



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Activity based costing in logistics [S2Log2>RKDwL]

### Course

Field of study  
Logistics

Year/Semester  
1/2

Area of study (specialization)  
Production-logistics Systems

Profile of study  
general academic

Level of study  
second-cycle

Course offered in  
polish

Form of study  
full-time

Requirements  
compulsory

### Number of hours

Lecture  
15

Laboratory classes  
0

Other (e.g. online)  
0

Tutorials  
15

Projects/seminars  
15

### Number of credit points

4,00

### Coordinators

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### Lecturers

### Prerequisites

Knowledge of logistics processes and their course. The ability to use quantitative methods to characterize logistics processes and make decisions in the field of logistics. Knowledge of economic dependencies in logistics.

### Course objective

Providing students with knowledge in determining logistics costs using the Activity Costing methodology. Developing skills in building cost models for logistics processes and making decisions in the field of logistics based on settlement results.

### Course-related learning outcomes

Knowledge:

1. The student knows the relationships between individual categories of logistics costs [P7S\_WG\_01]
2. The student knows the conditions of logistics processes carried out in the enterprise and within the supply chain that determine the variability of logistics costs [P7S\_WG\_05]
3. The student knows the essence of activity-based costing, lists the stages of cost settlement using this calculation method [P7S\_WK\_01]

4. The student knows the best practices for minimizing the costs of logistics processes and knows how to identify the benefits resulting from their implementation using activity-based costing [P7S\_WK\_04]

#### Skills:

1. The student is able to search based on the subject literature and other sources and present in an orderly manner information including resource costs, activity costs and costs related to cost objects in the logistics of enterprises and supply chains using activity-based costing [P7S\_UW\_01]
2. The student is able to critically analyze technical solutions used in the analyzed logistics system (in particular with regard to devices, facilities and processes) using activity cost accounting [P7S\_UW\_04]
3. The student is able to design a cost model for a selected logistics process using activity-based costing [P7S\_UK\_01]
4. The student is able to prepare a well-documented study of problems in the field of Activity-Based Costing in Logistics in Polish and English at the B2 level of the Common European Framework of Reference for Languages [P7S\_UK\_02]
5. The student is able to identify changes in requirements, standards, regulations, technical progress and labor market reality affecting logistics costs and determining the application of activity-based costing in logistics and understands the need to update knowledge resulting from changes in the cost structure in the economy [P7S\_UU\_01]

#### Social competences:

1. The student correctly identifies and resolves dilemmas related to the profession of a logistics manager, making cost decisions using activity-based costing, observing the principles of professional ethics and respecting the diversity of views and cultures [P7S\_KK\_02]
2. The student is able to plan and manage creatively business ventures, taking into account cost analyzes carried out using cost accounting in the field of logistics [P7S\_KO\_01]

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Lecture: Knowledge acquired as part of the lecture is verified by the final test carried out during the last lecture. The test consists of 15 test questions (including open and closed, single and multiple choice).

Passing threshold: 50% of points.

Exercises: Skills acquired as part of the classes are verified on the basis of the tasks solved in class.

Students solve tasks in groups of 2-3 people. Task scores vary depending on the level of difficulty.

Passing threshold: 50% of points.

Project: The skills acquired during the project classes are verified during consultations on individual stages of the project task (20% of the final grade) and on the basis of the provided project documentation prepared in accordance with the guidelines provided by the teacher (50% of the final grade) and the presentation and defense of the project (30% of the final grade). Passing threshold: 50% of points.

### Programme content

Lecture: Logistic costs - the essence. Activity costing - the origin and essence of the methodology.

Activity costing for logistics processes - examples, benefits, problems. Resource costs and unused resource costs. Customer service costs. Activity-based costing. Implementation of the ABC in enterprises

Exercises: Basic elements in the ABC cost model - resource cost drivers, activity cost drivers. Comparison of cost settlement using the traditional method and the activity costing method. Identification of distribution network customer service costs. Identification of unused resource costs in order processing processes. Time-based activity costing - picking problem

Project: Development of a cost model for a selected logistics process and its implementation into a spreadsheet.

### Teaching methods

Lecture: informative lecture and chat on solutions presented.

Exercises: case studies.

Project: project method, project task carried out in groups of 3-4 people in accordance with the guidelines presented during the classes.

### Bibliography

Basic:

1. Stachowiak A., Rachunek Kosztów Działania w Logistyce, Wydawnictwo Politechniki Poznańskiej, Poznań, 2011.
2. Piechora R., Projektowanie rachunku kosztów działań, Difin, Warszawa, 2005.

Additional:

1. Sobańska I (red.), Rachunek kosztów i rachunkowość zarządcza, C.H. Beck, Warszawa, 2006.
2. Kaplan R.S., Cooper R., Zarządzanie kosztami i efektywnością, Dom wydawniczy ABC, Kraków, 2000.

### Breakdown of average student's workload

	Hours	ECTS
Total workload	100	4,00
Classes requiring direct contact with the teacher	45	2,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	55	2,00