

UNIVERSITY OF COLORADO

Department of Economics

ECON7020: MACROECONOMIC THEORY I

FALL 2017

Instructor:	Martin Boileau
Class:	Econ 119; TTH 12:30 to 13:45
Office:	Economics 215; TTH 14:00 to 15:00
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COURSE DESCRIPTION

This course is an introduction to modern macroeconomic theory. We will focus our attention on dynamic optimization and general equilibrium models. Most of the typical topics in macroeconomics are covered. These topics includes growth, consumption, production, investment, fiscal policy, and monetary policy.

The course has two objectives. The first is the presentation of the tools required to study dynamic, stochastic, general equilibrium models. The second is the application of these tools to topics in macroeconomics.

EVALUATION

The assessment for this class consists of a two (2) term test and a final exam. Tests and final exam are closed notes and closed books. No make-up tests will be given. The tentative schedule and the grade distribution are displayed in the table below.

Evaluation	Date	%
Term Test 1	Week 6: 5 October	25
Term Test 2	Week 12: 16 November	25
Final Exam	18 December from 16:30 to 19:00	50

REQUIRED TEXTS

Ljungqvist, Lars and Thomas J. Sargent, *Recursive Macroeconomic Theory*, Cambridge: MIT Press.

BACKGROUND TEXTS

Barro, Robert J. and Xavier Sala-i-Martin, *Economic Growth*, New York: McGraw Hill.

Blanchard, Olivier J. and Stanley Fischer, *Lectures on Macroeconomics*, Cambridge: MIT Press.

Dixit, Avinash K., *Optimization in Economic Theory*, Second Edition, Oxford: Oxford University Press.

Farmer, Roger E., *The Macroeconomics of Self-Fulfilling Prophecies*, Cambridge: MIT Press.

Intriligator, Michael D, *Mathematical Optimization and Economic Theory*, Englewood Cliffs: Prentice Hall.

Romer, David, *Advanced Macroeconomics*, New York: McGraw-Hill.

Sargent, Thomas J., *Dynamic Macroeconomic Theory*, Cambridge: Harvard University Press.

COURSE OUTLINE

I. INTRODUCTION

1. Background Issues
 - Blanchard and Fischer: Chapter 1
 - Romer: Introduction
2. Tools and Models
 - Dixit: Chapters 1 through 8
3. National Income Accounting for Closed Economies

II. THE SOLOW-SWAN GROWTH MODEL: A REVIEW

1. Background Issues
2. The Solow Growth Model
 - Barro and Sala-i-Martin: Chapter 1
 - Romer: Chapter 1
 - Solow, Robert M., 1956, A Contribution to the Theory of Economic Growth, *Quarterly Journal of Economics* **70**, 65–94.

III. TWO-PERIOD ECONOMIES

1. Consumption
 - Boileau, Lecture Notes Sections 1 through 3
2. A Pure Exchange Economy
 - Boileau, Lecture Notes Section 4
 - Farmer: Chapter 4
3. A Production Economy
 - Boileau, Lecture Notes Sections 5 and 6

IV. INFINITE HORIZON ECONOMIES: DISCRETE TIME

1. Dynamic Programming
 - Dixit: Chapters 10 and 11
 - Ljungqvist and Sargent: Chapters 2 to 5
2. The Neoclassical Growth Model
 - Boileau, Lecture Notes.
 - Ljungqvist and Sargent: Chapter 15

V. INFINITE HORIZON ECONOMIES: CONTINUOUS TIME

1. Hamiltonian
 - Boileau, Lecture Notes.
 - Dixit: Chapters 10 and 11
 - Intriligator: Chapters 11 to 15
2. The Neoclassical Growth Model
 - Barro and Sala-i-Martin: Chapter 2
 - Blanchard and Fischer: Chapter 2
 - Intriligator: Chapter 16
 - Romer: Chapter 2 part A

VI. ISSUES IN THE REPRESENTATIVE AGENT GROWTH MODEL

1. Taxation
 - Ljungqvist and Sargent: Chapters 10 and 11
2. Endogenous Growth
 - Barro and Sala-i-Martin: Chapters 4 and 5

