



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Warehouse management

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### Course

Field of study

Engineering Management

Area of study (specialization)

Year/Semester

Profile of study

Level of study

First-cycle studies

Form of study

full-time

Course offered in

Polish

Requirements

elective

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### Number of hours

Lecture

15

Tutorials

15

Laboratory classes

Projects/seminars

Other (e.g. online)

### Number of credit points

2

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### Lecturers

Responsible for the course/lecturer:

Joanna Oleśków Szłapka Ph.D., Eng.

joanna.oleskow-szlapka@put.poznan.pl

Faculty of Engineering Management

2 Jacek Rychlewski Str. , 60-965 Poznan

Responsible for the course/lecturer:

Irena Pawłyszyn Ph.D., Eng.

irena.pawlyszyn@put.poznan.pl

Faculty of Engineering Management

2 Jacek Rychlewski Str. , 60-965 Poznan

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### Prerequisites

The student starting this subject should have a basic knowledge of logistics and basics of inventory



management. The student has the ability to perceive, associate and interpret phenomena occurring in the enterprise. The student understands the responsibility for decisions taken in the field of warehouse management.

### Course objective

To familiarize students with the essence and principles of warehouse management. Students learn basic solutions used in warehouse management.

### Course-related learning outcomes

#### Knowledge

Student defines the phases of the storage process (WM\_K01)

Student lists and characterizes elements of the logistics infrastructure in the storage process (WM\_K02)

Student lists and characterizes warehouse management tools (WM\_K03)

#### Skills

Student selects appropriate (from the point of view of goals and restrictions) methods and tools for given organizational conditions in the field of warehouse management (WM\_S01)

Student performs critical analysis of known methods and tools, identifies differences and common areas (WM\_S02)

Student assesses the effectiveness of applied solutions from the point of view of warehouse management (WM\_S03)

Student is able to make a critical analysis of technological processes in the field of warehouse management (WM\_S04)

#### Social competences

Student identifies the gap between expected and obtained business effects in warehouse management (WM\_SC01)

Student takes discussion, applies problem-solving tools (WM\_SC02)

Student works in the team (WM\_SC03)

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Forming note:

In the scope of tutorials:

based on student activity during classes (independent work and in groups, expressing your own views and opinions)

In the scope of lectures: based on answers to questions about the material discussed in the lectures



Summarizing note:

In the scope of tutorials: Skills acquired as part of the tutorials are verified on the basis of developed decision algorithms and a final test, consisting of 3-4 tasks scored differently depending on their level of difficulty. Passing threshold: 60% of points

In the scope of lectures: written credit, answers to open questions; credit is possible after obtaining a minimum of 60% of points

### **Programme content**

Lectures:

1. Warehouse process from A to Z;
2. Storage systems / storage areas;
3. Stock distribution in the warehouse
4. Optimization of warehouse work;
5. Warehouse documentation;
6. Inventory and OHS;
7. Technical equipment in the warehouse;
8. Operational indicators of warehouse management

Tutorials:

1. Warehouse process algorithms.
2. Warehouse documentation.
3. Formation of pallet loading units.
4. Calculation of row of racks.
5. Calculation of warehouse modules.
6. Calculation of operational indicators.

### **Teaching methods**

Didactic methods

In the field of lectures:



1. Informative lecture
2. Conversational lecture

In the scope of independent work:

1. Work with the book

In the scope of tutorials:

1. multimedia presentation illustrated with examples given on a blackboard and performance of tasks given by the teacher - practical exercises
2. Subject exercises
3. Case-based method
4. Didactic discussion

## Bibliography

Basic

1. Richards, G. (2017). Warehouse management: a complete guide to improving efficiency and minimizing costs in the modern warehouse. Kogan Page Publishers.
2. Smith, J. D. (1998). The warehouse management handbook. Tompkins press.
3. Ten Hompel, M., & Schmidt, T. (2008). Warehouse management. Springer Berlin HeidelbergEmmett,
4. S. (2005). Excellence in warehouse management: how to minimise costs and maximise value. John Wiley & Sons..

Additional

1. Bottani, E., Montanari, R., Rinaldi, M., & Vignali, G. (2015). Intelligent algorithms for warehouse management. In Intelligent Techniques in Engineering Management (pp. 645-667). Springer,
2. Cham.Van den Berg, J. P. (2012). Highly competitive warehouse management. USA: Booksurge.



**Breakdown of average student's workload**

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

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