## POZNAN UNIVERSITY OF TECHNOLOGY



### EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

pl. M. Skłodowskiej-Curie 5, 60-965 Poznań

## **COURSE DESCRIPTION CARD - SYLLABUS**

Course name

Preparation for research

Course

Field of study

**Environmental Engineering Second-cycle Studies** 

Area of study (specialization)

Heating, Air Conditioning and Air Protection

Level of study

Second-cycle studies

Form of study

full-time

Year/Semester

2/3

Profile of study general academic Course offered in

polish

Requirements compulsory

#### **Number of hours**

Lecture Laboratory classes Other (e.g. online)

10

Tutorials Projects/seminars

**Number of credit points** 

16

#### **Lecturers**

Responsible for the course/lecturer:

Responsible for the course/lecturer:

prof.dr hab.inż. Edward Szczechowiak

email: edward.szczechowiak@put.poznan.pl

tel.61 6652533

Faculty of Environmental Engineering and

Energy

ul. Berdychowo 4, 61-118 Poznań

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- 1 Knowledge Basic knowledge (engineering level) obtained within the scope of the subjects taught and the part-time degree in Environmental Engineering.
- 2 Skills The skills acquired in the course of time studies degree design, construction and operation of installations in buildings and external networks in the field of environmental engineering.
- 3 Social competencies Ability to work independently.

### **Course objective**

Preparing students to carry out the master thesis.

### **Course-related learning outcomes**

### Knowledge

- 1. The student has the knowledge gained in the current process of education that is necessary for the preparation of master work to the extent specified in the subject of the thesis (individual work)
- 2. The student has knowledge of the methods of solving technical problems problems (obtained on individual consultations with the promoter and individual work)

#### Skills

- 1. The student is able to formulate the thesis work, select and apply the appropriate method of solution of the problem and to draw conclusions on the basis of the collected material problems (obtained on individual consultations with the promoter and individual work)
- 2. Student use of information technology, Internet resources and other sources to find the information necessary for the preparation of a thesis problems (obtained on individual consultations with the promoter and individual work)

### Social competences

- 1. The student is aware the need to raise professional competence problems (obtained on individual consultations with the promoter and individual work)
- 2. Student is able to draw conclusions and describe the results of their own problems (obtained on individual consultations with the promoter and individual work)
- 3. Student complements and extends knowledge of modern techniques, processes and technologies in environmental engineering problems (obtained on individual consultations with the promoter and individual work)

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Consultations - checking progress, factual correctness, the degree of progress of the thesis.

The evaluation of the thesis supervisor issues.

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Positive mark - fulfilling the requirements of diploma thesis.

## **Programme content**

Course description:

Program content compatible with the tasks detailed in the tab thesis topic.

## **Teaching methods**

classic, case study.

## **Bibliography**

Basic

- 1. Technical Books in line with the theme of work
- 2. Polish and European technical standards and construction

Additional

## Breakdown of average student's workload

	Hours	ECTS
Total workload	400	16,0
Classes requiring direct contact with the teacher	10	1,0
Student's own work (literature studies, preparation of the	390	15,0
diploma thesis using metd and techniques related to the subject:		
project, research on the experimental stand, calculations, etc.) <sup>1</sup>		

3

<sup>&</sup>lt;sup>1</sup> delete or add other activities as appropriate