VII. OVERLAPPING GENERATIONS MODELS

1. Discrete Time: OLG
 - Romer: Chapter 2 part B
2. Continuous Time: Perpetual Youth
 - Banchard, O., 1985. Debt, Deficits, and Finite Horizon. *Journal of Political Economy* **93**.
 - *Blanchard and Fisher*: Chapter 3.3

University Policies

You should familiarize yourself with the following University of Colorado policies:

ACCOMMODATION FOR DISABILITIES

All faculty assume responsibility for ensuring that their individual courses and content are accessible to all students. Please utilize principles of Universal Design when creating new courses; otherwise, make appropriate alterations to existing material to accommodate students who require assistance. You may contact our Universal Instructional Design Consultant on the Academic Technology Design Team in the Office of Information Technology for more information by calling 303-735-4357 (5-HELP).

Faculty consultations with an Access Coordinator in Disability Services serve as an opportunity to provide clarity and guidance regarding the implementation of accommodations and working with students with disabilities. To request an appointment with an Access Coordinator, contact Disability Services at dsinfo@colorado.edu or 303-492-8671

THE BOULDER PROVOST'S DISABILITY TASK FORCE:

If you qualify for accommodations because of a disability, please submit your accommodation letter from Disability Services to your faculty member in a timely manner so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities in the academic environment. Information on requesting accommodations is located on the Disability Services website:

www.colorado.edu/disabilityservices/students.

Contact Disability Services at 303-492-8671 or dsinfo@colorado.edu for further assistance. If you have a temporary medical condition or injury, see Temporary Medical Conditions under the Students tab on the Disability Services website and discuss your needs with your professor.

RELIGIOUS HOLIDAYS

It is the responsibility of every instructor to explain clearly her or his procedures about absences due to religious observances in the course syllabus so that all students are fully informed, in writing, near the beginning of each semester's classes. Campus policy regarding religious observances states that faculty must make reasonable accommodations for students and in so doing, be careful not to inhibit or penalize those students who are exercising their rights to religious observance. Faculty should be aware that a given religious holiday may be observed with very different levels of attentiveness by different members of the same religious group and thus may require careful consideration to the particulars of each individual case. For more information on the religious holidays most commonly observed by CU Boulder students consult the online interfaith calendar.

RELIGIOUS OBSERVANCES:

Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. See the campus policy regarding religious observances for full details.

CLASSROOM BEHAVIOR:

Students and faculty each have responsibility for maintaining an appropriate learning environment. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation or political philosophy. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records. For more information, see the policies on classroom behavior and the Student Code of Conduct.

THE OFFICE OF INSTITUTIONAL EQUITY AND COMPLIANCE:

The University of Colorado Boulder (CU Boulder) is committed to maintaining a positive learning, working, and living environment. CU Boulder will not tolerate acts of sexual misconduct, discrimination, harassment or related retaliation against or by any employee or student. CU's Sexual Misconduct Policy prohibits sexual assault, sexual exploitation, sexual harassment, intimate partner abuse (dating or domestic violence), stalking or related retaliation. CU Boulder's Discrimination and Harassment Policy prohibits discrimination, harassment or related retaliation based on race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation or political philosophy. Individuals who believe they have been subject to misconduct under either policy should contact the Office of Institutional Equity and Compliance (OIEC) at 303-492-2127. Information about the OIEC, the above referenced policies, and the campus resources available to assist individuals regarding sexual misconduct, discrimination, harassment or related retaliation can be found at the OIEC website.

HONOR CODE:

All students enrolled in a University of Colorado Boulder course are responsible for knowing and adhering to the academic integrity policy. Violations of the policy may include: plagiarism, cheating, fabrication, lying, bribery, threat, unauthorized access to academic materials, clicker fraud, resubmission, and aiding academic dishonesty. All incidents of academic misconduct will be reported to the Honor Code Council (honor@colorado.edu; 303-735-2273). Students who are found responsible for violating the academic integrity policy will be subject to nonacademic sanctions from the Honor Code Council as well as academic sanctions from the faculty member. Additional information regarding the academic integrity policy can be found at the Honor Code Office website.