COURSE DESCRIPTION CARD - SYLLABUS

Course name
Prediploma seminar [N1Mech2>SPD]

Course

Field of study
Mechatronics

Year/Semester
4/7

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
8

Number of credit points

1,00

Coordinators

Lecturers

Prerequisites

Knowledge of the construction, operation and design of all components of a mechatronic device Design of mechanical devices and electronic systems. Knowledge of the principles of selecting components of a mechatronic device Ability to select control elements, including microcontrollers and PLCs, and write their software

Course objective

Acquiring practical skills in selecting the topic and scope of an engineering diploma thesis

Course-related learning outcomes

Knowledge:
Has knowledge of the principles of writing papers, editing text, preparing a spreadsheet and presentation K_W03
Knowledge of the scope of an engineering diploma thesis K_W03
Knows the principles of patenting and patent protection and is able to find and analyze patents K_W27

Skills:
Is able to plan and conduct experiments, computer simulations, interpret obtained results and draw conclusions K_U28

Is able to obtain information from various sources K_U01

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_K07

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Assessment based on the presentation of issues related to education in the field of Mechatronics and the presentation of the topic and scope of the engineering diploma thesis
Presentation of a preliminary review of the literature and patents, assumptions, objectives and scope of the diploma thesis.

Programme content

Familiarization with the structure of a diploma thesis. Defining and selecting the topic of the thesis and the supervisor.

Course topics

1. Familiarization with the requirements for engineering theses and the course of the thesis preparation process
2. Review of knowledge acquired during studies - part 1.
3. Establishing and discussing topics of diploma theses.
4. Methodology for conducting a review of the state of the art and patents in the scope of the prepared diploma thesis
5. Performing and delivering a presentation of the topic and scope of the diploma thesis

Teaching methods

Presentations and discussions on thesis

Bibliography

Basic:
1. Heimann Bodo, Gerth Wilfried, Popp Karl, Mechatronika, WNT
2. Horowitz P., Hill W. „Sztuka elektroniki”.
3. Tadeusz Mikulczyński, Zdzisław Samsonowicz, Rafał Więcławek, Automatyzacja procesów produkcyjnych, PWN, WNT 2015.
4. Poradnik mechatronika, Helion
5. Mariusz Olszewski, Mechatronika, Rea

Additional:
1. PODSTAWY MECHATRONIKI , REA.

Breakdown of average student's workload

	Hours	ECTS
Total workload	25	1,00
Classes requiring direct contact with the teacher	8	0,50
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	17	0,50