

## Tárgytematika / Course Description Production Logistics 2.

AJNB\_LSTA019

Tárgyfelelős neve /

Teacher's name: dr. Hartványi Tamás

Félév / Semester: 2024/25/1

Beszámolási forma /

Assesment: Vizsga

Tárgy heti óraszám /

Teaching hours(week): 2/0/0

Tárgy féléves óraszám /

Teaching hours(sem.): 0/0/0

### OKTATÁS CÉLJA / AIM OF THE COURSE

The students will receive a broad introduction to deeper levels of production logistics. They will get familiar with the principals of lean theory, different material flow mechanisms, ID systems, quality requirements. The lecturers will demonstrate best practice waste management solutions, automation projects and elements of Industry 4.0. The lectures will give practical and theoretical knowledge and will contain case studies and academic reviews.

### TANTÁRGY TARTALMA / DESCRIPTION

- 09.02. Opening of the semester – lecture not held
- 09.09. The Toyota Production System, Principles of Lean
- 09.16. Value Stream Mapping
- 09.23. Material flow control, push and pull, MRP and kanban, hybrid operations, queing model
- 09.30. Identification systems, traceability, FIFO, Quality Control in production systems, document management, Production and quality standards in different industries
- 10.07. Production planning and control – IT background
- 10.14. Production and capacity planning – case study
- 10.21. Production and capacity planning – case study
- 10.28. Visit to a manufacturing plant
- 11.04. Industry 4.0 and MES systems, Automation in production plants -TB
- 11.11. Project management, RACI matrix – TB
- 11.18. Resource allocation, task assignment problem – TB
- 11.25. Heuristic algorithms for solving production problems - TB
- 12.02. Preliminary exam

### SZÁMONKÉRÉSI ÉS ÉRTÉKELÉSI RENDSZERE / ASSESSMENT'S METHOD

The assessment is based on the oral exam at the end of the semester. The students can also take a preliminary exam in the final week of the semester. The exam dates will be published in Neptun, the following grading scale applies: **Assessment result Grade 0% - 50% 151% - 62% 263% - 74% 375% - 87% 488% - 100% 5**

### KÖTELEZŐ IRODALOM / OBLIGATORY MATERIAL

S. Anil Kumar, N. Suresh: Production and operations management, New Age International Publishers, 2nd edition, 2008

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## **AJÁNLOTT IRODALOM / RECOMMENDED MATERIAL**

**Jeffrey K. Liker: The Toyota Way, McGraw-Hill Education-Europe, 2005**