

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:	5	15		15				
Form of completion:		Exam						
Prerequisites:		-						
II. LEARNING OBJECTIVES								
Learning objectives:								
<p>Objective 1: Demonstrate the space and role of production logistics in supply chains.</p> <p>Objective 2: Presenting the complexity of decision problems in the field of production logistics.</p> <p>Objective 3: Delivering knowledge about planning and steering of production flows in production systems.</p>								
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