COURSE DESCRIPTION CARD - SYLLABUS

Course name
Diploma Seminar [S2MiBP1-HSN>SD]

Course

Field of study
Mechanical and Automotive Engineering

Year/Semester
2/3

Area of study (specialization)
Hybrid Powertrain Systems

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

2,00

Coordinators

prof. dr hab. inż. Ireneusz Pielecha
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Lecturers

Prerequisites

KNOWLEDGE: Has knowledge of the construction, operation and testing of internal combustion engines. SKILLS: Is able to independently use various sources of information, also in foreign languages. Can edit technical texts SOCIAL COMPETENCES: Demonstrates independence in solving basic engineering tasks

Course objective

Acquainting the student with the stages of writing an engineering diploma thesis and its correct editorial preparation

Course-related learning outcomes

Knowledge:
Has extended knowledge of mathematics in the field of numerical methods used in optimization tasks, computer simulation, linear algebra, interpolation and approximation
Has extended knowledge of thermodynamics and fluid mechanics to the extent necessary to understand the principle of operation and calculations of thermodynamic and flow processes occurring in machines such as heating, cooling, drying, thermal agglomeration? pressure, etc. pneumatic transport, energy conversion, etc.

Has extended knowledge in the field of computer science, regarding computer programming and engineering calculation programs in the field of computer simulation of physical systems
Is aware of the civilization effects of technology

Skills:
335/5000
He can design the technology of exploitation of a selected machine with a high degree of complexity
He can develop a technical description, offer and design documentation for a complex machine from a selected group of machines
Can interact with other people as part of teamwork and take a leading role in teams

Social competences:
He is ready to critically assess his knowledge and received content
He is ready to fulfill social obligations, inspire and organize activities for the social environment
Is willing to think and act in an entrepreneurial manner

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Learning outcomes presented above are verified as follows:
Discussion, combined with the evaluation of exemplary implementation of theses.
Credit based on a study containing basic information on the student"s thesis.

Programme content

The process of writing a master"s thesis (the origin of the thesis topic, preparatory activities, source materials). Preparation of the thesis (general requirements, editorial work, ethical issues). Basics of the theory of the experiment (research planning, construction of research object models, analysis of results). The role of the promoter in the process of creating a job. Rules for the assessment of the master"s thesis.

Course topics

1. The process of writing a master"s thesis (the origin of the thesis topic, preparatory activities, source materials).
2. Preparation of the thesis (general requirements, editorial work, ethical issues).
3. Basics of the theory of the experiment (research planning, construction of research object models, analysis of results).
4. The role of the promoter in the process of creating a job.
5. Rules for the assessment of the master"s thesis.

Teaching methods

1. Lecture with multimedia presentation
2. Discussion, presentations of sudents

Bibliography

Basic
1. Leszek W., Badania empiryczne, wyd. ITE, Radom 1997.
2. Majchrzak J., Mendel T., Metodyka pisania prac magisterskich i dyplomowych. Wydawnictwo Akademii Ekonomicznej w Poznaniu, Poznań 2005.
3. Wisłocki K., Metodologia i redakcja prac naukowych. Wydawnictwo Politechniki Poznańskiej, Poznań 2013.
4. Pułło A., Prace magisterskie i licencjackie. PWN, Warszawa 2000.
5. Korzyński M., Metodyka eksperymentu. Wydawnictwo NT, Warszawa 2006.
6. Szkutnik Z., Metodyka pisania pracy dyplomowej. Wyd. Poznańskie, ISBN 8371773714, 2005
Additional
1. Leszek W. Nieempiryczne procedury badawcze w naukach przyrodniczych i technicznych. Wydawnictwo ITE, Radom 1999.
2. Polański Z., Planowanie doświadczeń w technice. PWN, Warszawa

Breakdown of average student's workload

	Hours	ECTS
Total workload	50	2,00
Classes requiring direct contact with the teacher	15	1,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	35	1,00