



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Diploma Seminar

Course

Field of study

Construction and Exploitation of Means of Transport

Area of study (specialization)

Internal Combustion Engines

Level of study

Second-cycle studies

Form of study

full-time

Year/Semester

2/3

Profile of study

general academic

Course offered in

Requirements

compulsory

Number of hours

Lecture

0

Laboratory classes

0

Other (e.g. online)

0

Tutorials

0

Projects/seminars

15

Number of credit points

18

Lecturers

Responsible for the course/lecturer:

Prof. DSc., DEng. Ireneusz Pielecha

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Faculty of Civil and Transport Engineering

Piotrowo 3 street, 60-965 Poznan

Responsible for the course/lecturer:

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:

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.

Teaching methods



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

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. Wiśłocki 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	450	18,0
Classes requiring direct contact with the teacher	25	1,0
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation) ¹	425	17,0

¹ delete or add other activities as appropriate