



# ISOM2700 Operations Management Fall 2025 (L7)

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

Fall 2025

L7: Monday, 01:30PM - 02:50PM &  
Friday, 09:00AM - 10:20AM,  
Lecture Theater G

## INSTRUCTOR:

Dr. Zheng Zeng (imzhengz@ust.hk)

Office: LSK- 4082B; Phone: 3469-3434

Office hours: 15:10pm-16:10pm, Monday 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	<u>40</u>
Total	100

**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 on the date 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 medical emergency and you have completed less than 5 quizzes.

**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:

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.

<b>Weekly Schedule – Fall 2025</b> <b>(This is a tentative schedule and is subject to change)</b>	
<b>Part A: Managing Business Process Flow</b>	
<b>Week 1</b> September 1, 5	<b>Introduction to Operations Management</b>  <b>Process analysis</b> <ul style="list-style-type: none"> <li>■ Little's Law and flow time analysis</li> </ul>
<b>Week 2</b> September 8, 12	<b>Flow rate and process capacity</b> <ul style="list-style-type: none"> <li>■ Bottleneck and throughput improvement</li> </ul> <b>Capacity planning</b> <ul style="list-style-type: none"> <li>■ Decision tree method and expected value of perfect information</li> <li>■ Cost concepts for strategic planning decisions</li> </ul>
<b>Week 3</b> September 15, 19*  <i>*PRS quiz #1</i>	<b>Resource optimization decisions</b> <ul style="list-style-type: none"> <li>■ Linear programming technique</li> <li>■ Product mix problems</li> </ul>
<b>Week 4</b> September 22, 26	<b>Managing waiting lines (I)</b> <ul style="list-style-type: none"> <li>■ Psychology of waiting</li> <li>■ Basic statistics concepts</li> </ul>
<b>Week 5</b> September 29, October 3*  <i>*PRS quiz #2</i>	<b>Managing waiting lines (II)</b> <ul style="list-style-type: none"> <li>■ Waiting line models and simulation</li> <li>■ Queue configuration problems</li> </ul>
<b>Week 6</b> October 6, 10	<b>Quality Management (I)</b> <ul style="list-style-type: none"> <li>■ Acceptance sampling plan</li> <li>■ Statistical process control</li> </ul>
<b>Week 7</b> October 13*  <i>*PRS quiz #3</i>	<b>Quality Management (II)</b> <ul style="list-style-type: none"> <li>■ Process capability and six sigma quality</li> </ul>

<b>Part B: Synchronizing Supply and Demand</b>	
<b>Week 7</b> October 17	<b>Demand management and forecasting (I)</b> <ul style="list-style-type: none"> <li>■ Qualitative and quantitative approaches</li> </ul>
<b>Week 8</b> October 20, 24	<b>Demand management and forecasting (II)</b> <ul style="list-style-type: none"> <li>■ Basic time series forecasting models</li> <li>■ Forecasting errors</li> </ul> <b>Review for Part A (Midterm) (Oct. 24)</b>
<b>Week 9</b> October 27	<b>Consulting for Midterm</b>
<b>Mid-term exam (Part A only, 50 questions, 2 hours), October 28 (Tuesday), 7 pm - 9 pm</b>	
<b>Week 9</b> October 31*  <i>*PRS quiz #4</i>	<b>Inventory management</b> <ul style="list-style-type: none"> <li>■ Inventory classification and cycle counting</li> <li>■ Basic inventory models: Order quantity and reorder point</li> <li>■ Safety stock and service level</li> </ul>
<b>Week 10</b> November 3, 7	<b>Managing supply for short life cycle products</b> <ul style="list-style-type: none"> <li>■ Newsvendor model and applications</li> </ul>
<b>Week 11</b> November 10, 14*  <i>*PRS quiz #5</i>	<b>Revenue management</b> <ul style="list-style-type: none"> <li>■ Revenue management with capacity controls</li> <li>■ Overbooking, protection level, and dynamic pricing</li> </ul>
<b>Week 12</b> November 17, 21	<b>Supply chain management</b> <ul style="list-style-type: none"> <li>■ Bullwhip effect and supply chain coordination</li> </ul>
<b>Week 13</b> November 24, 28*  <i>*PRS quiz #6</i>	<b>Best practices of lean synchronization</b> <ul style="list-style-type: none"> <li>■ Guiding principles and work practices</li> <li>■ Major elements of just-in-time system</li> </ul> <b>Review for the final exam</b>
<b>Final exam (Part B only, 50 questions, 2 hours, except for those who need to take the 80-question comprehensive exam for 3 hours)</b>	