

Course title: Technologies of Courier Processes
Course code: 30046
ECTS credits: 6
Requirements: None
Basic information
Level of studies: Undergraduate applied studies
Year of study: 2
Trimester: 4
Goal: Gaining the knowledge necessary to organize and partake in the working process within a company that provides courier services, carrying out the technological processes for all types of shipments, as well as following the latest trends in the industry.
Outcome: After finishing the course, every student should be able to define the notion and the basic functions of the courier technology, understand the added value in the courier process, and explain the technological process and the potential of applying IT support in the field. After finishing the course, the best student should be able to point out the possibilities for the further development of the courier process, define the places and ways of applying IT support to certain technological phases, as well as point out the potential for organizing transport using vehicle routing, routing problems, and vehicle schedules.
Contents of the course
Theoretical instruction
1. Definition and main functions of courier technology.
2. Analysis of the classic and courier process (points of view: economic, regulatory, and technical-technological).
3. Overview of global and local courier service providers.
4. Analyses of added value in the courier process.
5. Structure of shipments (contents and volumetric weight) and services.
6. Structure of the technological process.
7. Technology and IT support in shipment reception.
8. Processes in the processing center. Choosing the best vehicles and transport optimization.
9. Remote supervision of vehicles, drivers, and cargo (parcels). Communication with the vehicle and navigation.
10. Online shipment tracking. Analysis of courier service quality.
Practical instruction (Problem solving sessions/Lab work/Practical training)

1. Algorithms for finding optimal routes in transportation networks, finding the shortest route between two nodes, finding the shortest routes between one node and all other nodes in the network, as well as finding the second-shortest route between two nodes.
2. Oral defense of seminar papers, discussions on topics presented in previous lectures, short tests with the goal of determining the level of knowledge of students.
3. Workshops for training students to search/use relevant literature and sources of information about courier service providers.
Textbooks and References
1. The Economic Impact of Express Carriers in Europe, Oxford Economic Forecasting, Oxford, 2011.
2. Journals: Mail & Parcel Review, World Mail and Parcel, Postal Technology International
3. D. Teodorović, Transport networks, Faculty of Transport and Traffic Engineering, Belgrade, 2021.
4. M. Kalić, Practicum in transport networks, Faculty of Transportation, Belgrade, 2004.
5. other online sources
Number of active classes (weekly)
Lectures: 3
Practical classes: 3
Other types of classes: 0
Grading (maximum number of points: 100)
Pre-exam obligations: Points
Activities during lectures: 10
Activities on practical excersises:
Seminary work:
Colloquium:60
Final exam: Points
Written exam: 30
Oral exam:
Lecturer
Biljana Grgurović, PhD
Associate