# COURSE DESCRIPTION CARD - SYLLABUS

Course name

Preparation of a diploma thesis with elements of scientific research

## Course

Field of study

Environmental Engineering

Area of study (specialization)

Level of study

First-cycle studies

Form of study

full-time

Year/Semester

4 / 7

Profile of study

general academic

Course offered in

Polish

Requirements

compulsory

## Number of hours

Lecture

Laboratory classes

Other (e.g. online)

Tutorials

5

Projects/seminars

## Number of credit points

15

## Lecturers

Responsible for the course/lecturer:

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Faculty of Environmental Engineering and Energy

Berdychowo 4, 61-131 Poznań

Responsible for the course/lecturer:

## Prerequisites

1. Knowledge:

The scope of knowledge obtained within the subjects appearing in the first-cycle full-time studies program.

2. Skills:

Skills acquired in the course of full-time first-cycle studies in the field of design, construction and operation of installations in buildings and external sanitary networks in the field of environmental engineering.

3. Social competencies:

Ability to work independently on a designated task.

## Course objective

Preparing the student for an independent engineering diploma thesis.

## Course-related learning outcomes

### Knowledge

1. A graduate student has the knowledge acquired in the current educational process, necessary to prepare an engineering thesis in the scope specified in the subject of the diploma thesis - [KIS_W03, KIS_W04, KIS_W07]

2. A graduate student has knowledge of the methods of solving technical problems - [KIS_W07]

### Skills

1. A graduate student is able to formulate the thesis of the work, select and apply the right method of solving the task and draw conclusions based on the collected material - [KIS_U06, KIS_U08]

2. A graduate student uses information technology, internet resources and other sources to search for information necessary to prepare the thesis - [KIS_U01, KIS_U02]

3. A graduate student is aware of the need to raise professional qualifications - [KIS_U17]

4. A graduate student is able to formulate conclusions and describe the results of their own work - [KIS_U13]

5. A graduate student independently supplements and expands the knowledge in the field of modern techniques, processes and technologies in environmental engineering - [KIS_U17]

### Social competences

1. A graduate student is aware of the non-technical aspects and effects of engineering activities, including its impact on the environment - [KIS_K01]

2. A graduate student is aware of the social role of a technical university graduate, is prepared to formulate and convey information and opinions on technological achievements and other aspects of engineering activities in a way that is universally understood - [KIS_K05]

3. A graduate student is prepared to correctly identify and resolve dilemmas related to the exercise of the profession - [KIS_K06]

## Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Ongoing consultations checking progress, substantive correctness and the degree of the diploma thesis.

The evaluation is issued by the supervisor of the diploma thesis.

## Programme content

Program contents in accordance with the detailed tasks given in the subject of the diploma thesis.

## Teaching methods

Exercise, problem solving, case study, discussion.

## Bibliography

Basic

1. Dembecka W., Metodyka studiowania w uczelni technicznej, Wyd. Pol. Poznańskiej, Poznań 1994.

2. Szkutnik Z., Metodyka pisania pracy dyplomowej. Skrypt dla studentów, Poznań 2005.

3. Kozłowski R., Praktyczny sposób pisania prac dyplomowych z wykorzystaniem programu komputerowego i Internetu, Warszawa 2009.

4. Rozporządzenie Ministra Nauki i Szkolnictwa Wyższego z dnia 19 grudnia 2008 r. w sprawie rodzajów tytułów zawodowych nadawanych absolwentom studiów i wzorów dyplomów oraz świadectw wydawanych przez uczelnie. (Dz.U. 2009 nr 11 poz. 61).

5. Rozporządzenie Ministra Nauki i Szkolnictwa Wyższego z dnia 14 września 2011 r. w sprawie dokumentacji przebiegu studiów. (Dz.U. 2011 nr 201 poz. 1188).

6. Regulamin studiów stacjonarnych i niestacjonarnych pierwszego i drugiego stopnia oraz jednolitych magisterskich uchwalony przez Senat Akademicki Politechniki Poznańskiej Uchwałą Nr 89 z dnia 28 kwietnia 2010 r. na podstawie ustawy z dnia 27 lipca 2005 r. Prawo o szkolnictwie wyższym (Dz. U. Nr 164, poz. 1365 z późn. zm.).

7. Ustawa z dnia 27 lipca 2005 r. Prawo o szkolnictwie wyższym. (Dz.U. 2005 nr 164 poz. 1365, tekst jednolity Dz.U. 2012 poz. 572).

8. Ustawa z dnia 4 lutego 1994 r. o prawie autorskim i prawach pokrewnych. (Dz.U. 1994 nr 24 poz. 83).

Additional

1. Rajczyk J., Rajczyk M., Respondek Z., Wytyczne do przygotowania prac dyplomowych magisterskich i inżynierskich na Wydziale Budownictwa Politechniki Częstochowskiej, Częstochowa 2004.

2. Bobrowski D., Wybrane metody wnioskowania statystycznego, Wyd. Pol. Poznańskiej, Poznań 1988.

3. Opoka E., Uwagi o pisaniu i redagowaniu prac dyplomowych na studiach technicznych., Wydawnictwo Politechniki Śląskiej, Gliwice, 2003.

## Breakdown of average student's workload

| | Hours | ECTS |
|---|---|---|
| Total workload | 375 | 15,0 |
| Classes requiring direct contact with the teacher | 5 | 0,5 |
| Student's own work (preparation for presentation) [1] | 370 | 14,5 |

[1] delete or add other activities as appropriate