

#### POZNAN UNIVERSITY OF TECHNOLOGY

EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

### **COURSE DESCRIPTION CARD - SYLLABUS**

Course name

Food supply chains [N2MiBP1-PCh>ŁDŻ]

Course

Field of study Year/Semester

Mechanical and Automotive Engineering 2/3

Area of study (specialization) Profile of study

Refrigerated Vehicles general academic

Level of study Course offered in

second-cycle polish

Form of study Requirements part-time compulsory

**Number of hours** 

Lecture Laboratory classes Other (e.g. online)

9 0

Tutorials Projects/seminars

9 0

Number of credit points

3,00

Coordinators Lecturers

dr inż. Natalia Idaszewska natalia.idaszewska@put.poznan.pl

#### **Prerequisites**

Knowledge: the student has a basic understanding of mathematics and operations research Skills: the student is able to integrate the obtained information, interpret it, draw conclusions, formulate and justify opinions, the ability to perceive, associate and interpret phenomena Social competences: the student is aware of the importance and understands the non-technical (especially economic and social) aspects and effects of activities related to the transport of food and the decisions made within it

#### Course objective

Preparing students to manage the food supply chain with the use of quantitative tools (methods of optimization and decision support), allowing for rational and effective management of the functioning of enterprises with a fleet of refrigerated vehicles.

# Course-related learning outcomes

# Knowledge:

1. Has an extended knowledge of physics in the field of contemporary physical problems determining progress in technical sciences: solid state physics, nonlinear optics, nuclear physics and new research methods used in physics.

- 2. Has a basic knowledge of quality management systems.
- 3. Knows the main development trends in the field of machine construction.

#### Skills:

- 1. Can write user manual and safety manual for designed work machine or vehicle.
- 2. Can estimate the cost of making a working machine or a vehicle with a high degree of complexity from a selected group of machines.
- 3. Can develop a technical description, offer and design documentation for a complex machine from a selected group of machines.

### Social competences:

- 1. Is ready to recognize the importance of knowledge in solving cognitive and practical problems and to consult experts in case of difficulties in solving the problem on its own.
- 2. Is ready to initiate actions for the public interest.
- 3. Is willing to think and act in an entrepreneurial manner.

# Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

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Lecture: Presence and activity during classes

Classes: Solution and presentation of the results of selected case studies.

# Programme content

The concept of the supply chain and supply chain management. Legal regulations for the transportation of perishable goods. Practical cases of food supply chain management. Food supply chain integration. Short food supply chains. Choosing how to deliver food.

Possibilities of improving management processes in the food supply chain.

# **Teaching methods**

Lecture: Multimedia presentation Classes: Solving practical tasks

# **Bibliography**

#### Basic

- 1. Madej B., Michniak J., Madej R., Kurcz J.: Przewozy artykułów zywnościowych. Biblioteka Akademii Transportu i Przedsiębiorczości, Warszawa 2014
- 2. Witkowski J.: Zarządzanie łańcuchem dostaw: koncepcje, procedury, doświadczenia,Polskie Wydawnictwo Ekonomiczne, Warszawa 2003
- 3. Sikora W. (red.): Badania operacyjne. Polskie Wydawnictwo Ekonomiczne, Warszawa 2008 Additional
- 1. Łańcuchy dostaw na wybranych rynkach rolnych w Polsce Elżbieta Jadwiga Szymańska, Piotr Bórawski, Ireneusz Żuchowski Wydawnictwo SGGW

# Breakdown of average student's workload

	Hours	ECTS
Total workload	30	3,00
Classes requiring direct contact with the teacher	18	2,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	12	1,00