國立東華大學

課　　綱　Course Outline

財務金融學系碩士班國際組

中文課程名稱 Course Name in Chinese	應用統計分析				
英文課程名稱 Course Name in English	Applied Statistical Analysis				
科目代碼 Course Code	FIN_M0290	班 別 Degree	碩士班 Master’s		
修別 Type	選修 Elective	學分數 Credit(s)	3.0	時 數 Hour(s)	3.0
先修課程 Prerequisite					

課程目標
Course Objectives

This course aims to introduce statistical applications to students; therefore, students after taking this course are expected to be familiar with:
1. the choice of proper statistical methods;
2. the operations of statistical applications such as SPSS;
3. the complete procedures of analysis, and
4. the denotation of the results derived from applications.

系教育目標
Dept.’s Education Objectives

1	培育具有理論背景之財金專業人才 Cultivate talents and skills in the realm of professional finance.
2	培育政府及企業所需之財務決策及管理人才 Trains the talents needed for our nation’s economic and business enviroment.
3	培育具有金融研究能力之財金專業人才 Cultivate financial research skills and talents.

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 Understanding the financial analysis.	●
B	具備企業財務管理專業能力 Capabilities for business financial management.	○
C	具備英語閱讀溝通協調等能力 English reading ability of communication and coordination.	○

D	具備獨立研究之技能，以進行財金議題研究 Independent research skills to research financial issues.	●
E	具備個人投資理財能力 Investment and financial management.	
F	具備電腦程式運算及設計能力 Ability of computer programs, algorithms and application.	●

圖示說明Illustration ：● 高度相關 Highly correlated ○中度相關 Moderately correlated

課程大綱
Course Outline

1 Course orientation
2 Essentials of research methodology and SPSS overview
3 Basic statistics (descriptive statistics) in SPSS
4 Fundamental inference statistics: t-test and $\chi 2$ test
5 Regression (1): fundamentals
6 Regression (2): linear regression (moderation & control)
7 Regression (3): logistic regression & dummy variables
8 Regression (4): nonlinear regression
9 Mid-term exam
10 One-way ANOVA and ANCOVA
11 Two-way ANOVA
12 MANOVA
13 Prediction & classification: Discriminate analysis
14 Data reduction: principal component & factor analysis
15 Case reduction: cluster analysis
16 Panel data analysis (LIMDEP)
17 Structural Equation Model (AMOS)
18 Final exam

資源需求評估（師資專長之聘任、儀器設備的配合・・・等）
Resources Required (e.g. qualifications and expertise, instrument and equipment, etc.)

A professor of quantitative specialties
Statistical software
Personal computers

課程要求和教學方式之建議
Course Requirements and Suggested Teaching Methods

1. lecture
2. demonstration
3. practice
4. exams
5. project

其他
Miscellaneous