



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Diploma seminar

Course

Field of study

Electrical Engineering

Area of study (specialization)

Electric Power Systems

Level of study

Second-cycle studies

Form of study

full-time

Year/Semester

2/3

Profile of study

general academic

Course offered in

Polish

Requirements

compulsory

Number of hours

Lecture

0

Laboratory classes

0

Other (e.g. online)

0

Tutorials

0

Projects/seminars

30

Number of credit points

15

Lecturers

Responsible for the course/lecturer:

dr hab. inż. Krzysztof Walczak

Responsible for the course/lecturer:

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Faculty of Environmental Engineering and Energy

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Prerequisites

Student has knowledge about development trends and the most important new achievements and contemporary dilemmas in the field of engineering related to electrical engineering, and in particular related to electrical power systems. He/she has structured and theoretically founded knowledge in the field of designing electrical devices and systems, taking into account their impact on the environment Student can - when formulating and solving engineering tasks - integrate knowledge from various sources and related disciplines and use analytical, simulation and experimental methods Is able to assess the suitability and the possibility of using new technical and technological achievements to design and manufacture electrical systems and devices. He/she recognizes the importance of knowledge in



solving cognitive and practical problems and understands that in the technology knowledge and skills quickly become obsolete, and therefore require constant refilling.

Course objective

Presentation of research results and applications by group members in the form of a multimedia presentation. Discussing the obtained results of work on the group forum. Preparation for defense of thesis. Supplementing knowledge about the principles of writing a master thesis.

Course-related learning outcomes

Knowledge

1. Student has broadened knowledge of development trends and the most important new achievements and contemporary dilemmas in the field of engineering related to electrical engineering, and in particular related to power systems.

Skills

1. Student can obtain information from literature, databases and other properly selected sources; also in English in the field of energy, can integrate the obtained information from many fields, make their interpretation and critical evaluation, as well as draw conclusions and formulate and fully justify opinions.

2. Student is able to work individually and in a team, is able to manage the team in a way that ensures the implementation of the task within the prescribed time.

3. Student is able to prepare and present a presentation on the implementation of a project or research task and lead a discussion on a specialized topic taking into account a diverse range of recipients.

4. Student is able to plan the testing process of complex devices and insulation systems.

5. Student is able - when formulating and solving atypical engineering tasks and simple research problems - to apply a system approach, take into account non-technical aspects, use methods and information and communication tools.

6. Student can - when formulating and solving engineering tasks - integrate knowledge from various sources and related disciplines and use analytical, simulation and experimental methods.

7. Student is able to assess the suitability and the possibility of using new technical and technological achievements to design and manufacture electrical systems and devices.

Social competences

1. Is aware of the need to develop professional achievements and observe the rules of professional ethics, fulfill social obligations, inspire and organize activities for the benefit of the social environment.

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Evaluation of the presentation of the elaborated elements of the diploma thesis (oral form or slides).

Assessment of involvement in the implementation of the tasks covered by the diploma thesis.



Programme content

Student's participation in scientific research - continuation of research. Presentation of the results of research and analysis of the selected issue. Formulation of logical conclusions resulting from the research and analysis undertaken. Discussion on the methodology of the conducted research. Preparation of the list of specialist literature used in the diploma thesis. Deepening knowledge about the principles of preparing the MA thesis. During the course, a discussion is initiated on the forum of the group aimed at a critical evaluation of the obtained results and indications of the direction of further work and literature analyzes. Preparation for scientific work.

Teaching methods

Multimedia presentation, discussion in the group forum.

Bibliography

Basic

1. Author's vademecum, recommendations for the preparation of publications prepared by IE and the Poznan University of Technology Publishing House <http://www.ed.put.poznan.pl/files/Vademecum-dla-autorow.pdf>
2. S. Urban, W. Ładoński, Jak napisać dobrą pracę magisterską, Wrocław: Akademia Ekonomiczna im. Oskara Langego, 2003.
3. M. Rozpondek, A. Wyciślik, Seminarium dyplomowe: praca dyplomowa magisterska i inżynierska: pierwsza praca – know how, Wydawnictwo Politechniki Śląskiej, 2007.
4. E. Opoka, Uwagi o pisaniu i redagowaniu prac dyplomowych na studiach technicznych, Wydawnictwo Politechniki Śląskiej, 2003.
5. C. Cempel, Nowoczesne zagadnienia metodologii i filozofii badań : wybrane zagadnienia dla studiów magisterskich, podyplomowych i doktoranckich, Poznań ; Radom : Instytut Technologii Eksploatacji, 2005.

Additional

1. R. Zenderowski, K. Pawlik, Dyplom z Internetu. Jak korzystać z Internetu pisząc prace dyplomowe, Warszawa CeDeWu, 2015.
2. B. Stępień, Zasady pisania tekstów naukowych: prace doktorskie i artykuły, Wydawnictwo Naukowe PWN, 2016.



Breakdown of average student's workload

	Hours	ECTS
Total workload	390	15,0
Classes requiring direct contact with the teacher	90	6,0
Student's own work (literature studies, preparation of the speech, laboratory and analytical tests, editing of the thesis) ¹	300	9

¹ delete or add other activities as appropriate