



1. Subject name	Instrumental tests for motor vehicles, measurement technology				
2. Subject name in Hungarian	Gépjárművek műszeres vizsgálata				
3. Code	BMEKOGGM668	4. Evaluation type	mid-term grade	5. Credits	4
6. Weekly contact hours	0 (0) Lecture	0 (0) Practice	4 (21) Lab		
7. Curriculum	Vehicle Engineering MSc (J)	8. Role	Specialization (sp) at Vehicle Engineering MSc (J)		
9. Working hours for fulfilling the requirements of the subject					120
Contact hours	56	Preparation for seminars	28	Homework	30
Reading written materials	6	Midterm preparation	0	Exam preparation	0
10. Department	Department of Automotive Technologies				
11. Responsible lecturer	Dr. Török Árpád				
12. Lecturers	Dr. Török Árpád				
13. Prerequisites					
14. Description of lectures					
15. Description of practices					
16. Description of laboratory practices	<p>In line with the advanced needs of advanced vehicle engineer training, it introduces students to vehicle testing methods and vehicle-specific measurement techniques. Students will learn the methods and tools of dynamic test track measurements. During vehicle dynamics measurements, the behavior of each vehicle system is also focused, such as the braking system, steering system or chassis. According to the development direction of the age, the HIL practices of the test pad are also part of the subject. In addition to vehicle dynamics measurements, it is also important to learn the methods of roadside metering and roller bed benchmarking. Engine brake pad measurements are used to describe the state of the art combustion engine testing methods. But it is not only research that is closely related to development that has been included in the subject matter, but we also introduce the subject's students to the most modern diagnostic systems of our day. Laboratory measurements with test report preparation.</p>				
17. Learning outcomes	<p>A. Knowledge</p> <ul style="list-style-type: none">• Knowledge of vehicle testing methods. <p>B. Skills</p> <ul style="list-style-type: none">• Ability to develop Vehicle Test Methods. <p>C. Attitudes</p> <ul style="list-style-type: none">• Openness to new opportunities in the field. <p>D. Autonomy and Responsibility</p> <ul style="list-style-type: none">• Participate in solving independent task.				
18. Requirements, way to determine a grade (obtain a signature)	<p>During the semester 1 midterm test has to be completed with more the 50 % of the maximal points. The midterm grade is defined by the result of the mid-term exam in 60% proportion and the homework in 40% proportion. All requirements have to be fulfilled to successfully finish the subject.</p>				
19. Opportunity for repeat/retake and delayed completion	<p>The midterm test can be retaken once. The homework can be delivered once additionally.</p>				
20. Learning materials					

Effective date	10 October 2019	This Subject Datasheet is valid for	2024/2025 semester II
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