

# 2021\_S02\_KBA\_B2\_OPS\_0001\_E\_L\_BOD 2021\_S02\_KBA\_B2\_OPS\_0001\_E\_L\_MRS

# SUPPLY CHAIN MANAGEMENT

### 2<sup>nd</sup> Semester, 2020-2021

COORDINATOR	Amir PIRAYESH		
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OFFICE HOURS	on demand		

COURSE DELIVERABLE	DUE DATE	WEIGHT ON FINAL GRADE
Continuous Control	During the course	40%
Exam	End of the module	60%

Kedge Business School and its professors, encourage you to use your Pro-Acts, company projects and internships as privileged opportunities to apply the reflections, theories, concepts and tools presented during this course

**KEDGE BUSINESS SCHOOL** 

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#### **INTRODUCTION AND OBJECTIVES**

#### Course Purpose & Objectives

The desires and needs of consumers are the engines of our economy. Meeting these needs requires management resources and operations. While marketing leads a customer to possibly order a product or service on the basis of justified expectations, the Supply Chain, involving various actors and operations, is in charge of meeting these expectations. Indeed, Supply Chain Management (SCM) helps companies to gain a foothold in a highly competitive global market by bringing together the complementary skills of different players.

The aim of this course is to provide information and knowledge to students to understand the Supply Chain fundamentals and its management while making them aware of the current challenges of typical Supply Chains. This course will also help them understand the essence of operations and logistics management as the main building blocks of SCM. This course is also intended to support the learners in their current or future enterprises in the adoption of *Supply Chain Thinking*. In fact, successful managers make good decisions when they conceptualize issues holistically, identify existing interdependencies in the supply chain, and perform rigorous quantitative and qualitative analyzes to facilitate cross-business processes. This can potentially improve the overall performance of the chain and maximize the value generated for all stakeholders, primarily customers.

#### Courses contribution to program objectives

**KB1. Understanding management foundations and techniques:** Each student is able to understands the basics and the main concepts of supply chain management, to analyze business problems and provide hands-on, and effective solutions:

- Assimilate the notions of SCM and the overall SC structure; Apply SCM managerial concepts to define SC and its key operations and explain how they generate value
- Identify the main challenges of SCM, understand the need for solutions, and recognize the adopted solutions
- Apply / propose a method / best practice supporting SCM or Operations Management
- Characterize a SC considering the characteristics of its environment (focal company and its strategy, supply and demand, market, ...); integrate the interdependency of decisions / actions within a SC and their implications in terms of performance
- Understand the relationship between SC strategy and competitive strategy (the role of SC in the competitive advantage)

- Integrate the interdependency between decisions / actions, their implications in terms of performance (vertical interdependency: from strategic to tactical levels or horizontal interdependency: from one SC operation to another)
- Identify the stakeholders of a given SC and their points of view; express himself/herself as one.

#### **Courses description**

Supply Chain, Supply Chain Management, Logistics, Operations, Sourcing, Production, Distribution, Inventory, and Transportation, Strategy, Performance, Decision, Stakeholder, Customer, Product, Service, and sustainability.

#### **COURSE MATERIAL**

#### Textbooks (available online, the text books are not mandatory)

- Logistics : an introduction to SCM, Waters, Pearson
- Essentials of sustainable supply chains, Hugos, Wiley ed.
- Chopra, S. and Meindl, S. (2016) Supply Chain Management. Strategy, Planning and Operation. Pearson.

#### Websites

<u>www.airl-log.com</u>

www.supplychain-forum.com

www.logistique-management.com

## COURSE CONTENTS AND TIMETABLE

SESSIONS	ΤΟΡΙΟ	PRELIMINARY READING(S) AND ASSIGNMENTS
1	Course organization and Introduction to Supply Chain	Session slides form LEARN
2	Production-Distribution Game (Beer Game)	Session slides form LEARN
	Beer Game Debriefing	Session slides form LEARN
3	Demand Management	
4	Fundamentals of Supply Chain Strategy	Session slides form LEARN
4	Supply Chain metrics	
5	Sourcing and Supplier Management	Session slides form LEARN
6	Production management	Session slides form LEARN
7	Distribution: Inventory & Transportation management	Session slides form LEARN
8	Sustainability and reverse supply chain	Session slides form LEARN
9	Case study Presentations	Cases will be assigned and instructions will be given in class.
10	Exam	

#### **TEACHING APPROACH/ INSTRUCTIONAL METHODS**

#### A Word of Advice

The aim of this module is to have an overview of the supply chain management. This is why participants are advised to carefully prepare each session and to ensure potential questions have been addressed in class.

