COURSE DESCRIPTION CARD - SYLLABUS

Course name

Preparation of the diploma thesis with elements of scientific research

Course

Field of study	Year/Semester
Mechanical and Automotive Engineering	2/3
Area of study (specialization)	Profile of study
Hybrid powertrain systems	general academic
Level of study	Course offered in
Second-cycle studies	Polish
Form of study	Requirements
part-time	elective

Number of hours

Lecture	Laboratory classes	Other (e.g. online)
0	0	0
Tutorials	Projects/seminars	
0	10	

Number of credit points

16

Lecturers

Responsible for the course/lecturer:	Responsible for the course/lecturer:
dr inż. Marlena KUCZ	Diploma thesis supervisors

email: marlena.kucz@put.poznan.pl

tel. 616652864 WILIT, Piotrowo 5, Poznań

Prerequisites

KNOWLEDGE: The student has advanced and in-depth knowledge of transport engineering, theoretical foundations, tools and means used to solve simple engineering problems.

SKILLS: The student is able to plan and carry out experiments, including measurements and simulations, interpret the obtained results and draw conclusions as well as formulate and verify hypotheses related to complex engineering problems and simple research problems.

SOCIAL COMPETENCES: The student understands that in computer science, knowledge and skills very quickly become outdated.

Course objective

The aim is to deepen the knowledge and skills on planning and conducting research works and the ability to present the results of these works.

Course-related learning outcomes

Knowledge

POZNAN UNIVERSITY OF TECHNOLOGY

EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

pl. M. Skłodowskiej-Curie 5, 60-965 Poznań

He has in-depth knowledge of the construction, principles of operation and classification of machines from a selected group.

Has a general knowledge of the types of research and methods of testing working machines with the use of modern measurement techniques and data acquisition.

Has extended knowledge of the standards for working machines in the field of methods of calculating and testing machines, safety, including road safety, environmental protection as well as mechanical and electrical interface.

Skills

Can formulate and test hypotheses related to simple research problems.

Can plan and carry out experimental research of specific processes taking place in machines and routine tests of a working machine or a vehicle from a selected group of machines.

He can design the technology of exploitation of a selected machine with a high degree of complexity.

Social competences

It is ready to fulfill social obligations, inspire and organize activities for the benefit of the social environment.

It is ready to initiate actions for the public interest.

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:

Completion of the course based on:

- assessment of the diploma thesis presented,

- regularity of its implementation,

- technical problem solving skills.

Programme content

Compatible with the topic of the diploma thesis.

Teaching methods

Discussion with the student about problems occurring during diploma thesis preparation, solving research problems or providing sources in the literature to solve problems.

Bibliography

Basic

Scientific and technical literature necessary to prepare the thesis

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Additional

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Breakdown of average student's workload

	Hours	ECTS
Total workload	255	16,0
Classes requiring direct contact with the teacher	75	5,0
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation) [1]	180	11,0

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[1] delete or add other activities as appropriate