ISOM2500 Business Statistics (L1)
Spring Semester 2026

Course Outline

Course Instructor	Dr. Jason MW HO Senior Lecturer Department of Information Systems, Business Statistics, and Operations Management (ISOM)
Office Location	LSK 6048A
Office Hours	Friday, 1230 – 1430
Email	imjasonho@ust.hk

Teaching Assistant (TA)	Mr. Elvis LEE
Office Location	LSK 4065
Email	imelvis@ust.hk

Class Schedule[1] and Location

1330 – 1450 (Mon) 0900 – 1020 (Fri)	2 February – 8 May 2026 (except 3 April, 6 April and 1 May)	LSK G012

Course Description

Statistics play an important role in every discipline that utilizes data. The diverse areas involving application of Statistics include Science, Medicine, Engineering, Business, among others. This course is designed to equip students with fundamental concepts and methods in statistical thinking and reasoning. Through discussion of real-life applications, students will learn how to make informed decisions wisely and effectively in the business world by extracting relevant information embedded in data from various sources.

[1] During the semester, there are 2 computer lab sessions apart from regular lectures. Refer to the end of this document for more information.

Intended Learning Outcomes (ILOs)

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

ILO1: Understand and master basic theoretical concepts and methods in statistical thinking and reasoning, so as to decide what statistical techniques are most appropriate to use in a given situation based on knowledge of their advantages and limitations.
ILO2: Apply descriptive and/or basic inferential methods in Statistics to solve a real problem in business environment.
ILO3: Interpret and present results of statistical analyses that are either self-produced or provided by others.
ILO4: Be ready to learn multiple linear regression in subsequent courses.

Assessment and Grading

This course will be assessed using criterion-referencing and grades will not be assigned using a curve.

Assessments:

Assessment Task	Contribution to Overall Course grade (%)	Due Date
Non-exam assessment	20	Week 3 to 13
Quiz	40	9 March; 13 April
Final examination	40	Spring term examination period; exact date to be announced by AR

Mapping of Course ILOs to Assessment Tasks:

Assessment Task	Mapped ILOs	Explanation
Non-exam assessment	ILO1, ILO2, ILO3, ILO4	This task allows students to solve a real problem in business environment, involving formulation of the problem in statistical terms, selection of an appropriate technique to apply in a given situation, analysis of the data, presentation and interpretation of results of the statistical analysis.
Quiz	ILO1, ILO2, ILO3	Quizzes evaluate students' ability in mastering basic concepts and theory in Statistics, application of both descriptive and inferential methods in Statistics, and correct interpretation of statistical results.
Final examination	ILO1, ILO2, ILO3, ILO4	Final examination evaluates students' ability in mastering basic theoretical concepts, application of both descriptive and inferential methods in Statistics, correct interpretation of statistical results, and understanding the basics of simple linear regression.

More information about Assessment Tasks:

Assessment Task	More Descriptions
Homework assignment	• 10 sets of assignments (as Quizzes on Canvas), with 1 set on each Module of the course • Each set contains at most 10 True/False questions or/and Multiple-choice questions. • Performance in the BEST 7 out of 10 sets count 20% of overall course grade. • All use of generative AI is restricted.

Quiz	• 2 closed book quizzes (each counts 20% of overall course grade)
	• Help sheet (1 piece of A4-size paper with any content on both pages) allowed
	• Scheduled on **9 March (Monday), 8:30-9:30pm** and **13 April (Monday), 8:30-9:30pm**[2]
	• **Absence policy:**
	  ○ Students must (i) obtain prior approval from the course instructor by providing a legitimate reason with relevant supporting documents, or (ii) submit a valid medical certificate justifying their absence to the course instructor within 3 days of the quiz date.
	  ○ Students who meet the above condition (i) or (ii) will NOT attend any make-up quiz. They MUST attend the final examination so that their final examination score will make up the missing 20% or 40% in their overall course grade.

Final examination	• Closed book
	• Help sheet (2 pieces of A4-size paper with any content on all 4 pages) allowed
	• **Date and venue to be announced**
	• **Absence policy:**
	  ○ Students must fill in and submit a specific form to report their case, providing appropriate documents, to the Academic Registry within 1 week of the scheduled exam date. Refer to the following webpage for more information - https://registry.hkust.edu.hk/resource-library/extenuating-circumstances-affecting-assessment. Upon approval by AR, a make-up examination without marks deduction will be available.
	  ○ Students must sit for the final examination to pass the course. A student who misses the final examination will be automatically assigned an F grade.

