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
Warehouse management

Course

Field of study	Year/Semester
Engineering Management	3/6
Area of study (specialization)	Profile of study
	general academic
Level of study	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
2

Lecturers

Responsible for the course/lecturer:

Ph.D., Eng. Joanna Oleśków-Szłapka

Mail to: joanna.oleskow-szlapka@put.poznan.pl

Faculty of Engineering Management

ul. J. Rychlewskiego 2, 60-965 Poznań

Responsible for the course/lecturer:

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 has a basic knowledge of the life cycle of industrial products [P6S_WG_15]

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Student knows the basic methods, techniques, tools and materials used to solve simple engineering tasks in the field of construction and operation of machines [P6S_WG_16]

Student knows typical industrial technologies and knows in depth the technologies of construction and operation of machines [P6S_WG_17]

Skills

Student is able to use analytical, simulation and experimental methods to formulate and solve engineering tasks [P6S_UW_10]

Student is able - when formulating and solving engineering tasks - to notice their systemic, socio-technical, organizational, economic and non-technical aspects [P6S_UW_11]

Student is able to make a preliminary economic analysis of engineering activities [P6S_UW_12]

Student is able to make a critical analysis of the technological processes of machine production and organization of production systems [P6S_UW_13]

Social competences

Student is aware that creating products that meet the needs of users requires a systemic approach, taking into account technical, economic, marketing, legal, organizational and financial issues [P6S_KO_02]

Student is aware of the importance and understands the non-technical aspects and effects of engineering activities, including its impact on the environment, and the related responsibility for decisions made [P6S_KR_01]

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 workand 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.

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Programme content

Lectures: Warehouse process from A to Z. Storage systems/storage areas. Stock distribution in the warehouse. Optimization of warehouse work. Warehouse documentation. Inventory and OHS. Technical equipment in the warehouse. Operational indicators of warehouse management.

Tutorials: Warehouse process algorithms. Warehouse documentation. Formation of pallet loading units. Calculation of row of racks. Calculation of warehouse modules. Calculation of operational indicators.

Teaching methods

In the field of lectures: informative lecture, conversational lecture.

In the scope of independent work: work with the book.

In the scope of tutorials: multimedia presentation illustrated with examples given on a blackboard and performance of tasks given by the teacher - practical exercises, subject exercises, case-based method, didactic discussion.

Bibliography

Basic

1. Richards G., Warehouse management: A complete guide to improving efficiency and minimizing costs in the modern warehouse, Kogan Page Publishers, London, 2017.

2. Smith J.D., The warehouse management handbook, Tompkins Press, Nottingham, 1998.

3. Ten Hompel M., Schmidt T., Warehouse management, Berlin HeidelbergEmmett, Springer, 2008.

4. Emmett S., Excellence in warehouse management: how to minimise costs and maximise value, John Wiley & Sons Inc, New Jersey, 2005.

Additional

1. Bottani E., Montanari R., Rinaldi M., Vignali G., Intelligent algorithms for warehouse management [in:] Intelligent Techniques in Engineering Management, Springer, 2015.

2. Cham van den Berg J.P., Highly competitive warehouse management, Booksurge, USA, 2012.

3. Niewiadomski P., Oleśków-Szłapka J., The assessment of implementation of the Lean strategy within manufacturing companies in agricultural machinery sector, DEStech Transactions on Engineering and Technology Research, March 2018.

4. Oleśków-Szłapka J., Stachowiak A., The use of computer simulation in warehouse automation, [w:] Advances in Sustainable and Competitive Manufacturing Systems, Lecture Notes in Mechanical Engineering. Red. Azevedo, Américo, Springer, 2013.

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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 tutorials, preparation for tests) [1]	20	1,0

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[1] delete or add other activities as appropriate