



Shanghai Jiao Tong University

BU388 Operation Management (Postgraduate)

Instructor Information	<p>Li Haigang Home Institution: Shanghai Jiao Tong University Email: lihg@sjtu.edu.cn Office Hours: Determined by Instructor</p>		
Term	June 28, 2021 - July 23, 2021	Credits:	4 units
Class Hours	Monday through Friday, 120 mins per teaching day		
Discussion Sessions	2.5 hours each week, conducted by teaching assistant(s)		
Total Contact Hours	66 contact hours (1 contact hour = 45 mins, 3000 mins in total)		
Required Texts (with ISBN)	<p>operation management ISBN::978-7-111-63594-9 operation and supply chain management ISBN: 978-7-111-63488-1</p>		
Prerequisite	<p>Our class sessions will be a mix of traditional lectures, interactive case studies, class discussions, assignments, and case studies from a wide variety of industries, including healthcare, technology, startups, social services and more. One of the key aspects of this particular class will involve featured guest speakers with relevant knowledge in the topics being covered, this will help reinforce concepts learned in class, better understand the application of knowledge and help students expand their network.</p>		
<p>The course might be moved to online delivery due to COVID-19 pandemic. Students will be notified once the decision is made.</p>			



Course Overview

Operations management (OM) involves the analysis, design, and improvement of the systems and processes that deliver goods or services. Students will learn to design, operate, and improve the systems that deliver goods and services through OM tools such as process flow diagrams, lean management, and decision tree. Additionally, we will explore the strategic role of operations and how emerging technologies such as robotics process automation and data analytics are revolutionizing the field of operations and more broadly how businesses operate.

We are experiencing a time in which emerging technologies – such as robotics process automation, data analytics and machine learning – will catalyze the evolution of process operations, and have a profound impact on how businesses operations are managed. While we will cover concepts and principles that are part of traditional OM, we will also consider the broader context of business, technology and strategy. Students will learn the skills that are relevant in today's economy and the job market and have the ability to critically analyze a firm's operating performance and practices. Ultimately, this course aims to familiarize students with the major operational issues that confront leaders, and provide them with the tools, concepts, insights, and analytical tools to deal with these issues.

This course is highly recommended for students:

- Interested in pursuing careers in management consulting
- Students with an industry alignment looking to learn more about operations work in their particular field
- Students with some experience working in operations and looking to expand their knowledge and acquire new skills
- Students curious about the field of operations management and its link to strategy
- Interested in entrepreneurship and startups
- Looking to learn how strategy, operations and technology are interrelated

Overall Learning Objectives

By the end of this course, students should be able to:

- Define and describe Operations Management and its relationship to other management functions (In particular strategy and technology implementation)
- Conduct gap analysis using process analysis
- Be able to understand how to approach a process improvement project
- Discuss the differences between strategic, tactical, and operational planning and provide examples
- Learn Six sigma and Lean management principles and how to apply them
- Recommend and discuss ways of improving processes / productivity
- Discuss and understand the major technological trends impacting operations
- Define automation and discuss the advantages and disadvantages of adopting new operations technologies
- Understand supply chain management
- Process Design and Analysis; Draw and utilize a variety of tools (Primarily MS Visio)



Grading Policy

Process Mapping + Presentation	15%
Individual Writing Assignment + Presentation	20%
Case Study Response + Presentation (Midterm)	25%
Class Participation	25%
Take-Home Final	15%

Grading Scale

Number grade	Letter grade	GPA
90-100	A	4.0
85-89	A-	3.7
80-84	B+	3.3
75-79	B	3.0
70-74	B-	2.7
67-69	C+	2.3
65-66	C	2.0
62-64	C-	1.7
60-61	D	1.0
≤59	F (Failure)	0



Class Schedule

Date	Lecture	Topic	Assignments
Day 1	Intro to OM	Course Overview and Intro to Operations and Strategy	
Day 2	Process Analysis	Operations Management Concepts and Intro to Process Design	Process Mapping (Assigned)
Day 3	Process Analysis 2 (MS Visio)	Process Analysis Lean Management Intro to MS Visio	Process Mapping Assignment (Discussion)
Day 4	Lean + Robotics Process Automation (RPA)	Lean Enterprise + Robotics Process Automation / RPA Intelligent Automation	Process Mapping Assignment (Due)
Day 5	Project Management	Project Management + Methodologies and Principles + Tools + PMP Certification	Writing Assignment #1 Assigned: McKinsey Customer Experience + Operations
Day 6	Case study and Presentation		Writing Assignment #1 Due: McKinsey Customer Experience + Operations
Day 7	Quality Management	Managing for Competitive Advantage: Quality Management	
Day 8	Design Thinking	Managing for Competitive Advantage: Design Thinking / What is a Customer Journey?	
Day 9	Strategy + Case Study	Developing and Executing (Operational) Strategy	
Day 10	Technology and Operations	Emerging Technologies and Operations	Midterm Exam
Day 11	Case study and presentation		
Day 12	Supply Chain	Supply Chain Management + Ethics (Operations and Sustainability)	
Day 13	Operational Excellence	What does it mean to achieve operational excellence?	
Day 14	Data Analytics	Data analytics in operations management.	Case Study Assignment Due
Day 15	Risk Management	Foundations of Risk Management	
Day 16	Case study and presentation		



Day 17	Culture + Leadership	Culture as a central element that impacts operational performance Leadership in Business (Review and Recitation)	
Day 18	Long term Planning		
Day 19	Lean Operations		
Day 20	Group report		