Course title: Logistics of Manufacturing Systems

Neptun code:

GEALT414-a

Course coordinator: Dr. Péter Telek, PhD, associate professor

type of lesson and number of lessons: **lecture (2)**

method of evaluation: colloquium

curriculum location of the subject: (autumn/spring semester): autumn and spring

pre-study conditions (if any): -

The task and purpose of the subject:

Presentation of structure, characterizations and operation of the handling systems of manufacturing processes.Students obtaining the course will be able to design and effectively operate the handling processes of manufacturing systems.

Course description:

Formation of production systems, development history. Structure, topology, modeling of production systems. Logistics processes of production systems, internal logistics processes. Handling models of production systems. Connecting and matching external and internal logistics processes. Inspection of connection points. Examination of the performance of production systems, taking into account machine failures and technological time modifications. Examination of material requirements and stocks. Logistics data communication systems in production systems. Simulation methods in production systems.

Required literature:

1. Apple, J. M.: Material handling system design. John Wiley & sons. New York. 1977.

- 2. Kulwiec, R. A.: Materials handling handbook. John Wiley & sons. New York. 1985.
- 3. Telek, P.: Material handling model of production workplaces. ALS, 16(1), 51-62, 2022

Recommended literature:

- 1. Wing, G. M.: An introduction to transport theory. John Wiley & sons. New York London. 1962.
- 2. Telek, P. Equipment preselection for integrated design of materials handling systems. ALS. 7(2), 57-66, 2013