#### **Organization of the sessions**

This course combines lecture in class, exercises, and case studies. There will also be individual written assignments, and team assignments by the students. Students are expected to use business terminology to credibly present their work to a knowledgeable business audience.

**NOTE:** According to government and health regulations, the sessions modality (e.g. Face to Face or Online). may change. Further instructions will be provided by the professors and the program. For online sessions, the visio tool integrated in the LEARN platform will be used.

#### Individual Assignments

The individual assignment is realized by quizzes and exams. The exam checks both students' knowledge of terminology and concepts as well as the application of these concepts to respond to real business situations.

#### **EVALUATION OF STUDENT PERFORMANCE**

А	Participation	Continuous Control - Individual	10%
В	Mid-term quiz	Continuous Control - Individual	10%
С	Case study	Continuous Control - Collective	20%
D	Examen final	Individual Assignment	60%

#### Methods Used to Evaluate Student Performance

A) Participation (10%): The teaching must be collaborative because the teacher and the students work together to awaken a passion for the knowledge and the truth. The participation grade (counting as 10% of the final grade: 2 out of 20) is not only about attending the sessions. It is mainly an evaluation based on the student engagement in in-class discussions.

**Evaluation Criteria:** Active participation in class, use of adapted terminology, coherence of argumentation, cooperative behavior.

B) Mid-term quiz (10%): Multiple-choice and true/false questions.

C) Case study (20%): this work will be evaluated on the basis of the presentation / performance of the student groups during the last session of the course. Students will work on the given topic (s), on a specific company (case). For the case study, each student will have a final grade being the average of an individual and group grade. The group grade will be the same for all the members of the same group. Groups will be formed, topics will be assigned and instructions will be given in class.

 $\rightarrow$  See the Evaluation Criteria below. (the criteria might change according to the specific characteristics of the case study or in case of a business game)

Critère	BELOW EXPECTATIONS / NOT GOOD ENOUGH	MEETS EXPECTATIONS / GOOD ENOUGH	BEYOND EXPECTATIONS / SUPERIOR	Poids
1) Ability to meet the standards of presentation	0-1 point	2-3 points	4 points	4
2) Ability to perform a group presentation (role play, coordination)	0-1 point	2-3 points	4 points	4
3) Ability to address coherent topics and methods, and to apply appropriate terminology	0-3 point	4-6 points	7-8 points	8
4) Ability to interact with the audience	0-1 point	2-3 points	4 points	4
			Total	20
* creativity bonus: 2 p	oints			•

**Evaluation Criteria (Case-Study)** 

**D) Individual Assignments (Exam):** The exam verifies the knowledge of terminology and concepts as well as the application of these concepts to respond to real business situations. Exam Guidelines: Answers should be given in such a way that they will be presented to the management committee of the company (as seen with exercises and classroom cases); An answer must be given; A clear position must be taken; The answers must be concise and short; The appropriate terminology must be used; Answers should not exceed the space provided;

See the Assessment Criteria on the next page.

