



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Diploma seminar [S2Elmob1-PAiME>SD1]

Course

Field of study

Electromobility

Year/Semester

1/2

Area of study (specialization)

Alternative Fuels and Energy Storage

Profile of study

general academic

Level of study

second-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

15

Number of credit points

1,00

Coordinators

dr hab. inż. Leszek Kasprzyk prof. PP
leszek.kasprzyk@put.poznan.pl

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 electric power 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 electromobility.

Course-related learning outcomes

Knowledge:

1. has knowledge of the latest solutions used in the electromobility 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:

1. Understands the need to observe the rules of professional ethics and fulfill social obligations.
2. Is aware of the need to develop professional qualifications.

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 the analysis of methods for solving research topics - max. 15% points,
- assessment of knowledge and skills needed to conduct scientific research in the field of written review of scientific literature - max. 50% points,
- assessment of the content and form of the presentation regarding the concept of solving the research problem undertaken as part of the thesis - max. 25% points,
- observation and assessment of student work regularity - max. 10% points.

Assessment scale in accordance with the document "Good practices for academic teachers" by the Academic Senate of the Poznań University of Technology: (<0;50%): 2.0 insufficient, (<50%;60%): 3.0 sufficient (<60%;70%): 3.5 sufficient plus, (<70%;80%): 4.0 good, (<80%;90%): 4.5 good plus, (<90%;100%>): 5.0 very good.

Programme content

Basic issues related to the preparation of a master's thesis, preparation for conducting scientific research and presentation of the principles and elements of the diploma examination.

Course topics

Characteristics of a master's thesis, taking into account differences from an engineering thesis. Discussion of the proposed thematic areas of diploma theses. Discussion of the composition of the master's thesis as well as editorial guidelines and recommendations (document formatting, graphic elements). Rules for preparing a general presentation regarding the topic of the work. Methods of searching for literature in modern databases and principles of its citation. Discussion of the elements of scientific research methodology and the principles of carrying out research conducted for the purposes of a master's thesis (during the course, students present one paper constituting a concept for solving the problems of the master's thesis). Participation in scientific research conducted at the supervisor's institute related to the field of Electromobility (using PP library resources - databases of scientific journals Emerald Engineering, IEEE/IEE Electronic Library (IEL), ScienceDirect/Elsevier/ICM, Springer/ScienceDirect/ICM - student groups prepare a written review of scientific literature related to the scientific topic assigned by the instructor). Basics of copyright and related rights.

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	28	1,00
Classes requiring direct contact with the teacher	15	0,50
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	13	0,50