Warsaw University of Technology

COURSE OFFERED IN THE DOCTORAL SCHOOL

Code of the course	4606-ES-000000A-0206	Name of the course	Polish	**Eksperymentalny Projekt Badawczy 3b**	
			English	**Experimental Research Project 3b**	
Type of the course	specialized				
Course coordinator	dr hab. inż. arch. Maciej Lasocki				
Implementing unit	FA WUT	Scientific discipline/disciplines	Architecture and Town Planning		
Level of education	Doctoral	Semester	Winter/summer		
Language of the course	English				
Type of assessment:	Pass with grade	Number of hours in a semester	32	ECTS credits	2
Minimum number of participants	10	Maximum number of participants	12	Available for students (BSc, MSc)	~~Yes/~~No

Type of classes		Lecture	Auditory classes	Project classes	Laboratory	Seminar
Number of hours	in a week			4 every two weeks.		
	in a semester			32		

* does not apply to the Researcher's Workshop

1. Prerequisites

Experience in conducting scientific research and preparing scientific publications. Use of the English language sufficiently to allow free conversation on topics related to the represented scientific speciality.
Completion of the Experimental Research Project a or the equivalent classes from an older curriculum. This does not apply to participants who represent other specialities than Architecture and Town Planning.

2. Course objectives

The aim of the course is to create conditions for the formation of creative teams of young scientists who undertake joint research projects. The design approach to building knowledge and shaping skills, specific to the discipline of Architecture and Urban Planning, allows you to gain new experiences through experimentation. Teamwork allows for shaping the social competences of the participants of the classes. The sixth semester of classes in the 6-semester cycle aims to prepare a high-quality scientific project that can be carried out with the participation of PhD students as a result of obtaining grant funds in an internal competition from the Warsaw University of Technology or in external, including international, competitions. In the winter semester, the formation of a scientific consortium and preparation of a grant application / conference organization should take place.

3. Course content (separate for each type of classes)

Lecture

Project

The classes have been prepared for PhD students who are more experienced in conducting research and preparing scientific publications.

Classes are conducted in a workshop formula. The flexible formula of the classes will allow you to combine meetings of teams or the whole group with teams of doctoral students from other semesters and with researchers. Due to the different deadlines for submitting grant applications, the course and dates of the classes will be flexibly adapted to the needs.

Team work within the project concerns the implementation of the planned project, i.e. cooperation in submitting a grant application, conducting a scientific conference or completing the scientific research in any other project aimed at publication in the journal included in the upper decile of high-ranking journals.

Presentations of the results of team work take place in front of the entire group. The scope and course of the work of the teams is supervised by the workshop instructors in consultation with the supervisors of doctoral dissertations.

One research project is carried out during the summer semester and the following winter semester. The winter semester is used to implement the project planned during the summer semester. In the winter semester, doctoral students may join the teams formed in the summer semester - with the agreement of the parties and the knowledge of the teachers.

The formula of the subject in the a-b cycle assumes the participation of doctoral students in projects carried out in various types of research teams, e.g.

- composed of workshop instructors and students of the Doctoral School, including those from outside the Faculty of Architecture,

- composed of other lecturers and doctoral students of various years,

- inter-university teams,

- international teams.

The undertaken topics of the projects will depend on the announced competitions for financing initiatives of interest to the participants of the classes. It will be preferable to take up interdisciplinary topics, which involve the participation of representatives of various specialties.

4. Learning outcomes

	Learning outcomes description	Reference to the learning outcomes of the WUT DS	Learning outcomes verification methods*
	Knowledge		
W01	The doctoral student knows and understands, to a degree that enables the revision of the existing paradigms, the global achievements of the represented scientific discipline.	SD_W2	Evaluation of the project Evaluation of the presentation
W02	The doctoral student knows and understands the main development trends of the scientific discipline pursued and related research methodologies.	SD_W3	Evaluation of final report
	Skills		
S01	The doctoral student is able to use knowledge from various fields to creatively identify and formulate complex scientific problems, as well as to plan scientific activities leading to their solution..	SD_U1	Evaluation of the activity during classes
S02	The doctoral student is able to communicate on specialist topics relevant to the interdisciplinary, international scientific environment, to a degree that also enables active participation in international consortia of research universities.	SD_U4	Evaluation of the activity during classes
S03	The doctoral student is able to use English at the B2 + level of the European System for the Description of Languages to a degree enabling participation in the international scientific environment.	SD_U6	Evaluation of the activity during classes
	Social competences		
SC01	The doctoral student is competent to critically assess his own contribution to the development of the represented scientific discipline.	SD_K1	Evaluation of the activity during classes

*Allowed learning outcomes verification methods: exam; oral exam; written test; oral test; project evaluation; report evaluation; presentation evaluation; active participation during classes; homework; tests

5. Assessment criteria

Project evaluation - correctness of the formulation of the project scientific assumptions.

Assessment of the presentation - communicativeness and correctness of professional and scientific language. Evaluation of the report - completeness of the study, correctness of professional and scientific language. Assessment of activity during classes - correctness and logic of reasoning, the ability to draw conclusions, the ability to cooperate, creativity

6. Literature
Supplementary literature: During the implementation of research projects, while recognizing the current state of research, doctoral students reach literature sources relevant to the subject matter they undertake.

7. PhD student's workload necessary to achieve the learning outcomes**		
No.	Description	Number of hours
1	Hours of scheduled instruction given by the academic teacher in the classroom	32
2	Hours of consultations with the academic teacher, exams, tests, etc.	4
3	Amount of time devoted to the preparation for classes, preparation of presentations, reports, projects, homework	14
4	Amount of time devoted to the preparation for exams, test, assessments	0
	Total number of hours	**50**
	ECTS credits	**2**

** 1 ECTS = 25-30 hours of the PhD students work (2 ECTS = 60 hours; 4 ECTS = 110 hours, etc.)