



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Diploma seminar [S2MiBM2-INPR>SD]

### Course

Field of study

Mechanical Engineering

Year/Semester

2/3

Area of study (specialization)

Production Engineering

Profile of study

general academic

Level of study

second-cycle

Course offered in

Polish

Form of study

full-time

Requirements

compulsory

### Number of hours

Lecture

0

Laboratory classes

0

Other

0

Tutorials

0

Projects/seminars

30

### Number of credit points

2,00

### Coordinators

dr inż. Jakub Grabski  
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### Lecturers

### Prerequisites

The student has basic knowledge in the field of programmes and subjects provided for students of Mechanical Engineering at the level of second-cycle studies. In particular, he is aware of the role and importance of production processes specific to the field of Mechanical Engineering. The student has the ability to think logically, use various sources of information (PUT Library e-sources, Internet) and process acquired data and information, and use programs for editing text and graphic documents. The student understands the need to learn, acquire new knowledge, skillfully argue and communicate one's own observations and conclusions, as well as correct self-presentation. In particular, he is aware of the role and importance of computer support in the design process typical of the field of Mechanical Engineering.

### Course objective

Acquiring the practical ability to apply the knowledge acquired during studies to develop a master's thesis and acquiring the ability to conduct a scientific discussion in the thematic area related to the diploma thesis. Acquiring the ability to apply the acquired knowledge to conduct research. Defining the research tasks to be performed (characterization of the substantive area with the supervisor during consultations).

### Course-related learning outcomes

#### Knowledge:

The student has knowledge of the principles of writing studies, editing texts, and preparing presentations. The student has knowledge in the field of project management (diploma thesis). The student knows the methods and techniques used to solve research tasks. The student has knowledge about decisions made when choosing research methods.

#### Skills:

The student is able to plan and carry out activities related to the completion of the diploma thesis (including experiments, computer simulations, etc.); can correctly interpret the obtained results and draw conclusions. The student is able to select and apply appropriate research methods for the specific tasks. The student is able to give a presentation and participate in a discussion (debate).

#### Social competences:

The student understands the need for lifelong learning and is able to inspire the learning process of other people. The student is aware of the social role of a technical university graduate, is able to express his or her assessment and justify it with substantive arguments. The student is able to act in an entrepreneurial manner. The student is aware of the need to act in accordance with the principles of student and researcher ethics.

### 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 Mechanics and Machine Construction and the presentation of the progress of the master's thesis in the scope of: goals, methods of solving the problem and schedule. Participation in the discussion.

### Programme content

1. Discussion of exemplary master's theses (goals, scope, volume, literature). Differences between a master's thesis and an engineering thesis.
2. Review of knowledge acquired during studies (presentations prepared by students). Selection of the supervisor, determination of the topic and scope of the master's thesis (after consultation with the supervisor).
3. Characteristics of research methods that can be used in master's theses.
4. Characterization of the substantive area, formulation of the research goal and its scope.
5. Selection of literature to the scope of work.
6. Presentations of fragments of diploma theses by students (theoretical and research/design parts).
7. Conducting a scientific discussion in the thematic area related to the diploma thesis.

### Course topics

1. Review of the state of the art based on patent and scientific databases.
2. Citations in the work and modern tools facilitating the preparation of the text of the work.
3. Structure and main components of the master's thesis with emphasis on the research aspect.
4. Methodology of simulation and empirical research.
5. Presentation of progress in the implementation of the thesis.

### Teaching methods

Seminar, workshops on how to write a diploma thesis, discussions on the presented issues.

### Bibliography

#### Basic:

Diakun J., Szablon pracy dyplomowej, <http://pm.put.poznan.pl/strefa-studenta/instrukcje-do-zajec-laboratoryjnych/>

Wisłocki K., Metodologia i redakcja prac naukowych, Wydawnictwo Politechniki Poznańskiej, Poznań 2013

Opoka E., Uwagi o pisaniu i redagowaniu prac dyplomowych na studiach technicznych, Wyd. Politechniki Śląskiej, Gliwice 2001

Additional:  
Individually selected

### Breakdown of average student's workload

	Hours	ECTS
Total workload	50	2,00
Classes requiring direct contact with the teacher	30	1,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	20	1,00