COURSE DESCRIPTION CARD - SYLLABUS

Course name
Preparation of diploma thesis [N1Mech2>PPD]

Course

Field of study
Mechatronics

Year/Semester
4/8

Area of study (specialization)
–

Profile of study
general academic

Level of study
first-cycle

Course offered in
Polish

Form of study
part-time

Requirements
compulsory

Number of hours

Lecture
0

Laboratory classes
0

Other
0

Tutorials
0

Projects/seminars
32

Number of credit points

13,00

Coordinators

Lecturers

Prerequisites

The student possesses basic knowledge and skills in the programs and subjects designated for Mechatronics students at the first cycle of studies.

Course objective

Deepening knowledge and skills in the implementation of a selected engineering topic and the ability to present the results of this work.

Course-related learning outcomes

Knowledge:
The student knows the principles related to the preparation of a thesis (structure, editorial requirements, sources of knowledge acquisition, bibliographic rules used in literature review).
The student can define the topic and objective of the thesis and formulate the scope of the subject (issues later developed in the thesis).
They have knowledge of economic, legal, ethical, and other non-technical aspects of professional activity.
The student knows and understands the basic concepts and principles of industrial property protection and copyright law.

Skills:
The student is able to analyze subject literature.
The student can present the scope of the topic, main assumptions, and objectives of the thesis, as well as summarize its key sections.
They can formulate conclusions based on the conducted work.
The student can prepare a well-documented technical report in both Polish and English.
They are capable of presenting acquired knowledge through multimedia presentations, reports, speeches, and discussions.
The student can independently plan and pursue lifelong learning.
They are able to formulate and solve complex and non-standard problems by gathering information from literature, databases, and other appropriately selected sources.
The student can integrate acquired information, interpret it, and critically evaluate its relevance.

Social competences:
The student understands the need for lifelong learning and can inspire others in the learning process.
They are aware of the social role of a technical university graduate and can express their opinions, justifying them with substantive arguments.
The student is capable of acting in an entrepreneurial manner.
They recognize the necessity of adhering to student ethical principles.
The student understands the need for continuous learning and the importance of critically analyzing and evaluating their own proposals and actions.
They can determine the significance of knowledge in solving cognitive and practical problems and know when to seek expert opinions in case of difficulties.
The student is aware of the social responsibility of a technical university graduate and understands the need to formulate and communicate information and opinions about technological advancements to society.

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Course completion is based on:
- Evaluation of the presented thesis,
- Regularity in its execution (timeliness),
- Ability to independently solve technical problems.

Programme content

In accordance with the assigned thesis topic.

Course topics

1. Design and control of mechatronics devices.
2. Mechatronic design of mechines and vehicles.

Teaching methods

Discussion between the supervisor and the graduate on emerging issues, with real-time explanations or references to sources in the literature.

Bibliography

Basic:
1. Wojciechowska R., Przewodnik metodyczny pisania pracy dyplomowej Wyd. DIFIN Warszawa 2010
2. Opoka E., Uwagi o pisaniu i redagowaniu prac dyplomowych na studiach technicznych Wyd. Politechniki Śląskiej Gliwice 2001
3. Diakun J., Szablon pracy dyplomowej, http://pm.put.poznan.pl/strefa-studenta/instrukcje-do-zajec-laboratoryjnych/
4. Scientific and technical literature necessary to prepare a diploma thesis.

Additional:
1. Dobre obyczaje w nauce. Zbiór zasad i wytycznych (wyd. 3), Wyd. PAN Warszawa, 2001.

Breakdown of average student's workload

	Hours	ECTS
Total workload	325	13,00
Classes requiring direct contact with the teacher	32	1,50
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	293	11,50