ISM UNIVERSITY OF MANAGEMENT AND ECONOMICS

PPROVED BY
THE STUDY COMMISSION
Minutes No. 02-12-2023-11
as of 29th August 2023

GLOBAL SUPPLY CHAIN MANAGEMENT

Course code	*MNG 243*
Compulsory in the programmes	*International Business and Communication, Business Management and Marketing, Industrial Technology Management*
Level of studies	*Undergraduate*
Number of credits	*6 ECTS (48 in-class hours + 6 consultation hours + 3 exam hours, 105 individual work hours)*
Course coordinator	*Prof. Dr. Fabio Sgarbossa*
Prerequisites	*None*
Language of instruction	*English*

THE AIM OF THE COURSE:

This course will introduce you to the key aspects of supply chain management and place them in a global context. The course lays the foundations that will allow you to expand your knowledge in global supply chain management, developing a problem-solving oriented mindset. You will gain an awareness of key theories and practical techniques in global supply chain management, and you will apply them to conceptual exercises and case studies. You will also explore and experience the digital transformation of global supply chain management. All these aspects of the course will build your professional skills, rendering you an attractive resource for companies.

MAPPING OF COURSE LEVEL LEARNING OUTCOMES (OBJECTIVES) WITH LEARNING OBJECTIVES (See Annex), ASSESMENT AND TEACHING METHODS:

Course level learning outcomes (objectives)	Degree level learning objectives	Assessment methods	Teaching methods
CLO1. Introduce students to the core concepts of global supply chain management	LO1.1.; LO2.1.	Mid-term test	Lecture, self-study
CLO2. Understand the importance of supply chain network design and acquire practical skills on the topic	LO1.2.; LO2.1.; LO3.1.; LO3.2.; LO4.1.; LO4.2	Mid-term test, final assignment, coursework	Lecture (theory and software), self-study
CLO3. Understand the importance of inventory management and learn inventory management techniques	LO1.2.; LO2.1.; LO3.1.; LO3.2.; LO4.1.; LO4.2	Mid-term test, final assignment, coursework	Lecture (theory and teamwork), self-study
CLO4. Understand the importance of demand forecasting and learn demand forecasting techniques	LO1.2.; LO2.1.; LO3.1.; LO3.2.; LO4.1.; LO4.2	Final exam, final assignment, coursework	Lecture (theory and teamwork), self-study
CLO5. Learn the different sourcing and transportation policies and understand when to adopt them	LO1.2.; LO2.1.; LO3.1.; LO3.2.; LO4.1.; LO4.2	Final exam, final assignment, coursework	Lecture (theory and software), self-study
CLO6. Understand the risks affecting the global supply chain and how to manage them	LO1.2.; LO2.1.; LO3.1.; LO3.2.; LO4.1.; LO4.2	Final exam, final assignment, coursework	Lecture (theory, coursework and software), self-study

ACADEMIC HONESTY AND INTEGRITY

The ISM University of Management and Economics Code of Ethics, including cheating and plagiarism are fully applicable and will be strictly enforced in the course. Academic dishonesty, and cheating can and will lead to a report to the ISM Committee of Ethics. With regard to remote learning, ISM remind students that they are expected to adhere and maintain the same academic honesty and integrity that they would in a classroom setting.

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COURSE OUTLINE

Topic	Sub-Topic	Hours	Readings
Introduction to the GSCM course	(Basic definitions, course aims, structure, requirements, assessment criteria, reading list)	2	Simchi-Levi, Kaminsky, Simchi-Levi: Chapter 1
GSC network design I: theory	(Centralized vs. decentralized GSC: variables involved, pros and cons, decision strategies)	4	Simchi-Levi, Kaminsky, Simchi-Levi: Chapter 3
GSC network design I: AnyLogistix	(Introduction to AnyLogistix, step-by-step guide, Greenfield analysis)	4	Ivanov : Introduction & Chapter 1
Inventory management & Distribution strategies I: theory	(Introduction, Inventory control policies (continuous review policy, periodic review policy, …), risk pooling, distribution strategies)	4	Simchi-Levi, Kaminsky, Simchi-Levi: Chapter 2 & 7
Inventory management & Distribution strategies II: AnyLogistix_part 1	(Step-by-step guide, Network Optimization and Advanced Simulation with Inventory and Transportation Control, Simulation with Production Factories and Sourcing Policies)	4	Ivanov : Chapters 2&3
Inventory management & Distribution strategies II: AnyLogistix_part 2	(Step-by-step guide, Network Optimization and Advanced Simulation with Inventory and Transportation Control, Simulation with Production Factories and Sourcing Policies)	4	Ivanov : Chapters 2&3
Mid-term	(Mid-term exam & review)	2	
Project assignment	Group work	4	
Demand forecasting	(The role and characteristics of forecasting, forecasting methods, basic approaches to demand forecasting)	4	Ivanov, Tsipoulanidis, Schönberger: Chapter 11
Operational risk in GSC I: theory	(Introduction to the Bullwhip effect, quantifying the bullwhip effect, methods for coping with the bullwhip effect, beer game)	4	Simchi-Levi, Kaminsky, Simchi-Levi: Chapter 5
Disruptive risk in GSC I: theory	(Introduction to disruptive risks and disruptions, ripple effect, methods for coping with disruptions, data-driven GSC digital twin)	4	Ivanov, Tsipoulanidis, Schönberger: Chapter 15
Operational and disruptive risk in GSC II: AnyLogistix_part 1	(Step-by-step guide, Risk Analysis in the Supply Chain (Bullwhip Effect and Ripple Effect))	4	Ivanov : Chapter 4
Operational and disruptive risk in GSC II: AnyLogistix_part 2	(Step-by-step guide, Risk Analysis in the Supply Chain (Bullwhip Effect and Ripple Effect))	4	Ivanov : Chapter 4
	Total: 48 hours		
Consultations	6		
Final Exam	3		

