Equilibrium Macroeconomics (Economics 348)
Wesleyan University, Spring 2014

Professor: Bill Craighead  
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Office hours: Monday, 4:15 - 5:30 pm; Tuesday, 1:00 - 3:00 pm; and by appointment

Class meets Monday and Wednesday, 2:40 - 4:00 pm, in PAC 002

Since the 1970’s, macroeconomics has witnessed a dramatic methodological shift away from models based on assumed relationships among aggregate variables (e.g., the IS-LM model), in favor of models derived from microeconomic foundations. Contemporary macroeconomic theory is grounded in the optimizing behavior of households and firms in dynamic general equilibrium settings. This course introduces some of the fundamental concepts, techniques and language of modern macroeconomics with the intention of developing a set of tools that will enable students to better understand current research.

The primary reference books for the course are Fabio-Cesare Bagliano and Giuseppe Bertola, *Models for Dynamic Macroeconomics* (Oxford) and Michael Wickens, *Macroeconomic Theory: A Dynamic General Equilibrium Approach* (Princeton). Other readings will be available through moodle or library reserve.

Economics is learned by practice. Approximately 4-7 problem sets will be assigned during the semester. Students may work together, but must turn in the assignments individually. Late assignments will not be accepted and no extensions will be granted. Each student’s lowest problem set grade will be dropped from the overall grade calculation.

Grades will be calculated as a weighted average, based on the problem sets (10%), two in-class midterm exams (20% each), a final paper (20%) and a comprehensive final exam (30%). Dates for the midterm exams will be announced in class. Midterm exams will not be given late; in the event of a serious illness, family emergency or university-sponsored travel, students may ask, in advance, for permission to take exams early or to have weight added to the final exam grade in place of the midterm. The final exam is scheduled for Wednesday, May 14, at 2:00 pm.

The use of electronic devices such as computers, mobile phones, etc. – *including for text messaging* – is not permitted in class.

Students requiring disability accommodations should request them through disability resources (Dean Patey) at the beginning of the semester.

*Trust and honesty are vital to the functioning of an academic community; adherence to the Honor Code is expected at all times.*

This syllabus and the course outline are subject to modifications, which will be announced in class.
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Course Outline and Reading List

“Bagliano” refers to Fabio-Cesare Bagliano and Giuseppe Bertola, Models for Dynamic Macroeconomics (Oxford)
“Wickens” refers to Michael Wickens, Macroeconomic Theory: A Dynamic General Equilibrium Approach, 2nd ed. (Princeton)
Readings marked (o) are optional

I. Prologue: Getting to Modern Macroeconomics
Topics/concepts
• Rational expectations
• Lucas critique
Readings
• Nobel Prize Announcement for Robert Lucas (1995)
• Wickens, 1.1-1.3

II. Technology, Capital Accumulation and Economic Growth
Topics/concepts
• Growth accounting
• Solow residual
• Convergence
• Solow model
Readings
• Lecture note “Technology, Capital Accumulation and Economic Growth”
• Bagliano, 4.1, 4.4

III. Consumption: Basic Concepts in a Two-Period Model
Topics/concepts
• Lagrangian
• Euler equation
• Intertemporal elasticity
• Mathematical expectation
• Risk aversion

Readings
• Lecture note “Consumption: Basic Concepts in a Two-Period Model”
• Wickens, 4.2.3, 11.2

IV. General Equilibrium: Basic Concepts
Topics/concepts
• Competitive equilibrium
• Pareto optimality
• Welfare theorems
• Social planner
• State-contingent claims
• Risk sharing
• Market completeness

Readings
• Lecture note “General Equilibrium: Basic Concepts”
• Wickens, 11.5, 11.9
• (o) H. Varian, *Microeconomic Analysis*, ch. 18-19

V. Consumption in a Deterministic Dynamic Endowment Economy
Topics/concepts
• Life-cycle hypothesis
• Permanent income hypothesis
• Ricardian equivalence
• Hyperbolic discounting
• Dynamic inconsistency

Readings
• Bagliano, 1.1
• Wickens, 4.1-4.4, 5.1-5.3
• Lecture note “Consumption in Dynamic Economies,” 1, 2
• (o) O. Attanasio and G. Weber, “Consumption and Saving: Models of Intertemporal Allocation and Their Implications for Public Policy,” *Journal of Economic Literature* 48:3 (Sep. 2010)
• (o) C. I. Plosser, “Credibility and Commitment,” Speech, March 6, 2007
VI. Consumption in a Stochastic Dynamic Endowment Economy

Topics/concepts
- Random walk hypothesis
- Precautionary saving
- Consumption CAPM
- Equity Premium

Readings
- Bagliano, 1
- Wickens, 11.6, 12.2.2
- Lecture note “Consumption in Dynamic Economies,” 3-6

VII. Consumption and Capital Accumulation in a Dynamic Economy

Topics/concepts
- Ramsey model
- Hamiltonian
- Phase diagram
- Linearization

Readings
- Lecture note “Capital and Labor in Dynamic Economies,” 1, 2
- Bagliano, 4.2-4.4
- Wickens, 2.1-2.4
- (o) R. Barro and X. Sala-i-Martin, Economic Growth, Appendix on Mathematical Methods, 1.3

VIII. Consumption, Capital Accumulation and Leisure in a Dynamic Economy

Topics/concepts
- Distortionary taxation

Readings
- Lecture note “Capital and Labor in Dynamic Economies,” 3
- Wickens, 4.6, 5.7.2-6.2

IX. Real Business Cycles

Topics/concepts
- Hodrick-Prescott filter
• Calibration
• Linearization

Readings
• Lecture note “Capital and Labor in Dynamic Economies,” 4
  Wickens, 16
• (o) E. C. Prescott, “Response to a Skeptic,” Federal Reserve Bank of Minneapolis Quarterly Review 10:4 (Fall 1986)

X. Money in a New Keynesian Economy
Topics/concepts
• Monopolistic competition
• Menu costs
• New Keynesian Phillips Curve
• Taylor rule

Readings
• Lecture note “Monetary Policy and Imperfect Competition in Dynamic Economies”
  Wickens, 9

XI. Conclusion
Readings