## POZNAN UNIVERSITY OF TECHNOLOGY



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

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

# **COURSE DESCRIPTION CARD - SYLLABUS**

Course name

Technical and organizational production preparation

**Course** 

Field of study Year/Semester

Management and Production Engineering 2 / 4

Area of study (specialization) Profile of study

general academic

Level of study Course offered in

First-cycle studies Polish

Form of study Requirements part-time compulsory

**Number of hours** 

Lecture Laboratory classes Other (e.g. online)

12

Tutorials Projects/seminars

**Number of credit points** 

2

**Lecturers** 

Responsible for the course/lecturer: Responsible for the course/lecturer:

PhD., Eng.Jan Uniejewski

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tel. 665 2051

Faculty of Mechanical Engineering

Piotrowo street 3, 60-965 Poznań

**Prerequisites** 

Knowledge Basics knowledge on management, engineering designing

Skills Logical thinking, the use of information obtained from the library and the Internet

Social competencies Understanding the need for learning and acquiring new knowledge

**Course objective** 

Providing students with basic knowledge about production preparation processes, developing skills in this area and raising awareness of the role of production preparation in modern enterprises

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

#### Knowledge

- 1. Student knows the objectives, scope, phases and stages of production preparation [K\_W09, K\_17]
- 2. He knows the place and role preparation of production in the product life cycle [K\_W17, K\_W20]
- 3. He knows the cycle and design strategies, the nature of concurrent engineering [K\_W17, K\_W20]
- 4. He knows the components of construction and technological documentation [K\_W09]
- 5. He knows the principles and methods of standardization of work [K\_W08, K\_W09]

#### Skills

- 1. The student is able to determine the scope of work preparation of production according to production program and complexity of the product / process [K\_U08, K\_U10, KU11, K\_U12]
- 2. He can choose methods and means for the implementation of production preparation  $[K\_U10, K\_U11, K\_U12]$
- 3. He can define standardization methods of work [K U12, K U11]

#### Social competences

- 1. Student is aware to undertake the cooperation in the team [K2\_K03]
- 2. He is aware of the role of pre-production in today's economy and society [K\_K02]

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

The final test - the answers to three questions, each question is scored on a scale of 0 to 5; credit after obtaining at least 55% of the points., a discussion of test results

### **Programme content**

#### Lecture:

Place and role of production preparation in the production system of a modern enterprise. Production process - manufacturing process - technological process. Product life cycle. Definition, goals, tasks and functions of production preparation. Technical and organizational division of production preparation. Prospective and relevant T-OPP. Structural production preparation - phases and scope, full and incomplete design cycle, design strategies - diagnostic, functional, prognostic, construction documentation. Technological preparation of production, technology, technological process and its division, performed works, technological documentation, work normalization. Technologicality of the structure. Computer support for the technical preparation of production.

## **Teaching methods**

1. lecture: multimedia presentation, discussion and problem analysis.

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## **Bibliography**

#### Basic

- 1.Szwabowski J., Elementy technicznego przygotowania produkcji, Wydawnictwo Politechniki Szczecińskiej, Szczecin 2003
- 2. Kawecka-Endler Al., Organizacja technicznego przygotowania produkcji. Wydawnictwo Politechniki Poznańskiej Poznań 2004

#### Additional

- 1. Pająk E.; Zarządzanie produkcją. Produkt, technologia, organizacja. Wydawnictwo Naukowe PWN Warszawa 2006 r.
- 2. Durlik I., Inżynieria zarządzania. Strategia i projektowanie systemów produkcyjnych. Część 1, Agencja Wydawnicza Placet, Warszawa 2000

# Breakdown of average student's workload

	Hours	ECTS
Total workload	50	2,0
Classes requiring direct contact with the teacher	20	0,8
Student's own work (literature studies, preparation for laboratory	30	1,2
classes/tutorials, preparation for tests/exam, project preparation) <sup>1</sup>		

3

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