FINAL GRADE COMPOSITION

Type of assignment	**%**
Group Components 20%	
Final assignment	20
Individual Components 80%	
Mid-Term Exam	40
Final Exam	40
Total:	**100**

DESCRIPTION AND GRADING CRITERIA OF EACH ASSIGNMENT

Midterm and Final Exams. The midterm examination counts for 40% and will cover topics 1-6. The final examination counts for 40% of the final grade and will cover topics 7-11. The lecturer reserves the right to choose the form of the exam. Details about the structure of the exam and the grading policy will be presented on the first day of the lectures and will be published online. The lecturer reserves the right to choose the form of the exam. Details about the structure of the exam and the grading policy will be presented on the first day of the lectures and

will be published online.

Final assignment: students (divided in groups) will be asked to present their final assignment. Details about the presentation scope and the grading policy will be presented on the first day of the lectures and will be published online.

RETAKE POLICY

If final (cumulative) mark of the course, including final exam score, is insufficient, students will be allowed to exercise their right of retake. The retake exam will cover all lectures and case-discussion topics discussed in class during the course. It will be held during the last week of the exam session and will replace the score of the mid-term and the final exam (so 80% of the final grade). Acquired scores from all assignments will be summed up and the final (cumulative) grade will be given. The lecturer reserves the right to choose the form of the exam.

ADDITIONAL REMARKS

Attendance and participation in the lectures are not obligatory, however strongly recommended. Studying solely from slides/ course book is not considered to be a sufficient preparation for the exam.

Bonus points. The instructor has the right to award active students with up to 0,2 extra (grade) points. These “bonus points” will only be awarded to students whose (rounded) final grade would increase after all.

Specific rules apply for in-class/online presentations.

- The presentation of the final assignment can neither be re-scheduled nor be retaken. Students failing to sign up for the presentation or failing to show up for the presentation, will be allowed to submit a group report presenting and discussing the final assignment within one week after the date of the presentation.
- In case of serious reasons, individual students may be allowed to switch with another student. Students are responsible for arranging the changes and must inform the lecturer MINIMUM 1 week in advance.
- Within one week of the day of the presentation, each group will receive an evaluation.

Due to the dynamic nature of the content of the course additional material can be assigned during the course. In case of unforeseen events the schedule will be adapted. The lecturer is trying to include actual and relevant materials – therefore the reading list may differ. Slide handouts and readings will be prepared for each class and available for download. The slides are the intellectual property of teaching instructor and students may not distribute or duplicate these notes without written consent.

REQUIRED READINGS

Simchi-Levi, Kaminsky, Simchi-Levi; Designing and Managing the Supply Chain: Concepts, Strategies and Case Studies; McGraw-Hill Education (3rd ed.); 2008

Ivanov, Tsipoulanidis, Schönberge; Global Supply Chain and Operations Management; Springer Nature (3rd ed.); 2021

Ivanov; Supply chain simulation and optimization with anyLogistix; Berlin School of Economics and Law (5th ed.); 2021

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ANNEX

DEGREE LEVEL LEARNING OBJECTIVES

Learning objectives for the Bachelor of Business Management
Programmes:
International Business and Communication,
Business Management and Marketing, Finance,
Industrial Technology Management

Learning Goals	Learning Objectives
Students will be critical thinkers	LO1.1. Students will be able to understand core concepts and methods in the GSCM disciplines
	LO1.2. Students will be able to conduct a contextual analysis to identify a problem associated with their discipline, to generate managerial options and propose viable solutions
Students will be expert in their discipline	LO2.1. Students will be knowledgeable about GSCM
Students will be technologically agile	LO3.1 Students will demonstrate proficiency in SC software packages
	LO3.2. Students will be able to make decisions using appropriate IT tools
Students will be effective communicators	LO4.1. Students will be able to convey their ideas effectively through an oral presentation
	LO4.2. Students will be able to convey their ideas effectively in a written paper