# **Evaluation criteria (Final Exam)**

Criteria	<b>BELOW EXPECTATIONS / NOT GOOD ENOUGH</b>	<b>MEETS EXPECTATIONS / GOOD ENOUGH</b>	<b>BEYOND EXPECTATIONS / SUPERIOR</b>	WEIG
	0-1.75 point	2-2.75 points	3-4 points	WE H
1) Ability to cite, define, and exemplify SCM managerial concepts / associated operations, explain the role of SCM in companies and its barriers	<ul> <li>&gt; The student is not able to define the Supply Chain and its main concepts / operations.</li> <li>&gt; He / She is not able to explain the need for SCM.</li> <li>&gt; The written expression is not well-formulated or the terminology is not adapted.</li> </ul>	<ul> <li>&gt; The student is able to define supply chain and its concepts / operations but its expression / interpretation of those concepts is limited and indicates a lack of vocabulary.</li> <li>&gt; The examples provided are either limited or irrelevant.</li> <li>&gt; There is a lack of structure in the expressions.</li> </ul>	<ul> <li>&gt; The student demonstrates a good understanding of the concepts.</li> <li>&gt; He / she can provide relevant examples and explain how SCM can contribute to a company's performance and competitiveness.</li> <li>&gt; Expressions are well structured and formulated with appropriate terminology.</li> </ul>	4
	0-0.5 point	0.75-1.25 points	1.5-2 points	
2) Ability to apply SCM concepts, to cite, detect, exemplify and analyze its current challenges / trends, in a generic or given situation	<ul> <li>The student is not able to name a single SCM challenge.</li> <li>He / She can not analyze a given challenge or explain its implications nor explain the need for a solution</li> <li>He / She can not detect a challenge in a given situation,</li> <li>The student's expression is not well formulated or the terminology is inappropriate.</li> </ul>	<ul> <li>&gt; The student can highlight the main SCM challenges.</li> <li>&gt; He / She is able to provide some basic examples.</li> <li>&gt; He / She is not able to analyze in depth a given situation and to identify the need / usefulness of a solution.</li> <li>&gt; Expressions could be improved (in terms of structure or terminology).</li> </ul>	<ul> <li>&gt; The student is able to mention and explain several SCM challenges.</li> <li>&gt; He / She can detect a problem in a given situation and provide a relevant analysis.</li> <li>&gt; He / she is able to identify the need / usefulness of a solution (method, tool) to the challenges.</li> <li>&gt; The arguments are correct; expressions are well structured and formulated with appropriate terminology.</li> </ul>	2
	0-3.5 point	3.75 -5.75 points	6-8 points	
(qualitative or quantitative) or tools in support of SCM / Operations Management or to perform a comparative analysis of such methods	<ul> <li>The student cannot integrate the purpose of the method(s).</li> <li>He / She is unable to propose a method (existing, mixed or personalized) or to apply the given method(s)</li> <li>The expressions / results are not correct.</li> <li>The requested comparative analysis is not carried out. (if applicable).</li> </ul>	<ul> <li>&gt; He / She can explain the generic purpose of the methods</li> <li>&gt; He / She is not able to propose a complementary method (existing, mixed or personalized).</li> <li>&gt; The method(s) is (are) applied but the arguments or the final results are not completely correct.</li> <li>&gt; The comparison made is not complete (if applicable).</li> </ul>	<ul> <li>&gt; The student can explain the purpose of the method(s) according to the given scenario.</li> <li>&gt; The student is able to apply the method(s) or</li> <li>&gt; He / She can select a method depending on the context of the question or can propose an original method or one personalized.</li> <li>&gt; The arguments and the results are correct and relevant.</li> <li>&gt; The comparative analysis is relevant (if applicable).</li> </ul>	8
	0-1.75 point	2-2.75 points	3-4 points	
4) Ability to position SC's strategy in relation to the company's competitive strategy, to analyze major SC decisions / actions and their performance implications in a given scenario	<ul> <li>&gt; The student cannot identify the particularity of the scenario (Supply/Demand characteristics, those of the resulting products or services)</li> <li>&gt; He / She cannot identify decisions / actions or their performance implications</li> <li>&gt; The arguments are not relevant.</li> </ul>	<ul> <li>&gt; The student can identify certain decisions / actions, their triggers, and their implications in terms of performance.</li> <li>&gt; The arguments are generic and do not fully match the characteristics of the scenario</li> <li>&gt; The terminology could be improved.</li> </ul>	<ul> <li>&gt; The student is able to integrate the notions.</li> <li>&gt; He / She can detect strategic decisions / actions and perform a comprehensive and relevant analysis related to the scenario.</li> <li>&gt; The arguments are correct and the correct terminology is used.</li> </ul>	4
	0-0.5 point	0.75-1.25 points	1.5-2 points	
5) Ability to identify SC stakeholders (of a supply chain) and to analyze their point of view in a given scenario	<ul> <li>&gt; The student is unable to integrate the notion of stakeholder.</li> <li>&gt; He / she can not quote / select a relevant stakeholder, nor speak as one.</li> <li>&gt; The position is unclear or the arguments are not consistent.</li> </ul>	<ul> <li>&gt; He / She can identify or select a relevant stakeholder.</li> <li>&gt; The analysis done from the stakeholder perspective is limited</li> <li>&gt; The arguments are not completely relevant.</li> </ul>	<ul> <li>&gt; The student is able to integrate the notion of stakeholder and can identify or select a relevant stakeholder.</li> <li>&gt; He / She indicates the ability to analyze a situation from the point of view of a stakeholder</li> <li>&gt; A clear position is taken and the expressions are well formulated using the right terminology</li> </ul>	2
		·	Total	1 20

#### BIOGRAPHIES



Amir Pirayesh (course coordinator and lecturer in Bordeaux) is Assistant Professor in Operations & Supply Chain Management. He received his Ph.D. in Industrial and Mechanical Engineering from Ecole Nationale Supérieure d'Arts et Métiers (ENSAM) where he was also Research Assistant and Lecturer (ATER). Before joining KEDGE, he was involved in several European projects as researcher. His teaching and research interests include the analysis of Operations using Enterprise Modelling and Process Simulation, Interoperability Evaluation,

Performance Measurement, and Risk Assessment. His research revolves also around various aspects of Servitization and Cyber Physical Production Systems (CPPS). He has contributed to several scientific publications.



