Department	International College of Liberal Arts		
Semester	Spring 2023	Year Offered (Odd/Even/Every Year)	Every Year
Course Number	ECON290		
Course Title	Econometrics		
Prerequisites	QREA/PSCI/ECON203 Statistics		
Course Instructor	SHENG Dachen	Year Available (Grade Level)	2
Subject Area	Global Business & Economics	Number of Credits	3
Class Style	Lecture	Class Methods	Face to face

(NOTE 1) Class Methods are subject to change

(NOTE 2) Depending on the class size and the capacity of the facility, we may not be able to accommodate all students who wish to register for the course"

Course Description	Thi is an introductory-level econometrics module. It provides a solid basis of methodology to explore the causality relationship in economics and finance. Econometrics prepares students to have enough skills to treat and understand data analyses. The course starts with the concept and econometric reasoning. The data types, including cross-sectional and panel data, will be introduced, and the format of data fits R will be demonstrated to prepare the practical coding training. The ordinary least squares (OLS) is the primary regression technique in this course. Other methods are covered, including panel regression individual and time controls, dummy variable, instrumental variable, Logit, and Probit regressions. Students are encouraged to read the textbook to understand the background. Although mathematical proof and reasoning are NOT required for this course, students are encouraged to self-explore and challenge their learning capability, which is believed would help them greatly if they want an excellent numerical thesis in the near future.
Class plan based on course evaluation from previous academic year	The course contents and class delivery methods are reconsidered and modified according to the feedback from students.
Course related to the instructor's practical experience (Summary of experience)	Econometric methods are the main empirical methods used in financial field research. Almost all causality relationships and extrapolate time series studies involve econometrics.

Learning Goals	After completing the course, students should be able to: 1. Understand the purpose of econometrics and the feature of numerical research 2. Demonstrate an understanding of the methods covered 3. Demonstrate data collection, trimming, and classification skills 4. Explain the methods used in the research paper and the economic meaning of the results 5. Prove their coding skills and research methodology by completing their final projects

iCLA Diploma Policy	DP1／DP2／DP3／DP4

iCLA Diploma Policy

(DP1) To Value Knowledge — Having high oral and written communication skills to be able to both comprehend and transfer knowledge

(DP2) To Be Able to Adapt to a Changing World — Having critical, creative, problem-solving, intercultural skills, global and independent mindset to adopt to a changing world

(DP3) To Believe in Collaboration — Having a disposition to work effectively and inclusively in teams

(DP4) To Act from a Sense of Personal and Social Responsibility — Having good ethical and moral values to make positive impacts in the world

Active Learning Methods	Student-centered class with discussion and questions. Students are encouraged to participate in all class discussions and express their opinions. The class discussion would be evaluated as part of the final grade.
Use of ICT in Class	UNIPA is used to help the learning progress.
Use of ICT outside Class	UNIPA is used to help the learning progress.
Expected study hours outside class	Reading the textbook would require an average of 4 to 6 hours per chapter.
Feedback Methods	Students are welcome to raise their questions anytime in class, or privately discuss with the instructor by making an appointment in advance.

Grading Criteria		
Grading Methods	Grading Weights	Grading Content
Class participation	30%	
Comprehensive quiz	20%	
Final project	50%	Data collection 10%, Methodology 20%, Results Analysis 10%, Project Presentation 10%

Required Textbook(s)	Jeffrey M. Wooldridge, Introductory Econometrics: A Modern Approach, Seventh Edition
Other Reading Materials/URL	https://sites.google.com/site/econometricsacademy/ By Prof. Ani Katchova The econometrics academy is a great online learning resource that helps you to learn R coding.
Plagiarism Policy	Zero tolerance for any plagiarism. It is acceptable when students have demonstrated their effort but not doing well but not for any cheating behaviours.
Other Additional Notes	Students are encouraged to think independently and ask questions. Most of the assignments and questions are intuitive reasoning problems. Looking for a problem solution or solving method on the internet is OK, as long as students can demonstrate an understanding of the contents they have found. Copy the answer from your friends is NOT tolerated and it is plagiarism.

(NOTE 3) Class schedule is subject to change

Class Schedule	
Class Number	Content
Class 1	Chapter 1, Introduction, understand what econometrics is and what is the numerical model.

Class 2	Chapter 2, Simple regression
Class 3	Chapter 3, Multivariable Regression: Estimation
Class 4	Chapter 3, Multivariable Regression: Estimation
Class 5	Chapter 4, Multivariable Regression: Inference
Class 6	Chapter 4, Multivariable Regression: Inference
Class 7	Chapter 5, Asymptotic Properties of the Ordinary Least Square
Class 8	Chapter 5, Asymptotic Properties of the Ordinary Least Square
Class 9	Chapter 6, Multivariable Regression: Further Issues

Class 10	Chapter 7, Multivariable Regression Analysis with Qualitative information
Class 11	Chapter 8, Heteroskedasticity
Class 12	Data: Cross-sectional and Panel Data
Class 13	Paper study
Class 14	Pooling method and Two ways Controls
Class 15	Dummy Variables Instrumental Variables
Class 16	Paper study
Class 17	Paper study

Class 18	Data Format and R coding for OLS and Panel Regression
Class 19	Data Format and R coding for OLS and Panel Regression
Class 20	Logit and Probit regression
Class 21	Paper study
Class 22	Advanced Methods: Difference in Difference
Class 23	Paper study
Class 24	Issue of Endogenous problems and potential solutions
Class 25	Paper study

Class 26	Result Analysis and Presentation Format
Class 27	Paper study
Class 28	Paper study
Class 29	Student Short Presentation
Class 30	Student Short Presentation