Programming and Statistical Software 304030001 Syllabus

Fall 2020

• Instructor Information.

- Instructor: Huang, Tzee-Ming
- Email: tmhuang@nccu.edu.tw
- Office hours: To be arranged
- Textbook (not required). R 軟體: 應用統計方法(第二版). 陳景祥著. ISBN 978-957-483-958-2
- Course Objectives. The main objective of this course is to help students develop basic programming skills using R, including dealing with data input and output, conditional execution, loops and user-defined functions. The secondary objective of this course is to help students to perform statistical analysis using R, including computing summary statistics, making plots and computing probabilities using common distributions.

• Grading Policy.

- Lab work: 60%
- Exam/project: 40%
- Time requirement. The students are expected to spend 0-4.5 hours outside class each week on course work.
- Additional Information.
 - Students are required to complete a small project on some statistical analysis using R. An oral presentation in class and a written report are required for each project.
 - The topics in the class schedule on Page 2 are subject to modification. Up-to-date reading schedule will be posted after the class starts on the course web site at

https://stat.walkup.tw/teaching/programming_R/F20/homepage.html

– Reference: Learn to Program by Chris Pine, 2nd Edition

Week	Content	Chapter(s)
1	Arithmatic, common mathematical functions and strings	3
2	Data input and output	5
3	Holiday	
4	Control structures	7
5	Control structures	7
6	Irregular data output and handling external files	5,7
7	Looking up probabilities and quantiles for common distributions and generating data	11.1
8	Descriptive statistics	13
9	Midterm	
10 - 18	Project presentations	