



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Diploma seminar

		Course
Field of study		Year/Semester
SUSTAINABLE BUILDING ENGINEERING		4/7
Area of study (specialization)		Profile of study
		general academic
Level of study		Course offered in
First-cycle studies		english
Form of study		Requirements
full-time		compulsory

			Number of
hours			
Lecture	Laboratory classes		Other (e.g. online)
Tutorials	Projects/seminars		
30			

Number of credit points

5

		Lecturers
Responsible for the course/lecturer:		Responsible for the course/lecturer:
Prodziekan ds. kształcenia		Lecturer - seminar

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Prerequisites
- knowledge acquired throughout the entire education process so far, with particular emphasis on the subject of the diploma, knowledge of numerical methods and computer-aided design (CAD)

Course objective

To introduce students to the principles of taking the diploma examination and the rules for preparing and defending a diploma thesis. To familiarize students with the requirements regarding the substantive and formal dimension of the diploma thesis. Summary and extension of knowledge and skills acquired during the studies. Introducing self-study methods to students. Preparing students for the public presentation of the diploma thesis in English



Course-related learning outcomes

Knowledge

depends of thesis topic

have basic knowledge of operation algorithms of selected software (including the usage of BIM technology), supporting the calculation and design of constructions, construction work organisation, cost estimation, technical fitting of buildings; basic knowledge of operation algorithms of software dedicated for evaluation and design of energy-saving buildings.

know building legislation, Polish standards (PN) and European standards (EN), technical conditions of constructing building facilities and energy-saving buildings.

know basic methods, techniques, tools and materials applied to solve simple engineering tasks in the field of environmental engineering.

have knowledge of consumer, total, primary energy balance for buildings and complex systems as well as building certification, including energy characteristic, passive building certificates and other certificates recognised in Poland (e.g. BREEM, LEED).

Skills

are able to obtain information from literature, databases and other properly selected information sources; can integrate the obtained information, interpret and evaluate it, as well as draw conclusions, formulate, discuss and justify opinions.

can identify and specify simple practical engineering tasks, typical for environmental engineering

are equipped with various skills necessary for performing design tasks in the form of particular works in the field of sustainable building engineering, including such skills as: traditional techniques (freehand drawing), specialized software dedicated for design (CAD and BIM technology).

Social competences

are able to adapt to new and changing circumstances, can define priorities for performing tasks defined by themselves and other people, acting in the public interest and with regard to the purposes of sustainable development

take responsibility for the accuracy and reliability of working results and their interpretation.

understand the need to transfer to the society the knowledge about sustainable building engineering, transfers the knowledge in a clear and easily comprehensible manner.

understand that it is necessary to protect the intellectual property and are ready to obey the principles of professional ethics.



Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Completion of the course based on:

- evaluation of the thesis presented, presentation within the seminar, preparation of issues, systematic performance, and ability to solve technical problems.

Assessment of individual multimedia presentations in the form of oral defense

Programme content

Basic rules related to the methodology of diploma theses. Choosing a topic and defining a research problem. Substantive and formal requirements for the preparation of the diploma thesis and preparation for the diploma exam.

Defining a research or design problem. Motivation, searching for materials, archiving, avoiding basic mistakes. General principles for building the structure of the diploma thesis. Utility of work in the form of a publication, project. Plagiarism issues in the context of working with literature. Functions and types of footnotes and quotes.

Editorial comments on writing the thesis. Formal page: language correctness - style, technique of writing work, table of contents, drawings, how to format text - work with a document doc.

Presentation of individual presentations by students containing: the scope of work, thesis topic, research problem, initial structure of the work, known literature in the selected thematic scope, stages related to the implementation of theoretical chapters of the work and project parts.

Teaching methods

Auditorium exercises

- 1) Practice method
- 2) A method that looks for a case method
- 3) Workshop method

Bibliography

Basic

1. Scientific and technical literature necessary to prepare the thesis
2. Technical norms and normative
3. Building law etc.,

Additional

- [1] Dembecka W., *Metodyka studiowania w uczelni technicznej*, Wyd. Politechniki Poznańskiej, Poznań 1994



- [2] Cabarelli G., Łucki Z., Jak przygotować pracę dyplomową lub doktorską, Universitas, Kraków 1998.
- [3] Pułło A., Prace magisterskie i licencjackie. Wskazówki dla studentów, WP PWN, Warszawa 2000.

Breakdown of average student's workload

	Hours	ECTS
Total workload	125	5,0
Classes requiring direct contact with the teacher	30	1,0
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation) ¹	95	4,0

¹ delete or add other activities as appropriate