



1. Subject name	Transport Logistics				
2. Subject name in Hungarian	Szállítási logisztika				
3. Code	BMEKOALD006	4. Evaluation type	exam grade	5. Credits	3
6. Weekly contact hours	3 (0) Lecture	0 (0) Practice	0 (0) Lab		
7. Curriculum	PhD Programme	8. Role	Specific course		
9. Working hours for fulfilling the requirements of the subject					90
Contact hours	42	Preparation for seminars	7	Homework	30
Reading written materials	11	Midterm preparation	0	Exam preparation	0
10. Department	Department of Material Handling and Logistics Systems				
11. Responsible lecturer	Dr. Kovács Gábor				
12. Lecturers	Dr. Kovács Gábor				
13. Prerequisites	recommended: BMEKOALD005 - Packaging Technologies				
14. Description of lectures	Modern methods and optimization problems of goods transportation. The vehicle routing problem and traveling salesman problem (selected notes). Solving methods: analytic, heuristic, metaheuristics algorithms. The ant colony and genetic algorithm for solving TSP and VRP tasks. The transportation network structure optimization, decision supporting.				
15. Description of practices					
16. Description of laboratory practices					
17. Learning outcomes	<p>A. Knowledge</p> <ul style="list-style-type: none"> Knowledge of the modular structure and operation of the transport logistics systems. Knowledge of related optimum search tasks and solutions. <p>B. Skills</p> <ul style="list-style-type: none"> Able to study the transport logistics systems, taking into account the scientific requirements. Able to carry out research and development tasks related to the transport logistics systems. <p>C. Attitudes</p> <ul style="list-style-type: none"> Strive to maximize their abilities to make their studies at the highest possible level, with a profound and independent knowledge, accurate and error-free, in compliance with the rules of the applicable tools, in collaboration with the instructors. <p>D. Autonomy and Responsibility</p> <ul style="list-style-type: none"> Take responsibility for the quality of the work and the ethical standards that set an example for the classmates, using the knowledge acquired during the course. 				
18. Requirements, way to determine a grade (obtain a signature)	The grade of the PhD student is based on the semester activity and the evaluation of the paper (publishing), in consultation with the supervisor.				
19. Opportunity for repeat/retake and delayed completion	Announced at the beginning of the semester				
20. Learning materials	Slides and examples in electronic format				
Effective date	27 November 2019	This Subject Datasheet is valid for		Inactive courses	