Module card

I. GENERAL INFORMATION								
WITELON COLLEGIUM STATE UNIVERSITY **DEPARTMENT Faculty of Technical and Economic Sciences**								
Field of study:		Logistics and transport						
Form of study:		Erasmus						
Module title:		**ML.2 Production logistics**						
Module type:		Compulsory field of study						
Language of lecture:		English						
Year of study:	2	**Forms of teaching including number of teaching hours:**						
Semester (winter/summer):	winter	Lectures	Classes	Laboratory	Project	Workshop	Seminar	Other
Total number of ECTS credits:	4	15		15				
Form of completion:		Exam						
Prerequisites:		-						

II. LEARNING OBJECTIVES
Learning objectives:
Objective 1: Demonstrate the space and role of production logistics in supply chains. **Objective 2:** Presenting the complexity of decision problems in the field of production logistics. **Objective 3:** Delivering knowledge about planning and steering of production flows in production systems.

IV. PROGRAMME CONTENT		
Content of the programme (topics of classes, presented with a breakdown into individual forms of classes with the indication of the number of hours needed for their realization)		
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Code	Course topics in theory	Number of hours
L1	The place and role of production logistics in supply chain.	2
L2	Qualification requirements for production logisticians & determinants of the effectiveness their activities.	2
L3	Design of the spatial structure of the plant – logistics implications.	3
L4	Logistics standards for production flow/series.	2
L5	Balancing tasks with production capacity.	2
L6	Planning of the production flow.	2
L7	Planning of tasks and resources.	2
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Code	Course topics in practice	Number of hours
C1	Manufacturing plant layout design.	2
C2	Shop floor design with regard to material flows.	2
C3	Workstation organization - project.	5
C4	Elaborating of planning norms for production flow - project.	2
C5	Material Requirement Planning – project.	2
C6	Production scheduling – project.	2

VIII. RECOMMENDED LITERATURE
Basic sources: 1. Nyhuis P. & Windhal H.P., (2009) Fundamentals of Production Logistics. Theory, Tools and Applications. Springer - Verlag, Berlin Heidelberg. 2. Peter L. King, Mac Jacob, Noel Peberdy, (2023), Production Scheduling for the Process Industries Strategies, Systems, and Culture. Routledge.
Additional sources: 1. Michlowicz E., (2013), Logistics in production processes. Journal of Machine Engineering Vol. 13, No. 4, pp. 5-17. 2. Horzela A, Semrau K., (2021), Use of tools to improve production and logistics processes. Scientific Quarterly “Organization and Management”, 2020, Vol. 2, No. 54; DOI: 10.29119/1899-6116.2020.54.2