POZNAN UNIVERSITY OF TECHNOLOGY

EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

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

COURSE DESCRIPTION CARD - SYLLABUS

Course name

Diploma seminar I

Course

Field of study	Year/Semester
Mechatronics	3/6
Area of study (specialization)	Profile of study
-	general academic
Level of study	Course offered in
First-cycle studies	English
Form of study	Requirements
full-time	compulsory

Number of hours

Lecture	Laboratory classes	Other (e.g. online)
0	0	0
Tutorials	Projects/seminars	
0	15	

Number of credit points

3

Lecturers

Responsible for the course/lecturer:

prof. DSc. PhD. Eng. Andrzej Milecki

Responsible for the course/lecturer:

Prerequisites

Knowledge of the construction, operation and design of all components of a mechatronic device. Designing mechanical and electronic systems, description and modeling of automated components. Ability to program controllers.

Course objective

Defining the topic and scope of the engineering thesis. Acquiring the practical ability to design mechatronic devices and to develop an engineering diploma thesis and its defense

Course-related learning outcomes

Knowledge

Has knowledge of the principles of writing studies, text editing, preparation of a spreadsheet and K_W03 presentations

Knowledge of the construction, operation, selection of components of the constructed device K_W03

He/She knows the rules of patenting and patent protection and is able to find and analyze patents K_W27

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Skills

Is able to plan and carry out experiments, computer simulations, interpret the obtained results and draw conclusions K_U28

Can obtain information from various sources K_U01

Can communicate in the professional environment and in other environments K_U02

Can prepare a well-documented technical study in Polish and English and deliver a presentation K_U03, 04

Social competences

Understands the need for lifelong learning; can inspire and organize the learning process of other people K_K01

Can define priorities for the implementation of a specific task K_K04

Can cooperate and work in a group K_K03

Correctly identifies and resolves dilemmas related to the profession K_K05

Is aware of the social role of the engineer K_K07k

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Credit based on the presentation of issues related to education in the field of Mechatronics and presentation of the engineering diploma thesis in the field of: literature and patents review, assumptions, goals, methods of solving the given problem.

Programme content

1. Acquainting with the requirements for engineering works and the course of the thesis preparation and defense process, as well as with the course and requirements for the diploma examination.

2. Review of knowledge gained during studies - part 1.

3. Establishing and discussing the topics of theses.

4. Methodology for the review of the state of the art and patents in the field of the prepared diploma thesis

5. Performance for the presentation of the thesis

Teaching methods

Presentations and discussions on theses

Bibliography

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Basic

1. Heimann Bodo, Gerth Wilfried, Popp Karl, Mechatronics

2. Clarence W. de Silva, Farbod Khoshnoud, Maoqing Li, Saman K. Halgamuge, Mechatronics Fundamentals and Applications

Additional

 Bodgan Wilamowski, J. David Irwin, Control and Mechatronics (The Electrical Engineering Handbook) 1st Edition

Breakdown of average student's workload

	Hours	ECTS
Total workload	75	3,0
Classes requiring direct contact with the teacher	15	1,0
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation) [1]	60	2,0

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[1] delete or add other activities as appropriate