COURSE DESCRIPTION CARD - SYLLABUS

Course name
Diploma seminar [S1Eltech1>SD2]

Course

Field of study
Electrical Engineering

Year/Semester
4/7

Area of study (specialization)
–

Profile of study
general academic

Level of study
first-cycle

Course offered in
Polish

Form of study
full-time

Requirements
compulsory

Number of hours

Lecture
0

Laboratory classes
0

Other
0

Tutorials
0

Projects/seminars
30

Number of credit points

15,00

Coordinators

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Lecturers

Prerequisites

Student starting this subject should have basic knowledge, skills (including measurements and calculations of electrical and non-electrical quantities, writing simple computer programs, designing and building simple electrical systems or installations in the field of power engineering) and competences (including verbal communication and work skills in a team) acquired in earlier years of study that enable the implementation of an engineering diploma thesis.

Course objective

The aim of the course is to learn the principles of analysis and development of own research results, formulate conclusions, create presentations for the purposes of engineering thesis and its presentation, provide information on the diploma process (documents, dates, diploma exam, scope of exam issues) and prepare students for scientific research in the area of the completed field of study.

Course-related learning outcomes

Knowledge:
1. has detailed knowledge in the field of power engineering covering issues in the engineering thesis
2. has knowledge of development trends in power engineering in the context of the subject of engineering thesis
3. has knowledge of the preparation and defense of the engineering thesis
4. has basic knowledge about the methodology of scientific research in the area of the completed field of study
5. has knowledge of plagiarism and the legal consequences of committing it

Skills:
1. knows how to prepare a multimedia presentation on the subject of implemented engineering work
2. knows how to formulate and express content related to power engineering issues in a clear and precise manner
3. has the ability to synthesize applications on the basis of design and research works carried out as part of an engineering thesis
4. knows how to use different forms of bibliography and correctly cite them in compact publications

Social competences:
1. understands the need and knows the possibilities of continuous training and raising professional, personal and social competences

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Knowledge and skills acquired as part of the seminar classes are verified by:
- observation and assessment of class activity, especially during discussions on analyzed issues
- assessment of the content and form of multimedia presentation of the results of works obtained for the needs of implemented works, with particular emphasis on the ability to clearly and precisely formulate and express the transmitted content
- observation of progress in writing the engineering thesis through contact with promoters

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 / discussion of various methods (including unconventional) solutions to examplary and 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	375	15,00
Classes requiring direct contact with the teacher	100	4,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	275	11,00