, training) - raising professional, personal and social competences, including complementing knowledge and skills of interdisciplinary character
KS_02	Student is aware of the importance and understands the non-technical aspects and effects of the designing of the engineer-architect MA, including its impact on the cultural and natural environment and the related responsibility for the technical decisions made in the environment and the responsibility for transferring cultural and natural heritage to next generations.
KS_03	Student is aware of the social role of a technical university graduate and understands explicitly the need to formulate and communicate to the public - including through mass media - information and opinions on the achievements of architecture and urban planning and their complex conditions. as well as other aspects of the architect's and urbanist's activity; makes efforts to provide such information and opinions in an understandable way

Learning contents:

The substantive content (design task) changes in the following years, establishing a background for the training of the competencies described above.
The exemplary project is to complement the structure of social and commercial services of the city. Among the possible scale and problems are architectural and urban design, as well as tasks of interdisciplinary knowledge area - infrastructure, urban systems, etc.

Teaching methods and forms:

Complete design, obligatory;
Fourteen weeks of on-site classes
Parallel operation on an e-learning platform serving as a store for course resources and a communication tool;
Task teamwork;
Individual work with sources, analysis, presentation;
Work with the teacher regarding the project;
Group discussion about the effects of individual work
Assessment by the team of instructors, mutual assessment, and reviewer evaluation

Method of testing the learning outcomes:

Outcome number	Way of testing
Knowledge	
W_01	Project: two-stage presentation, defence in group discussion and among external reviewers, the content of traditional boards at the exhibition, video presentation published in the network, essay, algorithms assessing activity (within the e-learning platform), lecturers assessment on the notes activity basis of individual and group work and interpersonal relations.
W_02	As above.
W_03	As above.
W_04	As above.
Skills	
U_01	As above.
U_02	As above.
U_03	As above.
U_04	As above.
Social competences	
KS_01	As above.
KS_02	As above.

Literature

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