COURSE DESCRIPTION CARD - SYLLABUS

Course name
Supply Chain Management [S1Log2>ZŁD]

Course

Field of study
Logistics

Year/Semester
3/5

Area of study (specialization)
–

Profile of study
general academic

Level of study
first-cycle

Course offered in
Polish

Form of study
full-time

Requirements
compulsory

Number of hours

Lecture
15

Laboratory classes
0

Other
0

Tutorials
15

Projects/seminars
0

Number of credit points

2,00

Coordinators

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Lecturers

Prerequisites

Student knows the basics of production organization and logistics. Student is able to use basic measures of customer service level. The student shows willingness to cooperate in a group.

Course objective

Mastering the student's knowledge, skills and social competences related to supply chain management. Familiarizing students with the essence and principles of operation of supply chains. Students learn basic solutions used in this area.

Course-related learning outcomes

Knowledge:
1. Student knows the basic concepts of supply chain management [P6S_WG_05]
2. Student knows the basic management issues specific to supply chain management [P6S_WG_08]
3. Student knows the basic relationships in supply chain management [P6S_WK_04]
4. Student knows the basic phenomena and contemporary trends characteristic of supply chain management [P6S_WK_05]
5. Student knows the best practices in supply chain management [P6S_WK_06]

Skills:
1. Student can search based on the literature and other sources and present information on a problem within the scope of supply chain management in an orderly manner [P6S_UW_01]
2. Student can apply to solve the problem within the studied subject appropriate experimental and measuring techniques in the framework of supply chain management [P6S_UW_03]
3. Student is able to assess and make a critical economic analysis of the selected problem, falling within the framework of supply chain management [P6S_UW_06]
4. Student is able to design, using appropriate methods and techniques, an object, system or process that meets the requirements of supply chain management [P6S_UW_07]
5. Student is able to present, using properly selected means, a problem within the scope of supply chain management [P6S_UK_01]
6. Student can prepare in Polish and English at B2 level of the European Language Training Description System well documented development of logistics problems [P6S_UK_02]
7. Student is able to identify changes in requirements, standards, regulations, technical progress and the reality of the labor market, and based on them determine the needs to supplement knowledge [P6S_UU_01]

Social competences:
1. Student is aware of the critical assessment and perception of cause-effect relationships in achieving the set goals and ranking the significance of the tasks [P6S_KK_01]
2. Student is aware of the recognition of the importance of knowledge in the field of supply chain management in solving cognitive and practical problems [P6S_KK_02]
3. Student is aware of cooperation and work in a group on solving problems falling within the area of supply chain management [P6S_KR_02]

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Lectures: Formative assessment: acquired knowledge is verified on the basis of answers to questions about the material discussed during the lectures (two tests, differently scored) and the student's own work. Summative rating: acquired knowledge is verified on the basis of credit in writing (open questions, various points); Passing threshold: 50% of points.

Tutorial: Formative assessment: the acquired knowledge is verified on the basis of activity during the classes and assessment of the current progress of partial tasks carried out (independent and group work, expressing own views and opinions). Summative rating: the acquired knowledge is verified on the basis of the points obtained from the partial tasks of the forming assessment; Passing threshold: 50% of points.

Programme content

- general issues of supply chain management; global supply chain management trends
- the essence and principles of supply chain management and operation
- characteristics of organizational and technical solutions used in the area of supply chain management

Course topics

Lecture:
Introduction (definition of the supply chain; principles of supply chain operation; types of supply chains; process reference models (SCOR® Model, performance metrics, Process Classification Framework PCF); trade-offs in the supply chain (service vs. costs, flexibility vs. inventory, increasing flexibility, production capacity, batch size, delivery, lead time, buffer stocks)).
Global trends and current supply chain issues.
Resilient supply chain (supply chain disruptions; supply chain resilience; supply chain risks; disruption and risk analysis; Wild Card Analysis; Weak Signals Analysis; supply chain security; reducing supply chain variability; supply chain benchmarking; bottleneck resources).
Responsible Supply Chain (Green Supply Chain; Sustainable Supply Chain; Food Supply Chain; Global Supply Chain; Reverse Supply Chain; Closed-loop Supply Chain; 3rd-party logistics, 4th-party logistics).
Digitalized Supply Chain (Multichannel Supply Chain; Multiagent Supply Chain; Supply Chain

