# POZNAN UNIVERSITY OF TECHNOLOGY



EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

# **COURSE DESCRIPTION CARD - SYLLABUS**

#### Course name

Reengineering in logistics [N1Log2>RwL]

Course			
Field of study Logistics		Year/Semester 3/5	
Area of study (specialization)		Profile of study general academi	с
Level of study first-cycle		Course offered ir Polish	1
Form of study part-time		Requirements elective	
Number of hours			
Lecture 10	Laboratory classe 8	25	Other 0
Tutorials 10	Projects/seminar 0	S	
Number of credit points 4,00			
Coordinators dr inż. Karolina Werner-Lewando	owska	Lecturers	
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#### **Prerequisites**

When starting this subject, the student should have basic knowledge of the scope, basics of management, basics of logistics, logistics processes and operational management in logistics and project management. He should also have the ability to obtain information from indicated sources and be ready to cooperate as part of the team.

### **Course objective**

Providing students with knowledge of the essence of reengineerin and the correctness of the process approach in logistics; understanding and gaining competence in the application of the principles and tools of reengineering and process management in the area of logistics.

### Course-related learning outcomes

Knowledge:

1. Student knows the basic concepts for reengineering in logistics and detailed issues and supply chain management [P6S\_WG\_05]

2. Student knows the basic issues of reengineering in logistics, characteristic of logistics and supply chains [P6S\_WG\_08]

Skills:

1. Student is able to assess and make a critical economic analysis of the selected problem, which is part of the reengineering in logistics and its specific issues and supply chains [P6S\_UW\_06] 2. Student is able to design, using appropriate methods and techniques, an object, system or process that meets the requirements of logistics and its specific issues and supply chain management [P6S\_UW\_07]

Social competences:

1. Student is aware of the importance of knowledge in the area of reengineering in logistics and supply chain in solving cognitive and practical problems [P6S\_KK\_02]

2. Student is aware of the responsibility for their own work and willingness to submit to the rules of teamwork and responsibility for jointly performed tasks [is aware of the responsibility for their own work and readiness to submit to the rules of teamwork and responsibility for jointly performed tasks [P7S\_KR\_01]

## Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Lecture: The knowledge acquired during the lectures is verified by the exam and / or by tests (quizzes) in individual classes (via the Moodle platform).

Tutorials: Partial evaluations of the progress of the project stages, final evaluation. Passing threshold: 50% of points.

Laboratory classes: Partial assessments of the progress in the implementation of tasks, final assessment. Passing threshold: 50% of points

## Programme content

Lecture: The programme content covers the characteristics of issues related to reengineering in logistics, i.e. the implementation of changes and improvements, meaning the rethinking and redesign of processes in a company, leading to improved processes and performance, in a theoretical perspective.

Lecture: The syllabus includes characteristics of issues related to reengineering in logistics, i.e. the implementation of changes and improvements, meaning the rethinking and redesigning of processes in a company, leading to an improvement in processes and performance, in practical terms.

### **Course topics**

Lecture: Reengineering, reforming business and production processes in a company, process approach in selected management concepts, definition and type classification of processes, models and standardisation of processes, essence and objectives of process management, methodology of business process management

(security) process management methodology, process identification and mapping, process design and change implementation, process leadership, process improvement and management methods and techniques,

implementation of the process approach in logistics, forms of process organisation. BPMN notation. Exercises: Modern process modelling tools and techniques, i.e. VSM, Swimline, SIPOC, IDEF0. Process analysis - defining objectives and effects, owners and recipients and criteria for process analysis. Process mapping according to a given notation.

Laboratory: Process design and information flow in business processes.

### **Teaching methods**

Lecture: information lecture with multimedia presentation, didactic films, talk, business stories, case study.

Tutorials: brainstorming, case study.

Laboratory classes: computer programmed method.

# Bibliography

Basic:

1. Pacholski L., Cempel W.A., Pawlewski P., Reengineering: Reformowanie procesów biznesowych i produkcyjnych, Wydawnictwo Politechniki Poznańskiej, Poznań, 2009.

2. Szczepańska K., Bugdol M., Podstawy zarządzania procesami, Difin, Warszawa, 2016.

3. Trzcieliński S., Adamczyk M., Pawłowski E., Procesowa orientacja przedsiębiorstwa, Wydawnictwo Politechniki Poznańskiej, Poznań, 2013.4. Harmon, Paul. Business Process Change: A Business Process Management Guide for Managers and Process Professionals. Morgan Kaufmann, 2014. The MK/OMG Press. Web.

4. Jeston J., Business Process Management: Practical Guidelines to Successful Implementations, Taylor & Francis, 2018.

5. von Rosing M., von Scheel H., Scheer A.W., The Complete Business Process HandbookBody of Knowledge from Process Modeling to BPM, Volume 1, Morgan Kaufmann, 2014.

#### Additional:

1. Zaini Z., Saad A., Business process reengineering as the current best methodology for improving the business process, Journal of ICT in Education, 6, 2019, s. 66-85.

2. Cabanillas C., Di Ciccio C., Mendling J., Baumgrass A., Predictive Task Monitoring for Business Processes. Proceedings of the International Conference on Business Process Management (BPM). Lecture Notes in Computer Science, Vol. 8659, 2014, s. 424-432.

3. Hammer M., What is business process management? In Handbook on business process management, Springer, Berlin, Heidelberg, 2015, s. 3-16.

4. Viriyasitavat W., Da Xu L., Bi Z., Sapsomboon A., Blockchain-based business process management (BPM) framework for service composition in Industry 4.0, Journal of Intelligent Manufacturing, 31(7), 2020, s. 1737-1748.

5. Maciejczak M., Zarządzanie procesami. Teoria i praktyka. Wydawnictwo PJWSTK, Warszawa, 2012. 6. Golińska-Dawson P., Kosacka M., Werner-Lewandowska K., Gdzie i jak usprawnić procesy? -Identyfikacja potencjałów optymalizacyjnych przez analizę marnotrawstw (muda) w perspektywie zrównoważonego wykorzystania zasobów, Logistyka, nr 2, 2015, s. 167-178.

7. Kosacka M., Werner-Lewandowska K., Koncepcja zastosowania VSM jako narzędzia doskonalącego proces demontażu samochodów wycofanych z eksploatacji, Logistyka, nr 6, 2014, s. 12199-12206.

#### Breakdown of average student's workload

	Hours	ECTS
Total workload	100	4,00
Classes requiring direct contact with the teacher	30	1,50
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	70	2,50