



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Industrial Project [N1IZarz1>PP]

### 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

Polish

Form of study

part-time

Requirements

elective

### Number of hours

Lecture

0

Laboratory classes

0

Other

0

Tutorials

0

Projects/seminars

120

### Number of credit points

4,00

### Coordinators

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

### Lecturers

### Prerequisites

Knowledge: Has knowledge of the subjects covered by the first cycle studies in management engineering

Skills: Is able to identify and associate processes in the field of organization and management

Competences: Demonstrates readiness to develop their knowledge and skills. Is open to team work

### Course objective

The aim of the course is to valorize knowledge from studies to conduct an analysis of processes in the main functional subsystems of an enterprise / institution and to design necessary changes to these processes.

### Course-related learning outcomes

Knowledge:

The student defines and explains key concepts related to managing organizations, including methods, techniques, and tools used in executing engineering tasks [P6S\_WG\_01, P6S\_WG\_16].

The student identifies and characterizes non-technical conditions of engineering activities, including safety and hygiene principles at work [P6S\_WG\_18].

The student explains basic concepts and principles in the field of industrial property protection and

copyright law [P6S\_WK\_03].

#### Skills:

The student analyzes data and social phenomena, using acquired theoretical knowledge, in the context of managing industrial projects [P6S\_UW\_01].

The student interprets social phenomena, including economic ones, in the context of industrial project implementation [P6S\_UW\_06].

The student analyzes the causes and course of processes in the context of project management, including organizational consulting [P6S\_UW\_07].

The student designs the structure and technology of simple parts and subassemblies of machines, taking into account systemic and non-technical aspects [P6S\_UW\_11, P6S\_UW\_16].

The student conducts a preliminary economic analysis of engineering activities, using basic methods and tools [P6S\_UW\_12].

The student identifies and implements project tasks in the field of engineering activities, using appropriate methods and tools [P6S\_UW\_14].

The student uses typical methods to solve simple technical and engineering problems [P6S\_UW\_15].

The student prepares written documents and oral presentations on project issues, using various sources and theoretical approaches, in Polish and a foreign language [P6S\_UK\_01, P6S\_UK\_02].

The student takes responsibility for individual and team work, effectively collaborating in a group and adhering to team work principles [P6S\_UO\_01].

#### Social competences:

The student formulates and implements project tasks, considering technical, economic, marketing, legal, and organizational aspects [P6S\_KO\_02].

The student prepares and implements business ventures related to industrial projects, maintaining professionalism and professional ethics [P6S\_KO\_03, P6S\_KR\_01].

The student analyzes and identifies cause-and-effect relationships in project implementation, ranking the importance of tasks and challenges [P6S\_KK\_02].

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

#### Formative assessment:

Ongoing assessment of organizational changes proposed by the promoter of engineering work

#### Summative assessment:

Assessment of the presentation prepared by the graduate, state of progress of the thesis research and discussion about it.

### Programme content

Analysis of processes / systems: product development and market introduction, marketing and sales, operation control, economic control of an enterprise, human resource management. Human issues - work environment. Design changes of selected processes / systems. The concept of process-oriented organizational structure.

### Course topics

Analysis of processes / systems: product development and market introduction, marketing and sales, operation control, economic control of an enterprise, human resource management. Human issues - work environment. Design changes of selected processes / systems. The concept of process-oriented organizational structure.

### Teaching methods

Seminars, discussions, critical literature analysis.

### Bibliography

#### Basic:

In accordance with the topic of engineering thesis.

Additional:

In accordance with the topic of engineering thesis.

#### Breakdown of average student's workload

	Hours	ECTS
Total workload	120	4,00
Classes requiring direct contact with the teacher	25	1,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	95	3,00