



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Methods and tools of enterprise management [N1IBiJ1>MiNZP]

### Course

Field of study

Safety and Quality Engineering

Year/Semester

2/3

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

9

Laboratory classes

0

Other

0

Tutorials

9

Projects/seminars

9

### Number of credit points

4,00

### Coordinators

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### Lecturers

### Prerequisites

Lack of precursor in earliest semesters. Student owns abilities of detection, associating (joining) and in social rates interpreting of phenomenon. Student understands and is prepared to take social responsibility for decisions in the area of organization management.

### Course objective

Familiarization of student with bases of problems of managements enterprises, in functions of managements it and manners of realization .

### Course-related learning outcomes

Knowledge:

1. Student knows the issues of management and organisation as well as marketing and logistic in context of safety engineering area [K1\_W08].

### Skills:

1. Student is able to use various techniques in order to communicate in work environment and other in enterprise management [K1\_U02].
2. Student is able to use analytical methods, simulation and experimental methods in order to form solutions of engineering tasks, as well as using methods, information and communication tools in enterprise management [K1\_U04].

### Social competences:

1. Student is able to recognise cause-and-effect dependencies in realisation of goals and rank importance of alternative or competitive tasks [K1\_K01].
2. Student is able to plan and manage business projects [K1\_K04].
3. Student is able to demonstrate professionalism and follow the principles of professional ethics, promoting respect for diversity and building a culture of safety and quality [K1\_K06].

## Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Lecture - formative assessment: presentations prepared by all students on selected personalities from the field of management science (max 20 points)

Lecture - summary assessment: final exam (max 80 points) and possible points for activity

Exercises - formative assessment: systematic work in accordance with the instructor's instructions (points for performing individual tasks), activity during classes

Exercises - summative assessment: the sum of points from the completed tasks and the final presentation

Project - formative assessment: assessment of the progress in the implementation of the project task (compliance with the adopted project task implementation schedule) and activity during the classes

Project - summative assessment: assessment of the completed project, including the assessment of progress in the implementation of the project task and activity in classes during the implementation of the project task

The student receives a pass when he or she has 51% of the points

## Programme content

Students will learn the basic concepts of management and related methods and tools. They learn in which conditions can be used which of them and what affects their proper selection.

## Course topics

### Lecture:

Introduction to the science of management, approach to the organization of the enterprise. Selected concepts and management methods in the context of maintaining safe working conditions: TQM, Lean, Benchmarking, Kaizen, Six Sigma, 5S, Poka Yoke, Zero defects, FMEA, Muda, Kanban, Reengineering, Concurrent engineering, Partnership in the supply chain, Just in Time, Team forms of work organization, Empowerment, Teal organization, Management by objectives, Time management, Knowledge management, Culture conducive to learning, Agile Enterprise, Sustainable development.

Exercises: Selected concepts and methods of management in practice - an introduction to the practical aspect of the use of management methods and tools, FMEA, Kanban, Supply chain and Just in Time, Time management, competency profiles in the organization, 6 thinking hats, Benchmarking, Concurrent engineering, Learning organization

Project: Case study developed in groups (max 4 people). Each of the cases concerns a different use of enterprise management methods, and sometimes a different set of methods and tools. Each team will receive a detailed description of the company and guidelines related to the use of appropriate tools and methods.

## Teaching methods

- lecture classes: conversational lectures
- exercise classes: expert tables method interchangeably with cases method
- project: multi-stage cognitive task

The student passes the subject after receiving 51% of the points.

## Bibliography

### Basic:

1. Brillman J., (2000), Nowoczesne koncepcje i metody zarządzania, Warszawa.
2. Michalski E., (2020), Zarządzanie przedsiębiorstwem. Podręcznik akademicki, PWN, Warszawa. Stadler Ch.: The Four Principles of Enduring Success. „Harvard Business Review” 2007, No. 7-8.
3. Sławińska M., (2012), Niezawodność człowieka w interakcji z procesem przemysłowym, Wyd. Politechniki Poznańskiej, Poznań 2012.
4. Sudoł S. (2012), Nauki o zarządzaniu. PWE, Warszawa.
5. Trzcieliński S., Włodarkiewicz-Klimek H., Pawłowski K., (2013), Współczesne koncepcje zarządzania, Poznań.

### Additional:

1. Butlewski M. Jasiulewicz-Kaczmarek M., Misztal A. & Sławińska M., (2014), Design methods of reducing human error in practice, p. 1101-1106, [in]: Safety and Reliability: Methodology and Applications, Edited by Nowakowski T. et al. (Eds), Taylor & Francis Group, London.
2. Mrugalska B., Sławińska M., (2014), Narzędzia makroergonomii w sterowaniu bezpieczeństwem procesów pracy, s. 131-139, Zeszyty Naukowe Politechniki Poznańskiej, Nr 63, Organizacja i Zarządzanie, Wydawnictwo Politechniki Poznańskiej, Poznań.
3. Sławińska M., (2011), Reengineering ergonomiczny procesów eksploatacji zautomatyzowanych urządzeń technologicznych (ZUT), Rozprawy Nr 462, Wyd. Politechniki Poznańskiej, Poznań.
4. Motała D., Bystryakow A.Y., Pizengolts V.M., Level of specialization and management methods in small and medium enterprises of the gas industry, Management and Production Engineering Review - 2018, vol. 9, no. 2
5. The Impact of the Covid-19 Pandemic on the Application of Management Methods by Industrial Goods Processing Enterprises / Daria Motała (WIZ) // European Research Studies Journal - 2021, vol. 24, spec. iss. 5
6. Cooperation factors in supply chains in industrial processing companies / Piotr Lubiński (WIZ), Katarzyna Ragin-Skorecka (WIZ), Daria Motała (WIZ) // W: Advances in mechanical engineering / red. Olaf Ciszak (WIM) - Poznań, Polska : Wydawnictwo Politechniki Poznańskiej, 2021
7. Tailor-Made Smart Sustainable City / Daria Motała (WIZ) // W: Advances in Creativity, Innovation, Entrepreneurship and Communication of Design. Proceedings of the AHFE 2021 Virtual Conferences on Creativity, Innovation and Entrepreneurship, and Human Factors in Communication of Design, July 25-29, 2021, USA / red. Evangelos Markopoulos, Ravindra S. Goonetilleke, Amic G. Ho, Yan Luximon: Springer, 2021

## Breakdown of average student's workload

	Hours	ECTS
Total workload	100	4,00
Classes requiring direct contact with the teacher	27	1,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	73	3,00