90-762 Macroeconomics

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1.0 Introduction and Course Requirements

The purpose of the course is to introduce the professional master's student to the major concepts of aggregate economic analysis, or macroeconomics. Topics include the measurement of national economic activity through aggregation and the national income and product accounts, the associated measurement of prices, labor market activity, the aggregate production function, the supply and demand for interest and non-interest bearing assets, and the conduct of national debt management and the banking sector. Alternative theories of aggregate economic behavior are reviewed, and students will formulate, estimate statistically, and test alternative macro-economic models.

A novel feature of this one-semester course is the integration of macro-economic theory and policy, annual and quarterly macro-economic data, and the estimation of simplified and more complex statistical models of annual and quarterly macro-economic behavior. Each student will be expected to implement the theory provided in lecture and the textbook through a series of empirical problem sets which involve the statistical estimation and interpretation of macro-economic behavioral equations and underlying parameters for the aggregate consumption, investment, the demand for cash functions, and labor and aggregate production functions.

Data from The Economic Report of the President, the US Department of Commerce's Bureau of Economic Analysis, the database available within FairModel, and the Federal Reserve Economic Data (FRED) of the St. Louis Federal Reserve Board will be placed on Blackboard in a series of Excel spreadsheets. The last problem set, which requires the estimation and simulation of the US, Indian and Chinese (mainland) economies under varying fiscal and monetary policy environments will use FairModel for the US portion. FairModel is a complete, structural model of the US Economy maintained by Professor Ray Fair at Yale.

To be allowed to enroll in Macroeconomics, each student must have within the past 5 years already successfully completed a first course in statistics that included basic regression analysis or have the written permission of the instructor. It is expected that the student is familiar with Excel, and understands the first rudiments of calculus and the concept of a derivative. It is also presumed that the student admitted to the course has familiarity in using and interpreting results from a regression package; tutorials will be provided for STATA, a mainstream econometrics software package, which will be utilized throughout the course. A diagnostic quiz will be given the first day of class, and review sessions will be scheduled on regression analysis and its interpretation.

The problem sets presume you will have available for personal use the pc-based econometric package Stata which runs nicely under Windows, Linux, and Macintosh environments. Stata 13 is available on a limited (6 month basis), student license basis for as little as $35. Perpetual Stata is now available for $189. See: http://www.stata.com/order/new/edu/gradplan.html.

2.0 Evaluation/Grading Criteria

3.1 Evaluation Weights:

1. Midterm Exam: 25%
2. Final Exam: 40%
3. 5 Problem Sets 40% (Each problem set is worth 8% of the course grade)

Attendance Factor = Attendance Days/Class Days

Points = $\sum$ [Points Earned$_j$/Points Possible$_j$ x Evaluation Weight$_j$] , $0 \leq$ Points $\leq 100\%$

Final Points = Points x Attendance Factor

3.2 Evaluation/Grading Scale: Points and Grade

95.0	A 90.0-94.9	A- 85.0-89.9	B + 80.0-84.9	B 75.0-79.9	B-
70.0-74.9	C+ 65.0-69.9	C 60.0-64.9	C-		
55.0-54.9	D+ 50.0-54.9	D 45.0-49.9	D- 45.0	R	

Pass/Fail 70.0 or better.

4.0 Lecture # One Night/Week	**Topic**
1	Session A: Introduction/Course Overview Session B: STATA/FRED Tutorial (*Reminder: Bring laptop with STATA installed to class.*)
	Labor Day — Holiday
2	Introduction to Macroeconomics and GDP Accounts Aggregations
	Computer Lab: Regression Tutorial
3	Session A: Aggregate Production Function Session B: Labor Market Statistics, Price Statistics
	Computer Lab: Regression tutorial II (as needed)
4	Session A: Consumption Function Session B: Alternative Theories on Consumer Behavior

	Review of FairModel and STATA in labs
5	Session A: Investment Function Session B: Investment and Savings
6	Session A: Government Spending and Taxes Session B: Aggregate Demand and FairModel
7	Session A: Government Statistics Session B: Flow of Funds and International Finance
	Midterm Exam
8	Session A: Money, Banking System Session B: Money Demand
9	Session A: Business Cycles Session B: Demand for Labor Market
10	Equilibrium of Labor, Product, and Money Markets
11	Classical Model, Keynesian Model
12	Session A: Phillips Curve, Business Cycles, and Growth Models Session B: Supply Function, Labor Market
13	Session A: Foreign Exchange, Global Economy, and International Business Cycles Session B: The Euro Crisis and International Banking
	Guest Lecture: Dr. Prodipto Ghosh Final Exam Review
	Final Exam

Problem Sets

Problem Set 1: The Size of the Domestic US Economy: Before and After the July, 2013 Revision
Problem Set 2: Problem Set 2: Looking at Aggregate US and Another Country's Data
Problem Set 3: The IS function in the US Economy
Problem Set 4: Specifying and estimating a liquidity preference function
Problem Set 5: The S-LM Model for India and U.S, Bonus for China
Problem Set 6: Solving the US Debt Problem