ISOM2700 Operations Management
Spring 2026 (L5)

Department of Information Systems, Business Statistics and Operations Management

COURSE: ISOM2700 Operations Management (3-0-0:3)
Production and service operations are viewed from the strategic, tactical and operational levels: capacity planning, process selection, impact of technology, location and layout, material and resource requirements, scheduling and quality control. Exclusion: ISOM2720 and IELM4100

Spring 2026
L5: Monday, 01:30 pm - 02:50 pm &
     Friday, 09:00 am - 10:20 am,
     Rm 5404, Lift 17-18

INSTRUCTOR: Dr. Zheng Zeng (imzhengz@ust.hk)
Office: LSK- 4082B; Phone: 3469-3434
Office hours: 3:10 pm - 4:10 pm, Monday
                    4:30 pm - 5:30 pm, Tuesday or by appointment

TEACHING ASSISTANT: Ryan Yang (imryang@ust.hk)
Office: LSK-4065; Phone: 2358-8543

TEXTS: No required textbook;
Learning materials are available on Canvas.

GRADING POLICY: Final course grade will be determined by the following criteria and maximum point distribution:

PRS quizzes (best 5 out of 6)	20
Midterm exam	40
Final exam	40
Total	100

Grade	Description
A	Excellent performance: Demonstrates a comprehensive grasp of subject matter, expertise in problem-solving, and significant creativity in thinking. Exhibits a high capacity for scholarship and collaboration, going beyond core requirements to achieve learning goals.
B	Good performance: Shows good knowledge and understanding of the main subject matter, competence in problem-solving, and the ability to analyze and evaluate issues. Displays high motivation to learn and the ability to work effectively with others.
C	Satisfactory performance: Possesses adequate knowledge of core subject matter, competence in dealing with familiar problems, and some capacity for analysis and critical thinking. Shows persistence and effort to achieve broadly defined learning goals.
D	Marginal pass: Has threshold knowledge of core subject matter, potential to achieve key professional skills, and the ability to make basic judgments. Benefits from the course and has the potential to develop in the discipline.
F	Fail: Demonstrates insufficient understanding of the subject matter and lacks the necessary problem-solving skills. Shows limited ability to think critically or analytically and exhibits minimal effort towards achieving learning goals. Does not meet the threshold requirements for professional practice or development in the discipline.

PRS quizzes: Each quiz consists of 5 multiple-choice questions with the same format as on the exam. You are allowed to use the course materials and your own notes for the quizzes. All PRS quizzes are conducted in the session indicated. No makeup quiz will be given, as we count only the best 5 out of 6 quizzes you attempt. The quiz for the week will be waived only if you have a valid reason, such as a medical emergency, and you have completed fewer than 5 quizzes.

Bonus Quiz Points: Up to 3 bonus points may be awarded based on your attendance and the quality of your in-class participation, evaluated through periodic, unannounced checks. These points will be added to your final quiz scores, but only to raise a score to the maximum possible grade (e.g., 20/20); they cannot create a score that exceeds the total available points.

Exam: The midterm exam covers only part A of the course while the final exam covers only part B. Each exam consists of 50 multiple-choice questions and lasts 2 hours each. No makeup will be given for the midterm exam. If you miss the midterm exam for a valid reason that is approved by the instructor, you will have to take a 3-hour, 80-question comprehensive final exam instead. All exams are closed-book, closed-note, and you are not allowed to use any notes (downloaded or written) or your own resources during the exam. A study guide and a list of formulas (that will be provided on the exam) will be available before the exam for your preparation.

Recording Policy: The class is not an online learning course. The recording will **NOT** be provided if you miss the class. However, recordings will be provided during the add/drop weeks.

Regrading: Requests for regrading must be submitted via **email** to both the **TA** and the **instructor** within **three** days of the grade being posted. Please note that regrading will consider the entire quiz or exam.

| INTENDED LEARNING OUTCOMES: | This course is designed in such a way that, after completing it, you will be able to: |

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This course is designed in such a way that, after completing it, you will be able to:

1. Describe the design and delivery of product/service in different organizations, and evaluate the systems for measurement and improvement of operations. [1,4]
2. Identify and select crucial variables and measurements in decision modeling. [1]
3. Identify and describe operations management as one of the core business functions. [3]
4. Integrate operations management with other business functions to support a coherent corporate strategy. [3]
5. Determine how operation management decisions impact other business functions. [3]
6. Identify a wide range of contemporary and pervasive global business issues, as well as cultural and technology advancement that impact the management of operations. [4, 6]
7. Apply a range of appropriate quantitative and qualitative methods and tools to solve business problems in which the management of operations is a critical issue. [4,7]
8. Discuss the role of operations management in sustainability and social responsibility. [8]

The numbers at the end of each learning goal correspond to those learning goals and objectives for the BBA-OM Program. For details, please visit our department web site at BBA in Operations Management | HKUST Department of ISOM.

