Course Outline

Instructor: Dr. Aijun Zhang  
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Lecture Hours: Monday 11:30am – 12:20pm (MB217) 
Thursday 10:30am – 12:20pm (MB217)

Tutor: Zebin Yang (RR114, u3005497@connect.hku.hk)  
Tutorial Hours: TBD

Course Objectives:
This course will focus on exploratory data analysis with statistical graphics and interactive data visualization. Students will learn how to display, communicate and analyze data, using a set of packages based on R and Python programming.

Prerequisites:
STAT2602 (Probability and Statistics II) or STAT3902 (Statistical Models).

Contents and Topics:
Data science, data manipulation, exploratory data analysis, statistical graphics, interactive data visualization, shiny applications, selected case studies.

Intended Learning Outcomes:

• Choose the best chart that fits the data
• Communicate effectively using statistical graphics
• Create compelling visualization via programming tools

Assessment Method:
Continuous: Participation, in-class quizzes and homeworks 40%
Final Project: DataViz app, oral presentation and written report 60%


Programming: R, Python, D3.js
References and Online Materials:

1. *R for Data Science* (2017 O’Reilly) by Grolemund and Wickham. [http://r4ds.had.co.nz/](http://r4ds.had.co.nz/)


6. RStudio Cheat Cheets. [https://www.rstudio.com/resources/cheatsheets/](https://www.rstudio.com/resources/cheatsheets/)