



<b>1. Subject name</b>	<b>Transport Logistics</b>				
<b>2. Subject name in Hungarian</b>	Szállítási logisztika				
<b>3. Code</b>	<b>BMEKOALD006</b>	<b>4. Evaluation type</b>	<b>exam grade</b>	<b>5. Credits</b>	<b>3</b>
<b>6. Weekly contact hours</b>	<b>3 (0) Lecture</b>	<b>0 (0) Practice</b>	<b>0 (0) Lab</b>		
<b>7. Curriculum</b>	<b>PhD Programme</b>	<b>8. Role</b>	<b>Specific course</b>		
<b>9. Working hours for fulfilling the requirements of the subject</b>					<b>90</b>
<b>Contact hours</b>	42	<b>Preparation for seminars</b>	7	<b>Homework</b>	30
<b>Reading written materials</b>	11	<b>Midterm preparation</b>	0	<b>Exam preparation</b>	0
<b>10. Department</b>	<b>Department of Material Handling and Logistics Systems</b>				
<b>11. Responsible lecturer</b>	Dr. Kovács Gábor				
<b>12. Lecturers</b>	Dr. Kovács Gábor				
<b>13. Prerequisites</b>	<b>recommended: BMEKOALD005 - Packaging Technologies</b>				
<b>14. Description of lectures</b>					
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.					
<b>15. Description of practices</b>					
<b>16. Description of laboratory practices</b>					
<b>17. Learning outcomes</b>					
A. Knowledge					
<ul style="list-style-type: none"> <li>• Knowledge of the modular structure and operation of the transport logistics systems.</li> <li>• Knowledge of related optimum search tasks and solutions.</li> </ul>					
B. Skills					
<ul style="list-style-type: none"> <li>• Able to study the transport logistics systems, taking into account the scientific requirements.</li> <li>• Able to carry out research and development tasks related to the transport logistics systems.</li> </ul>					
C. Attitudes					
<ul style="list-style-type: none"> <li>• 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.</li> </ul>					
D. Autonomy and Responsibility					
<ul style="list-style-type: none"> <li>• 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.</li> </ul>					
<b>18. Requirements, way to determine a grade (obtain a signature)</b>					
The grade of the PhD student is based on the semester activity and the evaluation of the paper (publishing), in consultation with the supervisor.					
<b>19. Opportunity for repeat/retake and delayed completion</b>					
Announced at the beginning of the semester					
<b>20. Learning materials</b>					
Slides and examples in electronic format					
<b>Effective date</b>	27 November 2019	<b>This Subject Datasheet is valid for</b>		Inactive courses	