

一、 教學目標：

Statistics is the science of interpreting, understanding, and deducing information from data collections. We will emphasize the meaning of statistical results, and the mathematics used to perform statistical calculations. Our goal will be to cover much of chapters 5 to 8 in the text in the book. In particular, the notions of distributions of functions of one or more random variables, sampling distribution, point estimation, confidence intervals, hypothesis testing, simple linear regression, anova of variance and some non-parametric tests will be addressed.

二、 教材內容：

1. 敘述統計(1週)
2. 機率概論(1週)
3. 統計量與樣本分配(1週)
4. 點估計: 平均數估計,變異數估計, 比例估計 (2週)
5. 區間估計 (3週)
6. 期中考(1週) 2013/11/5
7. 假設檢定概念: 單一母體平均值的檢定, 變異數的檢定, 比例的檢定 (2週)
8. 假設檢定概念: 兩母體平均值差異的檢定, 變異數的檢定, 比例的檢定 (1週)
9. 簡單線性迴歸 Simple linear Regression (2週)
10. 變異數分析 Analysis of Variance (1週)
11. 卡方檢定 Chi-square tests (2週)
12. 期末考(1週) 2014/1/7

三、 實施方式： 課堂上課與作業演練

四、 參考書目：

Hogg, R. V. and Tanis, E. A. (2010) Probability and Statistical Inference, 8th edition, Prentice Hall. (華泰代理)

五、 計分方式：

1. Midterm Exam 40 %
2. Final exam 40 %
3. Assignments 10 %
4. quizzes & Class discussion involvement 10 %