



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Organization of work station and work study [S1|Zar1>OSRiBP]

### Course

Field of study

Engineering Management

Year/Semester

1/2

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 (e.g. online)

0

Tutorials

0

Projects/seminars

15

### Number of credit points

2,00

### Coordinators

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### Lecturers

dr inż. Agnieszka Grzelczak

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### Prerequisites

none

### Course objective

Presentation of the principles of good organization of work at the position level and familiarization with the methods of testing and normalizing work.

### Course-related learning outcomes

Knowledge:

The student describes methods and tools for designing production structures [P6S\_WG\_07].

The student defines workstation ergonomics and macroergonomics and describes their significance in the design of workstations [P6S\_WG\_12].

The student explains the life cycle of socio-technical systems [P6S\_WG\_13].

The student names basic methods, techniques, tools, and materials used in solving simple engineering tasks in the field of machine construction and operation [P6S\_WG\_16].

The student classifies the basic principles of safety and occupational hygiene applicable in the machine-building industry [P6S\_WG\_18].

### Skills:

The student analyzes proposed solutions to managerial problems and suggests appropriate resolutions [P6S\_UW\_04].

The student identifies design tasks and solves simple design tasks in the field of machine construction and operation [P6S\_UW\_14].

The student plans and designs structures and technologies for simple parts and components of machines and organizes first-level complexity production units [P6S\_UW\_16].

The student works in a team and takes responsibility for their own work and collectively implemented tasks [P6S\_UO\_01].

### Social competences:

The student analyzes cause-and-effect relationships in achieving goals and prioritizes the importance of alternative tasks [P6S\_KK\_02].

The student explains that creating products to meet user needs requires a systemic approach, considering technical, economic, marketing, legal, organizational, and financial issues [P6S\_KO\_02].

The student is aware of the importance of non-technical aspects and consequences of engineering activities, including their impact on the environment, and the associated responsibility for the decisions made [P6S\_KR\_01].

## Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

The knowledge acquired during the lectures is verified by the college during the last class and through tests (quizzes) in individual classes (via the Moodle platform). Passing threshold: 50% of points.

The skills acquired during project classes are verified on the basis of two projects: one carried out individually, and the other - in groups of 2 to 3 people. Passing threshold: 50% of points.

## Programme content

Lecture: System approach to the organization. Building an effective organization of the enterprise from the level of the workplace. The position as a work system. Basic techniques in the study of working methods and standardization. Methodology of designing and shaping work places. Increasing organization efficiency.

Project: Basic techniques in the study of working methods and standardization. Methodology of designing and shaping work places. Increasing organization efficiency.

## Teaching methods

Lecture: informative lecture (conventional) - information transfer in a systematic way, supported by multimedia presentation, illustrated with examples and tasks and case method (case study) - analysis of specific cases of illustrative (illustrative) or problem nature (problem recognition)

Project: project method - individual and team implementation of a large, multi-stage cognitive or practical task, which results in the creation of a work

## Bibliography

### Basic:

1. Grzelczak A., Projektowanie procesów pracy, Wydawnictwo Politechniki Poznańskiej, Poznań 2013.
2. Rzeszotarska-Wyrwicka M., Organizowanie systemów pracy. Materiały pomocnicze, Wydawnictwo Politechniki Poznańskiej, Poznań 1998.
3. Strzelecki T.J., Organizacja i normowanie pracy, Wydawnictwo Politechniki Warszawskiej, Warszawa 1992.
4. Grzelczak A., Norma czasu a zarządzanie produkcją w aspekcie pracy wielostanowiskowej [w:] Knosala R. (red.), Innowacje w zarządzaniu i inżynierii produkcji, t. 1, Oficyna Wydawnicza Polskiego Towarzystwa Zarządzania Produkcją, Opole, 2018.
5. Grzelczak A., Werner-Lewandowska K., Eliminating Muda (Waste) in Lean Management by Working Time Standardization, Arabian Journal for Science and Engineering, vol. 6, iss. 3, 2016.
6. Mrugalska B. (red.) Human factors in economics and organizational design. Poznań, Poznan University of Technology, 2013.

Additional:

1. Mikołajczyk Z., Techniki organizatorskie w rozwiązywaniu problemów zarządzania, Wydawnictwo Naukowe PWN, Warszawa 1998.
2. Martyniak Z., Metody organizacji i zarządzania, Wydawnictwo AE, Kraków 1999.
3. Mreła H., Technika organizowania pracy, Wiedza Powszechna, Warszawa 1975.
4. Baraniak B., Metody badania pracy, Wydawnictwo Akademickie i Profesjonalne, Warszawa 2009.

### 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