



1. Subject name	Traffic Technology (Modells) (PhD)				
2. Subject name in Hungarian	Forgalomtechnika (modellezés) (PhD)				
3. Code	BMEKOKUD009	4. Evaluation type	exam grade	5. Credits	2
6. Weekly contact hours	0 (0) Lecture	2 (0) Practice	0 (0) Lab		
7. Curriculum	PhD Programme	8. Role	Specific course		
9. Working hours for fulfilling the requirements of the subject					60
Contact hours	28	Preparation for seminars	0	Homework	20
Reading written materials	8	Midterm preparation	0	Exam preparation	4
10. Department	Department of Transport Technology and Economics				
11. Responsible lecturer	Dr. Juhász János				
12. Lecturers	Dr. Juhász János				
13. Prerequisites					
14. Description of lectures					
Microscopic characteristics of road traffic. Overview of simulation modelling methods. Definition and collection of data necessary for modelling. Use of microscopic models. Structure, peculiarities and practical application of the VISSIM program. Simulation of pedestrian traffic. Study of multimodal node traffic using microscopic simulation methods.					
15. Description of practices					
Exercising theoretical knowledge with examples and case studies.					
16. Description of labortory practices					
17. Learning outcomes					
A. Knowledge <ul style="list-style-type: none"><li>• Knows the microscopic characteristics of road traffic.</li><li>• Knows the methods of simulation modelling.</li><li>• Knows the models of the traffic process (traffic flow and the behavior of transport operators.</li><li>• Knows the methods of microscopic modelling of pedestrian traffic flow.</li></ul> B. Skills <ul style="list-style-type: none"><li>• Able to examine road traffic using a microscopic simulation model.</li><li>• Able to apply the VISSIM program in practice to examine the flow of vehicle and pedestrian traffic, to compare different traffic control methods.</li><li>• Able to make a comparative analysis of design multimodal node design variants with microscopic simulation.</li></ul> C. Attitudes <ul style="list-style-type: none"><li>• The student attends the lectures, prepare independent study on time.</li><li>• During the lectures, he is actively involved in processing the current topic.</li><li>• During the independent study the student strives to develop new technical solutions.</li><li>• Interested in international and domestic developments in the field.</li><li>• Open to learn new knowledge and learn.</li></ul> D. Autonomy and Responsibility <ul style="list-style-type: none"><li>• Apply responsibility the knowledge acquired in the course of the course.</li><li>• Can independently develop new technical solutions.</li><li>• Accepts the framework of collaboration, can perform its work independently or as part of a team, depending on the task.</li></ul>					
18. Requirements, way to determine a grade (obtain a signature)					

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Exam. Evaluation of individual study.

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**19. Opportunity for repeat/retake and delayed completion**

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Retake exam. Study repair.

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**20. Learning materials**

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Supported by downloadable documents from the Department website.

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<b>Effective date</b>	27 November 2019	<b>This Subject Datasheet is valid for</b>	Inactive courses
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