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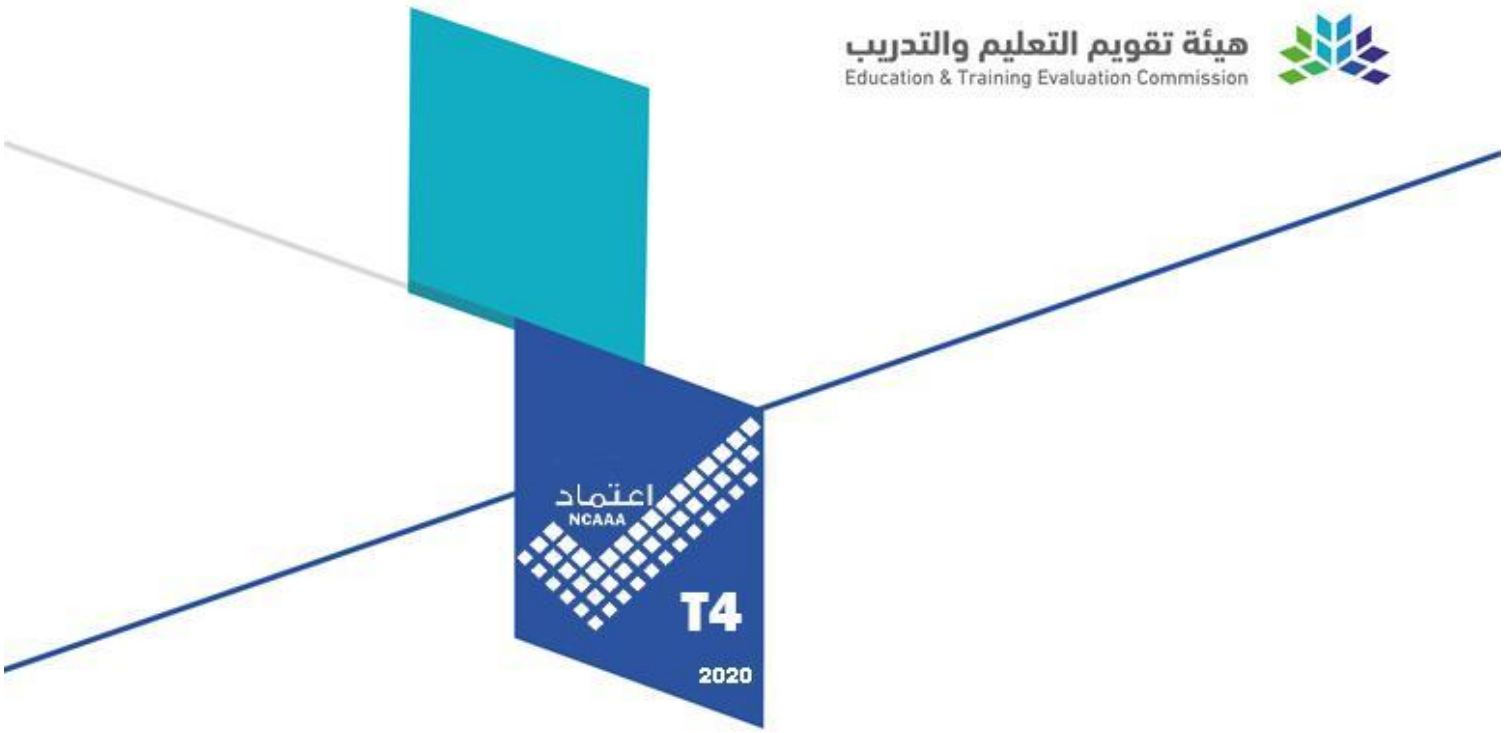
هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission



Course Specifications

Course Title:	Financial Data Analysis
Course Code:	FIN 335
Program:	Bachelor Degree (B.S.)
Department:	Finance
College:	College of Business Administration
Institution:	Prince Sultan University

Table of Contents

A. Course Identification

1. Credit hours:	
2. Course type **a.** University ☐ College ☐ Department ☒ Others ☐ **b.** Required ☐ Elective ☒	
3. Level/year at which this course is offered:	Year 3 - 2nd Semester
4. Pre-requisites for this course (if any)**:**	STAT271 and FIN310 (Corporate Finance)
5. Co-requisites for this course (if any)**:**	None

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	**Traditional classroom**	45	%100
2	**Blended**		
3	**E-learning**		
4	**Distance learning**		
5	**Other**		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	**Lecture**	35
2	**Laboratory/Studio**	10
3	**Tutorial**	
4	**Others** (specify)	
	Total	45

B. Course Objectives and Learning Outcomes

1. Course Description

This course provides basic knowledge about the main econometric techniques applicable to financial data analysis.

