STUDY MODULE DESCRIPTION FORM

Name of the module/subject **Diploma Seminar**		Code **1010134291010100109**
Field of study **Environmental Engineering Extramural First-**	Profile of study (general academic, practical) **(brak)**	Year /Semester **5 / 9**
Elective path/specialty **-**	Subject offered in: **Polish**	Course (compulsory, elective) **obligatory**
Cycle of study: **First-cycle studies**	Form of study (full-time,part-time) **part-time**	
No. of hours Lecture: **-** Classes: **15** Laboratory: **-** Project/seminars: **-**		No. of credits **2**
Status of the course in the study program (Basic, major, other) **(brak)**	(university-wide, from another field) **(brak)**	
Education areas and fields of science and art **technical sciences** **Technical sciences**		ECTS distribution (number and %) **2 100%** **2 100%**

Responsible for subject / lecturer:

dr hab. inż. Małgorzata Basińska
email: malgorzata.basinska@put.poznan.pl
tel. (61) 647 5824
Faculty of Civil and Environmental Engineering
ul. Piotrowo 5 60-965 Poznań

Prerequisites in terms of knowledge, skills and social competencies:

1	**Knowledge**	Student has the extended knowledge needed for a determination of the engineering problem and the way of its solution. Student knows the re requirements for the development of the diploma project. Student knows the formal rules for the diploma examination.
2	**Skills**	Student is able to formulate the technical problem conc. diploma thesis and the way of the problem solution. Student is able to defend his thesis propositions. Student is able to develop a critical estimation of the problem and used methods. He is able to discuss and the use of the multimedia.
3	**Social competencies**	Student understands the need of the continuous learning and studying and of the motivating of learning of another person?s. Student is aware of the importance of the nontechnical aspects and the results of engineering activity on the environmental and the resulting responsibility for his decisions.

Assumptions and objectives of the course:

The aim of the diploma seminar is the sum up and enlarge of the knowledge and as well as the increase the ability of the presentation of the developed solution and the introduction of the students to the diploma examination rules.

Study outcomes and reference to the educational results for a field of study

Knowledge:

1. Diploma student has the detailed knowledge conc. his particular study subject (obtained on exercises) - [K_W04]
2. Diploma student has a fundamental knowledge about the development trends in science and technology related to his study subject (obtained on exercises) - [K_W05]
3. Diploma student has a fundamental knowledge needed for understanding of the social, economic, legal and another related nontechnical conditions of engineering activity (obtained on exercises) - [K_W08, K_W10]

Skills:

1. Diploma student is able to use the informatics technology, internet and another sources for the gaining information data an as well as programme supporting project and field manager engineers (obtained on exercises) - [K_U07]
2. Diploma student is able to use the information-communication technology for realization of typical tasks in engineering activity (obtained on exercises) - [K_U09]
3. Diploma student is able to plan and realize the experiments including measurements and computer simulations, analyse the obtained results and a draw the conclusions (obtained on exercises) - [K_U08]

Social competencies:
1. Diploma student independently completes and extends his knowledge within a modern processes and technology (obtained on exercises) - [K_K01]
2. Diploma student is able to formulate opinions conc. problems connected with the study subject (obtained on exercises) - [K_K05]
3. Diploma student formulates the conclusions and describes the results his work in the form of the multimedia presentation (obtained on exercises) - [K_K04, K_K07]

Assessment methods of study outcomes

(learning outcomes: W4, W5, W8, W10, U7, U8, U9, K1, K4, K5, K7)

Evaluation of the prepared (5-20 A4 pages) study containing synthetic information about the purpose of the thesis, the research methods used, the applications received.

Estimation of two prepared presentations - the first one presenting solution concepts, 2nd presentation of the most interesting applications.

The assessment takes into account the activity of diploma student during seminar meetings.

Course description

Acquaintance of the diploma students with the formal conditions for the diploma examination (dates, conditions). Regulation requirements conc. preparation for development of the diploma project, form, range, work redaction and time frame. Two presentation and discussion of the diploma subject. The diploma student is obliged to present and discuss the most interesting articles from the literature connected with the diploma project.

Teaching methods:

The seminar method, discussion

Basic bibliography:

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. Regulamin studiów stacjonarnych i niestacjonarnych pierwszego i drugiego stopnia oraz jednolitych magisterskich uchwalony przez Senat Akademicki Politechniki Poznańskiej Uchwałą Nr 32/2016-2020 z dnia 29 marca 2017 r.na podstawie ustawy z dnia 25 lipca 2005 r. Prawo o szkolnictwie wyższym (Dz. U. Nr 1842 z 2016 tekst jednolity).).

5. Ustawa z dnia 25 lipca 2005 r. Prawo o szkolnictwie wyższym. (Dz.U. 2005 nr 164 poz. 1365, Dz. U. Nr 1842 z 2016 tekst jednolity)

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

Additional bibliography:

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

Result of average student's workload

Activity	Time (working hours)
1. The participation in the diploma seminars is obliged (contact houres)	15
2. Preparation of the presentation (indywidual work)	10
3. Analysis of literature (individual work)	35

Student's workload

Source of workload	hours	ECTS
Total workload	60	2
Contact hours	15	1
Practical activities	0	0