ACADEMIC INTEGRITY:

Students are expected to adhere to the university's academic integrity policy. In particular, any act of cheating on exam will automatically result in an F grade for this course. Students are expected to uphold HKUST's Academic Honor Code and to maintain the highest standards of academic integrity. The University has zero tolerance of academic misconduct. Please refer to [Academic Integrity | HKUST - Academic Registry](#) for the University's definition of plagiarism and ways to avoid cheating and plagiarism.

COURSE AI POLICY:

No use of generative artificial intelligence tools for quizzes and exams.

Weekly Schedule – Spring 2026 (This is a tentative schedule and is subject to change)		
Part A: Managing Business Process Flow		
Session	**Date**	**Topic**
1	**Week 1** Feb. 2 (L5)	**Introduction to Operations Management**
2	**Week 1** Feb. 6 (L5)	**Process analysis** ■ Little's Law and flow time analysis
3	**Week 2** Feb. 9 (L5)	**Flow rate and process capacity** ■ Bottleneck and throughput improvement
4	**Week 2** Feb. 13 (L5)	**Flow rate and process capacity** ■ Examples
5	**Week 3** Feb. 16*(L5) *PRS quiz #1*	**Capacity planning** ■ Decision tree method and expected value of perfect information ■ Cost concepts for strategic planning decisions
6	**Week 3** Feb. 20 (L5)	**Resource optimization decisions** ■ Linear programming technique ■ Problem formulation
7	**Week 4** Feb. 23 (L5)	**Resource optimization decisions** ■ Excel solver
8	**Week 4** Feb. 27 * (L5) *PRS quiz #2*	**Managing waiting lines** ■ Psychology of waiting ■ Basic statistics concepts
9	**Week 5** Mar. 2(L5)	**Queueing model** ■ Waiting line models and simulation ■ Queue configuration problems
10	**Week 5** Mar. 6* (L5) *PRS quiz #3*	**Quality Management** ■ Acceptance sampling plan ■ Statistical process control
11	**Week 6** Mar. 9 (L5)	**Quality Management** ■ Process capability and six sigma quality ■ Germagic: Six-sigma quality in the making

March 25, 7:30 pm - 9:30 pm **Mid-term exam (Part A only, 50 questions, 2 hours)**		

Part B: Synchronizing Supply and Demand		
Session	**Date**	**Topic**
12	**Week 6** Mar. 13 (L5)	**Demand management and forecasting** ■ Qualitative and quantitative approaches
13	**Week 7** Mar. 16 (L5)	**Demand management and forecasting** ■ Basic time series forecasting models I ■ Forecasting errors
	Week 7 Mar. 20 (L5)	**Review for Part A (Midterm, Session 1- Session 11)**
	Week 8 Mar. 23 (L5)	**Consulting for midterm**
14	**Week 8** Mar. 27 (L5)	**Demand management and forecasting** ■ Basic time series forecasting models II
15	**Week 9** Mar.30* (L5) *PRS quiz #4*	**Inventory management** ■ The Role and Purpose of Inventory ■ Inventory classification and cycle counting
	Week 9 Apr. 3 (L5) Apr. 6 (L5)	**Public Holiday**
16	**Week 9** Apr. 10 (L5)	**Basic Inventory Models** ■ EOQ model ■ Variants of EOQ model
17	**Week 10** Apr. 13 (L5)	**Managing supply for short life cycle products** ■ Newsvendor Model
18	**Week 10** Apr. 17 (L5)	**Managing supply for short life cycle products** ■ Examples ■ Arome Bakery: Replenishment of fresh bakery products
19	**Week 11** Apr. 20 * (L5) *PRS quiz #5*	**Revenue management** ■ Revenue management with capacity controls

20	**Week 11** Apr. 24 (L5)	**Revenue management** ■ Overbooking, protection level, and dynamic pricing
21	**Week 12** Apr. 27* (L5) *PRS quiz #6*	**Supply chain management** ■ Bullwhip effect and supply chain coordination
	Week 13 May 1 (L5)	***Public Holiday***
22	**Week 13** May 4 (L5)	**Best practices of lean synchronization** ■ Guiding principles and work practices ■ Major elements of just-in-time system
	Week 13 May 7 (L5)	■ **Review for Part B (Final - Session 12- Session 22)**
Final exam (Part B only, 50 questions, 2 hours, except for those who need to take the 80-question comprehensive exam for 3 hours)		