

ISOM 2700: Intro. to Operations Management

Sections L6 & L7

Fall, 2021

Instructor: **Prof. Dongwook Shin** (dwshin@ust.hk)

Office Hours: 1-2pm on Mondays

Office: Room 4068 LSK (Zoom office hour can be arranged upon request.)

Teaching Assistant: **Athena Chau** (imachau@ust.hk)

Office Hours: 12nn-1pm on Thursdays

Office: Room 4065 LSK

Course Description & Objectives

Operations is one of the major functions in an organization, concerned with the transformation of inputs (e.g., raw material, labor, capital, and information) into outputs (goods and services). Operations management is an area of management concerned with analyzing and improving the transformation process. This course will give an overview of main topics in operations management, providing students with the managerial tools needed to analyze and improve organization's business processes efficiently and effectively. The lessons from this course are important for careers in a variety of business sectors, including entrepreneurship, finance, and marketing.

Course Schedule and Venues

- Section L6: Mon & Wed 10:30-11:50am (Room 4619)
- Section L7: Mon & Wed 9-10:20am (Room 4619)

Textbooks (optional)

- Cachon and Terwiesch, "Matching Supply with Demand", 4th Edition, International Edition, McGraw-Hill
- Jacobs and Chase, "Operations and Supply Chain Management: The Core", 5th Edition, International Edition, McGraw-Hill

Grading Policy

- The grade will count the assessments using the following proportions:

After-class quizzes	20%
Midterm exam	40%
Final exam	40%
Total	100%

- Both exams are offline/closed book/closed notes. No cheat sheet is allowed.
- The final exam is not cumulative; that is, it only covers the course material after the midterm exam.
- No makeup exam for the midterm exam will be given. If you miss the midterm exam for a valid and verifiable reason approved by the instructor in advance, you may take a *cumulative* final exam (covering entire course) and the weight of the mid-term will be added to the final exam. Otherwise, a zero mark will be assigned as your mid-term grade.
- There will be six after-class quizzes (on canvas) throughout the course, each with equal weight. The lowest grade will be dropped.
- Practice problem sets will be provided throughout the course to help students improve their understanding of course material. The practice problems are not counted toward the final grade, so there is no need to submit solutions to the practice problems, although it is highly encouraged to solve the problems individually.
- Re-grading policy: The process of assigning the grades is intended to be one of unbiased evaluation. Students are encouraged to respect the integrity and authority of the professor's grading system and are discouraged from pursuing arbitrary challenges to it. If you believe an inadvertent error has been made in the grading of exams, a request re-grading may be submitted. In the event that you would like to request to re-grade:
 - Email the TA and *me* within **3 days** of receiving your grade, including a brief written statement of why you believe that an error in grading has been made. Last requests will not be entertained.
 - I will re-grade your assessment/examination **in its entirety**. That is, I will re-grade **all the items** in your assessment/examination.

Mode of Class

- The basic mode of class is face-to-face.
- After each class, a link to the recording of the lecture will be posted on canvas.
- If there are **non-local students not physically in Hong Kong** for valid and verifiable reasons, the class will be offered in a mixed-mode lite. For reference, visit <http://cei.hkust.edu.hk/getting-started-mixed-mode>. For these students, a special arrangement will be announced for the midterm and final exams.

Academic Integrity

Students at HKUST are expected to observe the Academic Honor Code at all times (see <http://rpghandbook.ust.hk/student-conduct-and-academic-integrity#honor> for more information). Zero tolerance is shown to those who are caught cheating on exam. In addition to receiving a zero mark on the exam involved, the final course grade will appear on your record with an X, to show that the grade resulted from cheating. This X grade will stay with your record until graduation. If you receive another X grade, you will be dismissed from HKUST.

Course Outline

The schedule is tentative and subject to change. The learning goals below should be viewed as the key concepts you should grasp after each session, and also as a study guide before each exam, and at the end of the semester.

Module	Date	Contents	Note
	Sep 1	Introduction to OM	
Process Analysis	Sep 6 Sep 8	Fundamentals of Process Analysis Application: The Goal	
Quality Mgmt.	Sep 13 Sep 15	Statistical Process Control Six Sigma	
Resource Mgmt.	Sep 20 Sep 22 Sep 27 Sep 29	Decision Tree Method No Class (Holiday) Resource Allocation via Linear Programming LP Excel Solver	Laptop in Class
Service Mgmt.	Oct 4 Oct 6 Oct 11	Basics of Service Management Queueing Models (M/M/s) Simulating Service Systems	Laptop in Class
	Oct 13 TBD	Midterm Exam Review Session Midterm Exam	
Inventory Mgmt.	Oct 18 Oct 20 Oct 25	Newsvendor Problem Economic Order Quantity (EOQ) More on Inventory Models	
Demand & Revenue Mgmt.	Oct 27 Nov 1 Nov 3 Nov 8	Forecasting Methods Capacity-based Control Price-based Control More on Price-based Control	
Supply Chain Mgmt.	Nov 10 Nov 15 Nov 17 Nov 22	Introduction to Supply Chain Management Beer Game Supply Chain Miscoordination and Bullwhip Effects Supply Chain Coordination via Contracts	Laptop in Class
Best Practices in OM	Nov 24	TBD	
	Nov 29 TBD	Final Exam Review Session Final Exam	