

STUDY MODULE DESCRIPTION FORM		
Name of the module/subject Logistics Strategies		Code 1010615321010610635
Field of study Transport	Profile of study (general academic, practical) (brak)	Year /Semester 1 / 2
Elective path/specialty Logistics of Transport	Subject offered in: Polish	Course (compulsory, elective) obligatory
Cycle of study: Second-cycle studies	Form of study (full-time, part-time) part-time	
No. of hours Lecture: 18 Classes: 9 Laboratory: - Project/seminars: -		No. of credits 3
Status of the course in the study program (Basic, major, other) (brak)		(university-wide, from another field) (brak)
Education areas and fields of science and art technical sciences		ECTS distribution (number and %) 3 100%
Responsible for subject / lecturer: dr inż. Paweł Zmuda-Trzebiatowski email: pawel.zmuda-trzebiatowski@put.poznan.pl tel. 616652716 Faculty of Transport Engineering ul. Piotrowo 3 60-965 Poznań		
Prerequisites in terms of knowledge, skills and social competencies:		
1	Knowledge	The student has basic knowledge in the field of logistics (transport and warehousing) and management
2	Skills	The student is able to integrate the obtained information, make their interpretation, draw conclusions, formulate and justify the opinions of the ability to see, connect and interpret phenomena.
3	Social competencies	The student is aware of the importance and understands the non-technical aspects and effects of the use of individual logistics strategies.
Assumptions and objectives of the course: To familiarize students with the basic logistics strategies utilized in companies.		
Study outcomes and reference to the educational results for a field of study		
Knowledge: 1. has advanced and in-depth knowledge in the field of transport engineering, theoretical foundations, tools and means used to solve simple engineering problems - [T2A_W01] 2. has advanced and detailed knowledge of the processes taking place in the life cycle of transport systems - [T2A_W05] 3. has advanced and detailed knowledge of selected issues in the field of transport engineering - [T2A_W03]		
Skills: 1. can - when formulating and solving engineering tasks - integrate knowledge from various transport areas (and if necessary also knowledge from other scientific disciplines) and apply a systemic approach, also taking into account non-technical aspects - [T2A_U05] 2. can make a critical analysis of existing technical solutions and propose their improvements (improvements) - [T2A_U08] 3. can determine the directions of further learning and realize the process of self-education - [T2A_U16]		
Social competencies: 1. is aware of the need to develop professional achievements and comply with the rules of professional ethics - [T2A_K04] 2. understands the importance of using the latest knowledge in the field of transport engineering in solving research and practical problems - [T2A_K02]		
Assessment methods of study outcomes		

<p>Lecture: Preparation as part of lectures, subject to assessment, presentation of an example of real application in a selected company / companies (preferably in Polish conditions), a given type of strategy and as part of the exercises to solve tasks asked on particular classes. And a written test (multiple choice) summarizing the subject.</p>	
<p>Exercises: Average marks from written reports on classes</p>	
<p>Course description</p>	
<p>Introduction to the subject: Basic concepts and definitions - strategy classification, supply chain, push and pull systems, Third-party Logistics - 3PL, LLP / 4PL, dropshipping strategies, direct plant shipment, direct store delivery</p>	
<p>Strategy of focusing on key competences: Outsourcing - essence, goals, scope, effects of application. Insourcing, Co-sourcing, make / do or buy analysis, application effects. Application example.</p>	
<p>Lean Management / Production / Distribution - LM / LP / LD: Istota LM / LP, basic principles, goals, application effects., 5S. Application example.</p>	
<p>Toyota Production System / Toyota Production System - TPS / Kaizen: Name and essence of TPS, basic elements, implementation, application possibilities. KAIZEN, HEIJUNKA, SMED, 5 WHY. 6-SIGMA - essence, sense of application, tools: Process analysis - process maps, cause-and-effect matrices, "what and how" analysis, cause and effect diagrams, waste elimination, spaghetti diagram, Pareto analysis. Application example.</p>	
<p>6 SIGMA: Essence, goals, effects, application possibilities. Application example. COPQ - Cost of Poor Quality, DPO - Defects Per Opportunity, DPMO - Defect Per Million Opportunities.</p>	
<p>Strategy of competing in time - shortening the cycle: Just-in-Time (JIT) - the essence, goals, effects, possibilities of application. Pull. Kanban - being, elements, Kanban in production, Kanban in distribution, WIP. Application example.</p>	
<p>Time competition strategy - increasing asset productivity: Cross-Docking (x-docking) - the essence, goals, effects, application possibilities, advantages and disadvantages. Application example.</p>	
<p>Setting strategic directions of changes, assessment of logistics: Benchmarking - the essence, objectives, premises, types, stages of implementation, effects of application, typical measures. Application example.</p>	
<p>Advanced cycle shortening concept: Material Requirement Planning - MRP - essence, structure, MRP, MRP II, PUSH system, main production schedule - MPS, material list / register - BOM, inventory / stock register - IS. Application example.</p>	
<p>Inventory management strategy: Distribution Requirement Planning - DRP, DRP comparison and MRP, available stock, optimal delivery batch size, replenishment cycle, level of DRP safety margin.</p>	
<p>Inventory management strategy in supply chains: Vendor Managed Inventory - VMI, SMI (supplier managed inventory), Supply Chain Management (SCM), EDI, RFID, barcodes.</p>	
<p>Postponement / logistic postponement: Delaying strategy, postponement of activities in the logistics system, postponement of changes in the location of stocks.</p>	
<p>Supply chain integration strategy: Efficient Consumer Response - ECR, basic elements, application effects, EDI, EDIFACT, GS1, EFT, ABC analysis, results control.</p>	
<p>Review of other strategies: QR, TQM, Process modeling, CM, CPFR and others.</p>	
<p>Basic bibliography:</p> <ol style="list-style-type: none"> 1. Murphy P.R. jr, Wood D.F.: Nowoczesna Logistyka. HELION, Gliwice, 2011 2. Coyle J., Bardi E., Langley C.: Zarządzanie logistyczne. PWE, Warszawa, 2010 	
<p>Additional bibliography:</p>	
<p>Result of average student's workload</p>	
<p>Activity</p>	<p>Time (working hours)</p>

1. Participation in classes (according to plan)	27	
2. Consolidation of knowledge / report	24	
3. Preparation for exam	24	
Student's workload		
Source of workload	hours	ECTS
Total workload	75	3
Contact hours	27	1
Practical activities	0	0