ISOM 2600 L3 - L5
Spring 2025
Introduction to Business Analytics

Description

This course introduces students with the foundation needed to apply data analytics to real-world challenges they will confront in their future career. It covers statistical methods in descriptive analytics and predictive analytics, including regression, variable selection. This course provides students with the fundamental concepts and tools needed to understand the emerging role of business analytics in organizations and shows students how to apply basic business analytics methodology using the current popular software, and how to communicate with analytics professionals to effectively use and interpret analytic models and results for making better business decision. Emphasis is placed on statistical reasoning and interpretation of results, rather than proof of theory and coding. Students only use Python language as a tool to analysis data.

Learning Objective

- To gain an understanding of how managers use business analytics to formulate and solve business problems and to support managerial decision making.
- To select and apply appropriate statistical models in the analysis of quantitative and qualitative data from a variety of business scenarios.
- To learn how to use Python to apply the statistical models on the business problems.

Prerequisites

- ISOM2500 Business Statistics
- ISOM2020 Coding for Business

Labs

Lab sections are arranged to learn Python code and discuss the assignments. Lab instructors will be fully responsible for your performance in the lab. Only contents from Lectures will be tested in the final. But lab sections can help with python-based assignments.

Course Content

This syllabus is subject to change in the event of extenuating circumstances. We will learn how to do data analysis with python. The assignments will ask you to do some simple coding. But the exam will not test how to code from the scratch but will test **your understanding of codes**. For example what is data.std()? You will know that it is to calculate the standard deviation of the data. To do this course well, you cannot forget things learned from ISOM2500. Topic 1 and 2 are challenging parts which are the bridge between ISOM2020 and analytical part. Topic 3 and Topic 4 are extensions from ISOM2500. You will see some fun applications.

Assessment and Grading

This course will be assessed using **criterion-referencing ([CRALinks to an external**

) and grades will not be assigned using a curve.

Your grade in the course is based on 3 components:

Tasks	Contribution to the overall grade	Requirement
Participation	10%	There will be 6 in-class quizzes or surveys You will get full participation marks (10 points) if you attend at least 5 sessions, with each awarding 2 points (i.e. you may miss 1 class without any penalty to your participation grade)
Lab Assignments	30%	Students should form groups of **3 students** to finish the assignments (please form a group with classmates in the **same Lab session**) and submit the soft copy to us through Canvas: • Lab Assignment 1 (15%): Due week 5 • Lab Assignment 2 (15%): Due week 7 For the soft copy, please **sign the name on the cover page** of the assignment (before the deadline); otherwise, you will have no record for HWs. The excuses, i.e. "forget to sign", "Other members submit the HW without notice" etc. are not accepted. *Note*: CANVAS will automatically close the submit channel right after the deadline. It is the supporting evidence to your punctual submission of homework. No argument is allowed for those students who claim that they have submitted the homework but CANVAS did not receive it, or there is no *submit* button. Because the *submit* button is gone automatically right after the deadline. You are strongly recommended to test the *submit* button and submit your homework earlier. **Free riding is not allowed.** If you don't join the discussion of HWs, other members from your group have the right to submit HW without your permission and without your name on it. In addition, if you have little contribution in the discussion (e.g. Show up without preparation), your group-mates can send an email to notice me. *Note:* you can use ZOOM meeting, WeChat or WhatsApp for discussion. Please keep a record just in case you need to file a complaint.

Final Exam	60%	It is an individual exam Python will be tested **Closed book, you can bring 2-page A4 size handwritten cheat sheets to the exam** 30 multiple choice questions, 1 hour long

Notes: Appropriate documentation proving the student's illness on the day of the missed final assessment MUST be provided in writing* within one week of the scheduled date of the final exam. The make-up final will have 35 MC questions in 1 hour since you have more time to prepare compared to your classmates.

Otherwise, if the final exam is missed, you won't pass the course.

* Please review and download the form: *Report on Extenuating Circumstances Affecting AssessmentLinks to an external site.* (ITSC log-in). Complete this form and submit to the TA and instructor.

Grievance Procedure

If you disagree with grades that have been assigned to your work, you have the possibility to meet instructors within one week after the grades have been published on the course website. Be specific about what it is that you don't agree with.

Academic Integrity

Academic dishonesty includes, but is not limited to, cheating, plagiarizing, fabricating of information facilitating acts of academic dishonesty by others, having unauthorized possession of examinations, submitting work of other groups, or tampering with the academic work of other groups. All exam answers must be your own, and you must not provide any assistance to other students during exams. Current university policy on academic dishonesty is "if a student is discovered cheating however minor the offence, the course grade will appear on the students' record with an X, to show that the grade resulted from cheating." This X grades stays on the record until graduation. If the student cheats again and "earns" another X grade, the student will be dismissed from the university.

Submit your soft copy of assignment to us on Canvas which will be the supporting evidence of your submission of assignment. **Late submission will not be accepted.**

Gen AI Policy

You are allowed to use generative AI for this assessment only for the following purposes: **learning concepts, optimizing code, and brainstorming analysis ideas**. Any use of AI must be **properly acknowledged**.

Please be aware that AI-generated content is **not always accurate**, and you are fully responsible for verifying and ensuring the correctness of any AI-assisted work.