Macroeconomics is the study of the behavior of the aggregate economic variables of a nation. These variables include aggregate output, consumption, investment, capital accumulation, and employment. The study of macroeconomics also covers the behavior of national price variables, such as the Consumer Price Index, real and nominal interest rates, and rates of inflation. We are interested in understanding how these quantities and prices interact. We want to know the determinants of the level of each at a point in time and the causes of their fluctuations over time. Not only do we want to explain aggregate behavior within a country, but we also want to explain the persistent differences that aggregate variables exhibit across countries. One area of primary importance to macroeconomists concerns cross-country disparity in the per capita level of income and in growth rates of income. By contrast, we are also faced with trying to explain the observed similarities in the properties of business cycles internationally. Finally, we want to understand how government fiscal and monetary policies influence the aggregate economy.

Approach

It is obvious that a firm’s output next year is a function of the level of investment in new equipment that is undertaken this year. Similarly, a household’s decision to borrow this year (to raise this year’s consumption) depends on how much it will have to pay in interest payments in the future. In order to explain the behavior of output and consumption in the aggregate economy -- which is comprised of lots of households and firms -- we need to understand this intertemporal dimension of economic decisions. The study of macroeconomics thus becomes the study of intertemporal choices made in the aggregate.

A major part of the course will be devoted to building simple models of economic activity. (‘Simple’ is, of course, a relative concept.) While the models will be simple, they will be relevant for understanding a more complex world. Model building provides us with an “artificial economy” in which to carry out experiments which are too costly (or impossible) to undertake in the actual economy. A simple model allows us to focus on one particular question, and those factors that are excluded are only those which are believed to be less important for resolving that particular question.

In our models we will assume that all prices (of goods and assets) are flexible and that they adjust instantaneously so that there is never excess supply or demand (of goods or assets). We refer to this set of models as “market-clearing” models. We make this assumption not because we necessarily believe that it is true, but rather because it is useful first to understand the interdependence among macroeconomic variables in this benchmark economy before we proceed to a more complex world where frictions exist. A thorough knowledge of how the market-clearing system behaves leaves us better prepared to determine the source of existing frictions, to capture these frictions accurately in our models, and to determine their implications.
Relation to other Economics Fields

The tools that you will learn in Macroeconomics will prepare you for future research in the areas of international trade and finance, public finance, resource economics, and environmental economics, to name just a few. In Macroeconomics you will gain a thorough understanding of intertemporal decision-making. In virtually all fields of economics, you will encounter problems of a dynamic nature. In resource economics and environmental economics, for example, the focus is on the depletion of some resource (oil, clean air, etc.) over time. In international finance we would like to understand international capital flows. To explain such cross-country investments we need to recognize that these investments take place in order to generate future income, and we need to apply a model that incorporates this intertemporal decision-making process. These are just two examples of many. Consequently, you will find that the skills you learn this term will be exceedingly useful in your future economics courses as well.

Course Requirements

Problem sets will be assigned throughout the term. These assignments will draw from the packet of "Review Questions" on file on the third floor. In addition, you will be asked to work through some problems from Blanchard and Fischer and others to be distributed in class. While these problem sets will not count in your final grade, it is imperative that you do them. The development of the skills needed to analyze macroeconomic (and other) issues requires practice in constructing and solving problems. The objective is to learn to understand an issue using the simplest appropriate economic model. I encourage you to form study groups and to work on these assignments with some of your classmates. Review sessions will be scheduled to go over each of these problem sets.

There will be three examinations -- an in-class midterm (35% of final grade), a take-home midterm (30%) and an in-class final (35%). The take-home exam allows you the opportunity to explore fully the technical aspects involved in examining the problem and to connect that technical analysis with its intuitive explanation. Some examples of past in-class exam questions can be found in the review-questions packet.

All readings marked with an asterisk are required. The additional references are provided in the event that you wish to learn more about one of the topics.

Questions and answers

I will hold office hours on Mondays from 3:30pm-5:00pm, on Wednesdays from 1pm-2:30pm, and by appointment. My office is room 14B (enter through the McGuire Center) and phone is 492-5923.
Course Details

Textbooks


**Recommended:** Robert Barro, *Macroeconomics*, 4th Edition, Wiley Press. (This book is highly recommended as background reading throughout the course. Relevant chapters are given below in parentheses.)

**Additional Sources:**

Requirements

**Readings:**
Required readings are marked with an asterisk. One copy of each article on this list is on file in the filing cabinet in the graduate student lounge on the third floor.

**Exams:**
There will be two midterms and a final exam. **Make-up exams will be given only under extremely extenuating circumstances.** Notification and arrangements must be made before the exam.

**Problem Sets:**
Problem sets will be assigned throughout the course, but will not count towards your final grade. Review sessions on these assignments will be conducted by your TA for this class, Charles Rossman. Charles Rossman’s office hours are M 2-3:30 and W 3-4. His office is room 309c. The third floor phone number is 492-6875 and Charles’ home phone is 440-8656. Review sessions will be held Wednesdays 4:00-5:30.

**Abbreviations**
- AER: American Economic Review
- CJE: Canadian Journal of Economics
- EMA: Econometrica
- JEP: Journal of Economic Perspectives
- JET: Journal of Economic Theory
- JME: Journal of Monetary Economics
- JPE: Journal of Political Economy
- QJE: Quarterly Journal of Economics
- RES: Review of Economic Studies
Course Outline and Reading List

I. Introduction

* BF, Ch. 1

* Barro MBCT, Introduction

II. Review of the Basic Market-Clearing Model

A. The Role of Individual Choice in Production and Consumption Patterns

(Barro, Chs. 1-3)

* Supplemental Notes, sections I and II.


B. Money and Inflation

(Barro, Chs. 4,5,7,8)


* BF, Ch. 4.7


Friedman, "The Optimum Quantity of Money," in The Optimum Quantity of Money and Other Essays.


III. Investment and Growth

A. Non-Monetary Models

(Barro, Chs. 9, 10)

* Supplemental Notes, sections III and IV.
* BF, Ch. 2.1-2.2 (p.37-52)

SL, Ch. 2 (A more detailed analysis is contained in Chs. 4-6)
Romer, "Capital Accumulation and the Theory of Long-Run Growth," Ch. 2 in Barro MBCT.

B. Monetary Models


Johnson, "Money in a Neo-Classical, One-Sector Growth Model," in Essays in Monetary Economics, Ch. 4.

IV. Public Policy

A. Government Expenditures, Taxes, and Debt

(Barro, Chs. 12-14)

* BF, Ch. 2.3

* Barro, "The Neoclassical Approach to Fiscal Policy," Ch. 5 in Barro MBCT.


B. Rational Expectations and Policy Evaluation


Chari, Kehoe, and Prescott, "Time Consistency and Policy," Ch. 7 in MBCT.

V. An Introduction to Equilibrium Models of Business Cycles


* McCallum, "Real Business Cycle Models," Ch. 2 in Barro MBCT.

