



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Diploma seminar [N1Eltech1>SD2]

### Course

Field of study

Electrical Engineering

Year/Semester

5/9

Area of study (specialization)

–

Profile of study

general academic

Level of study

first-cycle

Course offered in

Polish

Form of study

part-time

Requirements

compulsory

### Number of hours

Lecture

0

Laboratory classes

0

Other

0

Tutorials

0

Projects/seminars

20

### Number of credit points

15,00

### Coordinators

### Lecturers

### Prerequisites

Student starting this subject should have knowledge, skills (including performing calculations and measurements of electrical and non-electrical quantities, writing computer programs, designing and building systems in the field of electrical engineering) and competences (including verbal communication and teamwork) acquired in previous years studies, including first-cycle, necessary to carry out research in the field of thesis.

### Course objective

Understanding the proposed issues of master's thesis and the pre-selection of the topic with justification. Understanding the principles of composition and editing of the master's thesis and conducting research (laboratory and simulation) in the area related to the topic of thesis. Initial literature recognition and participation in scientific research in the field of electrical engineering.

### Course-related learning outcomes

Knowledge:

1. has knowledge of the latest solutions used in the energy sector in the context of the subject of the thesis
2. has knowledge of the methodology of writing master's theses
3. has a basic knowledge of the principles of conducting and describing scientific research

#### Skills:

1. knows how to use the databases of scientific journals, including English-language literature
2. knows how to make a critical review of scientific literature on an indicated specific topic related to the field of study
3. is able to make scientific theses, determine directions of further learning and organize the process of self-education

#### Social competences:

Understands the need to comply with the principles of professional ethics and fulfill social obligations

Is aware of the need to develop professional achievements

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

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Knowledge and skills acquired as part of the seminar classes are verified by:

- observation and assessment of class activity, especially during the analysis of methods for solving research topics
- assessment of knowledge and skills needed to conduct scientific research in the field of written review of scientific literature
- assessment of the content and form of the presentation regarding the concept of solving the research problem undertaken as part of the thesis
- observation and assessment of student work regularity.

### Programme content

Detailed issues related to the procedure for submitting an engineering thesis, preparation for conducting scientific research and preparation for the diploma exam (examination issues, thesis presentation).

### Course topics

Selection of a detailed thesis topic. Methodology for the development of the purpose and scope of the research, selection of methods, techniques and research tools for the selected thesis topic, development of the obtained results, conducting analyses and determining conclusions. Multimedia presentation of the results of scientific research related to the topic of the engineering thesis. Methodology of preparation of a scientific paper related to the topic of research related to the field of study being completed (student groups prepare a paper on conducting and describing research related to the engineering thesis). Description of the diploma process: documents, procedures, deadlines, diploma exam - form, method of conducting, evaluation algorithm, range of examination issues. Unified Anti-Plagiarism System (JSA) principle of operation, results of thesis analysis (general and detailed report), consequences of plagiarism - order of the JM Rector on the obligation to check written theses using JSA. Legal aspects of plagiarism.

### Teaching methods

Multimedia presentation supplemented with comments and examples given on the board, analysis and discussion of various methods (including unconventional) solutions to research issues, including specific problems indicated in the topics of theses of individual students, taking into account various aspects of the problems solved: technical, economic, ecological, legal and social.

### Bibliography

#### Basic

1. Detailed guidelines for editing the diploma thesis developed at the Promoter Institute
2. Specialist literature about work topics

#### Additional

1. Exemplary engineering diploma theses

### Breakdown of average student's workload

	Hours	ECTS
Total workload	385	15,00
Classes requiring direct contact with the teacher	180	7,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	205	8,00