**Sabancı Undergrade and MBA Program**

**Spring-2024**

**OPIM401 – OPIM 532– Supply Chain Management**

**Instructor:** Füsun Ülengin

**Office:** SBS <1064>

**Phone:** (216) 483-9683

**Fax:** (216) 483-9699

**E-mail:** fulengin@sabanciuniv.edu

**Web:** SUCourse+

**Office Hours:** by appointment

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| --- | --- | --- | --- |
| **Type** | **Time** | **Days** | **Where** |
| Class | 12:40-15.30 | Monday | FMAN G65 |

**Course Objective:**

1. To teach the fundamental supply chain problems through a model-based approach

2. To show how to solve real-life supply chain problems through case studies

3. To provide a systems approach to supply chain management

**Learning Outcomes:**

Upon successful completion of the course, the student should be able to:

1. Describe the supply chain problems through a system approach.

2. Use models to solve fundamental supply chain problems

3. Evaluate real-life supply chain problems

Upon successful completion of the course, the student should be able to:

1. Discuss solutions to the real-life supply chain problems

2. Interpret the essential link between theory and practice in supply chain problems

3. Explain in detail each theoretical topic based on the presented papers

**Course Material:**

* Chopra, S., (2018), Supply Chain Management, Strategy, Planning and Operation, 7th Edition, Pearson, Boston

**You can buy the book from Homer.**

**List of Cases**

**Module 1:** a) Sport Obermeyer Ltd.

**Module 2:** Lucent Technologies: Provisioning and Postponement

**Module 3:** Mattel

**Module 4: (MBA Students only)** Plaza, the Logistics Park of Zaragoza

You can find the cases from the following link

<https://hbsp.harvard.edu/import/907032>

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| **Cases of Module 1** | **Date:** | **Presentation of Randomly Selected Team and discussion and Answers to the questions prepared by the best performing team: March 25, 2024** |
| Case:Type: Subject:Teamwork?: Grading: | Sport Obermeyer Ltd. PaperGlobal supply chain, sustainabilityYesIndividual and Team ( Both) |
| **Case of Module 2** | **Date:** | **Presentation of Randomly Selected Team and discussion and Answers to the questions prepared by the best performing team: April 15, 2024**  |
| Case:Type: Subject:Teamwork?:Grading: | Lucent Technologies: Provisioning and PostponementPaperPostponementYesIndividual and Team ( Both) |
| **Case of Module 3** | **Date:** | **Presentation of Randomly Selected Team and discussion and Answers to the questions prepared by the best performing team: May 6, 2024** |
| Case:Type: Subject:Teamwork?:Grading: | MattelPaperTopics of module 3(Transportation)YesIndividual and Team ( Both) |
| **Case of module 4(only MBA students)** | **Date:** | **Presentation of MBA Students &Discussion: May 20, 2024**  |
| Case:Type: Subject:Teamwork?:Grading: | Plaza, the Logistics Park of ZaragozaPaperTopics of module 3 (facility location)YesIndividual and Team ( Both) |

**Optional Reading Material:**

* Ravindran, A.R., Warsing, D.P. Jr. (2017), Supply Chain Engineering, CRC Press, Taylor &Francis Group, NW
* Sanders, N.R.S. (2014), Big Data Driven Supply Chain Management, Pearson Education Inc., New Jersey
* David Simchi-Levi, D.Kaminsky, P.,Simchi-Levi, E, (2008) Designing and Managing the Supply Chain,Mc Graw Hill 3rd Ed.
* Cachon, G., Terwiesch, C. (2013), Matching Supply with Demand: An Introduction to Operations Management, McGraw-Hill, Boston,3rd Edition
* Ballou, R.(2004), “Business Logistics Management”, Fifth Edition, Prentice-Hall, New York
* Blanchard, D. (2010), “Supply Chain Management: Best Practices”, 2nd. Edition, Wiley, New Jersey
* Jacoby, D. (2009), “Guide to Supply Chain Management”, Bloomberg Press, New York,
* Sheffi, Y. (2012), “Logistics Clusters”, The MIT Press, Cambridge,
* Simchi-Levi,D., (2010), “Operations Rules”, The MIT Press, Cambridge,
* Sheffi, Y. (2007), “The Resilient Enterprise”, The MIT Press, Cambridge
* Munson, C.2013), “The Supply Chain Management Casebook”, FT Press,New Jersey
* Bowersox, D..J., Closs, D.J., Cooper, M.B., Bowersox, J.C. (2013), “Supply Chain Logistics Management”, 4rth Edition, McGraw-Hill International Edition
* Simchi-Levi D., Kaminsky P., Simchi-Levi, E. (2003) Managing the Supply Chain : The Definitive Guide for the Business Professional, McGraw-Hill; New York
* Simchi-Levi D., , Wu S.D., Shen, Z. (2004), “Handbook of Quantitative Supply Chain Analysis , Modeling in the E-Business Era”, Kluwer Academic Publishers, Boston
* Stadtler, H., Kilger, C. (eds.) (2002), Supply Chain Management and Advasnced Planning: concepts, models and Case studies, 2nd. Edition, Springer, Berlin