Econometrics can be defined as the application of mathematical and statistical methods to the analysis of economic and financial data. This course introduces basic econometric modelling techniques such as the classical linear regression, univariate time series, cointegration, volatility forecasting, and panel data. These techniques will allow the student to analyze finance related problems empirically.

Examples of econometric analysis applications in finance are estimation of the capital asset pricing model, hedonic pricing, determinants of sovereign credit ratings, time series forecasting, cointegration between international bond markets, among others.

2. Course Main Objective

The main objective of this course is to introduce finance and business students in general students to basic econometrics and data analysis techniques relevant to finance applications. At the end of this course, students should feel comfortable applying basic econometrics tools to analyze simple financial theoretical models empirically.

3. Course Learning Outcomes

	CLOs	Aligned PLOs
1	**Knowledge and Understanding**	
1.1	Analyze finance related problems empirically by applying econometric techniques.	PLO1 & PLO2
1.2	Explain various assumptions, concepts, principles, and methodologies underlying time series models for financial data	PLO1 & PLO2
1.3		
1...		
2	**Skills :**	
2.1	Use financial data to estimate econometric models.	PLO3
2.2	Estimate econometric models using the appropriate software.	PLO3
2.3	Interpret and explain estimation results in a clear manner	PLO4b
2.4		
3	**Values:**	
3.1	Collaborate in teams to analyze financial problems using econometric techniques.	PLO4a & PLO5a
3.2		
3.3		
3...		

C. Course Content

No	List of Topics	Contact Hours
1	**Introduction. Mathematical and Statistical Foundations**. Chapter 1 and 2 (selected topics)	6
2	**A Brief Overview of the Classical Linear Regression Model**. Chapter 3.	6
3	**Further Development and Analysis of the Classical Linear Regression Model** Chapter 4.	6
4	**Classical Linear Regression Model Assumptions and Diagnostic Tests** Chapter 5.	6

5	**Univariate Time-Series Modelling and Forecasting**. Chapter 6.	9
6	**Modelling Long-Run Relationships in Finance**. Chapter 8.	3
7	**Modelling Volatility and Correlation** Chapter 9.	6
8	**Panel Data**. Chapter 11.	3
Total		45

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	**Knowledge and Understanding**		
1.1	Analyze finance related problems empirically by applying econometric techniques.	- Lectures - Tutorials	**Direct:** - Assignments - Exams **Indirect:** - Course Exit Survey
2.0	**Skills**		
2.1	Use financial data to estimate econometric models.	- Lectures - Tutorials - Computer Lab sessions	**Direct:** - Assignments - Exams **Indirect:** - Course Exit Survey
2.2	Estimate econometric models using the appropriate software.	- Lectures - Tutorials - Computer Lab sessions	**Direct:** - Assignments - Exams **Indirect:** - Course Exit Survey
2.3	Interpret and communicate estimation results in a clear manner	- Lectures - Tutorials	**Direct:** - Assignments - Exams - Group project

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
			Indirect: - Course Exit Survey
3.0	**Values**		
3.1	Collaborate in teams to analyze financial problems using econometric techniques.	- Teamwork presentation	**Direct:** - Group project **Indirect:** - Course Exit Survey

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Assignments (3)	4th, 9th, 13th	15%
2	Major 1	6th	15%
3	Major 2	12th	15%
4	Group Project	15th	15%
5	Final Exam	16th	40%

***Assessment task** (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice:

Faculty is available in office hours at least 6 hours per week. Additionally, students can make appointments outside the assigned hours.

F. Learning Resources and Facilities

1.Learning Resources

Required Textbooks	Brooks, Chris (2019), **Introductory Econometrics for Finance**. Cambridge University Press, 4th Edition.
Essential References Materials	- Wooldridge, Jeffrey (2020). **Introductory Econometrics. A Modern Approach**. Cengage, 7th Edition. - Heiss, Florian (2020). **Using R for Introductory Econometrics**. 2nd Edition.
Electronic Materials	- https://www.cambridge.org/brooks4 Companion website to Brooks (2019) - https://github.com/JustinMShea/wooldridge Data sets used in Wooldridge (2020).

	- http://www.urfie.net/. Companion website to Heiss (2020).
Other Learning Materials	LMS: All information, materials, rubrics and announcements will be through Moodle.

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	• Lecture room • Multimedia with PC • Whiteboard • Computer Lab (for some sessions)
Technology Resources (AV, data show, Smart Board, software, etc.)	• Smart board
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	• R (statistics software) installed in the classroom PC and in the computer lab.

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Effectiveness of teaching and assessment	Students, Instructor	- Course exit survey - Examinations - Class observation
Extent of achievement of course learning outcomes	Students, Instructor	- Course exit survey - Examinations - Class observation - PLO-CLO Achievement and Assessment report

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)
Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)
Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	
Reference No.	
Date	