

Course title: Standardization in Industrial and Logistics Systems	Number of credits: 5
Suggested semester: I./II. Semester	Assessment: Exam
Number of hours per semester Theoretical: 2	
Name and position of course coordinator: Dr. János Juhász, Ph.D., Assistant professor	
Lecturer(s): -	
Course description:	
Course objective: The course deals with the theoretical and practical aspects of standardization solutions applied in industrial and logistics systems. It presents the role of standardization in supply chain operations, information flow, and corporate and international cooperation. The aim of the course is to provide students with comprehensive knowledge about the operation, significance and application possibilities of industrial and logistics standardization systems. Furthermore, the course aims to enable students to understand and apply methods related to the standardization of logistics and industrial processes, and to recognize the role of global standards in ensuring efficient and secure supply chain operations.	
Course topics: Concept, role and historical development of standardization The role of standardization in industrial and logistics systems National and international standardization organizations (ISO, IEC, GS1, etc.) Standardization of logistics processes in supply chains Identification and data capture technologies (barcodes, RFID, IoT) GS1 standards and global identification solutions Application of standards in industrial and logistics information systems Case studies on industrial and logistics standardization solutions	
Required and recommended literature:	
<i>Required literature:</i> 1. Langford, J.: Logistics principles and applications, Sole Press, ISBN-10: 0-07-147224-X, 2007. 2. Rushton, A., Croucer, P., Baker, P.: The handbook of logistics and distribution management, 3rd edition, Kogan Page Limited, ISBN 9780749446697, 2006 3. GS1 Case studies	
<i>Recommended literature:</i> 1. H-C. Pfohl, B. Yahsi, T. Kurnaz: The Impact of Industry 4.0 on the Supply Chain. In: W. Kersten, T. Blecker, C. M. Ringle (eds) Sustainability in logistics and supply chain management: New designs and strategies, 1st ed. epubli GmbH, Berlin, 2015., pp. 31–58. 2. Bhardwaj D., Jahandar B., Kinra A.: Streamlining Global Logistics and Supply Chain Operations: A Process Standardization Framework (2024) Lecture Notes in Logistics, Part F2520, pp. 20 – 28.	