UNIVERSITETI /UNIVERSITY
"ISA BOLETINI"
MITROVICË

Course Curriculum Model (Syllabus)		
Faculty:	**FACULTY OF MECHANICAL AND COMPUTER ENGINEERING**	
Department:	Mechanical Engineering	
Level:	Bachelor	
Code of the course:	314 ME	
Course:	**Supply Chain Management**	
Course Status:	Elective	Mandatory/**Elective**
Semester:	(VI)	Winter/**Summer**
Number of hours per week:	2+1	
ECTS:	3	
Time / location:	Friday, 9^{00}-10^{30}, S308	
Year of studies:	2024/2025	
Lecturer:	Prof. Ass. Dr. Faruk Ahmeti	
Assistant:		
Contact details:	Professor	Assistant
Email:		
Telephone:		

Course description	This course provides an introduction to the principles and practices of supply chain management, with a focus on the role of logistics and operations management in achieving effective supply chain performance. Topics covered include supply chain strategy, demand forecasting, inventory management, transportation and distribution, and performance measurement.
Purpose (Goals)	The purpose of a course in Supply Chain Management is to equip students with the knowledge and skills necessary to effectively manage the flow of goods, services, and information from the point of origin to the point of consumption. The course aims to provide students with an understanding of the key components and processes of supply chain management, including procurement, logistics, production, inventory management, and distribution. Additionally, the course seeks to develop students' critical thinking, problem-solving, and decision-making skills through case studies, simulations, and group projects. By the end of the course, students should be able to analyze supply chain operations, identify opportunities for improvement, and develop strategies to optimize supply chain performance. Ultimately, the goal of the course is to prepare students for careers in supply chain management, logistics, procurement, and related fields.

Learning outcomes	Upon completion of course, students should be able to: ● Explain the key concepts and principles of supply chain management, including procurement, logistics, production, inventory management, and distribution. ● Analyze the performance of a supply chain and identify opportunities for improvement in areas such as cost, speed, quality, and sustainability. ● Develop and apply strategies to optimize supply chain performance, such as lean manufacturing, just-in-time inventory, and demand forecasting. ● Evaluate the impact of technological advancements on supply chain operations, including the use of big data analytics, Internet of Things (IoT) devices, and blockchain technology.

	Weeks	Lecture
Program	***First week:***	Introduction to Supply Chain Management and Key Processes ● Definition and objectives of supply chain management ● Types of supply chains ● Key supply chain drivers and enablers
	Second week:	Supply Chain Strategy and Design ● Aligning supply chain strategy with business strategy ● Designing the supply chain network ● Developing supplier relationships and partnerships
	***Third week*:**	Demand Management and Forecasting ● Forecasting demand using quantitative and qualitative techniques ● Managing demand variability ● Collaborative planning, forecasting, and replenishment (CPFR)
	Fourth week;	Inventory Management ● Inventory costs and trade-offs ● Determining inventory levels using economic order quantity (EOQ) and safety stock ● ABC analysis and inventory classification
	Fifth week:	Transportation and Distribution Management ● Modes of transportation ● Carrier selection and routing ● Distribution center management
	***Sixth week*:**	Customer Relationship Management ● Understanding customer needs and preferences ● Managing customer expectations ● Building customer loyalty
	Seventh week:	Customer Service Management ● Setting service level goals and metrics ● Managing service failures and recovery ● Measuring and improving service quality

	Eighth week week:	Demand Management (Cont'd) and Order Fulfillment ● Managing demand variability ● Sales and operations planning (S&OP) ● Order processing and fulfillment
	Ninth week:	Manufacturing Flow Management ● Lean manufacturing principles and techniques ● Just-in-time (JIT) production ● Theory of Constraints (TOC)
	Tenth week	Supplier Relationship Management ● Evaluating supplier performance ● Developing supplier partnerships ● Managing supplier risk
	Eleventh week:	Product Development and Commercialization ● New product development process ● Launching new products in the market ● Managing product life cycles
	Twelfth week:	Returns Management ● Reverse logistics and product returns ● Managing product recalls ● Recycling and waste reduction
	Thirteenth week:	Supply Chain Mapping ● Mapping the supply chain network ● Identifying areas for improvement ● Implementing process changes
	Fourteenth week:	Developing and Implementing Partnerships in the Supply Chain ● Collaborating with supply chain partners ● Building trust and commitment ● Sharing risks and rewards
	Fifteenth week:	Supply Chain Performance Measurement and Improvement ● Key performance indicators (KPIs) for supply chain management ● Continuous improvement and best practices ● The role of technology in supply chain management ● Course Review

