

**Economics 418: Business Cycles**  
*Fall, 2005*

Lorch 312  
Office Hours: Monday 2:30–3:30, Wednesday 3:30–4:00  
764-2375

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**I. Course Description**

Economics 418—“Business Cycles”—is the most advanced undergraduate macroeconomics course in the curriculum at the University of Michigan. I will assume that you are comfortable with the use of graphs, algebra, logarithms and calculus, and that you are willing to learn about differential equations. I will also assume that you are comfortable with the material in Economics 401 (intermediate micro), as well as, of course, the material in Economics 402 (intermediate macro). Most importantly, I will assume that you have a genuine intellectual interest in economics and the interplay between abstract mathematical theory and empirical facts that is the heart of modern economics.

This is the sixth time I have taught the course. Given my past experience with the course I view Economics 418 as a successful experiment testing my hypothesis that the most highly motivated and intellectually curious undergraduates at the University of Michigan can deal well with a great deal of material that has ordinarily been thought to be too difficult for undergraduates.

The heart of Economics 418 is class discussion and lectures. Class participation will be crucial to the success of the course and much of the material will only be available in the lectures. If you decide to take the course, I will expect you to attend every class and be willing to participate in class discussion. Most of the time I will use ordinary questions and answers and class discussion, but in order to make periodic use of (a kinder, gentler version of) the Socratic method and to encourage preparation and class participation, at various points in the course I will choose a student at random for a dialogue. You will get full credit for class attendance and participation as long as you are present and willing to participate.<sup>2</sup> I will give extra credit for especially good class participation at any time throughout the semester.

Because of the primacy of class discussion and the Socratic method, the course is nonlinear. Taking questions seriously may require significant detours. There will be a substantial amount of jumping from one topic to another, backtracking, and circling around topics. With difficult material as in this course, it is especially valuable to revisit topics from time to time from a different angle. Often, what didn't make sense to you from one point of view finally clicks when looked at from another point of view.

This is a course meant to give undergraduates a taste of macroeconomics at the frontier. At the cutting edge, macroeconomics is much more closely tied to microeconomics than would be apparent from what you learned in Intermediate Macro. Modern macroeconomic models are built up from utility functions, technology and market structure. Economics 418 studies the response of such microeconomically-based macroeconomic models to monetary, fiscal and technology shocks—in particular, the dynamic response of things like consumption, investment, the real wage and real interest rate, output, etc. We will study the Basic Real Business Cycle Model as well as the Basic Neomonetarist Model (which looks at the implications of price stickiness in an otherwise optimizing model). These two models are the basis of what has been called the New Neoclassical Synthesis. The New Neoclassical Synthesis is an emerging consensus on the nature of business cycles that would replace the old Neoclassical Synthesis embodied in traditional macroeconomics textbooks. I have been one of the pioneers in working on the New Neoclassical Synthesis.

The bottom line is that this course is not for everyone. I am expecting to have about 40 students who still want to take the class once you have all had the chance to think hard about whether this is the right course for you. So I hope to be able to let in everyone who is up to the challenge.

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<sup>1</sup> I encourage you to use electronic mail to ask questions or send messages. I have found that electronic mail works well.

<sup>2</sup> If you must be absent, I will expect you to send me an e-mail message to that effect in advance. I will let you know if these prearranged absences become excessive.

The issues we will discuss in this course are very important for understanding current events.<sup>3</sup> The interaction of theory and current events is a central aspect of the course, which is why I ask each of you to subscribe to the Wall Street Journal during this semester.

## II. Books Required

### The Wall Street Journal

Weitzman, Martin, *The Share Economy*

Krugman, Paul, *The Return of Depression Economics*

## III. Assignments and Grading

There will be one in-class exam on Wednesday, October 26, worth 30% of your grade and a final exam in this room on the day shown in the exam schedule worth 40% of your grade. My reading of the exam schedule has the Final Exam on:

Wednesday, December 21, 4–6 PM.

(My policy is to not do make-up exams, so don't count on that.)

In order to encourage you to read the *Wall Street Journal* regularly, to give you some low-pressure practice in writing, and to make it possible to give Upper Level Writing Requirement credit for the course, there will be a 3+ page essay on some current article or articles related to macroeconomics due every Monday. These essays will be 15% of your grade. No late essays will be accepted (early is fine). The remaining 15% will be based on class attendance and participation and good-faith completion of miscellaneous homework assignments, including doing some critiques of your fellow students' papers.<sup>4</sup>

BE SURE YOU HAVE REGISTERED FOR UPPER LEVEL WRITING CREDIT FOR THIS COURSE ELECTRONICALLY.

## IV. Course Outline

You are expected to read *The Share Economy* in the first few weeks of the course and *The Return of Depression Economics* by Wednesday, October 12. You are also expected to read the newspaper and magazine articles in the coursepack and in handouts and to generally keep up with current macroeconomic events as reported by the Wall Street Journal. You are unlikely to be able to understand the coursepack chapters on “The Basic Neomonetarist Model” or on the “Basic Real Business Cycle Model” until we have gone over the material in lecture.

As mentioned above, the core of the course is in the lectures and class discussion. The course can be divided into four roughly equal parts:

- I. Constructing the Neomonetarist Model, Analyzing the Great Depression, and Analyzing Ultra-Short-Run Dynamics in Response to Aggregate Expenditure Shocks,
- II. Analyzing Short-Run Macroeconomic Dynamics in Response to Monetary Shocks,
- III. Analyzing Short-Run Macroeconomic Dynamics in Response to Real Shocks (=Supply Shocks), and
- IV. Analyzing Medium-Run Macroeconomic Dynamics (Real Business Cycles).

Constructing the Neomonetarist Model and learning how to analyze dynamics with the phase diagram for the first time are the hardest parts of the course. The single hardest thing is deriving the equation for inflation dynamics.

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<sup>3</sup> For example, (1) the economy has recently been in a recession—a recession that was unusual in that output per work-hour continued to increase throughout the recession; (2) manufacturing productivity continues to improve at a quick pace and manufacturing employment is declining; (3) the world economy is getting ever more tightly integrated; (4) the economy seems to be shrugging off higher oil prices; (5) housing construction seems to have been especially important in this recovery.

<sup>4</sup> Note that this course has a much heavier analytical component than most Upper Level Writing courses. Because of the high mathematical and intellectual level of the course, it is not appropriate or wise to take this course simply to satisfy the Upper Level Writing requirement.