



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Managing design processes [S2MiBP1>ZPP]

### Course

Field of study

Mechanical and Automotive Engineering

Year/Semester

1/1

Area of study (specialization)

Railway Vehicles

Profile of study

general academic

Level of study

second-cycle

Course offered in

Polish

Form of study

full-time

Requirements

compulsory

### Number of hours

Lecture

15

Laboratory classes

0

Other (e.g. online)

0

Tutorials

15

Projects/seminars

0

### Number of credit points

2,00

### Coordinators

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### Lecturers

### Prerequisites

Knowledge: Basic knowledge of project management. Basic knowledge of the roles and people involved in the project. Basic knowledge of project management techniques. Basic knowledge of the project's poses. Basic knowledge of writing and selecting topics from programs to financial programs. Skills: Logical thinking, learning comprehension, using textbooks and searching for information from scientific publications. Selection of project team members. Drafting applications and searching for funding opportunities. Classifying ideas for projects. Social competence: Awareness of the need to acquire knowledge and use it in various fields of technical and natural sciences. Ability to work in a team, assign roles and choose the method of communication.

### Course objective

Acquainting with the subject of organization of project types, project phases and project portfolio management. Developing the ability to plan, manage and implement projects. Developing the ability to manage the various stages of the project. Developing the ability to coordinate work in a project team and to dedicate roles and assign responsibilities. Seek financing for innovative ideas.

### Course-related learning outcomes

#### Knowledge:

Has general knowledge of standardization, EU recommendations and directives, national, industry and international standards systems, and industrial standards.

Has a basic knowledge of quality management systems.

Has in-depth knowledge of entrepreneurship and business economics.

#### Skills:

Can conduct a debate.

Can lead the team's work.

Can interact with other people as part of teamwork and take a leading role in teams.

#### Social competences:

He is ready to critically assess his knowledge and received content.

It is ready to fulfill social obligations, inspire and organize activities for the benefit of the social environment.

It is ready to initiate actions for the public interest.

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Learning outcomes presented above are verified as follows:

Assessment on the basis of a written test carried out in the last class.

### Programme content

The following issues will be presented in the program content:

- in the field of project types and individual project phases,
- skills needed to manage a project team, project budgeting and risk management,
- acquiring knowledge about projects co-financed by the Ministry of Science and Higher Education, NCBiR, NCN, European programs,
- needed information to prepare a project in accordance with national and European guidelines.

### Course topics

none

### Teaching methods

1. Lecture with multimedia presentation
2. Exercises - problem solving and case studies, discussion

### Bibliography

#### Basic

1. Berkun S., Sztuka zarządzania projektami (The art of project management), Warsaw 2006.
2. Chmiel, N., Psychologia pracy i organizacji, Rozdział 12, 14 (Psychology of work and organization, Chapter 12, 14), GWP 2003.
3. Chrościcki Z., Zarządzanie projektem – zespołami zadaniowymi (Project management - task teams), Warszawa 2001.
4. Davidson Frame J., Zarządzanie projektami w organizacjach (Project management in organizations), Warsaw 2001.
5. Haffer J., Skuteczność zarządzania projektami w przedsiębiorstwach działających w Polsce (Effectiveness of project management in enterprises operating in Poland), Toruń 2009.
6. Heerkens G.R., Jak zarządzać projektami (How to manage projects), Warszawa 2003.
7. Kasperek M., Zarządzanie projektem (Project management), Katowice 2004.
8. Kompendium wiedzy o zarządzaniu projektami (A compendium of knowledge about project management), Warszawa 2003.
9. Lessel W., Zarządzanie projektem (Project management), Warsaw 2008.
10. Lewis J. P., Podstawy zarządzania projektami (Basics of project management), Gliwice 2006.
11. Lock D., Podstawy zarządzania projektami (Basics of project management), Warsaw 2009.
12. Pietras P., Szmit M., Zarządzanie projektem. Wybrane metody i techniki (Project management.

Selected methods and techniques), Łódź 2003.

13. Podręcznik zarządzania projektami miękkimi (Soft project management manual), Ministry of Regional Development, Warsaw 2006.

14. Trocki M., Grucza B., Ogonek K., Zarządzanie projektami (Project management), Warsaw 2003.

15. Trocki M. (red.), Zarządzanie projektem europejskim (European project management), Warsaw 2007.

16. Witkowska M., Zarządzanie projektami (Project management), Gliwice 2008.

17. Young T.L., Skuteczne zarządzanie projektami (Effective project management), Gliwice 2006.

18. Zarządzanie projektem. Pakiet szkoleniowy (Project management. Training package), Foundation for the development of the education system, the National Agency of the Youth Program, Warsaw 2000.

19. Zarządzanie organizacją. Pakiet szkoleniowy (Organization management. Training package), Foundation for the development of the education system, the National Agency of the Youth Program, Warsaw 2000.

Additional

1. Materials and guidelines for the application of applications: PARP, NCBiR, NCN, Horyzont Europa.

1. Engine manufacturer materials, conference and industry materials: Combustion Engines, MTZ, SAE.

### 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