

#### EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

pl. M. Skłodowskiej-Curie 5, 60-965 Poznań

## **COURSE DESCRIPTION CARD - SYLLABUS**

Course name

Organization of engineering management

Course

Field of study Year/Semester

Logistics 2/4

Area of study (specialization) Profile of study

Level of study general academic
Course offered in

First-cycle studies Polish

Form of study Requirements

full-time elective

Number of hours

Lecture Laboratory classes Other (e.g. online)

15

Tutorials Projects/seminars

15

**Number of credit points** 

5

#### **Lecturers**

Responsible for the course/lecturer:

Ph.D., Eng. Roma Marczewska-Kuźma Ph.D., Eng. Ireneusz Gania

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Phone. 61 665 33 85

Faculty of Engineering Management

ul. J. Rychlewskiego 2, 60-965 Poznań

Responsible for the course/lecturer:

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**Prerequisites** 

Phone. 61 665 33 78



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Student has knowledge of business processes, design, organization and implementation of the production processes, as well as in the area of design, evaluation, verification and implementation of production. Student is responsible and can interact with others and work in a team. Student understands the need for lifelong learning and acting in accordance with the rules.

#### **Course objective**

Presenting knowledge of theoretical and practical problems connected with organization of production preparation and selected methods applied in this scope.

### **Course-related learning outcomes**

#### Knowledge

- 1. Knows the basic concepts in logistics and supply chain management [P6S WG 05].
- 2. Knows the basic concepts of the life cycle of socio-technical systems (logistic systems) and the life cycle of industrial products [P6S WG 06].
- 3. Knows the basic concepts of the scope of management characteristic for logistics and supply chain management [P6S WG 08].
- 4. Knows the basic dependencies in logistics and supply chain management [P6S\_WK\_04].
- 5. Knows the basic phenomena and contemporary trends for logistics and its detailed problems and supply chain management [P6S\_WK\_05].
- 6. Knows the best practices within logistics and its specific issues [P6S\_WK\_06].

#### Skills

- 1. Is able to collect on the basis of the literature of the subject and other sources (in Polish and English) and in an orderly manner, provide information on the problem within the framework of logistics and its specific issues and supply chain management [P6S UW 01].
- 2. Is able to apply to the problem within the studied subject the appropriate experimental and measurement techniques, information and communication, including computer simulation as part of logistics and its specific issues and supply chain management [P6S\_UW\_03].
- 3. Is able to prepare work measures related to work in the industrial industry and knows the safety principles associated with this practice, including safety problems in logistics [P6S\_UW\_05].
- 4. Can economically assess and critically analyze a problem in the field of logistics and supply chain management [P6S\_UW\_06].
- 5. Is able to design, using appropriate methods and techniques, the object, system or logistic process and the process associated with it including defining the path of its implementation and potential threats or limitations in analyzed domain [P6S\_UW\_07].



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- 6. Is able to present the problem using appropriately selected resources within the framework of logistics and its specific issues and supply chain management [P6S\_UK\_01].
- 7. Is able to identify changes in requirements, standards, regulations, technical progress and the reality of the labor market, and on their basis determine the need to supplement own knowledge [P6S\_UU\_01].

#### Social competences

- 1. Is aware of the importance of knowledge in solving cognitive and practical problems in the scope of logistics and supply chain management [P6S KK 02].
- 2. Is aware of the responsibility and initiation of activities related to the formulation and information sharing and cooperation in the society in the scope of logistics [P6S\_KO\_02].
- 3. Is aware of the correctly identify and resolve the dilemmas connected with performing the profession of logistics [P6S KR 01].
- 4. Is aware of the need to solve some tasks with teamwork in the field of logistics and supply chain management [P6S KR 02].

#### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

#### Rating forming:

- a) projects: on the basis of an assessment of the current progress of tasks,
- c) lecture: in the range of lectures based on oral answers to questions about the material covered in the current and previous lectures.

#### Rating summary:

- a) projects: grade point average, passing threshold: 60% of the points.
- c) lecture: exam, open and closed questions, Passing threshold: 60% of the points.

#### **Programme content**

#### Lecture:

Production process components, range of tasks. Production process management, technical humanization and economical aspects. Product traits, quality and reliability. Objectives, tasks and functions of product production preparation in industrial company. Constructive, technological and organizational preparation of the production - planning and designing, far-reaching and current activity. Notion and significance of technology of products construction. Curve of product life cycle. Costs of the production preparation. Documentation of production preparation and flow. Organization structure of product preparation units. Innovative processes in activity of industrial company.

#### Project:



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The concept of organization and improvement of production - multi-criteria assessment, consisting in the presentation of production flow norms, preparation of the production process structure and company structure in terms of process organization and the scope of technical, construction, technological and organizational preparation, mapping the production process, assessment of the resistance of the production system to turbulent environment.

### **Teaching methods**

Lecture - multimedia lecture, case study analysis.

Projects - multimedia lecture, work in teams, problem-solving tasks set by the teacher, presentation of solutions and forum discussion group.

## **Bibliography**

#### Basic

- 1. Kawecka-Endler A., Organizacja technicznego przygotowania produkcji prac rozwojowych, Wyd. Politechniki Poznańskiej, Poznań 2004.
- 2. Karpiński T., Inżynieria produkcji, WNT, Warszawa 2004.
- 3. Szatkowski K., Przygotowanie produkcji, PWN Warszawa 2013.
- 4. Kawecka-Endler A., Wpływ technicznego przygotowania produkcji na kształtowanie jakości wyrobu [w:] Współczesne nurty w inżynierii jakości (red. P. Grudowski, J. Preihs, P. Waszczur), Wyd. PG, Gdańsk 2005, s. 235-242.
- 5. Kawecka-Endler A., Montaż wyrobów aspekty ergonomiczne i jakościowe, Zeszyty Naukowe "Organizacja i Zarządzanie" nr 43, Wyd. Politechniki Poznańskiej, Poznań 2006, s.33-52.

#### Additional

- 1. Inżynieria zarządzania. Strategia i projektowanie systemów produkcyjnych cz.2, Durlik I., Agencja Wydawnicza Placet, Warszawa, 2005.
- 2. Marczewska-Kuźma R., Kawecka-Endler A., Analiza zmian zachodzących w relacji klient przedsiębiorstwo, Przegląd Organizacji 12/2015.





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# Breakdown of average student's workload

	Hours	ECTS
Total workload	125	5,0
Classes requiring direct contact with the teacher	40	2,0
Student's own work (literature studies, preparation for project,	85	3,0
preparation for exam, project preparation) <sup>1</sup>		

5

<sup>&</sup>lt;sup>1</sup> delete or add other activities as appropriate