



**Department of Financial and Banking**

**College of Administration and Economic**

**University of Salahaddin-Erbil University**

**Subject: Econometrics**

**Course Book :( Year Three)**

**Lecturer's name: MSc. Saad T. Muhammed**

**Academic Year: 2023/2024**

# Course Book

<b>1. Course name</b>	<b>Econometrics</b>
<b>2. Lecturer in charge</b>	<b>Saad Taha Muhammed</b>
<b>3. Department/ College</b>	<b>Financial and Banking/ Administration and Economic</b>
<b>4. Contact</b>	<b>e-mail: saad.muhammed@su.edu.krd Tel: +964(0)750 454 9598</b>
<b>5. Time (in hours) per week</b>	<b>Theory: 2 hours</b>
<b>6. Office hours</b>	<b>Tuesday : 8:30 - 2:30 Three Class</b>
<b>7. Course code</b>	
<b>8. Teacher's academic profile</b>	<p>15/11/2015 Instructor in college of Economics and Administration - Salahaddin University / Erbil</p> <p>17/11/2007 Assist Instructor in college of Economics and Administration - Salahaddin University / Erbil</p> <p>09/2004 To 9/2007 University of Salahaddin-Erbil - M.Sc degree in Economics</p> <p>9/1995 To 9/1999 College of Administration and Economics-University of Salahaddin-Erbil - BSc degree in Economic</p> <p>10/2007 To 10/2014 Director of Computer Unit in College of Administration and Economic Supervising 14 employers in Computer Unit, Computer teacher, Arrangement all computer lessons, supervising all computers and network in college.</p> <p>For more details, please visit the website: <a href="https://academics.su.edu.krd/saad.muhammed">https://academics.su.edu.krd/saad.muhammed</a></p>
<b>9. Keywords</b>	<b>Econometrics Model, Economic theory, Statistical theory, Data and Information, Dispersion measurements.</b>
<b>10. Course overview:</b>	
<p>Econometrics is a very significant branch of Economics. Scientists specializing in the Econometrics area deal with important economic issues such as statistics of the “glass ceiling” in government and private organizations and financial forecasts.</p> <p>For students studying Economics in a university, Econometrics provides a strong analytical background and prepares those for more advanced research activities, for future finance specialists a module in Econometrics provides specific and common skills useful in the finance area.</p>	

**11. Course objective:**

Econometrics is interesting because it provides the tools to enable us to extract useful information about important economic policy issues from the available data. Students who gain expertise in econometrics will also find that they enhance their job prospects.

Econometrics is the use of statistical techniques to understand economic issues and test theories. Without evidence, economic theories are abstract and might have no bearing on reality. Econometrics is a set of tools we can use to confront theory with real-world data.

**12. Student's obligation**

Students have the obligation to participate in course examinations and other assessed performances. Examination frauds and copying of assignments or material are not allowed. Students are anticipated to attend classes and to submit assignments on the due date, for late submissions they will be penalized. Students are also expected to participate in tutorials.

That the students are ready to conduct surprise examinations (Quizzes) that may be conducted by teaching to make sure that over the course of the follow-up article to the students in the time of need. Students should do to prepare summary reports whenever the need arises and can teaching that the dividing students into groups in each group to prepare various reports of the type, according to the vocabulary material and topics that will be covered during the anchored year or regard to article of sub-themes.

**13. Forms of teaching**

Several forms of teaching will be used to reach the objectives of the course: powerPoint presentation for the head titles and summary of conclusion with applications Program Eviews that could be used in different areas.

Furthermore, students will content homework. There will be classroom discussions and the lecture will give enough background to, solve, analyses, and evaluate problems sets.

**14. Assessment scheme**

The students are required to do two closed book exams during the academic year besides the assignments;

- **Mid- term Theory Exam: 20%**
- **Practice Exam: 10%**
- **Quiz 5%**
- **Student Activity (participating) 5%**
- **Final Theory Exam: 45%**
- **Final Practice Exam: 15%**

**15. Student learning outcome:**

Studying econometrics is important. It is required in various aspects of life and it is a very important skill set to have for anyone. Learning econometrics definitely gives a student an edge over other students who haven't studied econometrics. Firms want to hire professionals who are not only logically sound but who can also leverage the available data to test various theories and justify all their theories with data analysis.

**16. Course Reading List and References:**

1- Gujarati, D.N. (2010) Basic Econometrics. 16th Edition, McGraw-Hill Companies.

- 2- Riccardo (Jack) Lucretia (2021) Basic Econometrics. 10th Edition.  
 3- Christiaan Heij and Others, Oxford University Press is a department of the University of Oxford, First published 2004, Econometric Methods with Applications in Business and Economics  
 4- Magazines and review (internet)

**17. The Topics:**

	<b>Chapter One: The Fundamentals</b>	
Week 1	Lesson 1	<u>Introduction to Econometrics</u>
	Lesson 2	<u>Aims of Econometrics</u> 1. Formulation and specification of econometric models: 2. Estimation and testing of models: 3. Use of models:
Week 2	Lesson 3	<u>Introduction to Data and Information</u> 1. Time series data 2. Cross-section data 3. Panel data: 4. Dummy variable data
Week 3	Lesson 4	<u>Econometrics theory</u> 1. Economic theory. 2. Mathematical theory. 3. Statistical theory.
Week 4	Lesson 5	<u>Some basic measurements</u> 1. Central tendency 2. Dispersion measurements 3. Correlation
	<b>Chapter Two: Concepts of Linear Regression Analysis</b>	
Week 5	Lesson 6	<u>Econometrics and regression analysis.</u> Linear regression model
Week 6	Lesson 7	<u>Steps in Regression analysis</u> 1. Statement of the problem under consideration: 2. Choice of relevant variables: 3. Collection of data on relevant variables: 4. Specification of model: 5. Choice of method for fitting the data: 6. Fitting of model: 7. Model criticism and selection 8. Objectives of regression analysis
	<b>Chapter Three: Simple Linear Regression Analysis</b>	

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Week 7	Lesson 8	The simple linear regression model Least squares estimation
Week 8	Lesson 9	Properties of the regression estimators: Unbiased property: Variances: Covariance:
Week 9	Lesson 10	Residual sum of squares: Centred Model: No intercept term model:
Week 10	Lesson 11	Testing of hypotheses and confidence interval estimation for slope parameter: Testing of hypotheses and confidence interval estimation for intercept term:
Week 11	Lesson 11	Analysis of variance: ANOVA Table
Week 12	Lesson 12	Goodness of fit of regression Prediction of values of study variable
<b>Chapter Four : Introduction to Eviews Software</b>		
Week 13	Lesson 13	Introduction to Eviews Software
	Lesson 14	Variable Definitions & Data read in Eviews
Week 14	Lesson 15	Descriptive Statistics in Eviews
	Lesson 16	Simple Linear Regression Practice on Eviews Software