



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Project Management [S1IZarz1>ZProj]

### Course

Field of study

Engineering Management

Year/Semester

2/4

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

15

Laboratory classes

0

Other

0

Tutorials

15

Projects/seminars

15

### Number of credit points

4,00

### Coordinators

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### Lecturers

### Prerequisites

Basic knowledge of management, business economics, and mathematics.

### Course objective

Preparation for the role of project manager

### Course-related learning outcomes

Knowledge:

The student defines the stages of the project lifecycle and indicates tools used for project management [P6S\_WG\_13].

The student explains the principles of a project team's functioning and defines the entrepreneurial roles of its members and stakeholders, with special emphasis on the specifics of the communication process [P6S\_WK\_04].

The student describes and interprets advanced concepts of organizational management, applying them to analyze project management issues [P6S\_WG\_01].

The student identifies and utilizes methods and tools for collecting, processing, selecting, and distributing information in the context of project management [P6S\_WG\_08].

The student describes the lifecycle of socio-technical systems, particularly the phases and stages of a typical project course [P6S\_WG\_13].

The student explains the general principles of creating and developing forms of entrepreneurship, integrating technical, economic, and managerial knowledge in the context of project management [P6S\_WK\_04].

#### Skills:

The student applies standard methods and tools for forecasting processes and phenomena in the context of project management, including setting requirements and feasibility analysis [P6S\_UW\_02].

The student analyzes and proposes solutions to managerial problems in project management, including risk analysis and budgeting [P6S\_UW\_04].

The student conducts preliminary economic analysis of projects, considering resource and cost planning [P6S\_UW\_12].

The student takes responsibility for their own work and jointly implemented tasks in a project, acting in accordance with teamwork principles [P6S\_UO\_01].

The student plans and organizes a project, considering project management support solutions [P6S\_UW\_02].

The student performs analysis (including economic, strategic) and assesses project management methods [P6S\_UW\_04].

The student builds project teams and solves organizational problems to efficiently implement a project [P6S\_UW\_12].

The student manages a project throughout its lifecycle, indicating the specifics of tasks and roles of team members [P6S\_UO\_01].

#### Social competences:

The student contributes substantively to the preparation of projects, considering legal, economic, and organizational aspects, based on practical problems of a project manager [P6S\_KO\_01].

The student verifies project activities in the context of changes in the environment [P6S\_KO\_01].

The student engages in the implementation of tasks in a project team ethically [P6S\_KR\_01].

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

#### Formative assessment:

based on attendance and activity during classes, results of cognitive tasks solved, and participation in discussions

#### Summative rating:

- result of written test (lecture)
- independent performance of the indicated cognitive task (project), its presentation in the group forum
- summary of partial results from exercises.

### Programme content

1. Determining the specific features of projects, their place in strategic management or improvement of the organization's activities and their role in creating market position. Discussion of the premises of project management.

2. Types of projects (by size, complexity, area and from the manager's point of view)

3. Typical project flow. Phase system (initiating, establishing requirements, defining goals and identifying conditions, feasibility analysis, risk analysis, task structuring (WBS), resource and work flow planning, budgeting, supervision, course management, project closure). Actual project progress. Emphasizing the need for preparation and the key function of structuring.

4. Project organization (appointment of a manager and contractors, selection of a team structure appropriate to the type of project, situational placement of the team in the enterprise structure, development of a communication system, identification of weak points, support for the project)

5. IT support - familiarization with MSProject or PERT best software

6. Practical problems of the project manager - presentation of examples of situations that threaten the success of the project.

### Course topics

1. The place and role of projects in management,
2. Types of projects,
3. A typical project run (initiating, setting requirements, defining goals and identifying conditions, feasibility analysis, risk analysis, task structuring, resource planning and workflow planning, budgeting, process control, project closure).
4. Organization of project team
5. IT support
6. Practical problems of the project manager

## Teaching methods

Problem-based lecture, study of literature, project - solving cognitive tasks with IT support, auditorium exercises.

## Bibliography

Basic:

1. PMBOK® Guide - 7th Edition, Pennsylvania, 2021
2. Trocki M. (2017). Metodyki i standardy zarządzania projektami. Warszawa: PWE S.A.
3. Wyrwicka M., Zarządzanie projektami, Wyd. Politechniki Poznańskiej, Poznań 2011.
4. Wyrwicka M., Zarządzanie projektowe [w:] Elementy inżynierii logistycznej (red.) M. Fertsch, Biblioteka Logistyka Wyd. ILiM Poznań 2017, s.53-74.
5. Wysocki R., Efektywne zarządzanie projektami. Tradycyjne, zwinne, ekstremalne, Wyd. Helion, Gliwice 2013

Additional:

1. Głodzieński E., Efektywność w zarządzaniu projektami. Wymiary, koncepcje, zależności, PWE Warszawa 2017
2. Prussak W. Wyrwicka M., Zarządzanie projektami, Zachodnie Centrum Organizacji, Poznań 1997
3. Shenhar A.J., Dvir D., Nowe spojrzenie na zarządzanie projektami. Sukces wzrostu i innowacji dzięki podejściu romboidalnemu, Wyd. APN Promise, Warszawa 2008
4. Wyrwicka M., Niektóre uwarunkowania efektywnej realizacji projektów. [w:] Zeszyty Naukowe Politechniki Poznańskiej, seria Organizacja i Zarządzanie, 2000 Nr 29, s. 113-118;
5. Trocki M. (2012). Nowoczesne zarządzanie projektami. Warszawa: PWE S.A.
6. Konosala R., Deptuła A.M. (2018) Ocena ryzyka wdrażania innowacji, PWE, Warszawa.
7. Kaczor K.(2016) Scrum i nie tylko. Teoria i praktyka w metodach agile, PWN, Warszawa.

## Breakdown of average student's workload

	Hours	ECTS
Total workload	100	4,00
Classes requiring direct contact with the teacher	50	2,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	50	2,00