



## 教學計劃表 Syllabus

課程名稱(中文) Course Name in Chinese	統計分析導論		學年/學期 Academic Year/Semester	104/1
課程名稱(英文) Course Name in English	An introduction to statistical analysis			
科目代碼 Course Code	FIN_52630	系級 Department & Year	碩士	開課單位 Course-Offering Department
財務金融學系				
修別 Type	選修 Elective	學分數/時間 Credit(s)/Hour(s)	1.0/1.0	
授課教師 Instructor	/林金龍			
先修課程 Prerequisite				
課程描述 Course Description				
<p>This course aims at refreshing the students with the statistical methods frequently used in management science and developing the skills for quantitative analysis. Mastering one statistical software is another goal.</p> <p>One can never really master statistics and econometrics without getting his/her hand dirty. Real data using some statistical package is considered as an essential part of this course. I shall give empirical data analysis during the lectures and assign computer-related home work. For this purpose, I shall teach and ask students to learn and use <math>\textit{R}</math>, a powerful statistical and yet free package. It can be downloaded from</p> <p><a href="http://www.r-project.org">http://www.r-project.org</a></p>				
課程目標 Course Objectives				
<p>協助研究所新生複習統計分析的基礎理論及熟悉統計軟體的使用，奠定學習統計分析及其他數量分析課程的基礎。 This course aims at refreshing the statistical methods frequently used in management science and developing the skills for quantitative analysis. Mastering one statistical software is another goal.</p>				
系專業能力 Basic Learning Outcomes				課程目標與系專業能力相關性 Correlation between Course Objectives and Dept.'s Education Objectives
A	具備財務金融的分析能力			●
B	具備企業財務管理專業能力			○
C	具備英語閱讀溝通協調等能力			○
D	具備獨立研究之技能，以進行財金議題研究			●
E	具備個人投資理財能力			○
F	具備電腦程式運算及設計能力			●
圖示說明 Illustration : ● 高度相關 Highly correlated ○ 中度相關 Moderately correlated				

授課進度表 Teaching Schedule & Content

週次Week	內容 Subject/Topics	備註Remarks
1	Introduction to statistics, probability and R	
2	Discrete random variables and their probability distributions	
3	Continuous random variables and their probability distributions	
4	Multivariate probability distributions (I)	
5	Multivariate probability distributions (II)	
6	Functions of random variables (I)	
7	Functions of random variables (II)	
8	期中考試週 Midterm Exam	
9	Central limit theorem (I)	
10	Central limit theorem (II)	
11	Central limit theorem (III)	
12	Estimation (I)	
13	Estimation (II)	
14	Estimation (III)	
15	Hypothesis testing (I)	
16	Hypothesis testing (II)	
17	Hypothesis testing (III)	
18	期末考試週 Final Exam	

教學策略 Teaching Strategies

- 課堂講授 Lecture     
  分組討論 Group Discussion     
  參觀實習 Field Trip  
 其他 Miscellaneous:

學期成績計算及多元評量方式 Grading & Assessments

配分項目 Items	配分比例 Percentage	多元評量方式 Assessments							
		測驗 會考	實作 觀察	口頭 發表	專題 研究	創作 展演	卷宗 評量	證照 檢定	其他
平時成績 General Performance									
期中考成績 Midterm Exam	30%	✓							
期末考成績 Final Exam	40%	✓							
作業成績 Homework and/or Assignments	30%		✓						
其他 Miscellaneous (_____)									

評量方式補充說明  
Grading & Assessments Supplemental instructions

教科書與參考書目 (書名、作者、書局、代理商、說明)  
Textbook & Other References (Title, Author, Publisher, Agents, Remarks, etc.)

Textbook:

D. D. Wackerly, W. M. Medieally and R. S. Sclaffer (2002), Mathematical Statistics with Applications, 6th ed. Luxury.

Reference books:

1. K.M. Ramachandran and Chris P. Tsokos (2015) \textbf{Mathematical Statistics with Applications in R},

2nd edition, London: Academic Press. (Electronic version of this book is available for downloading in NTU library.)

2. John Vervain, (2002), simpler-Using R for Introductory Statistics, available at <http://cran.r-project.org/doc/contrib/Verzani-SimpleR.pdf>

課程教材網址 (教師個人網址請列在本校內之網址)  
Teaching Aids & Teacher's Website (Personal website can be listed here.)

faculty.ndhu.edu.tw/~jlin

其他補充說明 (Supplemental instructions)