UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

DEPARTMENT OF ECONOMICS

ECON 490

INTERNATIONAL MACROECONOMICS AND FORECASTING

SPRING 2022

MW 12:30 – 1:50 PM in 123 DKH

SYLLABUS

***Instructor Information*:**

Visiting Professor: Christos Agiakloglou
Office: 126 DKH
Office Hours: M & W 02:00 - 03:00 pm or by appointment
Email: agiaklis@illinois.edu

Course Description

The current course will provide a thorough presentation of the theory of Macroeconomics, the branch of Economics that deals with the study of major economic totals or aggregates related though to International concepts, such as trade balance, current account and theories of exchange rates, as well as to Forecasting. The goal of the course is to help students understand how quantitative analysis works in terms of forecasting in Economics by presenting the underlying theory and having them to work on real data. The tools you will learn in this course will allow you to analyze the behavior of many Economic/International phenomena and derive policy conclusions.

Course Prerequisites

The course will be taught in a self-contained way and therefore all materials needed for a good understanding of the concepts of this course will be presented in class. **Students do not need to worry about their statistical or econometric background.** The course will provide brief reviews of background concepts and proofs when needed.

In addition, lecture notes will be distributed to all of you as the course progresses for all the quantitative subjects covered in class. **However, you should understand that these lecture notes cannot, in any way, substitute a textbook**. The lecture notes are written in a way to assist you understanding better the material covered in class.

Recommended Textbook

- Blanchard, O. and Johnson, D., *Macroeconomics*, Pearson; 6th edition, 2012.

Other useful Textbooks in Macroeconomics

- ⇨ Krugman, P., *International Economics Theory and Policy*, Addison Wesley; 7th edition, 2005.
- ⇨ Krugman, P., *Macroeconomics*, Worth Publishers; 3rd edition, 2012.
- ⇨ Mankiw, G., *Macroeconomics*, Worth Publishers; 7th edition, 2010.
- ⇨ Schmitt-Grohé, Stephanie and Uribe, Martin, *International Macroeconomics*, Columbia University, 2014.
- ⇨ Rogoff, K. and Obstfeld, M., *Foundations of International Macroeconomics*, The MIT Press, 2005.

Other useful Textbooks in Econometrics

- ➢ Enders, W., Applied Econometric Time Series, John Wiley & Sons, Inc., 2009.
- ➢ Granger, C. W. J. and Newbold, P., Forecasting Economic Time Series, Second Edition, Academic Press, Inc., San Diego, 1986.
- ➢ Greene, W. H., Econometric Analysis, 5th edition, Prentice Hall, New Jersey, 2008.
- ➢ Johnston, J. and Dinardo, J., Econometric Methods, 4th edition, McGraw Hill, New York, 2001.
- ➢ Mills, T. and Markellos R., The Econometric Modeling of Financial Time Series, 3rd edition, Cambridge University Press, 2008.
- ➢ Pindyck, S. R. and Rubinfeld, L. D., Econometric Models and Economic Forecasts, 4th edition, McGraw Hill, 2001.
- ➢ Stock, H. J. and Watson, H. M., *Introduction to Econometrics*, 3rd edition, 2010, Pearson Addison Wesley.
- ➢ Wooldridge, J. M.,, Introductory Econometrics: A modern Approach, South Western College Publishing, 2009.

Grading

There will be 1000 total points for this course, with the following breakdown:

- *300 points for the Exam I. The date will be announced in class.*
- *350 points for the Exam II. The date will be announced in class.*

- *150 points for the three Homework Assignments*
- *200 points for the Research Paper*

The purpose of the research paper is to help you understand the behavior of an International Macroeconomic variable or a contemporary International Macroeconomic policy issue. In the first option you may select a variable and analyze its historical behavior with or without other related variables and make forecasts. For this purpose, you should select as recent observations of this variable as possible, preferably up to 2015. You should discuss and comment on the behavior of the selected variable based on theoretical and empirical arguments presented in the lectures. There are several places on the internet that you can find data for Macroeconomic variables, such as the U.S. Department of Labor Bureau of Labor Statistics (http://www.bls.gov/home.htm), the Federal Reserve Board (http://www.federalreserve.gov/), the World Bank (http://data.worldbank.org/) and the U.S. Department of Commerce for balance-of-payments accounts provided by the Bureau of Economic Analysis (BEA) (http://www.bea.gov/). Alternatively, you can select to present and analyze a current International Macroeconomic policy issue related either to the U.S. economy or that of another country. You should look for articles in the economic and financial press and policy periodicals. You should have your topic approved by me before working on the research paper. I will hold special office hours to meet with you and assist you in your research. The original articles, evidence of its source and data, should be attached to the paper upon submission. **The research paper is due by MONDAY May 2nd until 10 am in my office.**

ATTENDANCE POLICY: There is no attendance requirement per se. However, several questions on each exam will come directly out of the lectures. Thus, I strongly urge you to attend class on a regular basis.

COURSE OUTLINE: This outline represents the order of topics to be covered. Some items will receive more attention in the lectures than others, but all will be included in the material for the exams. The final exam will test you only on the material presented in the second half of the course.

I. INTRODUCTION

1. What Economics is all about?
2. The concept of International Macroeconomics
3. The concept of Quantitative analysis and Forecasting
4. Model Building

II. NATIONAL INCOME ACCOUNTS

1. The Circular-Flow Diagram
2. Measures of Income – Gross Domestic Product
3. The concept of Money
4. Future versus Present value
5. Investment criteria
6. Nominal versus Real GDP
7. Inflation rate - CPI - Price index
8. Nominal versus real growth rates
9. Unemployment rate
10. The components of expenditure
11. Stock versus flow variables

III. TIME SERIES FORECASTING

1. Smoothing techniques
2. Time series Decomposition
3. Box & Jenkins Analysis

IV. EQUILIBRIUM INCOME

1. Total Production - Supply side
2. Total Consumption - Demand side
3. Equilibrium income
4. Multipliers

V. TIME SERIES ECONOMETRICS ANALYSIS

1. Trend variable
2. Dummy variables – Seasonality
3. Breaks and trend
4. ARCH models
5. Distributed lag models
6. Autoregressive and mixed models
7. Short run and long run effects
8. Expectations
9. Non-linear models
10. Econometric models for Elasticity
11. Granger causality
12. Co-Integration
13. Unit root issues.

VI. OPEN ECONOMY & EXCHANGE RATE

1. Balance of Payments
2. Current Account
3. Trade of Balance
4. Savings - Investment and Trade Balance
5. Exchange Rate (Nominal - Real)
6. Exchange Rate & Trade Balance

VII. ECONOMIC GROWTH

1. Supply and Demand for Goods
2. The steady state
3. The Golden Rule Level of Capital
4. Population Growth and Technological progress

VIII. STABILIZATION POLICY & GOVERNMENT DEBT