



1. Subject name	Design and examination of materials handling machines
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2. Subject name in Hungarian	Anyagmozgatógépek tervezése és vizsgálata
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3. Code	BMEKOEAD002	4. Evaluation type	exam grade	5. Credits	3
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6. Weekly contact hours	2 (0) Lecture	0 (0) Practice	0 (0) Lab
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7. Curriculum	PhD Programme	8. Role	Specific course
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9. Working hours for fulfilling the requirements of the subject	48
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Contact hours	28	Preparation for seminars	4	Homework	8
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Reading written materials	4	Midterm preparation	4	Exam preparation	0
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10. Department	Department of Material Handling and Logistics Systems
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11. Responsible lecturer	Dr. Bohács Gábor
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12. Lecturers	Dr. Bohács Gábor
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13. Prerequisites	
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14. Description of lectures

The subject aims to present special design tasks of material handling machines. Typical sources of malfunction and the methods for examination is also discussed. Detailed presentation is made for machines of bulk materials. Further materials handling machines design methods for piece goods is also taken (forklifts, cranes). Special attention is made for the transfer and interfacing problems of the machines. Finally future development of material handling is discussed.

15. Description of practices

16. Description of laboratory practices
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17. Learning outcomes

A. Knowledge

- Knowledge of the special structural elements of material handling machines.
- Knowledge of the loads caused by the moving material and the operation.
- System engineering of material handling machines.

B. Skills

- Is capable of correctly dimensioning mechanical handling components.
- Able to fit material handling machine components into an optimal system.

C. Attitudes

- 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.

D. Autonomy and Responsibility

- 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)
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The grade is calculated from the grade of the individual work and the tests as an average.

19. Opportunity for repeat/retake and delayed completion

Announced at the beginning of the semester

20. Learning materials

Effective date	27 November 2019	This Subject Datasheet is valid for	2023/2024 semester II
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