Literature	
Literature	● Designing and Managing the Supply Chain: Concepts, Strategies and Case Studies by David Simchi-Levi, Philip Kaminsky, and Edith Simchi-Levi (2014) ● Supply Chain Management: A Logistics Perspective by John J. Coyle, C. John Langley Jr., Robert A. Novack, Brian Gibson, and Edward J. Bardi (2016) ● "A Strategic Framework for Understanding Supply Chain Management" by Douglas M. Lambert (2008) ● Logistics and Supply Chain Management by Martin Christopher (2016) ● "The Impact of Supply Chain Management Practices on Competitive Advantage and Organizational Performance" by Hokey Min (2012)

Teaching methodology	Lectures, class discussions, group work, presentations, and assignments. Guest speakers Group projects Simulations Online resources			
	Contribution to student workload (which should correspond to student learning outcomes - 1 ECTS credit = 25 hours)			
	Activity	**Hours**	**Days/weeks**	**Total**
	Lectures	2	15	30
	Exercise sessions (with TA)	1	15	15
	Practical work	-	-	-
	Office hours	1	6	1
	Fieldwork	-	-	-
	Midterms, seminars	1	1	1
	Homework	1	5	5
	Self-study	1	10	10
	Final exam preparation	1	2	2
	Time spent in exams	1	2	2
	Projects, presentations, etc.	1	4	4
Total				**75**

Evaluation	**Assessment methodology:** Projects Oral Presentations (Seminars) Quizzes and Tests Participation Final Exam (according to the Statute and Regulation for studies of UMIB)	
	Tests / Colloquia	2x15 = 30 points
	Practical test during exercises	2 = 10 points
	Seminary work	1 = 15 points
	Assignments and courses during the semester	1 = 15 points
	Final Exam	30 points
	Total	100%
	Final grade	Points (%) Mark
		91 – 100 10
		81 - 90 9
		71 - 80 8
		61 - 70 7
		51 - 60 6

Academic policies	**Criteria for regular attendance and rules of etiquette during the organization of the lesson are set.** **Computer work:** Graphic works, I have to draw and write with a computer. In the works it is obligatory to respect the criteria for both the visual and the content aspect of the required works. **Ethics in teaching:** Graphic works should be personal works of each student. There will be no tolerance for copying, "borrowing" from the Internet or any other material. The same or similar works will have negative evaluations in the final evaluation of the student. **Time:** In agreement with the students, the deadlines for submitting works will be determined. There will be no tolerance for delays in the submission of works. Failure to arrive at the time when the assignment is explained does not justify the student for not submitting the paper. The deadline will be given earlier. If you are going to travel abroad, then you need to submit the paperwork in advance. The student has the right to request a consultation with the professor whenever he / she deems it reasonable and necessary for the performance of his / her work. **Rules of conduct and academic policies:** ● active participation of students in lectures o participation in discussion, comments and free expression of opinion, opinion and academic position (with arguments) ● Mandatory independent work and use of additional sources of information (various scientific websites, scientific journals, conference proceedings, etc.) ● Respecting lecture schedules without compromising academic freedom (silent cell phones) of respecting the word, thoughts and ideas of colleagues, ● It is not allowed to arrive late and leave without a valid reason from the lecture, test or exam o preparation and holding of relevant lectures, (obligation of the teacher). ● if the student is absent more than four times without reason in lectures and exercises, does not receive the signature for attendance. o the student cannot take the exam without an official document, ● if the student is dissatisfied with the grade obtained, has the right to complain in writing to the dean, within two working days after the announcement of the results, UMIB Statute o if the student does not follow the rules, in the exam uses tools that are not allowed, it is evaluated with a negative grade.

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Mitrovicë; 29/04/2023 Prof. Asoc. Dr. Faruk Ahmeti