

STUDY MODULE DESCRIPTION FORM		
Name of the module/subject Management of material flow		Code 1011102411011117645
Field of study Logistics - Full-time studies - Second-cycle	Profile of study (general academic, practical) general academic	Year /Semester 1 / 1
Elective path/specialty Corporate Logistics	Subject offered in: Polish	Course (compulsory, elective) elective
Cycle of study: Second-cycle studies	Form of study (full-time, part-time) full-time	
No. of hours Lecture: 15 Classes: - Laboratory: - Project/seminars: 30		No. of credits 5
Status of the course in the study program (Basic, major, other) other		(university-wide, from another field) university-wide
Education areas and fields of science and art technical sciences Technical sciences		ECTS distribution (number and %) 5 100% 5 100%
Responsible for subject / lecturer: dr hab. inż. Marek Fertsch, prof. nadzw. email: marek.fertsch@put.poznan.pl tel. 616653416 Wydział Inżynierii Zarządzania 60-965 Poznań, ul. Strzelecka 11		Responsible for subject / lecturer: dr inż. Ireneusz Gania email: ireneusz.gania@put.poznan.pl tel. 616653385 Faculty of Engineering Management ul. Strzelecka 11 60-965 Poznań
Prerequisites in terms of knowledge, skills and social competencies:		
1	Knowledge	Basic knowledge of production management.
2	Skills	The student has the skills in the subject production management.
3	Social competencies	The student has the social skills of the subject Production management.
Assumptions and objectives of the course: To familiarize students with the nature and principles of material flow management. Students mastering basic skills in managing the flow of materials.		
Study outcomes and reference to the educational results for a field of study		
Knowledge:		
1. knows the basic relationship between the sphere of technical and economic characteristic of production flow steering in the area of logistics - [K2A_W04]		
2. has in-depth knowledge of manufacturing engineering and its links with the direction of logistics - [K2A_W05]		
3. knows the basic concepts in the context of production flow steering being studied for the logistics - [K2A_W09]		
4. knows the basic concepts in the context of production flow steering being studied for the logistics - [K2A_W09]		
5. an understanding process mapping and process orientation in logistics - [K2A_W10]		
6. can explain in detail the methods, tools and techniques specific to the subject being studied for the logistics - [K2A_W13]		
Skills:		

<p>1. can communicate using appropriate personal in a professional environment and in other environments, in terms of subject being studied - [K2A_U04]</p> <p>2. discussion of the problem of foreign located within the subject being studied - [K2A_U05]</p> <p>3. can design analysis process in relation to the problem of falling within the subject being studied - [K2A_U09]</p> <p>4. can formulate and solve problems through interdisciplinary integration of knowledge in the fields and disciplines used in the design of logistic systems - [K2A_U10]</p> <p>5. able to formulate and test hypotheses regarding the issues related to the design of logistics systems - [K2A_U11]</p> <p>6. able to assess the usefulness and the usability of new developments (techniques and technologies) in logistics and functionally related areas - [K2A_U12]</p> <p>7. can make a critical analysis of the technical solutions used in the logistic system analysis - [K2A_U15]</p> <p>8. able to identify possible improvements in the reporting system of logistics - [K2A_U16]</p>
<p>Social competencies:</p>
<p>1. is aware of the responsibility for their own work and willingness to comply with the principles of teamwork and accountability for collaborative tasks - [K2A_K03]</p> <p>2. depending able to see the cause and effect in achieving the set goals and make gradation significance of alternative or competing tasks - [K2A_K04]</p>

<p>Assessment methods of study outcomes</p>
<p>Formulator Rating:</p> <p>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</p> <p>Summary Rating:</p> <p>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</p>
<p>Course description</p>
<p>The lecture begins with a presentation of the essence of material flow management. The are two main variants of this process? niezinformatyzowany and computerized model. Highlighted are the differences between the two models. Presented is the course and the main methods of material flow management control at the level of products and product components niezinformatyzowanej version. The presented method is material requirements planning (MRP) as the basis for managing the flow of materials at the level of the components of the computerized version of the products. Deals with the problem of integration and niezinformatyzowanego computerized variant? MRP integration? JiT. In class, students design project, according to the guidelines operator, selected material flow management system</p> <p>At the laboratory students will learn the basics of computer aided material flow management. This laboratory operates on the basis of ERP? Navision Axapta system implemented for the purpose of teaching. In a series of exercises performed on the basis of this system, students go through the whole cycle of material flow management? from developing master production scheduling through production planning, supply planning and scheduling of deliveries</p> <p>Teaching methods:</p> <p>Information lecture (conventional) (information transfer in a systematic way) monographic (specialist).</p> <p>Project method (individual or team implementation of large, multi-stage cognitive or practical task resulting in the creation of a work).</p>
<p>Basic bibliography:</p> <ol style="list-style-type: none"> Zarządzanie produkcją, Dwiliński L., , Oficyna Wydawnicza Politechniki Warszawskiej, Warszawa, 2002 Podstawy zarządzania przepływem materiałów w przykładach, Fertsch M., , Biblioteka logistyka, Wydawnictwo ILiM, Poznań, 2003 Sterowanie przepływem produkcji, Senger Z., , Wydawnictwo Politechniki Poznańskiej, Poznań, 1998 Zarządzanie przepływem materiałów, Fertsch M., Gania I., Wydawnictwo Politechniki Poznańskiej, Poznań 2011. Podstawy zarządzania produkcją. Ćwiczenia, Kosieradzka A., (red.), Oficyna Wydawnicza Politechniki Warszawskiej, Warszawa, 2008 Podstawy zarządzania produkcją. Ćwiczenia, Kosieradzka A., (red.), Oficyna Wydawnicza Politechniki Warszawskiej, Warszawa, 2008
<p>Additional bibliography:</p> <ol style="list-style-type: none"> Krzyżaniak S., Podstawy zarządzania zapasami w przykładach, Poznań, Instytut Logistyki i Magazynowania, 2008. Muhlemann A.P. Oakland A.J.S., Lockyer K.G.. Production and Operations Management Paperback ? Import, June 2, 1988
<p>Result of average student's workload</p>

Activity		Time (working hours)
1. lectures		15
2. own work		35
3. projects		30
4. consultation		30
5. exam preparation		15
Student's workload		
Source of workload	hours	ECTS
Total workload	125	5
Contact hours	65	3
Practical activities	60	1