

## Tárgytematika / Course Description Supply Chain Management 1.

AJNB\_LSTA014

**Tárgyfelelős neve /**

**Teacher's name:** dr. Nagy Zoltán András

**Félév / Semester:** 2024/25/1

**Beszámolási forma /**

**Assesment:** Vizsga

**Tárgy heti óraszám /**

**Teaching hours(week):** 3/0/0

**Tárgy féléves óraszám /**

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

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### OKTATÁS CÉLJA / AIM OF THE COURSE

The students will receive a broad introduction to logistics and supply chain. They will be lead through the processes and fields of the supply chain such as procurement, manufacturing, warehousing, inventory planning, freight forwarding and IT applications. The lectures will give practical and theoretical knowledge and will contain case studies and academic reviews.

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### TANTÁRGY TARTALMA / DESCRIPTION

1. Introduction to logistics and distribution. Integrated logistics and the supply chain. Procurement and supply.
2. Manufacturing Logistics. Typology. Pull strategies (JIT, JIS systems) and Push strategies (MRP systems). Basics of manufacturing logistics.
3. Production planning, monitoring. Future development. Production supply systems. Flexible manufacturing.
4. Channels of distribution. Logistics network planning.
5. Road freight transport. Vehicle selection and costing. Planning and resourcing. Vehicle routing, trip planning and optimization.
6. Maritime, air, rail and intermodal transport systems.

7. Basic inventory planning and management. Stockholding policy. Inventory costs.
8. Inventory replenishment systems. Reorder point and safety stock. The bullwhip effect. EOQ model. Demand forecasting. Inventory and the supply chain. Analysing time and inventory.
9. Warehousing, operations in warehouses, packaging and unit loads. Storage and handling systems.
10. Order picking and packing. Receiving and dispatch.
11. Information and communication technology in the supply chain.
12. E/commerce. Information flow in the supply chain, monitoring.
13. Applications supporting logistic processes. Controlling, accounting and logistics.
14. Case studies

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### **SZÁMONKÉRÉSI ÉS ÉRTÉKELÉSI RENDSZERE / ASSESMENT'S METHOD**

The assessment is based on the written exam at the end of the semester. The exam dates will be published in Neptun. The students can take a preliminary exam in the final week of the semester.

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### **KÖTELEZŐ IRODALOM / OBLIGATORY MATERIAL**

Alan Rushton, Phil Croucher, Peter Baker: The Handbook of Logistics and Distribution Management; KoganPage, 5th Edition, 2014

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### **AJÁNLOTT IRODALOM / RECOMMENDED MATERIAL**

1. 09.03.

Introduction to logistics and distribution. Integrated logistics and the supply chain. Procurement and supply. ZN

2. 09.10.

Logistics trade-offs, strategies; Main strategic questions of logistics management; Lead time; Measuring the effectiveness of logistics strategies ZN

3. 09.17. Channels of distribution. Logistics network planning. ZN

4. 09.24.

Road freight transport. Vehicle selection and costing. Planning and resourcing. Vehicle routing, trip planning and optimization. ZN

5. 10.01.

Maritime transport, air transport, rail and intermodal transport. ZN

6. 10.08.

Basic inventory planning and management. Stockholding policy. Inventory costs.

Inventory replenishment systems. Reorder point and safety stock. ZN

7. 10.15.

The bullwhip effect. EOQ model. Demand forecasting. Inventory and the supply chain. Analyzing time and inventory. ZN

8. 10.22.

Manufacturing Logistics. Typology.

Pull strategy (JIT, JIS systems). Push strategy (MRP systems) Basics of manufacturing logistics. CT

9. 10.29.

Production planning, monitoring. Future development. Production supply systems. Flexible manufacturing. CT

10. 11.05.

Storage and handling systems. CT

11. 11.12.

Warehousing, operations in warehouses, packaging, and unit loads. CT

12. 11.19.

Applications supporting logistic processes. Controlling, accounting and logistics. Information and communication technology in the supply chain. E/commerce, Information flow in the supply chain, monitoring CT

13. 11.26.

Packaging, unit load training; The role and importance of packaging; Order picking and packing. Receiving and dispatch. Inverse logistics. The relationship between waste management and distribution. CT

14. 12.03.

