

DATA ANALYSIS, FALL 2022

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Course Materials

- Lecture notes and exercise questions are downloadable from course website (<https://canvas.ust.hk>)¹;
- Reference book: “Statistics for Business, Decision Making and Analysis”, by R. Stine and D. Foster;
- Software: Excel.

Evaluation

- A. In-class exercises 40%. Group work (about 2-3 students per group)
- B. Final exam 60%. (All MC questions)

Course Organization

- Normal Probability Model (Ch12)
 - Normal random variable and normal Model, §12.1-12.2
 - Normal quantile plot, §12.3-12.4
- Sampling and Sampling Distributions (Ch13 - Ch14)
 - Concepts of population, sample and sampling, §13.1-13.2
 - Sampling distribution, §14.1
- Standard Errors and Confidence Intervals (Ch15)
 - Confidence interval for μ , §15.1-15.4
 - Determine the sample size, §15.5
- Statistical Hypothesis Testing (Ch16)
 - Concepts, §16.1
 - One sample z - and t - tests, §16.2 - 16.3
- Simple Linear Regression Model (Ch19 - Ch21)
 - Linear pattern of data, residual plot, §19.1-19.3,19.5,
 - Nonlinear pattern of data and transformation, §20.1-20.4
 - The model and conditions, §21.1-21.2
 - Inference in regression, §21.3
 - Prediction interval, §21.4

¹Cases contain corporate social responsibility (CSR) elements

- Multiple Regression (Ch23)

- The model and interpretation, §23.1-23.2, 23.5
- Checking conditions, §23.3
- Inference in multiple regression, §23.4