

## COURSE GUIDE

<u>Subject name</u>	<b>Engineering Project Management</b>
<u>Course of study</u>	<b>Quality and Production Management</b>
<u>The form of study</u>	<b>Full-time</b>
<u>Level of qualification</u>	<b>First</b>
<u>Year</u>	<b>III</b>
<u>Semester</u>	<b>V</b>
<u>The implementing entity</u>	<b>Department of Production Engineering and Safety</b>
<u>The person responsible for preparing</u>	<b>dr hab. inż. Piotr Tomski, Prof. PCz</b>
<u>Profile</u>	<b>General academic</b>
<u>Course type</u>	<b>principal</b>
<u>ECTS points</u>	<b>3</b>

### TYPE OF TEACHING – NUMBER OF HOURS PER SEMESTER

<b>LECTURE</b>	<b>CLASS</b>	<b>LABORATORY</b>	<b>PROJECT</b>	<b>SEMINAR</b>
15	-	-	15	-

## COURSE AIMS

C1. Presenting and discussing the basic concepts in the field of project management, modern instruments of project management, organizational structures applied in project management and the role of project management in management of modern enterprises taking into account the engineering context.

C2. Transfer of knowledge and guidelines enabling the acquisition of skills in terms of planning and management of the project throughout its life cycle along with project assessment and risk analysis taking into account managerial context.

## ENTRY REQUIREMENTS FOR KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Knowledge of the basics of organization and management of enterprises

## LEARNING OUTCOMES

EU 1 - Student understands and uses the terminology in the field of project management and understands the essence and role of projects in management of organizations taking into account engineer projects.

EU 2 - Student understands the principles of project management and knows modern instruments of project management.

EU 3 - Student has knowledge and skills in defining and planning the project.

EU 4- Student has knowledge and skills in organizing implementation and project control.

## COURSE CONTENT

Type of teaching – Lecture	Number of hours
W1 - Introduction to the course. The concept and history of project management. The place and role of projects in management.	1
W 2 - The essence, characteristics and types of projects	1
W 3 - Methodologies of project management	0,5
W 4 - An institutional aspect of project management (types of project organizations, organizational structure of the company and project management, relationships between projects in the organization, types of organizations from the point of view of the role of projects, project maturity)	2
W 5 - Functional aspects of project management (project life cycle, project cycle, introduction to stages/project management)	2
W 6 - Stages in project management: Initiating and defining the project, planning and organizing the implementation, project implementation, control of the course of the project/project completion, project team	2
W 7 - Planning the course and project resources and defining its structure. Methods of imaging of the activities planned (indicating the main stages of the project, structure of work division, project schedule, scope of responsibility)	2
W 8 - Project assessment	1
W 9 - Project budgeting. Sources of project financing.	2
W 10 - Project risk analysis	1
W 11 - IT tools of project management	0,5
Teaching form - PROJECT	Number of hours
P 1 - Introduction to the course. The place and role of projects in organization management. Presentation of project management on the practical example, case study (recognition of the role and characteristics of individual stakeholders of the project, forming the project team, developing the project charter for the case described)	1
P 2 - Consolidation of the material in the field of project management - doing tests	1
P 3 - Project charter - case study	1
P 4 - Problems of project management in economic organizations - case study	2
P 5 - Preparation of the project charter for the selected project - group work	4

P 6 - Structuring the project (WBS) - group work	2
P 7 - Characteristics of the project leader. The selection of the project leader.	1
P 8 - Project risk assessment	1
P 9 - Presentation of projects developed by individual groups in front of other students and the lecturer. Discussing the presentation: specificity of projects selected by students, economic efficiency, risk, constraints, opportunities and threats, the concept of project implementation based on the developed documentation. Final test	2

### TEACHING TOOLS

1. Books and monographs
2. Audiovisual presentations
3. Blackboard
4. Source texts/Internet sources
5. Forms/instructions for exercises/case studies

### WAYS OF ASSESSMENT (F – FORMATIVE, P – SUMMATIVE)

F1. Assessment of project tasks and exercises done in the course of the semester

P1. Final test

P2. General assessment of the project charter developed in groups on the basis of the presentation

### STUDENT WORKLOAD

Form of activity	Average number of hours per activity		
	[h]	ECTS	ECTS
Contact hours with the teacher   Lecture	15	0.6	1.2
Preparation for the final test	15	0.6	
Contact hours with the teacher   Project	15	0.6	1.08
Preparation of project	12	0.48	
Getting acquainted with the indicated literature	12	0.48	0.48
Attendance at consultations	6	0.24	0.24
<b>TOTAL NUMBER OF HOURS/ ECTS POINTS FOR THE COURSE</b>	<b>75</b>	<b>3</b>	