Final Grade Descriptors:

Grade	Short Description	Explanation
A	Excellent Performance	Demonstrates a comprehensive grasp and understanding of fundamental statistical concepts, of selection and application of appropriate descriptive and inferential methods in Statistics

[2] These dates and times of quizzes are subject to change due to availability of examination venues and should be confirmed by week 3 of the semester.

		upon analyzing any data, and of interpretation and presentation of results from statistical analysis of the data
B	Good Performance	Demonstrates a high level of understanding of fundamental statistical concepts, of selection and application of appropriate descriptive and inferential methods in Statistics upon analyzing any data, of interpretation and presentation of results from statistical analysis of the data
C	Satisfactory Performance	Demonstrates adequate knowledge of fundamental statistical concepts, of selection and application of appropriate descriptive and inferential methods in Statistics upon analyzing any data, and of interpretation and presentation of results from statistical analysis of the data
D	Marginal Pass	Demonstrates little or inconsistent knowledge of fundamental statistical concepts, of selection and application of appropriate descriptive and inferential methods in Statistics upon analyzing any data, and of interpretation and presentation of results from statistical analysis of the data
F	Fail	Demonstrates a lack of understanding of fundamental statistical concepts, insufficient knowledge in selection and application of appropriate descriptive and inferential methods in Statistics upon analyzing any data, and poor skills in interpretation and presentation of results from statistical analysis of the data

Communication and Feedback

- Channel your enquiries regarding
    - administration and logistics of the course (e.g., missing lectures, issues about submission or grading of homework assignments, absence in quiz/exam, etc.) to TA.
    - teaching and learning materials discussed in lectures to course instructor.
- Marks and feedback for individual assessed tasks will be communicated via Canvas within two weeks of submission.
- Any discrepancies in assessment marks posted in gradebook of Canvas should be reported to TA without any delay.

Late submission Policy

To ensure fairness for students who submit homework assignments on time, no late submission of assignments according to records on Canvas (with no exception due to whatsoever reason) will be accepted.

Course Materials

- Class slides, and other teaching materials available on Canvas in HKUST iLearn (https://ilearn.ust.hk/iLearn/home.html), or HKUST iLearn App on App Store or Google Play
- Recommended Textbook: ***Business Statistics: A Decision Making Approach, Global Edition*** (11th ed), David Groebner, Patrick Shannon and Phillip Fry, Pearson (2023)
- Practice questions on Canvas, and problems/exercises at the end of each Chapter in textbook
- Required software: MS Excel

Course AI Policy

Restrict all use of generative AI for assessment: You are prohibited from using generative artificial intelligence (AI) to produce any materials or content related to all take-home assessments.

Academic Integrity

Students are expected to adhere to the university's academic integrity policy. 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 Plan (subject to changes)

Module	Topic/Activity	Date	Chapters in Textbook
1	Overview	Feb 2	1
2	Data and Variation	Feb 2, 6, 9	2, 3
3	Probability	Feb 13, 16, 20	4
4	Discrete Random Variables	Feb 23, 27	5
5	Continuous Random Variables	Mar 2, 6	6
	Quiz 1 (up to Module 3)	**Mar 9 (MON), 8:30-9:30pm**	
6	Estimation and Sampling Distribution	Mar 13, 20	7
7	Standard Error and Confidence Interval	Mar 23, 27	8
8	Hypothesis Testing	Mar 30, Apr 10, 17	9
	Quiz 2 (up to Module 6)	**Apr 13 (MON), 8:30-9:30pm**	
9	Fitting Equation to Data	Apr 20, 24, 27	14
10	Inference in Simple Linear Regression	May 4, 8	14

Computer Labs

- 2 online computer lab sessions on MS Excel will be scheduled, one after the Add/Drop period and another towards the end of the semester. Exact dates will be announced in due course.
- Real-time attendance is not mandatory. Video recordings will be available on Canvas.
- Knowledge of MS Excel commands may be needed in homework assignments but will NOT be included in quizzes or examination.