

The Hong Kong University of Science and Technology

UG Course Syllabus

Predicative Analytics

IEDA 3560

3 Credit(s)

Prerequisite: IEDA 2540

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Course Description

In this course, you will learn how to identify, evaluate, and capture business analytic opportunities that create value. Toward this end, you will learn basic analytic methods and analyze case studies on organizations that successfully deployed these techniques. We focus on how to use data to develop insights and predictive capabilities using machine learning, data mining, and forecasting techniques. Throughout the course, we explore the challenges that can arise in implementing analytical approaches within an organization. The course emphasizes that business analytics is a practical discipline which requires mastery of both methodology and business applications. The concepts learned in this class should help you identify opportunities in which business analytics can be used to improve performance and support important decisions. It will teach you important tools that can be used to transform data into high-impact business decisions. Lastly, it should make you alert to the ways that analytics can be used - and misused - within an organization.

Assessments:

Assessment Task	Contribution to Overall Course grade (%)
Mid-Term	25%
Lab	10%
Group Project	30%
Final examination	35%
Participation	5% (Bonus)

Required Texts and Materials

N/A

Additional Resources

- Machine Learning by Zhi-Hua Zhou
- The Elements of Statistical Learning by Trevor Hastie, Robert Tibshirani, and Jerome Friedman