

<b>STUDY MODULE DESCRIPTION FORM</b>		
Name of the module/subject <b>Supply chain management</b>		Code <b>1011101451011112836</b>
Field of study <b>Logistics - Full-time studies - First-cycle studies</b>	Profile of study (general academic, practical) <b>general academic</b>	Year /Semester <b>3 / 5</b>
Elective path/specialty <b>-</b>	Subject offered in: <b>Polish</b>	Course (compulsory, elective) <b>obligatory</b>
Cycle of study: <b>First-cycle studies</b>	Form of study (full-time, part-time) <b>full-time</b>	
No. of hours Lecture: <b>15</b> Classes: <b>15</b> Laboratory: <b>-</b> Project/seminars: <b>-</b>		No. of credits <b>4</b>
Status of the course in the study program (Basic, major, other) <b>other</b>		(university-wide, from another field) <b>university-wide</b>
Education areas and fields of science and art <b>technical sciences</b>		ECTS distribution (number and %) <b>4 100%</b>
<b>Responsible for subject / lecturer:</b> dr inż. Katarzyna Grzybowska email: katarzyna.grzybowska@put.poznan.pl tel. 61 665 33 96 Faculty of Engineering Management ul. Strzelecka 11 60-965 Poznań		<b>Responsible for subject / lecturer:</b> dr inż. Katarzyna Grzybowska email: katarzyna.grzybowska@put.poznan.pl tel. 61 665 33 96 Faculty of Engineering Management ul. Strzelecka 11 60-965 Poznań
<b>Prerequisites in terms of knowledge, skills and social competencies:</b>		
1	<b>Knowledge</b>	has a basic knowledge of management and organizational processes, including logistics processes,
2	<b>Skills</b>	able to identify the stages of material flow in the enterprise
3	<b>Social competencies</b>	there is no indication
<b>Assumptions and objectives of the course:</b> -introduce students with the problems of supply chain management, - The student's knowledge, skills and social competencies related to supply chain management - Familiarize students with the essence and principles of supply chain operations.		
<b>Study outcomes and reference to the educational results for a field of study</b>		
<b>Knowledge:</b>		
1. knows the basic dependencies in logistics and supply chain management - [K1A_W14]		
2. can explain basic concepts for logistics and supply chain management - [K1A_W15]		
3. can recognize basic phenomena characteristic for logistics and supply chain management - [K1A_W16]		
4. can explain in detail the characteristic concepts for logistics and its specific issues and supply chain management - [K1A_W17]		
5. knows how to formulate basic dependencies within logistics and supply chain management - [K1A_W18]		
6. can identify current trends in logistics and supply chain management - [K1A_W19]		
7. can describe the best practices in the logistics and supply chain management of the phenomenon - [K1A_W20]		
<b>Skills:</b>		

1. can search on the literature of the subject and other sources and in an orderly way present information about the problem that lies within the logistics and supply chain management - [K1A\_K01]
2. is able to present the problem within the framework of logistics and supply chain management with appropriately chosen means - [K1A\_K02]
3. can prepare and present an oral presentation on specific issues in the field of logistics in Polish and foreign language - [K1A\_U04]
4. is able to independently develop a given problem within the studied subject - [K1A\_U05]
5. can formulate using analytical, simulation or experimental methods within the studied subject design task and solve this task in the field of logistics and supply chain management Security Engineering, the existing technical solutions, in particular machines, equipment, objects, systems, services and processes - [K1A\_U09]
6. is able to assess economically the chosen problem within the framework of logistics and supply chain management - [K1A\_U12]
7. can perform critical analysis on a problem within the framework of logistics and supply chain management - [K1A\_U13]
8. can design using the appropriate methods and techniques of an object, system, or process that meets the requirements of logistics and supply chain - [K1A\_U16]

**Social competencies:**

1. is willing to cooperate and work in a group on solving supply chain management problems - [K1A\_K03]
2. is able to perceive causal relationships in accomplishing the goals set and importance of tasks - [K1A\_K04]
3. can correctly identify and resolve the dilemmas connected with performing the profession of logistics - [K1A\_K05]
4. knows the typical engineering technologies in the field of supply chain management - [KlnzA\_W05]

**Assessment methods of study outcomes**

Formative assessment:

current check of the acquired knowledge and skills learnt during lectures

Within the scope of the exercises: on the basis of an assessment of the current progress of tasks (self and in groups, expression of opinions )

Lectures: based on answers to questions about the material discussed in the lectures

Collective assessment:

a test based written exam within exam session

Within the scope of the exercises: on the basis of public presentation on the subject; a written test of the converted material

