

BA in Management Program
Fall 2021
OPIM301 – Operations Management

Instructor : Can Akkan
Office : SBS 1067
E-mail : can.akkan@sabanciuniv.edu
Time & Place : Hybrid
Office hour : By appointment

Type	Time	Day	Room
Class	15:40 - 17:30	M	FENS L045 + Zoom*
Class	12:40 - 13:30	R	FMAN L018 + Zoom
Recitation	13:40 - 14:30	R	FMAN L018 + Zoom

*Zoom links for all session are available on SUCourse+

COURSE OBJECTIVES:

Operations Management is concerned with the design, management, and improvement of the processes that transform inputs into finished goods or services. As it is one of the main functions of a firm, decisions made in operations have implications in other functions such cost accounting, marketing and strategy. The objective of the course is to provide you with the basic skills necessary to critically analyze a firm's operating performance and practices. You will be introduced to a set of decisions in operations ranging from short-term (i.e. operational) to long-term (i.e. strategic). You will learn some models that help operations managers gain better understanding of the underlying trade-offs in making these decisions.

Operations management focuses on improving the value-added of the firm, and hence, requires creative solutions to the firm's problems, which requires building on existing knowledge and working as a team so that each decision's impact on other functions in the firm (finance, marketing, etc.) are taken into account. As making and implementing every decision requires the involvement of teams, it is of utmost importance that as future managers you develop the necessary oral and written communication skills. Skills can only be developed through practice, and that is why you should approach oral and written communication work to be done in this course, through this perspective.

Some of the most important challenges faced by firms is about sustainability and social and ethical ramifications of the managerial decisions. Thus, it is quite important that you learn to include sustainability, societal and ethical dimensions of operational decisions in your decision-making process.

LEARNING OUTCOMES:

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

1. Explain the relevance of the "operations function" to the performance of an organization (i.e. its competitiveness);
2. Define, analyze and evaluate different production and service delivery processes;
3. Choose and correctly use some of the quantitative models that support decision making in operations management;
4. Apply analytical tools necessary to continually improve operations.

TEXTBOOK: (not required)

Robert Jacobs, Richard Chase, *Operations and Supply Chain Management*, 14th Edition, McGraw-Hill.

Any edition of this book available at IC would provide you sufficient support in following this course.

INSTRUCTIONAL DESIGN:

The course is designed to increase, to the extent possible, the amount of learning that takes place in the online classroom. For this, in-class exercise is the main tool that is used, and that is why these exercises contribute significantly to your overall course grade. Doing the homework assignments will improve your learning in the class as well. All course related material will be made available through SUCourse+. Still, it is quite important that you take notes in the class, not only because it is practically impossible to put everything on the PowerPoint slides, but also research shows that active notetaking improves learning and remembering the material learned. You can take notes on the pdf files of the slides by your choice of note-taking software or you can take notes on the print-outs of the slides.

COURSE WEB:

SUCourse+ will be used as the course's web site, where students will have access to all course related documents. Course slides, excel files, recordings of online lectures, assignments, grades will be posted on this web site. Students will be expected to submit their assignment solutions through this page.

REQUIREMENTS:

Attendance is valued primarily because, historically, no student has performed well enough (to pass) without attending the lectures. Thus, attendance will be rewarded by in-class exercises. These are brief exercises and questions that are done individually but you can get help from your classmates with whom you will be assigned to small groups (via breakout rooms of Zoom). These exercises are designed to create an active learning environment by asking students to find examples, do comparisons, complete partially solved problems, interpret solutions, etc. 10% of the exercises with the lowest grade (or missed) will be dropped from grade calculation. Assignments will be done individually. There will be two team assignments, where groups of two (in case of odd number of students one team could be 3 students) will work on an assignment. There is going to be a final examination.

GRADING:

The weights of each requirement in the overall grade of a student are as follows:

In-class exercises	: 35%
Individual Assignments	: 15%
Team Assignment 1	: 10%
Team Assignment 2	: 10%
Final examination	: 30%

Letter grades are determined based on "clustering" all students' overall grades into separate groups such that, 1) all overall grades within one letter grade are insignificantly different, and 2) the worst-performing student in a higher performing cluster is significantly different than the best-performing student in the lower cluster.

