

# Subject description

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

**Architecture for Society of Knowledge** speciality

<b>DESIGN STUDIO 1</b> (algorithmic processes)		<b>ASK-P-Ds1</b>	<b>MSc level</b>	<b>semester</b>
Classes: <b>project</b>	Hours/semester <b>100</b>	Student's own workload hours: <b>107</b>	Status: <b>obligatory</b> Level: Advanced Subject group: arch / urb design	<b>1</b> ECTS: <b>9</b> Exam: <b>no</b>

**Unit delivering this subject:** Katedra Projektowania Architektonicznego  
Pracownia Projektowania Architektonicznego Wspomagane

Komputerem

**Subject coordinator:** prof. nzw. dr inż. arch. Jan Słyk

## Learning outcomes and subject delivery methods

### Objective of the course:

The course design serves to acquire an awareness of individual elements making up the creative process as well as to build a skill set facilitating control over them. The design can take on a number of scales (architectural, architectural/urban, urban). Implementation scheme is created on the basis of context studies, analyses of comparative solutions, and the formalisation of the principles of shaping aesthetics. The effectiveness of the method is evaluated by application and conclusions regarding the effects.

### General description of the course:

The scope of the design task reiterates a simple functional scheme with which participants in engineering studies should be familiar (e.g. a small retail unit or residential building). In the first phase of work, participants strive to write all conditions, input data, and idea components of the concept in a univocal manner. It is on their basis that they develop an algorithm guiding progress in the creative process (in line with information technology criteria). The preliminary design phase closes with the presentation of a theoretical procedural model (schematic diagram) that will serve in further work.

In the second design phase, the participants strive to implement successive elements of the algorithm as formulated. The process takes place in a traditional studio environment (assuming the algorithm does not assign a different solution). Should the creative process necessitate the modification of the previously assumed scheme, students note the reason and the scope of change to the initial schematic.

The final presentation encompasses the algorithm schematic diagram, notes covering introduced modifications, inclusive of interpretation, and spatial effects, inclusive of description.

### Skilled competences:

- The ability to formalize conditions, ideas and processes at various scales
- Shaping the design methods
- Coordination of intuitive and algorithmic processes
- Shaping the self-assessment methods

**Learning outcomes:**

No. of the outcome/ area	Description
<b>Knowledge</b>	
W_01	Student has a basic knowledge of the presentation of architectural, urban and planning projects and knowledge of the technical skills of related artistic disciplines (graphics, sculpture, drawing, painting, music)
W_02	Student has knowledge of the historical and cultural context in the design of architecture and urban planning, and a relationship with the fields of fine arts and various areas of modern life; knows publications related to this issue.
W_03	Student has knowledge about the role and importance of the natural environment, about the need to shape spatial order and sustainable development, and about environmental threats.
<b>Skills</b>	
U_01	Student can use analytical methods to formulate and solve design tasks
U_02	Student makes a critical analysis of the existing conditions, the valorisation of the land development and development; formulate conclusions for design, forecasting the transformation processes of the city structure and anticipating the social effects of these transformations
U_03	Student is able to publicly present design concepts in the field of architecture and urban planning; critical evaluation, discussion and logical argumentation and conducting negotiations
U_04	Student is prepared to interact with other people as part of teamwork and is able to take a leading role in such teams.
<b>Social competences</b>	
K_01	Student is able to work in a design team, taking on different roles
K_02	Understands the need for lifelong learning to improve their professional and personal competencies, including the addition of knowledge and skills of an interdisciplinary nature

**Learning contents:**

The substantive content (design task) changes in the following years, making up a background to train the competencies described above.

The exemplary project applies the urban and architectural design strategies to change the state of functioning of Warsaw (temporarily for European Football Championship). Refers to the formulation of the general framework of action (group strategy created in 2 independent teams) and specific interventions (individual projects). Within the themes of individual projects, concepts concerning socio-spatial issues (e.g. movement organisation of large groups, crowd visual communication, etc.), spatial and infrastructural (e.g. linking stations and bus stops with a walking and cycling network, alternative bridge crossings, etc.), architectural and urban planning (dysfunctional stadium redevelopment).

**Teaching methods and forms:**

Full-size project with accompanying lectures, obligatory;

Fourteen weeks of stationary classes;

A parallel e-learning platform that is a warehouse of course resources and a communication tool;

Group work in task teams;

Individual work with sources, analysis, presentation;

Work on the project with the lecturer;

Group discussion about individual work effects;

Evaluation of the team leading, peer evaluation, assessment of reviewers

**Method of testing the learning outcomes:**

Outcome Number	Way of testing
<b>Knowledge</b>	
W_01	Project: two-stage presentation, defense in group discussion and among external reviewers, boards at the exhibition, video presentation published

	online, essay, algorithms assessing activity (within the e-learning platform), evaluation based on lecturers notes on activity at individual and group work, and interpersonal relations.
W_02	As above.
W_03	As above.
<b>Skills</b>	
U_01	As above.
U_02	As above.
U_03	As above.
U_04	As above.
<b>Social competences</b>	
KS_01	As above.
KS_02	As above.

### Literature

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