



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Team Project [S1IZarz1E>PIPZ]

### Course

Field of study

Engineering Management

Year/Semester

4/7

Area of study (specialization)

–

Profile of study

general academic

Level of study

first-cycle

Course offered in

English

Form of study

full-time

Requirements

compulsory

### Number of hours

Lecture

0

Laboratory classes

0

Other

0

Tutorials

0

Projects/seminars

90

### Number of credit points

15,00

### Coordinators

prof. dr hab. inż. Stefan Trzcieliński  
stefan.trzcielinski@put.poznan.pl

### Lecturers

### Prerequisites

**Knowledge:** The student has knowledge of the subjects covered by the first cycle degree program in engineering management, and also knows the basic principles of editing scientific works and applying selected research methods and techniques **Skills:** The student has the ability to perceive, associate and interpret phenomena occurring in organizations and use them to write an engineering thesis **Competences:** The student complies with the principles of the correct use of the Polish language and cares for improving language skills

### Course objective

Getting to know the methodology and help in the preparation and writing of an engineering thesis.

### Course-related learning outcomes

**Knowledge:**

The student determines and defines the range of sciences necessary for understanding and describing the issues of managing organizations in the context of their engineering work [P6S\_WG\_01].

The student identifies and characterizes the basic methods, techniques, tools, and materials used in solving engineering tasks related to their engineering work [P6S\_WG\_16].

The student describes and explains non-technical conditions of engineering activities and basic principles of safety and hygiene at work, applying them to the context of engineering work [P6S\_WG\_18].

The student explains basic concepts and principles of industrial property protection and copyright law, applying them in the context of their engineering work [P6S\_WK\_03].

#### Skills:

The student uses the acquired theoretical knowledge to analyze and interpret data related to the topic of the engineering thesis [P6S\_UW\_01, P6S\_UW\_06, P6S\_UW\_07].

The student can identify and solve engineering problems related to the project in terms of engineering aspects discussed in the thesis [P6S\_UW\_14, P6S\_UW\_15, P6S\_UW\_16].

The student can prepare written works and oral presentations in Polish and a foreign language, presenting the results of their engineering work [P6S\_UK\_01, P6S\_UK\_02].

The student takes responsibility for their own work and cooperates with the team if the topic of the engineering thesis requires it [P6S\_UO\_01].

The student can integrate systemic, socio-technical, organizational, and economic aspects in formulating and solving engineering tasks related to their engineering work [P6S\_UW\_11].

The student can conduct a preliminary economic analysis of the undertaken engineering activities, assessing their potential consequences and efficiency [P6S\_UW\_12].

#### Social competences:

The student identifies cause-and-effect relationships and ranks the importance of different aspects of their engineering work [P6S\_KK\_02].

The student explains the need for a systemic approach to creating products or services, taking into account technical, economic, marketing, legal, organizational, and financial aspects [P6S\_KO\_02].

The student prepares and implements business ventures, using knowledge and skills gained during the preparation of the engineering thesis [P6S\_KO\_03].

The student is aware of the importance and explains the non-technical aspects and consequences of engineering activities, including their impact on the environment, and takes responsibility for the decisions made [P6S\_KR\_01].

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Learning outcomes presented above are verified as follows: Formative assessment:

- on the basis of current progress in formulating the research problem and work objectives as well as problem solving methods and work documentation

Summative assessment:

- thesis card (form) confirmed by the supervisor, submitted engineering thesis.

### Programme content

Preparation of the work plan, setting the objectives of the subject and material scope of work, analysis of the literature on the subject, conducting own research, formulation of conclusions. Teaching methods

Seminars, discussions, critical literature analysis.

### Course topics

Preparation of the work plan, setting the objectives of the subject and material scope of work, analysis of the literature on the subject, conducting own research, formulation of conclusions. Teaching methods

Seminars, discussions, critical literature analysis.

### Teaching methods

Seminars, discussions, critical analysis of literature

### Bibliography

Basic:

Mazur A. (2023). Regulamin realizacji prac dyplomowych oraz przebiegu egzaminu dyplomowego dla kierunków studiów realizowanych na Wydziale Inżynierii Zarządzania Politechniki Poznańskiej.

www.fem.put.poznan.pl

Czakon W. (red.), Podstawy metodologii badań w naukach i zarządzaniu, Oficyna a Wolters Kluwer business, warszawa 2015

Additional:

Publications according to the thesis theme

Wójcik K., Piśzę akademicką pracę promocyjną, Placet, Warszawa 2005

Majchrzak J., Mendel T., Metodyka pisania prac magisterskich i dyplomowych, Uniwersytet Ekonomiczny, Poznań, 2009

Szkutnik Z., Metodyka pisania pracy dyplomowej, Wydawnictwo Poznańskie, Poznań 2005

### Breakdown of average student's workload

	Hours	ECTS
Total workload	375	15,00
Classes requiring direct contact with the teacher	90	3,50
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	285	11,50