

ISOM 2700: Intro. to Operations Management

Sections L1, L2, & L5

Fall, 2020

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

Office Hours: 10:30-11:30am on Tuesdays via Zoom (998 0448 8208 / 2700)

Office: Room 4039 LSK

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

Office Hours: 10:30-11:30am on Thursdays via Zoom (916 3816 7723 / 2700TA)

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 L1: Tue & Thr 9-10:20am (Zoom meeting ID/PW: 922 9260 4276 / 2700)
<https://hkust.zoom.us/j/92292604276?pwd=dz1WUk1VUDZyS11NQjJVZ01wU29sUT09>
- Section L2: Tue & Thr 3-4:20pm (Zoom meeting ID/PW: 979 6136 7354 / 2700)
<https://hkust.zoom.us/j/97961367354?pwd=R2tWVGd0QzRIR2FkTj1TRno4WWkyQT09>
- Section L5: Tue & Thr 4:30-6pm (Zoom meeting ID/PW: 933 9969 7394 / 2700)
<https://hkust.zoom.us/j/93399697394?pwd=ZFhMWS11NQjJVZ01wU29sUT09>

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 will be conducted online. The exams are open book and open notes, but the use of the Internet to search answers is strictly forbidden. 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 throughout the course, each with equal weight. The lowest grade will be dropped. Students are required to learn how to use Zoom to participate in classes.
- 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.

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 8	Introduction to OM	
Process Analysis	Sep 10 Sep 15	Fundamentals of Process Analysis Application: The Goal	
Quality Mgmt.	Sep 17 Sep 22	Statistical Process Control Six Sigma	
Resource Mgmt.	Sep 20 Sep 24 Oct 1 Oct 6	Decision Tree Method Resource Allocation via Linear Programming No Class (National day) LP Excel Solver	Laptop in Class
Service Mgmt.	Oct 8 Oct 13 Oct 15	Basics of Service Management Queueing Models (M/M/s) Simulating Service Systems	Laptop in Class
	Oct 20 TBD	Midterm Exam Review Session Midterm Exam	
Inventory Mgmt.	Oct 27 Oct 29 Nov 3	Newsvendor Problem Economic Order Quantity (EOQ) More on Inventory Models	
Demand & Revenue Mgmt.	Nov 5 Nov 10 Nov 12 Nov 17	Forecasting Methods Capacity-based Control Price-based Control More on Price-based Control	
Supply Chain Mgmt.	Nov 19 Nov 24 Nov 26	Introduction to Supply Chain Management Supply Chain Miscoordination and Bullwhip Effects Supply Chain Coordination via Contracts	
Best Practices in OM	Dec 1	TBD	
	Dec 3 TBD	Final Exam Review Session Final Exam	