ISOM2500 Business Statistics
Spring Semester 2025 L3

Course Description

Statistics is a vital tool in any field that relies on data. Its applications span diverse areas such as science, medicine, engineering, business, and more. This course is designed to introduce students to the fundamental concepts and methods of statistical thinking and reasoning. By mastering these skills, students will be equipped to analyze business and economic scenarios, interpret data from various sources, and make informed, effective decisions when addressing real-world problems in the business environment.

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, and be able to decide what statistical techniques are most appropriate to use in a given situation, and state their advantages and limitations.

ILO2: Apply both descriptive and/or basic inferential methods in Statistics to solve a real problem in the business environment.

ILO3: Interpret and present statistical results that are either self-produced or provided by others.

ILO4: Be ready to learn multiple linear regression in more advanced 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
In-class Participation	5	There will be 6 in-class quizzes and 1 midterm feedback (an anonymous questionnaire) spread out randomly during the semester. You will earn full participation points by participating in **at least 5 of these sessions**, with 1 point awarded for each session you attend.
Homework Assignment	15	Assignment 1 (5 points): 28 February Assignment 2 (5 points): 28 March Assignment 3 (5 points): 14 May

Midterm Examination	30	20 March Thursday 8 - 9 pm (Tentatively) 17 March Monday 8 - 9 pm
Final Examination	50	Fall term examination period; Exact date to be announced by AR

Mapping of Course ILOs to Assessment Tasks:

Assessment Task	Mapped ILOs	Explanation
In-class participation	ILO1	This task focuses on and evaluates students' understanding of fundamental statistical concepts.
Homework assignment	ILO1, ILO2, ILO3, ILO4	Homework allows students to solve a real problem in the 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 using software, presentation, and interpretation of results of the statistical analysis.
Midterm examination	ILO1, ILO2, ILO3	Midterm examination evaluates students' ability in mastering basic concepts and theory in Statistics, application of descriptive methods, 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 each Assessment Task:

Assessment Task	More Descriptions
Homework assignment	Students should form groups of **3 students** to finish the assignments jointly. Please report any free-riding or irresponsible behavior of group members via email. Once verified, students with such behavior will receive a mark reduction: • 　　○　Please sign up under "People" ->"Group" on Canvas 　　○　We will randomly assign students for those who don't sign up **by the end of 17 Feb**
Midterm examination	• Closed-book • Help sheet (2 pieces of A4-size paper with any content on **both sides**) allowed (written, typed or printed) • Calculator: any kind of physical standalone calculator that **cannot access the internet**. Calculators with internet access (even if you don't use the internet) are prohibited • Scheduled on **20 March Thursday 8 - 9 pm (Tentative)**
Final examination	• Closed-book • Help sheet (2 pieces of A4-size paper with any content on both sides) allowed (written, typed or printed) • Printed Z table and t table with **no annotations** if applicable • Calculator: any kind of physical standalone calculator that **cannot access the internet**. Calculators with internet access (even if you don't use the internet) are prohibited • **Date: TBD**

Final Grade Descriptors:Links to an external site.

Grade	Short Description	Explanation

A	Excellent Performance (>85)	Demonstrates a comprehensive grasp and understanding of fundamental statistical concepts, selection and application of appropriate descriptive and inferential methods in Statistics, analysis of the data, presentation and interpretation of results of the statistical analysis.
B	Good Performance (>70)	Shows a good knowledge of fundamental statistical concepts, selection, and application of appropriate descriptive and inferential methods in Statistics, analysis of the data, presentation, and interpretation of results of the statistical analysis.
C	Satisfactory Performance (>55)	Possesses an adequate understanding of fundamental statistical concepts, selection, and application of appropriate descriptive and inferential methods in Statistics, analysis of the data, presentation, and interpretation of results of the statistical analysis.
D	Marginal Pass (>40)	Has threshold knowledge of fundamental statistical concepts, selection, and application of appropriate descriptive and inferential methods in Statistics, analysis of the data, presentation, and interpretation of results of the statistical analysis.
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, and analysis of the data, and poor skills in presentation and interpretation of results of the statistical analysis.

Communication and Feedback

- All inquiries related to class administration—such as questions about in-class participation, homework grading, or absences during the midterm and final exam—should be directed to the TA, with the instructor copied on the email.
- Assessment marks and feedback for individual tasks will be posted on Canvas within 10 days of submission.
- If you notice any discrepancies in your marks, please report them to the TA promptly.

Late submission Policy

To ensure fairness for students who submit assignments in Canvas on time, a penalty for late submission according to records in Canvas is listed as follows:
- Late submission within 6 hours: 25% penalty will be applied.
- Late submission between 6 to 24 hours: 50% penalty will be applied.
- Late submission after more than 24 hours will not be accepted.

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, such as homework assignments. **Please wait for the latest university-wise AI policy.**

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 Links to an external site.for the University's definition of plagiarism and ways to avoid cheating and plagiarism.