## STAT5110: 數理統計 (Mathematical Statistics)

## Fall 2017, Monday and Wednesday, 10:20-12:10

Instructor: 徐南蓉 綜合三館 801 ext 42646 njhsu@stat.nthu.edu.tw

**Textbook:** Casella and Berger (1990),

Statistical Inference, 2<sup>nd</sup> edition.

Bickel and Doksum (2007),

Mathematical Statistics: Basic Ideas and Selected Topics Vol. I,  $2^{\rm nd}$  edition

**Grading:** homework (30%) 約 6-7 次

midterm (30%) final exam (30%)

class participation (10% 彈性調整)

No late homework accepted!

**Teaching Assistant:** To be announced

Office Hours: Mon/Wed after the class; or by appointment

## **Topics Outline:**

Topic	C&B	B&D
Review some statistics and probability	chapter 1-5	chapter 1
concepts and properties		
Principles of data reduction: sufficiency	chapter 6.1-6.3	chapter 1
principle and likelihood principle		
Point estimation: method of moments;	chapter 7	chapter 2-3
estimating equations and MLE		
Decision theory, Bayes rules and	chapter 9-10	chapter 1
Bayesian analysis		chapter 3
Hypothesis testing	chapter 8	chapter 4
Interval estimation	chapter 9	chapter 4
Asymptotic approximations	chapter 10	chapter 5

課程相關資訊: 置於 iLMS 平台

上課公約: 不遲到、不使用手機、有疑義勤發問;作業不抄襲。