COURSE DESCRIPTION CARD - SYLLABUS

Course name
Material FLow Management

Course

Field of study
Logistics

Year/Semester
1/1

Area of study (specialization)
Corporate Logistics

Profile of study
general academic

Level of study
Second-cycle studies

Course offered in
Polish

Form of study
part-time

Requirements
elective

Number of hours

Lecture
14

Laboratory classes

Other (e.g. online)

Tutorials

Projects/seminars
14

Number of credit points

5

Lecturers

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

The student starting this subject should have a basic knowledge of production and service management.

Course objective

Providing students with basic theoretical and practical knowledge in the field of material flow management. To familiarize students with the essence and principles of material flow management. Mastering students' basic skills in material flow management

Course-related learning outcomes

Knowledge

1. Studenknows the dependencies governing a given area and their connections with logistics [P7S_WG_01].

2. Student knows issues in the field of production engineering and its connections with the field of logistics [P7S_WG_02].

3. Student knows the issues of process mapping, process orientation in logistics and process simulation [P7S_WG_03].

4. Student knows extended concepts for logistics and its specific issues and supply chain management [P7S_WG_05].

Skills

1. The student is able to gather based on the literature of the subject and other sources (in Polish and English) and in an orderly manner present information on the problem within the logistics and its specific issues and supply chain management [P7S_UW_01].

2. The student is able to communicate using appropriately selected means in a professional environment and in other environments within logistics and its specific issues and supply chain management [P7S_UW_02]

3. Tha Student is able to make a critical analysis of technical solutions used in the analyzed logistics system (in particular in relation to devices, objects and processes) [P7S_UW_04].

4. The Student is able to assess the usefulness and possibility of using new achievements (techniques and technologies) in logistics and functionally related areas [P7S_UW_06].

Social competences

1. The student notices the cause-and-effect relationships in achieving the goals and grades the significance of alternative or competitive tasks [P7S_KK_01].

2. The student is aware of the responsibility for own work and readiness to comply with the rules of teamwork and taking responsibility for jointly implemented tasks [P7S_KR_01].

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

-Formulator Rating:

a) In terms of the project: on the basis of progress in the implementation phases of the project, and knowledge of the issues necessary for its implementation b) for the lecture: on the basis of answers to questions about issues to discuss in the previous lectures, half test.

Summary Rating:

a) In terms of the project: on the basis of (1) the quality of the merits of the project (2) The defense made the project b) for the lecture: on the basis of test - written work on the issues discussed in the

lecture. Can take the exam after the assessments of the project and the laboratory. The exam is passed, after giving the correct answer to most of the substantive issues discussed, passing threshold 60%.

Programme content

The lecture begins with the presentation of the essence of material flow management. Two basic variants of this process are presented? non-computerized and computerized model. The differences between the two models are highlighted. The course and main methods of controlling material flow management at the product level and product components in the non-computerized version are presented. The material requirement planning (MRP) method is presented as the basis for material flow management at the level of components of products in the computerized version. The problem of integration of the computerized and non-computerized variant, integration of MRP and JiT is discussed.

During design classes, students learn about the characteristics of material flow in the supply chain, including reverse logistics, design, according to the instructor's instructions, the selected material flow management system, describe the range. (Product structure assembly and disassembly, Product specification, Assembly and disassembly instructions, executive), carry out reverse logistics analysis (Re-use; Re-use scenarios; In-out and in-process balance), present aspects of sustainable development, positive / negative impact on the environment and the environment, perform simulations and perform analyzes, develop an investment impact assessment matrix.

Teaching methods

- Informative (conventional) lecture (information transfer in a systematic way) of a monographic nature, in the form of a multimedia presentation

- Project method (individual or team implementation of a large, multi-stage cognitive or practical task, the effect of which is the creation of a work

Bibliography

Basic

1. Dwiliński L., Zarządzanie produkcją, Oficyna Wydawnicza Politechniki Warszawskiej, 2002

2. Fertsch M., Podstawy zarządzania przepływem materiałów w przykładach, Biblioteka logistyka, Wydawnictwo ILiM, Poznań, 2003.

3. Kosieradzka A., (red.)., Podstawy zarządzania produkcją. Ćwiczenia. Oficyna Wydawnicza Politechniki Warszawskiej, Warszawa, 2008.

4. Senger Z., Sterowanie przepływem produkcji, Wydawnictwo Politechniki Poznańskiej, 1998.

5. Fertsch M., Gania I., Zarządzanie przepływem materiałów, Wydawnictwo Politechniki Poznańskiej, Poznań 2011

6. Senger Z., Sterowanie przepływem produkcji, Wydawnictwo Politechniki Poznańskiej, 1998.

7. Dwiliński L., Zarządzanie produkcją, Oficyna Wydawnicza Politechniki Warszawskiej, 2002

Additional

1. Muhlemann A.P. Oakland AJ.S., Lockyer K.G.. Zarządzanie produkcja i usługi, Wydawnictwo Naukowe PWN, 2001

2. Krzyżaniak S., Podstawy zarządzania zapasami w przykładach, Poznań, Instytut Logistyki i Magazynowania, 2008.

3. Kosieradzka A., (red.)., Podstawy zarządzania produkcją. Ćwiczenia. Oficyna Wydawnicza Politechniki Warszawskiej, Warszawa, 2008

Breakdown of average student's workload

	Hours	ECTS
Total workload	125	5,0
Classes requiring direct contact with the teacher	28	1,0
Student's own work (literature studies, consultation, preparation for exam, project preparation) [1]	97	4,0

[1] delete or add other activities as appropriate