ISOM 2600: Introduction to Business Analytics

Spring , 2021

Department of Information Systems,
Business Statistics and Operation Management

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Class meets:

Course Description

Main Contents:

- This course introduces basic and modern analytical concepts and methods for the business practice. It covers statistical tools in descriptive analytics and predictive analytics, including multiple linear regression, classification and clustering. 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 tools, and how to communicate with analytics professionals to effectively use and interpret analytic models and results for making better business decision.

Objectives:

- 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 solve business problems by statistical modelling and analysis.

Course Materials

A. Reference textbook: "Python Data Science Handbook" authored by Jake Vanderplas ;

B. Class notes and exercise questions are downloadable from course website (http://canvas.ust.hk/);

C. For the assignment, you need entry-level knowledge of python . However it is **NOT** necessary for the final exam .

Evaluation

Your overall grade will be based on the following:

A. 2 assignments (40%.): Students are allowed to work individually or in group (group size ≤ 3). All are required to submit on canvas.

B. Final Exam(50%):

C. Attendence(10%):

Course Organization

- Topic 0: Review of Linear Regression and Introduction to Data Preprocessing
- Topic 1: Multiple Linear Regression Model
- Topic 2: Regression for Nonlinear Pattern
- Topic 3: Model/Variable Selection

Asignment II Nonlinear transformation and model selection

- Topic 4: Classification Analysis
- Topic 5:Clusteting Analysis

Asignment III, Classification and clustering

Final Exam

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.