Macroeconomics II - ECON 9040
Spring 2018

1 Course Information

Instructor: Dr. John Gibson

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Office Hours: Tuesday and Thursday 1:00 pm - 2:00 pm or by appointment

Class Time: Tuesday and Thursday 11:00 am - 12:15 pm, Classroom South 200

Prerequisite: ECON 8030 & 9020

Other Required Materials: Internet capable computer with LaTeX installed.

Catalog Description: This is the second of two advanced macroeconomic courses designed to bring graduate students to the frontier of current research. Topics in this course include money and monetary policy, unemployment, and theories of economic fluctuations. Strong attention will be paid to policy implications.

Course Objective: There are two sets of objectives for this course. One is to cover the mathematical modeling of Dynamic Stochastic General Equilibrium (DSGE) Models in common usage in research in macroeconomic theory. We will focus exclusively on discrete time methods - which are used in business cycle theory, macro-labor, macro-finance, and macroeconomic policy analysis. The second objective is to provide a basic introduction to MATLAB, which can be used to approximate solutions to the models described in class. Together, these two objectives provide an introduction to the following policy relevant topics: (i) asset pricing (ii) business cycle theory (iii) labor search frictions and equilibrium unemployment (iv) monetary policy (v) limited insurance/incomplete markets.

Method of Instruction: ECON 9040 is taught through a combination of lecture, discussion, homework, and examinations. Class interaction allows students to discover the

strengths and weaknesses of alternative policy recommendations.

Required Textbook:

- Recursive Macroeconomic Theory, 3rd Ed., by Lars Ljungqvist and Thomas Sargent.

- Monetary Policy, Inflation, and the Business Cycle, 2nd Ed., by Jordi Gali

These textbook will be supplemented by a combination of class notes and academic papers.

Attendance: Attendance is mandatory. University policy states that all instructors must, on a date after the mid-point of the course (to be set by the Provost), 1. Give a WF to all those students who are on their rolls, but are no longer taking the class; and 2. Report the last day the student attended the class or turned in an assignment.

2 Grading Policy

Grades will be based on homework assignments (10%) and three exams (30% each). The exams will be conducted on February 9, March 23, and April 26 (10:45 - 1:15) respectively. Makeup exams will not be given. You will also receive one homework assignment for each of the modules listed below. You will complete these assignments in groups of three. The material covered in these assignments will provide a great starting place for studying for our exams as well as your Macro Comp. All homework assignments must be typed in LaTeX.

To guarantee yourself a particular grade, you must obtain the following percentages of the available points:

$$
\begin{array}{lll}
A+ \geq 96\%; & A \in [92\%, 95\%]; & A- \in [88\%, 91\%] \\
B+ \in [85\%, 87\%]; & B \in [82\%, 84\%]; & B- \in [78\%, 81\%]; \\
C+ \in [75\%, 77\%]; & C \in [72\%, 74\%]; & C- \in [68\%, 71\%]; \\
D \quad \in [58\%, 67\%]; & & \\
F < 58\% & &
\end{array}
$$

Course grades will be determined strictly on the basis of cumulative points. **There will be no exception to this grading scheme (no extra credit assignments, no ignoring test scores, no additional weight given for improvement).**

Students are responsible for the information contained in the Academic Honesty policy found in the Graduate Catalog (`http://www.gsu.edu/es/catalogs_courses.html`).

3 Course Outline

This course outline provides a general plan for the course; deviations may be necessary.

- **Complete Markets and Market Structures (January 9 - January 16)**

    - Competitive Equilibrium VS Planner's Problem
    - Arrow-Debreu VS Sequential Markets
    - Review of Markov Processes
    - Equivalence of Market Structures with Stochastic Endowments

- **Business Cycles (January 18 - February 6)**

    - Background Information - Data and Facts
    - The Real Business Cycle Model (RBC)
    - Calibrating the Model
    - Assessing the Model's Fit to the Data
    - Capital Adjustment Costs and Habit Persistence
    - Indivisible Labor
    - Labor Market Search Model

- **Exam 1 (Friday, February 9th)**

- **Intro to Monetary Economics (February 8 - February 27)**

    - Background Information - Data and Facts
    - Monetary Models and the Neutrality of Money
    - Nominal Rigidities
    - Monopolistic Competition and Sticky Prices
    - Sticky Wage Models
    - New Keynesian Model

- **Asset Pricing (March 1 - March 20)**

    - Background
    - Pricing Kernals
    - Asset Tree Model
    - Equity Premium Puzzle

- Possible Solutions to the Equity Premium Puzzle

- **Exam 2 (March 23)**

- **Incomplete Markets Models (March 22 - April 3)**

  - Understanding Income and Wealth Distributions
  - Motivation and Introduction to Incomplete Markets Models
  - Uninsurable Idiosyncratic Risk

- **Overlapping Generations (OLG) Environment (April 5 - April 19)**

  - Basic Setup
  - Differences Between OLG and Arrow-Debreu
  - Retirement and Social Security Problems
  - Bequests and Intergenerational Transfers

- **Exam 3 (April 26, 10:45 am - 1:15 pm)**

4 Other Important Information

4.1 Students With Disabilities

A student who has a disability that may require accommodations should contact the instructor during the first week of class. Students are also required to provide documentation from GSU Disability Services, see `http://disability.gsu.edu/`. Students who wish to request accommodations for a disability may do so by registering with the Office of Disability Services. Students may only be accommodated upon issuance by the Office of Disability Services of a signed Accommodation Plan and are responsible for providing a copy of that plan to the instructors of all classes in which an accommodation is sought.

4.2 Course Withdrawal

Students who withdraw after the midpoint of each term will not be eligible for a "W" except in cases of hardship. A student who withdraws after the midpoint of the term is assigned a grade of "WF", except in those cases in which:

- Hardship status is determined by the office of the Dean of Students:
  http://deanofstudents.gsu.edu/student-assistance/emergency-withdrawal/

- The student is doing passing work, as determined by the student's instructor.

Effective Fall 2006, students are limited to a total of six withdrawls during their academic career, see http://www.gsu.edu/registrar/withdrawals.html for more information on the University policy.

4.3 Grades of Incomplete

A grade of Incomplete will only be given to students who are passing the course, and even then, only in very special circumstances. In the case where an incomplete is awarded, it must be removed by the end of the next term that the student is enrolled (and within two terms regardless of whether the student is enrolled) or it will automatically turn into an "F". See http://registrar.gsu.edu/academic-records/grading/ for more information on GSU's policy on removal of Incomplete.

4.4 Syllabus

This syllabus contains important information about this class including coverage of course material, class policies, and my contact information. Students are responsible for reading this syllabus and understanding the information contained in it.

4.5 Course Evaluation

Your constructive assessment of this course plays an indispensable role in shaping education at Georgia State. Upon completing the course, please take the time to fill out the online course evaluation.