Faculty of Engineering Management

STUDY MODULE DESCRIPTION FORM					
Name of the module/subject		Code			
Supply chain design	·	1011102311011117660			
Field of study	Profile of study	Year /Semester			
	(general academic, practical)				
Logistics - Full-time studies - Second-cycle	(brak)	1/1			
Elective path/specialty	Subject offered in:	Course (compulsory, elective)			
Chain of Delivery Logistics	Polish	elective			
Cycle of study:	Form of study (full-time,part-time)				
Second-cycle studies	full-time				
No. of hours		No. of credits			
Lecture: 30 Classes: - Laboratory: -	Project/seminars:	5			
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 %)			
Responsible for subject / lecturer:					
dr hab. Inż. Marek Fertsch, prof.nadzw. email: marek.fertsch@ put.poznan.pl					

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Prerequisites in terms of knowledge, skills and social competencies:

1	Knowledge	Student has knowledge on Supply Chain Management		
2	Skills	Student has skills within Supply Chain Management		
3	Social competencies	Student has social competences within Supply Chan Management area		

Assumptions and objectives of the course:

Providing student with knowledge, skills, competences within Supply Chain Design area

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

Knowledge:

- 1. Student is able to identify interdependencies and relations within area of Supply chain design and their connection to Logistics - [K2A_W02]
- 2. Student knows basic relations between technical and economic sphere typical for Supply chain design [K2A_W04]
- 3. Student knows basic terms and definitions typical for Supply chain design [K2A_W09]
- 4. Student is familiar with process mapping idea and generally process approach [K2A_W10]
- 5. Student is familiar with IT systems applicable in Supply chain design area [K2A_W12]
- 6. Student is able to identify and explain methods, tools and means applicable in Supply chain design area [K2A_W13]

Skills:

- 1. Student is able to communicate with proper means in professional environment and other environments connected with Supply chain design area - [K2A_U02]
- 2. Student is able to develop and present in Polish or in foreign language analysis of a given problem within Supply chain design area - [K2A_U04]
- 3. Student is able to benefit from self-learning [K2A_U05]
- 4. Student is able to define and solve problem integrating interdisciplinary knowledge from the disciplines within logistics [K2A_U10]
- 5. Student is able to assess potential of new solutions (technics and technologies) within logistics and connected areas -[K2A_U12]
- 6. Student is able to identify areas for improvement within Logistics system [K2A_U16]

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Social competencies:

- 1. Student is aware of responsibility for own work and ready to obey team work principles, including sharing responsibility for group tasks [K2A_K03]
- 2. Student is able to identify interdependencies and cause-effect relations in striving for goals and prioritize tasks [K2A_K04]

Assessment methods of study outcomes

Forming assessment

a) project: discussion on solution, students developed in their project, b) answering questions discussed during lecture and referring to issues presented

Final assessment

project a) public presentation of project outcomes and discussion on solutions developed b) quality of project developed lecture: presentation of analysis of a problem defined by the coordinator, answering questions concerning subject content

Course description

Supply chain as Logistics system. Reference models of supply chain design. Logistics system design. Selection of supply chain strategy. Strategic analysis. Models: Krajlica, Coxa, Saundersa. Model by Olsen and Ellram, assessment of supply chain performance. Configuration of supply chain. Theoretical aspects of supply chain configuration. Balancing supply chains. Dimensions of supply chains. Simulation methods in supply chains. Physical systems design, identification of avaulable alternatives, collecting and using data, selection of methods, selection of technics for alternatives assessment, selection of criteria of assessment, analysis of results.

Teaching methods: conventional specialist lecture, team project, work with literature

Basic bibliography:

- 1. Fertsch M., Projektowanie łańcuchów dostaw., Wydawnictwo Politechniki Poznańskiej, Poznań, 2012
- 2. Kisperska-Moroń D. (red.), Pomiar funkcjonowania łańcucha dostaw, Prace Naukowe Akademii Ekonomicznej Imienia Karola Adamieckiego w Katowicach, Katowice, 2006
- 3. Ciesielski M., Długosz J. (red.), Strategie łańcuchów dostaw, PWE, Warszawa 2010
- 4. Gołębska E., Szymczak M., Informatyzacja w logistyce przedsiębiorstw, Wydawnictwo Naukowe PWN, Warszawa, 1997

Additional bibliography:

- 1. Schary P.B., Skjott-Larsen, T., Zarządzanie globalnym łańcuchem podaży, Wydawnictwo Naukowe PWN, Warszawa 2002
- 2. Witkowski J., Zarządzanie łańcuchem dostaw, PWE Warszawa 2010

Result of average student's workload

Activity	Time (working hours)
1. lectures	30
2. project	30
3. preparation for the project	15
4. work with literature	35
5. consultations	15

Student's workload

Source of workload	hours	ECTS
Total workload	125	5
Contact hours	75	3
Practical activities	60	2