

# Logistics - opis przedmiotu

| Informacje ogólne   |                                     |
|---------------------|-------------------------------------|
| Nazwa przedmiotu    | Logistics                           |
| Kod przedmiotu      | 06.9-WM-ER-ZiIP-23_18               |
| Wydział             | <a href="#">Wydział Mechaniczny</a> |
| Kierunek            | WM - oferta ERASMUS                 |
| Profil              | -                                   |
| Rodzaj studiów      | Program Erasmus                     |
| Semestr rozpoczęcia | semestr zimowy 2023/2024            |

| Informacje o przedmiocie        |                                                                                                |
|---------------------------------|------------------------------------------------------------------------------------------------|
| Semestr                         | 2                                                                                              |
| Liczba punktów ECTS do zdobycia | 5                                                                                              |
| Typ przedmiotu                  | obowiązkowy                                                                                    |
| Język nauczania                 | angielski                                                                                      |
| Sylabus opracował               | <ul style="list-style-type: none"><li>prof. dr hab. inż. Justyna Patalas-Maliszewska</li></ul> |

| Formy zajęć |                                            |                                           |                                               |                                              |                        |
|-------------|--------------------------------------------|-------------------------------------------|-----------------------------------------------|----------------------------------------------|------------------------|
| Forma zajęć | Liczba godzin w semestrze<br>(stacjonarne) | Liczba godzin w tygodniu<br>(stacjonarne) | Liczba godzin w semestrze<br>(niestacjonarne) | Liczba godzin w tygodniu<br>(niestacjonarne) | Forma zaliczenia       |
| Wykład      | 30                                         | 2                                         | -                                             | -                                            | Egzamin                |
| Ćwiczenia   | 30                                         | 2                                         | -                                             | -                                            | Zaliczenie na<br>ocenę |

## Cel przedmiotu

The main result of this course is to know the essence of logistics management in the enterprise, and the methods and tools for logistics management.

## Wymagania wstępne

Mathematics, Economics.

## Zakres tematyczny

Definitions of logistics, business logistics management process, identification of business processes in the enterprise, logistics network - constraints, the objective function. Logistics system in the enterprise. Logistics magazine - a minimum level of ordering, controlling warehouse (indicators), FIFO, LIFO, average cost method. ERP systems - MRP, MRP II, ERP, ERP II. Trends in the development of integrated management systems, examples of applications. Logistics of production processes - forms of organization of production, linear regression, least squares method, Gantt schedule, critical path method (CPM), Method PERT (Programme Evaluation and Review Technique), Gantt chart, the production function. Logistics distribution processes - Distribution Requirements Planning. Logistics customer service processes - analysis by ABC customers. New trends in logistics: e-business, B2B, B2C, virtual enterprises

Project - using system SAP

- Creating logistics network - constraints, the objective function
- Formulating a minimum level of ordering
- Controlling warehouse (indicators)
- Calculation FIFO, LIFO, average cost method
- Calculation MRP
- linear regression
- least squares method
- Gantt schedule
- critical path method (CPM)
- method PERT (Programme Evaluation and Review Technique)
- Distribution Requirements Planning
- *analysis by ABC customers*
- e-business, B2B, B2C, virtual enterprises

## Metody kształcenia

Lecture, project

## Efekty uczenia się i metody weryfikacji osiągania efektów uczenia się

| Opis efektu                                                                                                                                                                  | Symbole efektów | Metody weryfikacji                                          | Forma zajęć                                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-------------------------------------------------------------|-------------------------------------------------------------|
| Student is able to determine the priorities for the tasks – he is able to built Gantt schedule, CPM, PERT.                                                                   |                 | <ul style="list-style-type: none"><li>• kolokwium</li></ul> | <ul style="list-style-type: none"><li>• Ćwiczenia</li></ul> |
| Student has ordered knowledge of the logistics according with the Management and Production Engineering                                                                      |                 | <ul style="list-style-type: none"><li>• kolokwium</li></ul> | <ul style="list-style-type: none"><li>• Wykład</li></ul>    |
| Student is able to formulate the requirements for logistics network design                                                                                                   |                 | <ul style="list-style-type: none"><li>• kolokwium</li></ul> | <ul style="list-style-type: none"><li>• Ćwiczenia</li></ul> |
| Student has knowledge on new trends in the field of of integrated management systems, the ERP systems, B2B, B2C                                                              |                 | <ul style="list-style-type: none"><li>• kolokwium</li></ul> | <ul style="list-style-type: none"><li>• Wykład</li></ul>    |
| Student knows the basic methods, techniques, tools used to solve simple engineering tasks: ABC, CPM, PERT, DRP.                                                              |                 | <ul style="list-style-type: none"><li>• kolokwium</li></ul> | <ul style="list-style-type: none"><li>• Wykład</li></ul>    |
| Student is able to select and apply appropriate methods to solve the optimization of engineering tasks related to Management and Production Engineering: ABC, CPM, PERT, DRP |                 | <ul style="list-style-type: none"><li>• kolokwium</li></ul> | <ul style="list-style-type: none"><li>• Ćwiczenia</li></ul> |

## Warunki zaliczenia

Lecture: exam

Evaluation of the results of the written exam covering knowledge of the content of the subject.

Class: grade

Evaluation of the results of the written 2 tests.

## Literatura podstawowa

Molamohamadi, Zohreh (2021), Logistics and Supply Chain Management (2021), Springer International Publishing, 2021

## Literatura uzupełniająca

## Uwagi

Zmodyfikowane przez dr Katarzyna Skrzypek (ostatnia modyfikacja: 31-05-2023 14:15)