STUDY MODULE DESCRIPTION FORM

Name of the module/subject	Code
Supply chain management	**1011104451011112836**

Field of study	Profile of study (general academic, practical)	Year /Semester
Logistics - Part-time studies - First-cycle	**(brak)**	**3 / 5**
Elective path/specialty	Subject offered in:	Course (compulsory, elective)
-	**Polish**	**obligatory**

Cycle of study:	Form of study (full-time,part-time)
First-cycle studies	**part-time**

No. of hours					No. of credits
Lecture: **14**	Classes: **-**	Laboratory: **-**	Project/seminars: **14**		**4**

Status of the course in the study program (Basic, major, other)	(university-wide, from another field)
(brak)	**(brak)**

Education areas and fields of science and art	ECTS distribution (number and %)
technical sciences	**4 100%**

Responsible for subject / lecturer:

dr inż. Roman Domański
email: roman.domanski@put.poznan.pl
tel. 616653385
Faculty of Engineering Management
ul. Strzelecka 11 60-965 Poznań

Responsible for subject / lecturer:

dr inż. Roman Domański
email: roman.domanski@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**	has a basic knowledge of management and organizational processes, including logistics processes,
2	**Skills**	able to identify the stages of material flow in the enterprise and supply chain
3	**Social competencies**	there is no indication

Assumptions and objectives of the course:

-introduce students with the problems of supply chain management

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

Knowledge:

1. Student is able to define the supply chain management problems as the essential elements of the logistics process - [[K1A_W14]]
2. Student is able to using a spreadsheet to design simple algorithms necessary for the supply chain management - [[K1A_W15]]
3. A student is able to explain in detail the concepts and phenomena characteristic of logistics and its specific issues (inventory management, logistics, distribution logistics and supply, logistics, ecologistics) as well as supply chain management - [[K1A_W17]]
4. The student knows how to formulate basic dependencies that are applicable within the framework of logistics and its specific issues (inventory management, logistics, distribution logistics and supply, logistics, ecologistics) as well as supply chain management - [[K1A_W18]]
5. . has basic knowledge of products, equipment, technical systems - [[K1A_W19]]
6. knows elementary notions connected with reliability and security in maintaining technical equipment, objects and technical systems - [[K1A_W20]]

Skills:

1. The student can do the search that is based on disciplinary literature and other sources, and can in an orderly way, present information about the issue in the framework of supply chain management - [[K1A_K01]]

2. The student is sensitive to non-technical aspects and effects of engineering activities, including its impact on the environment and connected with it, responsibility for decisions in respect of a part of the logistics and supply chain management - [[K1A_K02]]

3. has self-study ability and comprehends it - [[K1A_U05]]

4. can make use of analytic, simulation and experimental methods to formulate and solve engineering problems - [[K1A_U09]]

5. can conduct a critical analysis of the ways in which technical solutions function and assess, by means of Security Engineering, the existing technical solutions, in particular machines, equipment, objects, systems, services and processes - [[K1A_U13]]

Social competencies:

1. . is aware of the relevance of the study and understands non-technical aspect as well as the consequences of engineering activity, including its impact on environment and taken responsibility of his decisions - [[K1A_K02]]

2. Student is responsible for the identification and resolution of the dilemmas associated with supply chain management - [[K1A_K05]]

Assessment methods of study outcomes

Formative assessment:

current check of the acquired knowledge and skills learnt during lectures

Collective assessment:

a test based written exam within exam session

Course description

The definition of the supply chain. Principles of supply chain operations: Maintain inventory in supply chain; Strategies to manage volatile demand in supply chain; Cycle Time Reduction Strategies; Postponement Strategies; Collaborative Processes; forecast and plan); Collaborative planning, forecasting, and replenishment (CPFR - nine steps); Analysis of Inventory - across the entire network; Conventional and integrated supply chains: Lean & Agile supply chain; Vendor-managed inventory (VMI); VMI - expectations of all parties; Information management (supplier - customer) ; VMI - Review process, JiT II: Explore the impact of forecasting models on the supply chain; The logistics operator in the supply chain (3rd party logistics, 4th party logistics). Benchmarking in the supply chain: Reduce variation in the supply chain; Problem solving techniques in process (define the problem; gather information; identify alternative solutions; evaluate the options and select the best option; evaluate the action); Problem solving techniques, Coordination of activities in the supply chain 8. Strengths & Weaknesses of the Supply Chain: lean & agile supply chain - focus on customer needs; Opportunities and risks associated with the participation of companies in the supply chain: Build partnerships and alliances with supply chain members; The bottleneck resources Process management in the supply chain: Analyses the supply chain by using value stream mapping (Flowcharting technique); Visualise product/work flows; Identifying value add and non value add activities; Identifying improvement opportunities (Kaizen); Synchronising flow; Reduce variation in the supply chain; Problem solving techniques in process (define the problem; gather information; identify alternative solutions; evaluate the options and select the best option; evaluate the action); Identify process improvement opportunities (value stream mapping; six sigma);

Basic bibliography:

1. Ciesielski M. (red.), (2009), Instrumenty zarządzania łańcuchami dostaw, Polskie Wydawnictwo Ekonomiczne, Warszawa

2. Sołtysik M., Świerczek A., (2009) Podstawy zarządzania łańcuchami dostaw, Wydawnictwo Akademii Ekonomicznej, Katowice

3. Witkowski J., (2010), Zarządzanie łańcuchem dostaw. Koncepcje, procedury, doświadczenia, Polskie Wydawnictwo Ekonomiczne, Warszawa

Additional bibliography:

1. Bozarth C., Handfield R.B., (2007), Wprowadzenie do zarządzania operacjami i łańcuchem dostaw, Helion ? One Press, Katowice

2. Ciesielski M., Długosz J. (red.), (2010), Strategie łańcuchów dostaw, Polskie Wydawnictwo Ekonomiczne, Warszawa

3. Fechner I., (2007), Zarządzanie łańcuchem dostaw, Wyższa Szkoła Logistyki, Poznań

Result of average student's workload

Activity	Time (working hours)

1. Lectures	14
2. Project	14
3. Prepare for Training	15
4. Consultations	47
5. Work to project	5
6. Preparing to pass	3
7. Exam	2

Student's workload		
Source of workload	**hours**	**ECTS**
Total workload	100	4
Contact hours	28	1
Practical activities	72	3