



<b>1. Subject name</b>	<b>Design of material handling machine design</b>				
<b>2. Subject name in Hungarian</b>	Anyagmozgató gépek tervezése				
<b>3. Code</b>	<b>BMEKOKAM627</b>	<b>4. Evaluation type</b>	<b>exam grade</b>	<b>5. Credits</b>	<b>5</b>
<b>6. Weekly contact hours</b>	<b>2 (11) Lecture</b>	<b>2 (11) Practice</b>	<b>1 (6) Lab</b>		
<b>7. Curriculum</b>	<b>Vehicle Engineering MSc (J)</b>	<b>8. Role</b>	<b>Specialization (sp) at Vehicle Engineering MSc (J)</b>		
<b>9. Working hours for fulfilling the requirements of the subject</b>					<b>150</b>
<b>Contact hours</b>	70	<b>Preparation for seminars</b>	19	<b>Homework</b>	30
<b>Reading written materials</b>	11	<b>Midterm preparation</b>	0	<b>Exam preparation</b>	20
<b>10. Department</b>	<b>Department of Material Handling and Logistics Systems</b>				
<b>11. Responsible lecturer</b>	Dr. Bohács Gábor				
<b>12. Lecturers</b>	Odonics Boglárka, Győrváry Zsolt				
<b>13. Prerequisites</b>					
<b>14. Description of lectures</b>					
Design issues and standardization background for material handling machines. Bulk materials, modeling and testing capabilities. Methods for determining the carrying capacity and performance requirements of bulk material handling machines. Design of discontinuous operating material handling machines, with particular reference to hoisting machines (cranes, forklifts).					
<b>15. Description of practices</b>					
Construction of lifting mechanism, drive mechanism and conveyors					
<b>16. Description of laboratory practices</b>					
Laboratory Measurements: testing of Bulk Materials, portal Crane Measurement, measurement of grid structures, dynamic Test with lifted load					
<b>17. Learning outcomes</b>					
A. Knowledge					
<ul style="list-style-type: none"> <li>• Knowledge of equipment that makes up material handling systems.</li> <li>• Knowledge of equipment design relationships.</li> </ul>					
B. Skills					
<ul style="list-style-type: none"> <li>• Ability to apply the above knowledge and related professional knowledge in the design of new equipment / components.</li> </ul>					
C. Attitudes					
<ul style="list-style-type: none"> <li>• Strives to provide with the best knowledge and skills to work with the instructors.</li> </ul>					
D. Autonomy and Responsibility					
<ul style="list-style-type: none"> <li>• In the use of the acquired knowledge the student carries out independent, responsible engineering work.</li> </ul>					
<b>18. Requirements, way to determine a grade (obtain a signature)</b>					
The requirement of the signature is to fulfill the homeworks and the acceptance of test protocols. The homework (30%), the exam result (70%) are included in the final grade.					
<b>19. Opportunity for repeat/retake and delayed completion</b>					
The homeworks' final submission and the labor practices can both be retaken once each.					
<b>20. Learning materials</b>					
Students can download the subject notes in pdf format via Moodle.					
<b>Effective date</b>	10 October 2019	<b>This Subject Datasheet is valid for</b>		Inactive courses	