

FITE7410

Teaching Plan

Lecturers: Dr. Vivien Chan, Ms. Annie Chan
School of Computing and Data Science
The University of Hong Kong

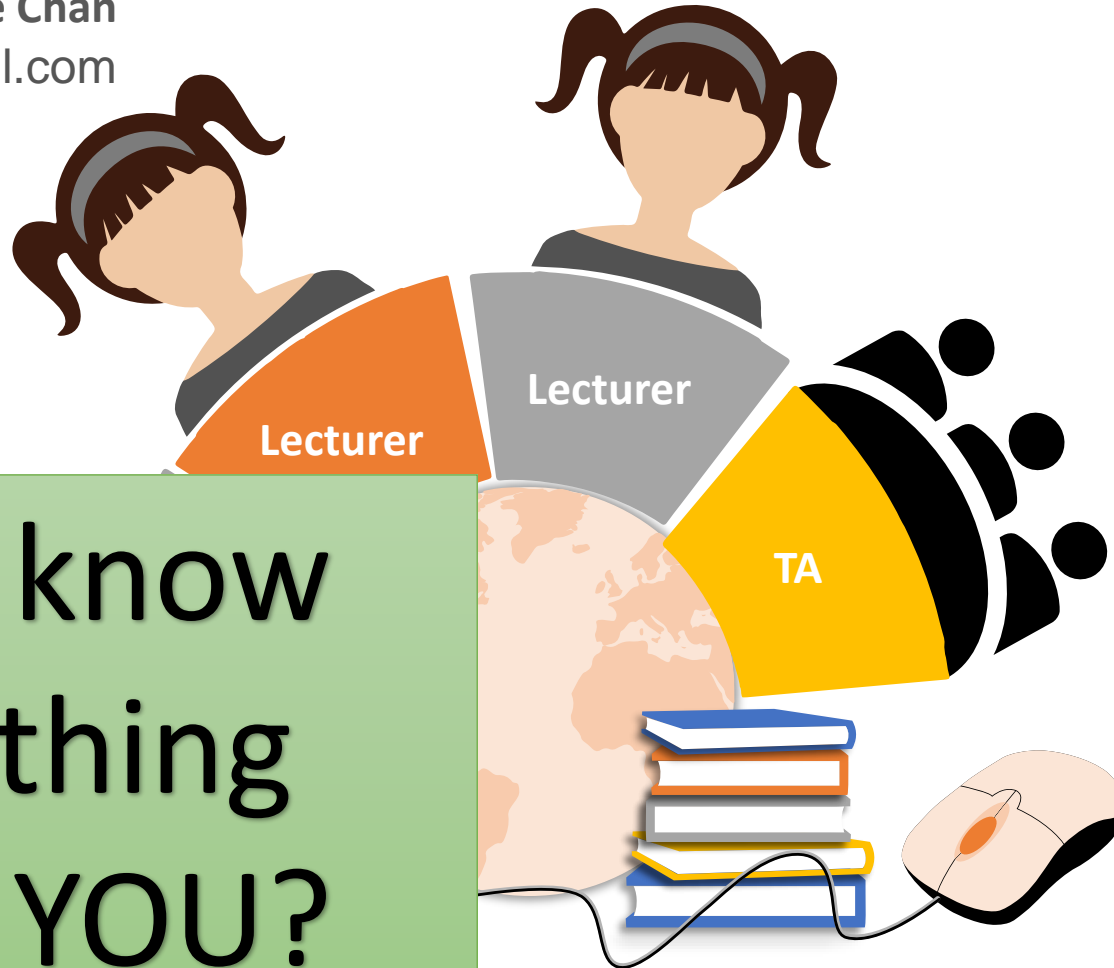
Our Teaching Team

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Let us know
something
about YOU?

What you'll learn in this course

You'll learn



- ☐ Knowledge about financial fraud detection
- ☐ Overview & Concepts of different fraud detection models
- ☐ Skills to use some of the fraud detection tools
- ☐ Application of the fraud detection tools to financial frauds analysis

You'll NOT learn



- ☒ machine learning or data mining theories
- ☒ mathematical details, e.g. mathematical proofs of machine learning algorithms

- The primary emphasis is on how to choose the right tool for the job and how to translate model outputs into actionable business intelligence.
- While this course requires a solid foundation in statistics, it is NOT a deep dive into the mathematical theory of machine learning algorithms.
- Instead, it concentrates on their effective application.

The Teaching Plan

Lecture	Course Teacher	Description
1	Dr. Vivien Chan	<ul style="list-style-type: none">• Introduction to Financial Fraud Analytics and Exploratory Data Analysis (EDA)• Tutorial 01 : How to use R (~1 hour)
2-6, 10	Dr. Vivien Chan	<ul style="list-style-type: none">• Introduction to Exploratory Data Analysis (EDA)• Introduction to different types of models for Fraud Detection, including, statistics, machine learning and social network models• Performance evaluation of fraud detection models• Applications of different techniques in financial fraud detection
7-9	Ms. Annie Chan	<ul style="list-style-type: none">• Forensic Accounting and Fraud Investigation• Anti-money Laundering, Best practice and Compliance issues• Application of Computer Forensic and Data Analytics in Combating Financial Fraud and Money Laundering

NOTE:

Class A, B – please refer to moodle course for lecture dates and venues

Course Work Plan

- (50%) Assignments, including an individual mini-case study
- (50%) Exam
- Details of Individual mini-case study will be announced in moodle course page & lecture 3 or 4

NOTE:

In this course, we'll use only R for assignments.