ACADEMIC HONESTY:

Learning is enhanced through cooperation and as such you are encouraged to work in groups, 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 own work as yours. Any work that is 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 web sites (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), it is important that you do not 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 BA in Management Program values participatory learning. Establishing the necessary social order for a participatory learning environment requires that you:

- Keep your video on during online lectures (if you have a legitimate reason for not doing this, contact the instructor before the first lecture, explaining your reason).
- Keep your microphone off when you are not speaking during online lectures.
- Come prepared to make helpful comments and ask questions that facilitate your own understanding and that of your classmates. This requires that you complete the assigned readings for each session before class starts.
- Participate in discussions in an active and meaningful manner while respecting the appropriate participation of other students.
- Come to class on time.
- Do not tolerate discrimination on the basis of religion, race, nationality, gender, or alike.

COURSE SCHEDULE:

(subject to change, updated version will be made available if any changes are made)

Wk	Date	Topics	Topic Details	Chp.
1	Sep 27	1. Intro to OM	<ul style="list-style-type: none"> • Definition of operations management 	1, 2
	Sep 30	1. Intro to OM	<ul style="list-style-type: none"> • Operations Strategy (the example of Zara) • 	
2	Oct 4	2. Process Analysis	<ul style="list-style-type: none"> • Process flow diagrams • Measuring and analyzing the performance of process (such as efficiency, capacity, lead time) 	11
	Oct 7	2. Process Analysis	<ul style="list-style-type: none"> • Measuring and analyzing the performance of process (such as efficiency, capacity, lead time) 	
3	Oct 11	2. Process Analysis	<ul style="list-style-type: none"> • Process analysis (cont'd) • Little's law 	
	Oct 14	3. Process Selection	<ul style="list-style-type: none"> • Types of generic process types used in manufacturing 	7, 9

			<ul style="list-style-type: none"> Impact on process design on competitiveness – link between strategy and process choice 	
4	Oct 18	3. Process Selection	<ul style="list-style-type: none"> Designing service processes 	10
	Oct 21	4. Waiting lines and simulation	<ul style="list-style-type: none"> Waiting lines 	
5	Oct 25	4. Waiting lines and simulation	<ul style="list-style-type: none"> Simulation 	
	Oct 28	NO CLASS - OFFICIAL HOLIDAY		
6	Nov 1	5. Project Management	<ul style="list-style-type: none"> What makes project management difficult? The Critical Path Method (CPM) 	4
	Nov 4	5. Project Management	<ul style="list-style-type: none"> Understanding the effect of limited resources on projects 	
7	Nov 8	6. Intro to Linear Programming	<ul style="list-style-type: none"> Intro to Linear Programming 	App A
	Nov 11	6. Intro to Linear Programming	<ul style="list-style-type: none"> Intro to Linear Programming 	
8	Nov 15	7. Sales and Ops. Planning	<ul style="list-style-type: none"> Overview of sales and operations planning activities Yield management systems 	19
	Nov 18	7. Sales and Ops. Planning	<ul style="list-style-type: none"> Aggregate Production Planning 	
9	Nov 22	7. Sales and Ops. Planning	<ul style="list-style-type: none"> Mathematical programming models for operations planning 	13
	Nov 25	8. Statistical Process Control	<ul style="list-style-type: none"> Types of variability Process capability and process capability indices 	
10	Nov 29	8. Statistical Process Control	<ul style="list-style-type: none"> Preparing and using SPC charts 	
	Dec 2	8. Statistical Process Control	<ul style="list-style-type: none"> Preparing and using SPC charts 	
11	Dec 6	9. Inventory Management	<ul style="list-style-type: none"> Types and purposes of inventory Key strategic considerations in determining inventory policy 	20
	Dec 9	9. Inventory Management	<ul style="list-style-type: none"> Single-period model 	
12	Dec 13	9. Inventory Management	<ul style="list-style-type: none"> Multi-period models – Economic order quantity 	
	Dec 16	9. Inventory Management	<ul style="list-style-type: none"> Safety stock 	
13	Dec 20	10. Supply Chain Management	<ul style="list-style-type: none"> Intro to SCM Ethical issues 	14
	Dec 23	10. Supply Chain Management	<ul style="list-style-type: none"> Lean Concepts, Pull and Push systems 	
14	Dec 27	10. Supply Chain Management	<ul style="list-style-type: none"> Inventory centralization 	
	Dec 30	10. Supply Chain Management	<ul style="list-style-type: none"> Bullwhip effect 	16