**Course Web:**

In the SuCourse+ site of the course you will be able to find the lecture note slides, assignments and evaluation .

Students are expected to check the website every week as the partial lecture note slides will be posted here as well as the assignments.

**“Sabanci University uses a very powerful web-based tool called Turnitin. Turnitin is the worldwide standard in online plagiarism prevention. It allows instructors to compare student papers against a database composed of millions of articles. Every paper you submit will be scanned by Turnitin, and results will be reflected in your grades”**

**Instructional Design:**

The lecture is composed of four modules: **Module 1**: introduction, Supply Chain Analytics and Globalization in Supply Chains; **Module 2**: Managing Uncertainty in Supply Chain, Managing Inventory, Bullwhip Effect, and How to Mitigate Against Bullwhip Problems, Resilient Supply Chains, Supply Chain Softwares, Supply chain performance metrics. **Module 3**: Transportation models, outsourcing decisions in supply chains, and **Module 4:** Introduction to facility location models

**For each module**,

at least two weeks will be taught by the lecturer using the lecture note slides and supplementary materials, and the week following this theoretical part, ***the teams of max.3 students*** will prepare:

1) A PowerPoint presentation of a minimum of 30 slides for three related articles selected by the lecturer and

2) A PowerPoint presentation of a minimum of 15 slides/case for the case related to the module

The students will select their own team.

The cases as well as the discussion papers are selected by the lecturer in a way to provide a greater detail concerning the theoretical part, and make the connection with the real world examples.

**The presentations will be submitted one week before the date of presentation** and the best-performing team for the articles as well as for the case discussions will be selected separately both by the votes of the students (weight 40%) and of the lecturer (weight (60%) 5 days before the presentation date (i.e. Wednesday until 17 o’clock before the presentation day).

The **team showing best performance in the discussion and synthesis of articles** will have to prepare the questions to be discussed during the presentation of articles and all the members of the team should be present at the presentation date.

The **team showing the best performance in case discussion** will prepare extra questions related to the case to be discussed during the presentation; all the members of the team should be present at the presentation date(*please note that the team showing the best performance may or may not necessarily be the one showing the best performance in case discussion)*

The team that will make the presentation of articles related to the module will be randomly selected by the lecturer before the presentation day and will be announced through SuCourse+.

The team who will present the case related to the module will also be randomly selected by the lecturer before the presentation day and will be announced through SuCourse+.

**All team members are expected to be present on the presentation date, and each member should actively make a presentation.**

Once selected randomly for article presentation, a team will not be eligible for subsequent article presentations related to the other modules. The same situation is also valid for case presentation.

This cycle will be repeated until the end of the semester.

**The members of the teams showing the best performance(either in article and/or case) at least two times will get an extra 10 points in bonus at the end of the term**

**Grading**:

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| Participation in case and article discussions  | : 5% |
| 2 Midterms  | : 20% |
| Quizzes (x2) | : 15%  |
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| The report is delivered in the form of a PowerPoint presentation for the articles read in each module(the undergraduate students will have to read 3 papers /module for the first three modules)*. The MBA students will have to deliver an extra report for 3 additional papers for module 4 corresponding to location analysis*  | : 15% |
| Report delivered as PowerPoint presentation for the case related to each module (*The cases related to the first 3 modules will be analyzed by all undergrad and MBA students. The MBA students will have to prepare and present an extra report for module 4 related to location analysis)*  | : 15% |
| Final Exam | : 30% |

