



1. Subject name	Machines of construction material production				
2. Subject name in Hungarian	Építőipari gépek tervezése				
3. Code	BMEKOALM672	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	5	Midterm preparation	6	Exam preparation	20
10. Department	Department of Material Handling and Logistics Systems				
11. Responsible lecturer	Dr. Bohács Gábor				
12. Lecturers	Dr. Bohács Gábor, Dr. Rácz Kornélia, Rózsa Zoltán				
13. Prerequisites					
14. Description of lectures					
Computer-aided design of crushers, optimal design of the moving mechanism. Equation of motion of vibration fibers, effect of imbalance on the vibration picture. Designing the relationship between mixer design, paddle movement and mixing quality. Sizing of concrete pumps, dynamics of movement of the valve change mechanism. Vibrating and energetic dimensioning of vibrating concrete compactors. Characteristics of scaling and control system of concrete steel processing machines.					
15. Description of practices					
Presentations are presented in the context of examples. Consultation on planning task.					
16. Description of laboratory practices					
Presentation of working practices of industrial partners during plant visits.					
17. Learning outcomes					

A. Knowledge

- Know the types and structure of crushing and screening machines.
- Comprehensive knowledge of the technological processes of machines.
- Know technological characteristics and their relationships.
- Know the different solutions used in industrial practice.
- Know the design theories.

B. Skills

- Able to apply the skills efficiently and in an integrated manner to your crushing and screening machines.
- Consciously apply the learned designing methods.
- Capable of determining the required technological parameters of an equipment.
- Able to design equipment that meets the specified parameters
- Able to solve the problems that have arisen alone or in a team, to pass on his knowledge effectively.
- It has original, innovative ideas.

C. Attitudes

- Work at a high level in a group and independently.
- Searching for relationships with other subjects.
- Open to use math tools.
- Seek to get to know and routinely use the tools needed for solutions.
- Strive for accurate and error-free task solving.

D. Autonomy and Responsibility

- Develops solutions independently.
- Pay attention to the effects and consequences of your decisions.
- Apply the systemic approach in your thinking.

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

During the semester, a midterm test is taken. The end of semester signing is a minimum to provide a sufficient level of two semi-annual planning tasks and at least a satisfactory outcome of the midterm test. The exam pass is 20% at home, 30% for homework and 50% for written examination, which students can, if necessary orally.

19. Opportunity for repeat/retake and delayed completion

The homeworks' submission and the midterm test can both be resubmitted once.

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
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