

THE HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY

ISOM 6670A Special Topics in Business Analytics – Predictive Analytics with Business Applications

Course Outline

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Course description

This special topic course focuses on modern techniques for predictive analytics. In the first part of the course, statistical techniques for analyzing time series data and their financial applications, e.g. quantitative risk management and algorithmic trading, will be discussed. In the second part of the course, statistical techniques for analyzing text data and causal analysis will be discussed. Practical cases will be studied with the use of R and Python.

Tentative schedule

1. Analysis of time series data
2. Financial analytics
3. Algorithmic trading
4. Predictive marketing
5. Web analytics and text modeling
6. Behavioral and causal modeling

Grading

Assignments	30%
Exam	30%
Group project	40%