Technologies; Blockchain, Cloud Computing; Autonomous Vehicles; Artificial Intelligence; Internet of Things; Big Data Analytics).
Supply Chain Relationality (Collaboration and Trust in Supply Chains; Conventional and Integrated Supply Chains; Lean and Agile Supply Chain; Supply Chain Relationships; Building Partnerships).
Supply chain strategies (JiT, JiTII, CPFR, VMI strategies; lean; agile; lean-agile; postponement strategy; purchasing strategies; impact of demand variability on the supply chain (Forrester effect, oscillation effects, beer game - overview)).

Exercises:
Value chain description (scope of activities and processes adding value to a product or service, concept, production and service design, delivery, disposal, continuous improvement, mapping of activities and links, improvement)
Supply chain SWOT analysis
Identification of undesirable and uncertain events in the supply chain
Classification of undesirable events in the supply chain (causes and types of risk)
Supply chain risk analysis
Supply chain wild card analysis and supply chain weak signal analysis
Minimization and elimination of undesirable events.

Teaching methods

Lecture:
Informational lecture (multimedia presentation illustrated with examples), conversational lecture, Oxford-style discussion.
Independent work:
Working with the book.

Exercises:
Disruption simulation labs,
Scenario-based learning (wild cards and weak signals),
Foresight workshop,
Reverse thinking (what-if-all-else-fails analysis))
Roundtable discussion.

Bibliography

Basic:
1. Ciesielski M., Zarządzanie łańcuchami dostaw, PWE, Warszawa, 2011.
2. Ciesielski M., Długosz J., Strategie łańcuchów dostaw, PWE, Warszawa, 2010.
3. Witkowski J., Zarządzanie łańcuchem dostaw. Koncepcje - procedury - doświadczenia, PWE, Warszawa, 2010.
4. Sustainable supply chain: review and discussion of best practices / Katarzyna Grzybowska (WIZ), Blanka Tundys // Economics and Environment - 2025, vol. 93, no. 2, s. 1-18.
5. Grzybowska K., Modele referencyjne wybranych mechanizmów koordynacji działań w łańcuchu dostaw, Logistyka Nr 3/2015, s. 5660-5664.
6. Grzybowska K., Awasthi A., Sawhney R. (eds.), Sustainable Logistics and Production in Industry 4.0 - new opportunities and challenges, EcoProduction (Environmental Issues in Logistics and Manufacturing). Springer, Cham, 2020.
7. Grzybowska K., Identification and classification of global theoretical trends and supply chain development directions, Energies, 14, art. 4414.
8. Tubis A.A., Grzybowska K., Król B., Supply Chain in the Digital Age: A Scientometric-Thematic Literature Review, Sustainability 15(14)/2023, 11391.

Supplementary:
1. Grzybowska K., Koordynacja - Systematyczna dyrektywa sprawnego działania systemów złożonych - wybrane spekty, Nauki o Zarządzaniu, 3 (28)/2016, s. 30-39.
2. Grzybowska K., Koopetycja - współczesna forma współpracy w łańcuchu dostaw, Logistyka nr 6/2011, s. 32-34.
3. Szymczak, Maciej. "Odporność łańcuchów dostaw–czy sprawdzona i potwierdzona? Wpływ pandemii koronawirusa na łańcuchy dostaw i ich popandemiczna odbudowa w kierunku „nowej normalności”."

Logistyka i zarządzanie łańcuchem dostaw w czasach turbulencji, zakłóceń i niestabilnej gospodarki. Wydawnictwo Uniwersytetu Ekonomicznego w Poznaniu, 2025. 11-31.

Breakdown of average student's workload

	Hours	ECTS
Total workload	50	2,00
Classes requiring direct contact with the teacher	30	1,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	20	1,00