STUDY MODULE DESCRIPTION FORM

Name of the module/subject		Code
Logistics 2		**1011101421011110216**
Field of study	Profile of study (general academic, practical)	Year /Semester
Logistics - Full-time studies - First-cycle studies	**general academic**	**1 / 2**
Elective path/specialty	Subject offered in:	Course (compulsory, elective)
-	**Polish**	**elective**
Cycle of study:	Form of study (full-time,part-time)	
First-cycle studies	**full-time**	
No. of hours		No. of credits
Lecture: **30** Classes: **-** Laboratory: **15** Project/seminars: **-**		**5**
Status of the course in the study program (Basic, major, other)	(university-wide, from another field)	
other	**university-wide**	
Education areas and fields of science and art		ECTS distribution (number and %)
technical sciences		**5 100%**

Responsible for subject / lecturer:

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Prerequisites in terms of knowledge, skills and social competencies:

1	**Knowledge**	The student knows the basic logistical issues such as functional separation of logistics, nature customer service, the nature of transport and storage logistics.
2	**Skills**	Student is able to calculate a simple task with the content. He can use statistical formulas such as the mean and statistical deviation.
3	**Social competencies**	work in group

Assumptions and objectives of the course:

The course aims are to familiarize students with the most important problems of inventory management in terms of independent demand and training in operational decision-making skills for reordering stock.

Study outcomes and reference to the educational results for a field of study

Knowledge:

1. Student has a basic knowledge of inventory management - [K1A_W14;K1A_W17;K1A_W18]
2. Student is able to identify and formulate the basic relationship between inventory and, storage, transport and other functional areas of logistics - [K1A_W14;K1A_W16;K1A_W20]
3. Student knows the historical development of inventory management - [K1A_W19]

Skills:

1. Student can design a process to analyze the efficiency of inventory management - [K1A_U01;K1A_U12]
2. Student is able to define the problem of renewal of stocks in terms of demand independent - [K1A_U02;K1A_U13]
3. Students can use a spreadsheet with a simple algorithm to design a reordering of stocks - [K1A_U04;K1A_U05;K1A_U09]

Social competencies:

1. Student shows a willingness to cooperate and assist in the design group - [K1A_K03]
2. The student is responsible for the identification and resolution of the dilemmas associated with inventory management - [K1A_K01;KInzA_W05]
3. Student is determined to think in an entrepreneurial way of inventory management - [K1A_K05]

Assessment methods of study outcomes

Formative assessment:

a) For the laboratory: on the basis of progress in the implementation stages of the project (created in laboratory), and knowledge of the issues necessary to carry b) for the lecture: on the basis of answers to questions about the topics covered in previous lectures

Recapitulative assessment:

a) For the laboratory: on the basis of (1) the quality of the project (2) answers to questions about the project b) for the lecture: on the basis of colloquium - written work on the issues discussed during the lecture. The exam can be applied after obtaining the ratings of the project and the laboratory. The exam is passed, after giving the correct answers to most questions

Course description

The issue of course includes the following topics: functions of inventory in logistic systems (includes implementation of VMI process), classification of inventory, the structure of supply (inventory cycle, safety, surplus - identifies causes for stock obsolescence and redundancy and propose ways for minimising this), the basic elements of inventory management to cover the needs of dependent and independent (includes push/pull logic, lead time definition, product cycle vs. level of inventory management), the costs of rising, maintenance and lack of supply, demand analysis (includes method of improves the demand management process), demand forecasting (9 stages of forecasting process), definitions of customer service (CS in the demand management process), developing supply security, reordering systems inventory (optimize level of inventory), optimize inventory turnover (volume of deliveries), the square root law (safety stocks in the dispersion of stock), inventory management of product groups (includes CPFR method), measures of stock (KPI in inventory management).

Didactic methods

In lectures:

Conversational lecture

Information lecture

In the scope of laboratories:

Case studies

Computer simulation method

Project method

In the field of self-employment:

Working with a book

Basic bibliography:

1. Cyplik P., Hadaś Ł., Zarządzanie zapasami w łańcuchu dostaw, Wydawnictwo Politechniki Poznańskiej, Poznań, 2012

2. Krzyżaniak S., Podstawy zarządzania zapasami w przykładach, ILiM, Poznań, 2008

3. Sarjusz-Wolski Z., Sterowanie zapasami w przedsiębiorstwie, PWE, Warszawa, 2000

4. Cyplik P., AN APPLICATION OF SPARE SUPPLIES MANAGEMENT FOR WAREHOUSE SUPPLIES OPTIMIZATION USING CLASSICAL METHODS - CASE STUDY, Logforum 1.3 (2005): 4

Additional bibliography:

1. Coyle J. J., Bardi E. I., Langley J. Jr., Zarządzanie logistyczne, PWE, Warszawa, 2002

2. Krzyżaniak S., Cyplik P., Zapasy i magazynowanie, Tom I Zapasy, Podręcznik do kształcenia w zawodzie technik logistyk ILiM Poznań 2007

Result of average student's workload

Activity	Time (working hours)
1. Preparing for the Exam	15
2. Preparation for the laboratory and to pass project	10
3. Project realisation	35
4. Lectures	30
5. Laboratory	15
6. Project consulatation	15

Student's workload

Source of workload	hours	ECTS
Total workload	120	5
Contact hours	60	3
Practical activities	15	1