



1. Subject name	Work Organisation and Management (PhD)				
2. Subject name in Hungarian	Üzemszervezés (PhD)				
3. Code	BMEKOKUD011	4. Evaluation type	exam grade	5. Credits	2
6. Weekly contact hours	1 (0) Lecture	1 (0) Practice	0 (0) Lab		
7. Curriculum	PhD Programme	8. Role	Specific course		
9. Working hours for fulfilling the requirements of the subject					60
Contact hours	28	Preparation for seminars	0	Homework	20
Reading written materials	8	Midterm preparation	0	Exam preparation	4
10. Department	Department of Transport Technology and Economics				
11. Responsible lecturer	Dr. Juhász János				
12. Lecturers	Dr. Juhász János				
13. Prerequisites					
14. Description of lectures					
Types of process indicators, methods of their calculation. Relationships between the indicators. Using of the fact-finding and process testing methods. Calculation of the capacity and capacity consumption of the transportation, open reserve. Methods of capacity consumption increasing. Organization methods and tools of production systems. The basics of organization of production systems: relationships between production types and systems. Automation and integration of production. Flexible production systems. Design methods of spatial layout of production equipment. Time planning of production, transport and logistics processes. Using of Gantt Chart. Examination of process and characteristics of production by simulation methods. Introduction to Lean methods application. The effect of Industry 4.0 and Artificial Intelligence for work organization.					
15. Description of practices					
Exercising theoretical knowledge with examples and case studies.					
16. Description of laboratory practices					

### 17. Learning outcomes

#### A. Knowledge

- Know the operational indexes of operational processes in the practice.
- Know the methods and tools of organizing production systems.
- Know the characteristics of different production systems.
- Know the methods of time planning of production and transport processes.
- Know the basic concepts of Lean and application possibilities.
- Know the application of artificial intelligence in production systems.
- Know the relationship between Industry and operating methods.

#### B. Skills

- Able to evaluate the development of indicators for the classification of operational and transport processes.
- Able to time planning of production and transport processes.
- Able to apply of Industry elements.

#### C. Attitudes

- The student attends the lectures, prepare independent study on time.
- During the independent study the student strives to develop new technical solutions.
- Interested in international and domestic developments in the field.
- Open to learn new knowledge and learn.

#### D. Autonomy and Responsibility

- Apply responsibility the knowledge acquired in the course of the course.

- Can independently develop new technical solutions.
- Accepts the framework of collaboration, can perform its work independently or as part of a team, depending on the task

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

Exam. Evaluation of individual study.

#### 19. Opportunity for repeat/retake and delayed completion

Retake exam. Study repair

#### 20. Learning materials

Supported by downloadable documents from the Department website

Effective date	27 November 2019	This Subject Datasheet is valid for	Inactive courses
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