**Evaluation of the reports related to the articles for each module (to be done by the votes of the students other than the team members as well as by myself)**

To help students understand our expectations in these reports, I would like to underline that we will use **the following criteria in our evaluations:** 1) Synthesis of all three articles in one presentation (rather than preparing three separate analyses for each of the articles that you read (30 points), 2) Comprehensiveness of discussions of the issues (30 points), 3) presentation style (20 points), 3) Examples from Turkey and abroad (20 points)

**Evaluation of the case reports related to each module (to be done by the votes of the students other than the team members as well as by myself):**

**We will use the following criteria for the evaluation of case reports**: 1) comprehensiveness in the discussion of the issues embedded in the case (persuasiveness of the arguments presented for this, 20 points), 2) comprehensiveness in alternative solution perspectives discussed on the problem (30 points), 3) comprehensiveness of the logic presented to “make the case” for the preferred solution alternative (30 points), 4) creativity or uniqueness in the solution alternative presented (20 points)

Peer Evaluation in Teamwork during the Presentations:

During the presentations, the students will be asked to evaluate the presenting team members.

Each student will score the presenters based on 1) the presentation style, 2) answers to questions, and 3) timing. Scores will be given using a 0-100 scale for each criterion.

The peer evaluation based on the students' voting will directly impact the presentation grade with an effect of (60%).

The instructor will aggregate the points submitted by all team members. Every student will be given his/her aggregate peer evaluation without disclosing the individual peer evaluations to the students.

If there is no consensus among the team, for example, if three students divide the marks evenly and the fourth one divides them unevenly, the instructor will use his/her judgment to assign peer evaluation marks--possibly after meeting with the team members.

In cases where there are conflicting marks, it is most likely that the instructor will meet with the team members and provide a mark based on an interview. For example, in a group of four, if Students A and B believe they did most of the work, and Students C and D believe otherwise, the team may be called in for an interview to be fair to everyone.

Experience indicates that in most groups, points will be distributed evenly. There will be a few groups where peer evaluations will play a role in the marks. The primary goal of this exercise is to avoid giving undeserved credit to individuals who did not help their teams. However, it is possible to have upward adjustments of marks in case of students who have done more than the group expected.

**Requirements:**

* It is mandatory
1. to answer 70% of the poll questions that will be asked during the lecture hours and
2. to give right answers in 40% of them. This will be controlled through Zoom poll reports. Any student who fails to accomplish these requirements will get an NA grade for the course
* Attendance will start with the second lecture
* Oral exam will be applied in case necessary

A makeup exam for either midterm or quizzes will be done the last week (the students who want to make up for a midterm exam will have to answer 4 questions, whereas those who want to make up for a quiz will have to answer only the first 2 questions).

**Academic Honesty:**

Cooperation enhances learning, so you are encouraged to work in groups and ask for and give help freely in all appropriate settings. At the same time, as a matter of personal integrity, you should only represent your work as yours. Any work submitted to be evaluated in this class should be an original piece of writing, presenting your ideas in your own words. Everything you borrow from books, articles, or websites (including those in the syllabus) should be properly cited. Although you are encouraged to discuss your ideas with others (including your friends in the class), you mustn't share your writing (slides, MS Excel files, reports, etc.) with anyone. Using ideas, text, and other intellectual property developed by someone else while claiming it is your original work is *plagiarism*. Copying from others or providing answers or information, written or oral, to others is *cheating*. Unauthorized help from another person or having someone else write one’s paper or assignment is *collusion*. Cheating, plagiarism, and collusion are serious offenses that could result in an F grade and disciplinary action. Please pay utmost attention to avoid such accusations.

**Classroom policies and conduct**

Sabancı MBA Program values participatory learning. Establishing the necessary social order for a participatory learning environment requires that we all:

* Come prepared to make helpful comments and ask questions that facilitate your understanding and that of your classmates. This requires that you complete the assigned readings for each session before class starts.
* Listen to the person who has the floor.
* Come to class on time.
* If you use your laptop during class, it is only for class activities such as taking notes or referring to a spreadsheet. You are not to connect the laptop to the network and should not be doing any non-class activities during class time. Laptop usage may be forbidden if it is abused or if it distracts the professor or other students.

