## POZNAN UNIVERSITY OF TECHNOLOGY



#### EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

pl. M. Skłodowskiej-Curie 5, 60-965 Poznań

### **COURSE DESCRIPTION CARD - SYLLABUS**

Course name

Diploma seminar

**Course** 

Field of study Year/Semester

Mechanical Engineering 4/7

Area of study (specialization) Profile of study

Machine Design general academic
Level of study Course offered in

First-cycle studies polish

Form of study Requirements full-time compulsory

**Number of hours** 

Lecture Laboratory classes Other (e.g. online)

Tutorials Projects/seminars

30

**Number of credit points** 

3

**Lecturers** 

Responsible for the course/lecturer: Responsible for the course/lecturer:

Roman Staniek, professor

### **Prerequisites**

Basic knowledge in the field of engineering graphics, mathematics, mechanics, strength of materials, basics of machine construction, mechanical technology, materials technology, automation and control.

Skills of logical thinking, texts understanding, technical drawings, mathematical formulas, usage of different knowledge sources, literature, the internet, self-learning and logical reasoning.

Understanding the need to learn, acquire new knowledge, proper use of it as well as the general social effects of engineering activities.

#### **Course objective**

Preparation for concise and understandable presentation of selected issues related to the realization of the thesis topic. Paying attention to the need to maintain a correct structure of thesis and linguistic correctness. Striving to complete the thesis editing and preparing to defend the thesis.

## **Course-related learning outcomes**

Knowledge

1. Has a knowledge connected with the construction and engineering graphic.

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- 2. Has detailed knowledge of machines and technological equipment.
- 3. Has a detailed knowledge in the field of manufacturing techniques of machine parts and materials processing technologies.
- 4. Has a knowledge of the rules of editing technical texts.
- 5. Has a knowledge of preparation of presentation of technical issues.

#### Skills

- 1. Can obtain information from literature, databases and other properly selected sources (also in English) in the field of mechanical engineering.
- 2. Can work individually and in a team; knows how to estimate the time needed for the implementation of the commissioned tasks.
- 3. Can prepare and give a short presentation on the task results in the field of mechanics and mechanical engineering.
- 4. Can describe the course of engineering and document it in writing also in the form of technical documentation.

### Social competences

- 1. Understands the need for lifelong learning.
- 2. Realizes the importance of non-technical aspects and effects of engineering activities, including its impact on the environment.
- 3. Is aware of the social role of a technical college graduate.
- 4. Is able to work in a group.

#### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Evaluation of the presentation and the level of advancement of master's thesis; evaluation of activity in the discussion theses referred by other students.

#### **Programme content**

Characteristic of types of engineer theses (project, construction, technological, research, revive, theoretical). The layout and structure of the engineer thesis, editorial requirements (table of contents, introduction, purpose, scope, main part, conclusion, literature). Formulating problems, goals and scope of thesis, choosing methodology and methods of realisation of the research. Discussing current problems and technological innovations in worldwide technology.

### **Teaching methods**

Seminars: Goal- and problem solution-oriented brainstorming and discussions.

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## **Bibliography**

#### Basic

- 1. Individually chosen to the topic.
- 2. Wojciechowska R., Przewodnik metodyczny pisania pracy dyplomowej. Wydawnictwo DIFIN, Warszawa 2010.
- 3. Opoka E., Uwagi o pisaniu I redagowaniu prac dyplomowych na studiach technicznych, Wydawnictwo Politechniki Śląskiej w Gliwicach, 2001.

#### Additional

- 1. Materiały specjalistycznych konferencji naukowych.
- 2. Osuchowska B., Poradnik autora, tłumacza i redaktora, Wydawnictwo Inicjał, Warszawa 2005.
- 3. Dietrich J., System i konstrukcja, WNT Warszawa, 1978.

# Breakdown of average student's workload

	Hours	ECTS
Total workload	105	3,0
Classes requiring direct contact with the teacher	30	1,0
Student's own work (literature studies, preparation for	75	2,0
laboratory classes/tutorials, preparation for tests/exam, project		
preparation) <sup>1</sup>		

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