Design of material handling machine design

1. Subject name	Design of material handling machine design				
2. Subject name in Hungarian	Anyagmozgató gépek tervezése				
3. Code	**BMEKOKAM627**	4. Evaluation type	**exam grade**	5. Credits	**5**
6. Weekly contact hours	**2 (11) Lecture**	**2 (11) Practice**	**1 (6) 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					**150**
Contact hours	70	Preparation for seminars	19	Homework	30
Reading written materials	11	Midterm preparation	0	Exam preparation	20
10. Department	**Department of Material Handling and Logistics Systems**				
11. Responsible lecturer	Dr. Bohács Gábor				
12. Lecturers	Odonics Boglárka, Győrváry Zsolt				
13. Prerequisites					

14. Description of lectures

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).

15. Description of practices

Construction of lifting mechanism, drive mechanism and conveyors

16. Description of labortory practices

Laboratory Measurements: testing of Bulk Materials, portal Crane Measurement, measurement of grid structures, dynamic Test with lifted load

17. Learning outcomes

A. Knowledge
- Knowledge of equipment that makes up material handling systems.
- Knowledge of equipment design relationships.

B. Skills
- Ability to apply the above knowledge and related professional knowledge in the design of new equipment / components.

C. Attitudes
- Strives to provide with the best knowledge and skills to work with the instructors.

D. Autonomy and Responsibility
- In the use of the acquired knowledge the student carries out independent, responsible engineering work.

18. Requirements, way to determine a grade (obtain a signature)

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.

19. Opportunity for repeat/retake and delayed completion

The homeworks' final submission and the albor practices can both be retaken once each.

20. Learning materials

Students can download the subject notes in pdf format via Moodle.

Effective date	10 October 2019	This Subject Datasheet is valid for	Inactive courses