### BASIC AND SUPPLEMENTARY RESOURCE MATERIALS

#### Basic resources:

1. Kerzner, Harold. Project management: a systems approach to planning, scheduling, and controlling. John Wiley & Sons, 2013
2. Kerzner, Harold. Advanced project management: Best practices on implementation. John Wiley & Sons, 2004
3. Trocki M., Grucza B., Ogonek K. Zarządzanie projektami, PWE, Warszawa 2009.
4. Stabryła A., Zarządzanie projektami ekonomicznymi i organizacyjnymi, Wydawnictwo Naukowe PWN, Warszawa 2015.
5. Szyjewski Z., Metodyki zarządzania projektami, Wydawnictwo PLACET, Warszawa 2004

#### Supplementary resources:

1. Szyjewski Z., Metodyki zarządzania projektami informatycznymi, Placet, Warszawa 2004
2. Kerzner H., Advanced Project Management. Edycja Polska, Helion, Gliwice 2005
3. Tomski P., Kuraś P., Gajda J. (2013). Project Management Sustainability in Construction Industry. The Publication of the XXVII. microCAD International Scientific Conference. 21-22 March, Miskolc, Hungary, 2013, 6s.

### TEACHERS (NAME, SURNAME, E-MAIL ADDRESS)

1. dr hab. inż. Piotr Tomski, prof. PCz (email: piotr.tomski@wz.pcz.pl)

### MATRIX OF LEARNING OUTCOMES REALISATION

Learning outcome	Reference of given outcome to outcomes defined for whole program (PRK)	Course aims	Course content	Teaching tools	Ways of assessment
EU 1	K_W02, K_W03, K_W04, K_W05, K_W08, K_W10,	C1	W1, W2, W4, P1, P2	1, 2, 3, 4, 5	P1
EU 2	K_W02, K_W03, K_W04, K_W05, K_W08, K_W10, K_U01, K_U02, K_U03, K_U04, K_U05, K_U06, K_U07, K_U09, K_U10, K_K01, K_K04,	C1, C2	W3, W4, W5, W9, W10, W11, P1, P2, P3	1, 2, 3, 4, 5	F1, P1
EU 3	K_W02, K_W03, K_W04, K_W05, K_W08, K_W10, K_U01, K_U02, K_U03, K_U04, K_U05, K_U06, K_U07, K_U09, K_U10, K_K01, K_K04,	C1. C2	W5, W6, W7, W8, W9, W10, W11, P2, P3, P4, P5, P6, P7, P8, P9	1, 2, 3, 4, 5	F1, P1, P2
EU 4	K_W02, K_W03, K_W04, K_W05, K_W08, K_W10, K_U01, K_U02, K_U03, K_U04, K_U05, K_U06, K_U07, K_U09, K_U10, K_K01, K_K04,	C1. C2	W5, W6, W7, W8, W9, W10, W11, P2, P3, P4, P5, P6, P7, P8, P9	1, 2, 3, 4, 5	F1, P1, P2

### FORM OF ASSESSMENT - DETAILS

	grade 2	grade 3	grade 4	grade 5
EU 1	Student knows terminology in the field of project management and explains the essence and role of projects in organization management in less than 60%.	Student knows terminology in the field of project management and explains the essence and role of projects in organization management in at least 60%.	Student knows terminology in the field of project management and explains the essence and role of projects in organization management in 80%.	Student knows terminology in the field of project management and explains the essence and role of projects in organization management in 100%.
EU 2	Student knows the principles of project management and modern instruments of project management in less than 60%.	Student knows the principles of project management and modern instruments of project management in at least 60%.	Student knows the principles of project management and modern instruments of project management in 80%.	Student knows the principles of project management and modern instruments of project management in 100%.
EU 3	Student has knowledge and skills in defining and planning the project in less than 60%.	Student has knowledge and skills in defining and planning the project and in at least 60%.	Student has knowledge and skills in defining and planning the project at least in 80%.	Student has knowledge and skills in defining and planning the project at least in 100%.

EU 4	Student has knowledge in organizing implementation and project control in less than 60%.	Student has knowledge in organizing implementation and project control in at least 60%.	Student has knowledge in organizing implementation and project control in at least 80%.	Student has knowledge in organizing implementation and project control in 100%.
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**ADDITIONAL USEFUL INFORMATION ABOUT THE COURSE**

1. Information where presentation of classes, instruction, subjects of seminars can be found, etc. - presented to students during first classes, if required by the formula classes are sent electronically to the e-mail addresses of individual dean groups.
2. Information about the place of classes - Information can be found on the website of the Faculty of Management.
3. Information about the timing of classes (day of the week / time) - Information can be found on the website of the Faculty of Management
4. Information about the consultation (time + place) - Information can be found on the website of the Faculty of Management

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 Coordinator