



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Diploma seminar [S1MiBM2>SD]

### Course

Field of study

Mechanical Engineering

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

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 first-cycle studies. 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. The student knows the rules related to editing a diploma thesis.

### Course objective

Acquiring the practical ability to apply the knowledge acquired during studies to develop an engineering diploma thesis and acquiring the ability to conduct discussions in the thematic area related to the diploma thesis. Defining the tasks to be performed in the engineering diploma thesis (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 necessary to perform an engineering task. Knows and understands the basic concepts and principles of industrial property protection and copyright. Has knowledge of economic, legal, ethical and other non-technical conditions of professional activity.

#### 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 methods for the specific tasks. The student is able to give a presentation and participate in a discussion (debate). Is able to prepare and present a presentation using specialized terminology in the field of mechanics and machine construction. Is able to take part in a debate, present and evaluate various opinions and positions and discuss them. Is able to formulate and solve complex and unusual problems by obtaining information from literature, databases and other properly selected sources. Is able to integrate the obtained information, interpret it and critically evaluate it. Is able to independently plan and implement his own lifelong learning.

#### 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 ethics. Understands the need for lifelong learning; is aware of the need to critically analyze and evaluate its proposals and actions. Is able to determine the importance of knowledge in solving cognitive and practical problems and to seek the opinion of experts in case of difficulties in solving the problem independently. Is aware of the social role of a technical university graduate and understands the need to formulate and provide the public with information and opinions regarding technological achievements.

### 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 Mechanical engineering and the presentation of the progress of the engineering thesis in terms of: purpose, methods of solving the problem and schedule. Participation in the discussion.

### Programme content

1. Discussion of sample engineering works (purpose, scope, conclusions, literature).
2. Review of knowledge acquired during studies (presentations prepared by students). Selection of the supervisor, determination of the topic and scope of the engineering diploma thesis (after consultation with the supervisor).
3. Characteristics of methods that can be used in engineering diploma theses.
4. Characterization of the substantive area, formulation of the purpose of the work 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

none

### 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