



Course title	Management: Introduction to logistics and Supply Chain Management (SCM)	Instructor	Determined later
		Instructor's email address	
Semester	1 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/>	ECTS credits	5/3
Academic year	2019/2020	Contact hours	15 <input type="checkbox"/> 30 <input checked="" type="checkbox"/>
Level	1-Bachelor <input checked="" type="checkbox"/> 2 - Master <input checked="" type="checkbox"/>	Language of instruction	English

Learning outcomes and competences
<p>At the end of the course the learner is expected to be able to:</p> <ul style="list-style-type: none"> - understand the logistics principles, - understand the role of logistics subsystems while managing the material flow, - analyze processes occurring in a production enterprise within logistics subsystems while managing the material flow, - understand the role of logistics management in operations and SCM, - understand aspects that are to consider while managing the warehousing and inventory, - use and select the relevant tools that reduce the waste in the process of material flow.

Course contents
<p>Overview: Waste and Flow The notion of the material flow and waste in the production enterprise</p>
<p>Presentation of chosen tools and techniques that eliminate waste in a company Line Balancing, Job Timing, Cells, Productivity</p>
<p>Presentation of chosen tools and techniques that eliminate waste in a company Throughput and Capacity: Line capacity, Variation and dependent events, Theory of Constraints Flow game: part I</p>
<p>Throughput and Capacity: Line capacity, Variation and dependent events, Theory of Constraints Flow game: part II</p>
<p>Throughput and Capacity: Line capacity, Variation and dependent events, Theory of Constraints Flow game: part III</p>
<p>Presentation of chosen tools and techniques that eliminate waste in a company Scheduling, Bottleneck effects and Controlling flow Introduction to the Drum Buffer Rope Game – part I</p>
<p>Scheduling, Bottleneck effects and Controlling flow Introduction to the Drum Buffer Rope Game – part II</p>
<p>Scheduling, Bottleneck effects and Controlling flow Introduction to the Drum Buffer Rope Game – part III</p>
<p>Presentation of chosen tools and techniques that eliminate waste in a company Standard Work, Reason for 5S</p>
<p>Presentation of chosen tools and techniques that eliminate waste in a company</p>



Inventory levels for a line: Batch Production vs One Piece Flow – part I
Inventory levels for a line: Batch Production vs One Piece Flow – part II
Inventory levels for a line: Batch Production vs One Piece Flow – part III
Complex Line Balance: Flow Design – FlexSim Process Flow – part I
Complex Line Balance: Flow Design – FlexSim Process Flow – part II
Complex Line Balance: Flow Design – FlexSim Process Flow – part III

Recommended reading
M. Drussendorf, <i>Oxford Business English, English for Logistics</i> , Oxford University Press 2009 E.M. Goldratt., J. Cox, <i>The Goal: Excellence in Manufacturing</i> , North River Press, New York, 1984. K. Rutkowski, <i>Best Practices in Logistics and Supply Chain Management</i> , Oficyna Wydawnicza SGH, Warszawa 2009 H.-Ch. Pfohl., <i>Logistiksysteme, Betriebswirtschaftliche Grundlagen</i> , Springer, Berlin 2004 J.P Womack, D.T., Jones, D. Ross, <i>The Machine that Changed the World</i> , Rawson/Macmillan Associates, New York 1990

Teaching and learning methods
Workshops
computer simulations,
discussions, brainstorming

Assessments methods
in-class participation
observing and evaluating the performance of students while designing and conducting designed simulation experiments
observing and evaluating the performance of students while exploring the properties of “TOC computer simulation” and studying the resultant data
observing and evaluating the performance of students while exploring the properties of “FlexSim computer simulation” and studying the resultant data