Quantitative Research in Social Science
203065001 - Fall 2014

Instructor: 張文揚
Class: Thu 14:10-16:00 in 270412
Contact Info: nccu.wychang@gmail.com
Office Hours: By appointment

TAs:

TA Session: Tuesday 12:10-14:00 in 微六（綜合270627）
微五（資訊140406）

Textbooks
I will use primarily Agresti and Finlay (2009) but encourage to have one of the following: Levin, Fox and Forde (2015); 林惠玲 and 陳正倉 (2011, 2014). An interesting book about statistics is by Wheelan (2013). It has Chinese translation by 愛荷 (2013).

Course Objectives
This course is the first in a two-course sequence in applied statistics, and is also a core course. The vast majority of the course focuses on pre-regression statistical analyses, covering topics such as sampling and survey design, descriptive statistics, probability theory, statistical distributions and hypothesis testing. We will end the course with an introduction to the $\chi^2$ test. My assumption is that you have taken high school algebra, and fundamental probability and probability distributions.
The primary goal of the course is to learn how to use quantitative tools. In learning the fundamentals, students will also be able to improve the design of research projects. The secondary goal of the course is to help students become familiar with statistical software, which is essential for any quantitative project.

Statistical Software Package
This course uses SPSS which is available at computer labs. You can also download it through the iNCCU portal.

Course Outline and Grading
There will be weekly homework assignments (25%), two (2) in-class exams (60%, 25%-35% each), and class participation (15%):

1. There will also be homework and lab assignments throughout the semester. Homework assignments will be assigned after we finish each topic and will be due by 16:00 the following Thursday.

2. Two in-class exams are expected to hold in Weeks 10 and 18, respectively.

3. Participate in class regularly and actively. By this I mean you are required to attend classes and TA sessions regularly.

It should be noticed that no late assignment/paper will be accepted, except for a very few conditions. These conditions include medical emergency, a death in the family, and quite frankly, very little else. In all cases, you will be expected to bring in proof.
Academic Honesty
Academic integrity or honesty is a very serious issue in the academic field and each of you should consider it very seriously. According to one definition, academic dishonesty includes “giving or receiving of unauthorized help in examinations or other assignments, plagiarism and other unacknowledged or undocumented use of source material, and forgery.”

Students who violate any definition of academic dis/honesty will be punished in accordance with the university policy: [http://osa.km.nccu.edu.tw/xms/content/show.php?id=748](http://osa.km.nccu.edu.tw/xms/content/show.php?id=748) in addition to receive an F (read: zero). If you have any further question, for example, if you do not know whether or not you are violating or have violated it, consult your instructor immediately.

Tentative Class Schedule
Class schedule is subject to change without prior notice.

- 0917: Organizational meeting
- 0924: Sampling and measurement 1
- 1001: Sampling and measurement 2
- 1008: Descriptive statistics 1
- 1015: Descriptive statistics 2
- 1022: Probability distributions 1
- 1029: Probability distributions 2
- 1105: Statistical inference: Estimation 1
- 1112: Statistical inference: Estimation 2
- 1119: 1st In-class exam
- 1126: Statistical inference: Significance tests 1
- 1203: Statistical inference: Significance tests 2
- 1210: Comparison of two groups 1
- 1217: Comparison of two groups 2
- 1224: Analyzing association between categorical variables 1
- 1231: Analyzing association between categorical variables 2
- 0107: 2nd In-class exam

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1CGU Student Services, Academic Honesty, [http://www.cgu.edu/pages/1132.asp](http://www.cgu.edu/pages/1132.asp)
References