**Daniil Khachai (lecturer in Bordeaux)** has got his Master Degree from Ural Federal University in 2019 and started his PhD thesis at Kedge in 2020 under supervision of Prof. Olga Battaïa. The topic of his research concerns the optimization of Supply Chain Design and Operations. He has co-authored several papers published in peerreviewed journals, conferences and workshops in the area of Operation Research, Data Mining, and Machine Learning. He was a speaker at several international conferences.



**Majid Sodachi** (lecturer in Bordeaux & Marseille) is a researcher in the frame of a PhD program at International Logistics at the Department of Mathematics and Logistics, Jacobs University Bremen (JUB). His research interests involve various scientific aspects, including Supply Chain and Inventory Control Management, Industry 4.0 Applications, Stochastic Processes, and Queueing Systems. He received his master's degree in Industrial Engineering before joining JUB research group. He is familiar with different Supply Chain simulation tools and business games. He has also contributed to

some scientific papers at international conferences.



Laingo Randrianarisoa (lecturer in Marseille) is an Assistant Professor of Transportation and Logistics, and Supply Chain Management at Kedge Business School, Marseille, France. Her areas of expertise lie at the intersection of transportation economics, environment and supply chain. She has recently studied the impacts of climate change on adaptation for ports, the role of supply chain in reducing emissions in international trade, competition between transportation facilities such as ports and airports, and corruption issue at airports. She has several academic publications in peer-reviewed international journals, including Transportation Research Part B: Methodology, Transportation Research Part A:

Policy and Practice, Maritime and Policy Management, and Journal of Urban Economics. She has also co-authored technical reports and a book chapter. She holds a PhD in Economics with a specialization in economics of air transportation from Laval University, Canada. Prior to joining Kedge, she has held a postdoctoral research fellow position at the Centre for Transportation Studies at Sauder School of Business, University of British Columbia, Canada for several years.



**Jean-Michel Garcia (lecturer in Marseille)** received degrees from Kedge BS(80) and from CECE-CSTI (MBA 2004). Successively Financial Manager, Sales Manager, C.I.O. in international companies (ALFA- LAVAL, PROVAC Groupe, PEFACO Iberica), he has developed organization through the improvement of operations and the implementation of ISO 9000 procedures, ERP software and plant location. Today as a professor of management and as a

consultant he develops sustainable development projects in Africa to help women's associations to improve earnings' activities.

#### ACADEMIC FRAUD

#### **Definition**

Academic fraud is a breach of ethics.

"Is achieved using unfair means or deception, to obtain material or undue moral advantage, or with the intent to avoid the enforcement of laws". (Translated from the original source: Dictionnaire Juridique des Lois, 2010, available at: www.dictionnairejuridique.com/definition/fraude/php)

Plagiarism consists of attributing authorship by (partial or total) copying, imitation or misappropriation.

The act of fraud is committed by one or more students/participants when they:

- appropriate written or oral work to themselves when they are not the author (in whole or in part) of the work, by omitting any references or quotations to the author or to the owner of the work;
- present any data that has been falsified or invented in any way;
- use the identity of the author, attributing the contents of and/or a resource to him/her, but without explicitly mentioning that they are not the author;
- appropriate the creative work of someone else and present it as their own;
- acquire exerts of texts, images, results etc. from external sources by including them in their own work without mentioning the origins of the exerts;
- summarise the original idea of an author by expressing it in their own words but omit quoting the source;
- cheat in an academic evaluation.

Plagiarism can occur in:

- an academic article or book;
- an exercise or a case study;
- a study or a report;
- a dissertation or a thesis;
- any document of which the student/participant is not, but purports to be the author.

#### **Sanctions**

Any student/participant having committed academic fraud, or having participated in it, will be sanctioned by the professor in charge of the course. The professor can apply 1<sup>st</sup> and 2<sup>nd</sup> level sanctions (detailed below). The professor will send a copy of the sanction to the student's/participant's programme. The student/participant will be informed/and or convoked by the programme director (or his/her representative) to a hearing prior to the possible convening of the Kedge Business School Disciplinary Council. In the case of a hearing of the Disciplinary Council, they can decide to apply 3<sup>rd</sup> and 4<sup>th</sup> level of sanctions.

Any student/participant guilty of academic fraud will receive one of the following sanctions:

- Applied by the professor in charge of the course, Kedge Business School faculty member (1st and 2<sup>nd</sup> level):
  - A grade of zero for the work concerned and a formal warning;
  - A grade of zero for the course or module concerned and a formal warning.
- Applied by Kedge Business School's Disciplinary Council (3<sup>rd</sup> and 4<sup>th</sup> level):
  - Suspension from the programme for one or two semesters;
  - Exclusion from the programme.

N.B.: Plagiarism within a partner institution can result in these sanctions being applied by Kedge Business School, notwithstanding partner's decision.