



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Graduation seminar

### Course

Field of study

Mechatronics

Area of study (specialization)

Automation and Supervision of Production Systems

Level of study

Second-cycle studies

Form of study

full-time

Year/Semester

1/2

Profile of study

general academic

Course offered in

Polish

Requirements

compulsory

### Number of hours

Lecture

0

Laboratory classes

0

Other (e.g. online)

0

Tutorials

0

Projects/seminars

15

### Number of credit points

8

### Lecturers

Responsible for the course/lecturer:

Leszek Różański PhD. Eng.

Responsible for the course/lecturer:

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FACULTY OF MECHANICAL ENGINEERING

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### Prerequisites

Knowledge of the construction, operation and design of all components of a mechatronic device. Knows how to obtain and use scientific and technical information from various sources. He knows the rules of patenting and patent protection. He has targeted knowledge of his specialty.

### Course objective

Acquiring by the student the practical skills of designing mechatronic devices and developing the assumptions of the thesis.

### Course-related learning outcomes

Knowledge



The student knows how to write scientific and technical studies, in particular knows the rules of writing master's theses. Knows how to obtain and use scientific and technical information from various sources.

#### Skills

He can design mechatronic devices using modeling. He can apply theoretical and analytical methods in the process of designing and testing mechatronic devices. He can make a critical analysis of the functioning of a mechatronic device. He can obtain information from the Internet, literature, databases and other properly selected sources in the field of mechatronics. He can formulate patent claims and search patent libraries and define their scope of protection.

#### Social competences

Understands the need for lifelong learning. He can inspire and organize the learning process of other people. Can define priorities for the implementation of a specific task. He can interact and work in a group. Is aware of the social role of the engineer.

#### 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 the presentation of the master's thesis in the field of: literature and patents review, assumptions, goals, methods of solving the given problem.

#### Programme content

Acquainting with the general requirements for master's theses and the process of preparing the thesis and its defense as well as with the course and requirements for the master's diploma examination. Review of knowledge gained during studies - part 1. Determining and discussing the topics of master's theses. Recognition and gathering of knowledge and the state of the art, including patents in the field of the thesis being prepared. Preparation of the scope and plan of work as well as execution of preliminary preparatory work for the thesis.

#### Teaching methods

Seminar, consultations on implemented projects, workshops - discussions on the presented diploma projects.

#### Bibliography

Basic

1. Affeltowicz J., Ogólne podstawy pisania technicznych prac dyplomowych : pomocnicze materiały dydaktyczne, Wyd. Politechnika Gdańska, Gdańsk, 1980.
2. Żółtowski B., Seminarium dyplomowe: zasady pisania prac dyplomowych, Wyd. Akademia Techniczno-Rolnicza w Bydgoszczy, Bydgoszcz, 1997.
3. Opoka E., Uwagi o pisaniu i redagowaniu prac dyplomowych na studiach technicznych, Wyd. Politechnika Śląska Gliwice, 1996.



4. <http://www.greber.com.pl/Zasady%20pisania%20prac%20dyplomowych.pdf>

5. [www.google.patents.com](http://www.google.patents.com).

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	80	8
Classes requiring direct contact with the teacher	20	6
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation) <sup>1</sup>	60	2

<sup>1</sup> delete or add other activities as appropriate