**Course Schedule:**

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| **Week 1** | **Date:** | 19 February |
| Topic: | Introduction and overview of logistics and supply chain management,I will upload the paper set and the related questions of Cases for Module 1 Sport Obermeyer Ltd.  |
| Requirements: |  |
| **Week 2** | **Date:** | 26 February |
| Topic: | Guidelines for Supply Chain Strategy FormulationSupply Chain Product characteristics |
| Requirements: |  |
| **Week 3** | **Date:** | 4 March |
| Topic: | Demand Uncertainty and Inventory Management |
| Requirements: |  |
| **Week 4** | **Date:** | 11 March |
| Topic: | Demand Uncertainty and inventory management |
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| **Week 5** | **Date:** | 18 March |
| Topic: | Demand Uncertainty and inventory management.**20 March**Submission of the reports of the case and articles of module1 You may change your previous teamI will upload paper set 2 and the related questions of Case 2: Lucent Technologies: Provisioning and Postponement. |
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| **Week 6** | **Date:****Topic:** | **25 March**Presentation of paper set 1 (90 min) by the randomly selected team and **discussion based on the questions of the best-performing team**(Topics: Managing uncertainty in a supply chain, Resilient supply chains, Supply Chain Software, Supply chain performance metrics)Discussion of Case 1: Sport Obermeyer (60 min) by the randomly selected team(s) and the **discussions based on the questions of the best-performing team**. |
| Requirements: | **Quiz 1: questions related to paper set 1 and case 1-closed book 30 Mn.** |
| **Week 7** | **Date:** | 1 April |
| Topic:Requirements | Bullwhip effect and risk poling3 AprilSubmission of the reports of the Case (Lucent) and articles of module 2-you may change your previous teamI will upload paper set 3 and the related questions of Case 3: Mattel |
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| **Week 8** | **Date:** | 8 April |
| Topic: | **Spring Break-No Class** |
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| **Week 9** | **Date:** | 15 April Presentation of paper set 2 (90 min) by the randomly selected team and **discussion based on the questions of the best-performing team**(Topics: Managing uncertainty in a supply chain, Resilient supply chains, Supply Chain Software, Supply chain performance metrics)Discussion of Case 2: Lucent (60 min) by the randomly selected team(s) and the **discussions based on the questions of the best-performing team** |
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| **Week 10** | **Date:** | 22 April |
| Topic: | Transport mode selection decisions, Vehicle Routing(Separate Origin and Destination), Vehicle Routing(Coincident Origin and Destination) -1 hour |
| Requirements: | **Mid-term exam 1(during the lecture hours)-2 hours** |
| **Week 11** | **Date:** | 29 April  |
| Topic: | Vehicle routing (separate origin and coincident origin and destination), vehicle scheduling decision**1 May**submission of reports related to the case(Mattel) and articles of module 3-you may change your previous team |
| Requirements: |  |
| **Week 12** | **Date:** | 6 May |
| Topic: | Presentation of paper set 3 (90 min) by the randomly selected team and the **discussions based on the questions of the best-performing team.**(Topics: Outsourcing, tailored transportation decisions, making transportation decisions in practice, supply chain coordination)Discussion of case 3: Mattel (60 min) by the randomly selected team and the **discussions based on the questions of the best-performing team** |
| Requirements: | **Quiz 2:** **questions related to paper set 3 and case 3-closed book-30 Mn** |
| **Week 13** | **Date:** | 13 May |
| Topic: | **Midterm exam 2( during the lecture hour-2 hours)** Facility Location Decisions-1 hour**15 May**Submission of article and case reports(Plaza, the Logistics Park of Zaragoza) related to module 4 reports by MBA students |
| Requirements: |  |
| **Week 14** | **Date:** | 20 May |
| Topic: | Presentation of paper set 4 (90 min) by the MBA students (Topics: location models)Discussion of case 4: Plaza, the Logistics Park of Zaragoza(60 min) by MBA students If we do not have MBA students, then I will continue to teach location models.  |
| Requirements: |  |
| **Week 15** | **Date:**Topic: | 27 MayA **makeup exam** **(during the lecture hour)** for either one of the midterm or one of the quizzes will also be done the last week (the students who want to make up for a midterm exam will have to answer 4 questions (**2 hours**) whereas those who wants to make up for a quiz will have to answer only the first 2 questions(**1 hour**)) |
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