

 國立東華大學
教學計劃表 Syllabus

課程名稱(中文) Course Name in Chinese	統計學 (II)			學年/學期 Academic Year/Semester	112-2
課程名稱(英文) Course Name in English	Statistics (II)				
科目代碼 Course Code	MSF10190	系級 Department & Year	資管系	開課單位 Course-Offering Department	資管系
修別 Type	一	學分數/時間 Credit(s)/Hour(s)		3/3	
授課教師 Instructor	陳玉佳 Yuh-Jia Chen				
先修課程 Prerequisite					
課程描述 Course Description					
Principles and applications of statistical methods, including central tendency, descriptive analysis of quantitative data, probability, inferential statistics involving one or more populations, and multiple linear regressions. Applications include economics, planning, market research, production/ operations, and decision theory.					
課程目標 Course Objectives					
1. Understand the basic statistics: (a) what is meant by descriptive statistics and inferential statistics, (b) distinguish among the nominal, ordinal, interval, and ratio levels of measurement (c) present the data into frequency tables and charts. 2. Demonstrate and understand the probability theories and apply them into the inferential statistics. The statistics include (1) the Sampling distribution (2) one sample Z test (3) one sample t test (4) t test for two independent samples. In addition, be able to demonstrable the ability of conducting hypothesis testing steps. 3. Understand and conduct (a) a test of hypothesis among three or more treatment means, one way ANOVA (b) the correlation and simple regression (c) a test of hypothesis comparing an observed set of frequencies to an expected distribution, Chi-square test.					
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	能以數量方法分析與解決問題。 Using quantitative methods to analyze and solve problems.				●
B	具備財務金融領域之分析能力。 Equipped with the ability to analyze finance.				●
C	能善用資訊科技進行資料分析、統整與呈現。 Using information technology to analyze, integrate, and present data.				●
D	具備國際視野與專業外語能力。 Equipped with a global vision and specialized foreign language proficiency.				○
E	具備掌握財經時事議題及研判財經趨勢之能力。 Equipped with the ability to master topics of finance and economy, and other current news, and to diagnose financial and economic tendencies.				○

F	具備一般管理的基礎知識。 Equipped with basic knowledge of management in general.	●
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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 Course Review Chapters 1-7.	
2	Chapter 8 Sampling methods and the Central Limit Theorem	
3	Chapter 10 Hypothesis Testing (Z test) Chapter 11 Two-Sample Tests of Hypothesis	
4	Test I	
5	Chapter 12 Analysis of Variance	
6	Chapter 13 Correlation and Linear Regression	
7	Chapter 13 Correlation and Linear Regression & Review for Test II	
8	Midterm Exam (Test II)	
9	Chapter 14 Multiple Regression Analysis	
10	Chapter 14 Multiple Regression Analysis	
11	Chapter 15 Nonparametric Methods Chi-Square Applications	
12	Test III	
13	Chapter 18 Forecasting with Time Series Analysis	
14	Chapter 18 Forecasting with Time Series Analysis	
15	Chapter 19 Statistical Process Control and Quality Management	
16	Chapter 19 Statistical Process Control and Quality Management	
17	Final Exam (Test IV)	
18	Flexibility	

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
Test 成績 Tests Performance	50%	V							
期中考成績 Midterm Exam	25%	V							

期末考成績 Final Exam	25%	V							
作業成績 Project	%								
其他 Miscellaneous ()	%								

評量方式補充說明

Grading & Assessments Supplemental instructions

The final grade is determined by 4 exams (Total possible points = 400).

Note: I reserve the right to correct any errors or omissions from the syllabus.

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.)

Statistical Techniques in Business & Economics, 18th ed. by Lind, Marchal & Wathen. McGraw-Hill Irwin (2021), ISBN10: 1260239470

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.)

課程預期效益

Learning Outcome	Assessment
1. Understand the basic statistics: (a) what is meant by descriptive statistics and inferential statistics, (b) distinguish among the nominal, ordinal, interval, and ratio levels of measurement (c) present the data into frequency tables and charts.	Test I
2. Demonstrate and understand the probability theories and apply them into the inferential statistics. The statistics include (1) the Sampling distribution (2) one sample Z test (3) one sample t test (4) t test for two independent samples. In addition, be able to demonstrate the ability of conducting hypothesis testing steps.	Test II
3. Understand and conduct (a) a test of hypothesis among three or more treatment means, one way ANOVA (b) the correlation and simple regression (c) a test of hypothesis comparing an observed set of frequencies to an expected distribution, Chi-square test.	Test III & Test IV

其他補充說明 (Supplemental instructions)

【請對於課程之「跨領域」與「創新」內涵，及課程之「整合性」加強說明】