QUANTITATIVE METHODS - course description

General information

Course name	QUANTITATIVE METHODS
Course ID	04.0-WZ-P-QM-S19
Faculty	Faculty of Economics and Management
Field of study	WEiZ - oferta ERASMUS
Education profile	-
Level of studies	Erasmus programme
Beginning semester	winter term 2023/2024

Course information

Semester	1
ECTS credits to win	5
Course type	obligatory
Teaching language	english
Author of syllabus	• dr Maciej Kozaryn

Classes forms

The class form	Hours per semester (full-time)	Hours per week (full-time)	Hours per semester (part-time)	Hours per week (part-time)	Form of assignment
Laboratory	30	2	-	-	Credit with grade

Aim of the course

The aim of the course is to acquire knowledge, competence and ability to apply quantitative methods in solving logistic problems.

Prerequisites

None

Scope

Analysis of logistic processes. Logistic costs. Quantitative methods in supply, production and distribution subsystems. Analysis of production time of products, tasks of production optimization, order of production orders. Instruments for measuring the quality of logistic services. Efficiency of the supply chain. Mathematical models of logistic procedures.

Teaching methods

Presentation in the computer lab, project method.

Learning outcomes and methods of theirs verification

Outcome description	Outcome symbols	Methods of verification	The class form
The student knows standard mathematical, econometric, statistical and IT tools, analysis and presentation of data.		• an observation and evaluation of the student's practical skills • an ongoing monitoring during classes	• Laboratory
Student is able to select and apply appropriate computer applications for calculations and simulations.		• an observation and evaluation of activities during the classes • an ongoing monitoring during classes	• Laboratory
Student is able to select and apply appropriate optimization methods to solve logistics problem.		• an observation and evaluation of activities during the classes • an observation and evaluation of the student's practical skills • an ongoing monitoring during classes	• Laboratory

Assignment conditions

Solving the problem of the use of quantitative methods.

The student prepares a project in which presents the application of quantitative methods to the own problem.

Recommended reading

1. Burton G., Wall S., *Quantitative Methods For Business And Economics*, Financial Times Prentice Hall, 2002.

2. Christou I. T., Quantitative Methods in Supply Chain Management: Models and Algorithms, Springer, 2012.

3. Hardy M.A., Bryman A., *Handbook of Data Analysis*. Sage, 2004.

Further reading

1. Karkula M., Jurczyk K. (et al.): *Quantitative methods in logistics management*, AGH University of Science and Technology Press, 2014.

2. Klose A., Van Wassenhove L.N., Speranza M.G., *Quantitative Approaches to Distribution Logistics and Supply Chain Management*, Springer Berlin Heidelberg, 2012.

Notes

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Modified by dr Maciej Kozaryn (last modification: 30-05-2023 20:54)

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