Lectures: Written answer to open questions; a minimum of 60% points;

**Course description**

<p>1. Definition of the supply chain. Supply Chain Principles: Maintaining Supply in the Supply Chain; Supply Chain Management Strategies (Buffer Management / Buffer Inventory / Buffer Capacity, Time Reduction Strategy, Deferral Strategy, Joint Processes, Forecasting and Plan); CPFR strategy (nine steps); Stock analysis - across the network;</p> <p>2. Conventional and integrated supply chains: Slim and agile supply chain; Inventory managed by the supplier (VMI); VMI - expectations of all parties; Information management (supplier - Customer); VMI - evaluation process</p> <p>3. JiT II: Study of the impact of forecasting models in the supply chain; Stock analysis - across the network;</p> <p>4. Logistic operator in the supply chain (3rd party logistics, 4th party logistics).</p> <p>5. Benchmarking in the Supply Chain: Reduce volatility in the supply chain; Techniques for problem solving in the process (problem definition, information gathering, identification of alternatives, assessment of variants and selection of the best solution, evaluation of activities); Problem-solving techniques (brainstorming, Mind Mapping, 5 x why; Cause-effect analysis; PDCA cycle); Identification of process improvement capabilities (value stream mapping)</p> <p>6. SCORM model</p> <p>7. Coordination of activities in the supply chain</p> <p>8. Strong and weak supply chains: Slim and agile supply chains - Focus on customer needs</p> <p>Opportunities and threats related to the participation of the enterprise in the supply chain: Building partnerships and agreeing with the members of the supply chain; Bottleneck-type resources;</p> <p>10 Supply Chain Management: Supply Chain Analysis using Value Stream Mapping (Diagramming Techniques); Product flow / workflow visualization; Identification of additive and non-additive actions; Identifying opportunities to improve processes (Kaizen); Flow synchronization; Reduction of volatility in the supply chain; Techniques for problem solving in the process (problem definition, information gathering, identification of alternatives, assessment of variants and selection of the best solution, evaluation of activities); Identification of process improvement capabilities (value stream mapping, Six Sigma)</p> <p>Didactic methods</p> <p>In lectures:</p> <p>1. Information lecture</p> <p>2. Conversational lecture</p> <p>In the field of self-employment:</p> <p>1. Working with a book</p> <p>In the scope of exercises:</p> <p>1. Exercise method - case method</p> <p>2. Demonstration method</p> <p>3. Guided text method</p> <p>4. Simulation method</p> <p>5. Discussion</p>	
<p><b>Basic bibliography:</b></p> <p>1. . Ciesielski M., Zarządzanie łańcuchami dostaw, PWE, Warszawa, 2011</p> <p>2. Ciesielski M., Długosz J., Strategie łańcuchów dostaw, PWE, Warszawa, 2010</p> <p>3. Witkowski J., Zarządzanie łańcuchem dostaw. Konceptje - procedury ? doświadczenia, PWE, Warszawa, 2010</p> <p>4. . Awasthi A., Grzybowska K., Barriers of the supply chain integration process , Logistics Operations, Supply Chain Management and Sustainability, P. Golinska (ed.) Springer International Publishing, pp. 15-30, 2014, DOI: 10.1007/978-3-319-07287-6_2</p> <p>5. Grzybowska K., Modele referencyjne wybranych mechanizmów koordynacji działań w łańcuchu dostaw, Logistyka Nr 3, s. 5660-5664, 2015</p>	
<p><b>Additional bibliography:</b></p> <p>1. . Grzybowska K., KOORDYNACJA ? SYNTETYCZNA DYREKTYWA SPRAWNEGO DZIAŁANIA SYSTEMÓW ZŁOŻONYCH - WYBRANE ASPEKTY, Nauki o Zarządzaniu, 3 (28)/2016, s. 30-39, 2016</p> <p>2. Grzybowska K., Koopetycja - współczesna forma współpracy w łańcuchu dostaw, Logistyka nr 6/2011, s. 32-34, 2011</p>	
<p><b>Result of average student's workload</b></p>	
<p><b>Activity</b></p>	<p><b>Time (working hours)</b></p>
1. Lectures	15
2. Participation in exercises	15
3. Consultations	40
4. Prepare for Training	20
5. Preparing to pass exercises	5
6. Assessment of lectures	3
7. Discussion of the results of assessment of lectures	2
<p><b>Student's workload</b></p>	

<b>Source of workload</b>	<b>hours</b>	<b>ECTS</b>
Total workload	100	4
Contact hours	80	3
Practical activities	15	1