FUTURE UNIVERSITY IN EGYPT جامعة المستقبل

Faculty of Economics and Political Science

Econometrics 2

Information :

Course Code :	ECO 405	**Level :**	Undergraduate	**Course Hours :**	3.00- Hours

Department : Department of Economics

Instructor Information :

Title	Name	Office hours
Lecturer	Rania Ramadan Moawad Mohamed	4

Area Of Study :

This course applies econometric methods in real-world situations as well as conducting empirical economic research, through providing students with formal background knowledge of conducting regression models, the principles of estimation (Ordinary Least Squares, Generalized Least Squares and Maximum Likelihood Estimation), hypothesis testing, and goodness of fit. The course focuses on limited dependent variable models and generalized methods of moments GMM. It explains the qualitative response regression models (probit model, tobit model, logit model), time series models (VAR, ARIMA, and state-space models). Moreover, panel data models (fixed effect and random effect models) are to be illustrated.

Course Goals:
ÅAnalyze economic data using statistical and econometric methods.
ÅBecome analytically oriented.
ÅEnhance statistical skills and prepare our students for pursuing graduate education and in becoming professional economists.
Å Extend the core working knowledge of applied econometrics

Description :

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Course outcomes :

a.Knowledge and Understanding: :	
1 -	Gain knowledge in introductory time series econometric analysis.
2 -	Acquire knowledge and understanding of advanced regression estimation and
3 -	Estimate relationships between economic variables.
4 -	Conduct hypothesis tests and draw inferences.
b.Intellectual Skills: :	
1 -	Criticize different econometric models.

2 -	Analyze the effectiveness and validity of applying econometric methods to economic time series.
3 -	Develop quantitative economic models and the application of econometric methods using economic data.
4 -	Judge whether a certain econometric method is appropriate in a given data application.
c.Professional and Practical Skills: :	
1 -	Demonstrate an understanding of and distinguish empirically between stationary and different types of non- stationary time series.
2 -	Manipulate an econometric framework for dealing with restrictions imposed by theory.
3 -	Prepare to apply in the areas of microeconomics and macroeconomics.
d.General and Transferable Skills: :	
1 -	Acquire evaluation of evidence and hypothesis; clear communication; numeracy; decision making skills and competence in information.
2 -	Justify the use of linear models in modelling economic variables.

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Introductory Lecture and Course Outline formal background knowledge of conducting regression models, the principles of estimation (Ordinary Least Squares, Generalized Least Squares)	6	2	
Multiple regression and hypothesis testing: review and extensions.	3	1	
Non-linear regression.	3	1	
Maximum likelihood estimation, asymptotic hypothesis tests.	6	2	
Midterm Exam		1	
limited dependent variable models and generalized methods of moments GMM	6	2	
Qualitative response regression models (probit model, tobit model, logit model)	6	2	
Time series models (VAR, ARIMA, and state-space models	6	2	
Panel data models (fixed effect and random effect models)	3	1	
Final Exam		1	

Teaching And Learning Methodologies :

Data show, smart board and computer in lectures

Tutorials for problem solving and applications on different statistical packages.

Course Assessment :

Methods of assessment	Relative weight %	Week No	Assess What
Course Work (Attendance, Participation, Assignments, Quizzes, Research Paperé)	30.00		To assess understanding and to assess theoretical background of the intellectual and practical skills.
Final Exam	40.00	15	To assess knowledge and intellectual skills.
Midterm Exam	30.00	7	To assess understanding and application skills.

Recommended books :

1. Christopher Dougherty, Introduction to Econometrics. Oxford University Press, 2009.
2. J. Wooldridge, Introductory Econometrics. Thompson, 2003.
3. R.Hill (et. al.), Undergraduate Econometrics. John Wiley & sons Inc., 2005.