**COURSE DESCRIPTION CARD - SYLLABUS**

Course name
Production Management
**Course**

Field of study
Mangement and Production Engineering
Area of study (specialization)
Mechanical Engineering
Level of study

Form of study

Year/Semester
-
Profile of study

Course offered in
English
Requirements

 **Number of hours**

Lecture
0
Tutorials
15
Laboratory classes
0
Projects/seminars
0
Other (e.g. online)
0

**Number of credit points**5

**Lecturers**

Responsible for the course/lecturer:
Yuliia Denysenko

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Faculty of Mechanical Engineering

Piotrowo Street 3, 60-965 Poznań

Responsible for the course/lecturer:
-

 **Prerequisites**
Student has a fundamental knowledge in the field of manufacturing process, production planning and control. Student can logically associate facts and use information obtained from available sources of knowledge. Student understands the need to acquire new knowledge.

**Course objective**
Students become familiar with tools and methods, modern concepts used in production management

**Course-related learning outcomes**Knowledge
Student has a fundamental knowledge in the field of production organization and management

Skills
Student understands and is able to apply the parameters of manufacturing processes and systems for design of production structures

Social competences
Student understands the need of learning and acquiring new knowledge

**Methods for verifying learning outcomes and assessment criteria**Learning outcomes presented above are verified as follows:
workshops, exam (test)

**Programme content**

The production process and its surroundings. Basic concepts of the production process. Steps of production cycle. Manufacturing readiness level. Types and forms of production organization. Technical and organizational characteristics of basic types of the manufacturing process. Production structures. Lean Manufacturing concept. Tools and methods used in Lean Manufacturing. 5S, Kaizen, just-in-time. Total quality management. TQM tools (Ishikawa diagrams, Shewchart charts). Statistical methods for evaluating the production process.

**Teaching methods**

Direct Instruction, case studies, discussion

**Bibliography**

Basic
1. Verma H. N. , Ghadoliya M. K. , Takale R.: Production and Operations Management, Universal Training Solutions Private Limited, Pune, 2013

2. Kumar S. Anil, Suresh N.: Production and Operations Management. 2nd Edition, 2008

3. Rother M., Shook, J., Learning to See: Value Stream Mapping to Add Value and Eliminate MUDA. Brookline, MA: Lean Enterprise Institute, 2003

Additional
1. Liker, J. K., The Toyota way: 14 management principles from the world's greatest manufacturer, New York: McGraw-Hill Professional, 2004

2. Taiichi O. Toyota Production System: Beyond Large-Scale Production, Butterworth-Heinemann, 2001

**Breakdown of average student's workload**

|  | Hours | ECTS |
| --- | --- | --- |
| Total workload | 150 | 5,0 |
| Classes requiring direct contact with the teacher | 16 | 1,0 |
| Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam) [[1]](#footnote-1) | 134 | 4,0 |

1. delete or add other activities as appropriate [↑](#footnote-ref-1)