

**Economics 420**  
**Intermediate Macroeconomics**

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**Information**

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**Prerequisites:** You are assumed to have passed principles of micro and macroeconomics, and have taken at least one semester of differential calculus.

**Introduction:** This course presents modern theory and methods for analyzing major stylized “facts” about macroeconomics (e.g. real income growth, short-run unemployment and inflation correlation, sticky wages); the role of labor; monetary and fiscal policy objectives; apparent business cycles, their causes, and their short and long run impacts; and the formation of expectations by economic agents. We will investigate competing models and “theories” espoused to explain major processes and compare their predictions with the data, including the Classical Model; the Keynesian IS/LS, AS/AD and business cycle model; Solow’s growth model; Engodenous Growth, and Overlapping Generations Model. We will pay particular attention to the role of the government in terms of monetary and fiscal policy, and in the theory-driven context of “optimal taxation”. We will also study the principle of “rational expectations”, and the role of expectations in the formation of optimal agent behavior, and optimal empirical modeling. Underlying all topics will be ample empirical evidence shared by most developed countries most of the time.

**Course Information**

Homework assignments, data web-sites, government web-sites, answer keys and announcements will be posted on my web-page.

**Required Test Book**

“Macroeconomics” by Olivier Blanchard, Prentice Hall, 4<sup>th</sup> edition, ISBN 0131860267.

**Course Structure**

There will be 2 tests (midterm = 30%, final = 40%), mathematical assignments and data analysis exercises (30%). Grades will be scaled relative to the performance of your classmates.

Only under a document medical emergency can the midterm be skipped: in this case the final exam will be weighted 70%. The final exam, however, cannot be skipped under any circumstance.

### **Homework**

Students may consult with each other as they work on homeworks (in fact, you are invited to do so), but all students must turn in their own work. If two or more students have identical answers to some problem(s), both will receive an "F" in the course and be reported to the Dean's office.

Homework can only be turned in *early*, or on the *due date at the beginning of lecture*. Under no circumstances will late homework assignments be accepted, including legal/medical emergencies. Homework cannot be emailed (I will delete the email without even reading the attached homework), cannot be placed in my mailbox, nor placed under the door of my office. There are no exceptions. If you foresee a problem please contact me so we can workout a fair option that involves handing the assignment in early.

If a student cannot be present on the due date of a homework due to a UNC sanctioned event, *nor* can they reasonably turn in the assignment *early* (e.g. the student must be out of town for a week), and can provide proof of such **AT LEAST ONE WEEK PRIOR TO THE DUE DATE**, then the remaining homeworks will be re-weighted.

### **Quiz Policy**

I hold the right to give pop quizzes at any time, unannounced (hence "pop"). Quizzes are *counted as a homework assignment* (if there are 4 homeworks and 1 quiz, then the total of 5 homeworks will be tallied together as 30% of the course grade).

If a student cannot be present during a quiz due to a UNC sanctioned event, including sport events, or experiences a medial emergency, and can provide documented proof of such, then the remaining quizzes and homeworks will be re-weighted. In the case of a UNC sanctioned event the proof of an excused absence must be presented **AT LEAST ONE WEEK PRIOR TO THE QUIZ DATE**. A quiz *cannot be made-up* under any circumstance, including due to school sanctioned activities, simply because a made-up quiz is not the original *pop-quiz*, by construction. A randomly given quiz cannot, by definition, be given on a pre-specified date.

### **Exam Policy**

The midterm and final exams **cannot be made-up** under any circumstance. If the **midterm is missed** due to a *university sanctioned event*, or a *medical emergency*, the final exam will be re-weighted. In the case of a *university sanctioned event* the student must provide proof at least one week prior to the scheduled

midterm exam. In the case of a medical emergency, the student must provide proof by the last scheduled lecture (i.e. not after the semester ends). Note that missing any exam due to non-emergency associated travel plans will render an exam score of zero.

### Tentative Lecture Schedule and Readings (the week #'s may change)

Week	Topic	Textbook Chapter and Lecture Notes
1	EMPIRICAL EVIDENCE - what we know about the macroeconomy. GDP, inflation, savings, employment measured. GDP deflator and growth defined.	Textbook: 1-2 Lecture Notes: <a href="#">Opening Lecture Figures</a>
1	UTILITY and PROFIT OPTIMIZATION - This is a simple crash-course for macroeconomic modeling.	Lecture Notes: <a href="#">Theory of the Consumer and Producer</a>
1-2	CLASSICAL MODEL - This is the precursor to modern growth models. Here we model labor and consumption decisions in the static world (no population growth, no investment, no future).	Lecture Notes: <a href="#">Classical Model</a>
2-3	GDP Accounting and Math of Growth - Analyzing GDP from three perspectives: value-added (production side), sources of income (income side), and expenditure (consumption side). We also introduce the mathematics of growth (e.g. log differencing).	Textbook: Appendix 1: A1-A5 Math Review notes for growth mathematics
2-3	GROWTH - The run long: capital accumulation, human capital accumulation labor accumulation, and technological progress. Classical, Solow and Endogenous Growth Models. Real Business Cycles.	Textbook: 10-12 Lecture Notes: <a href="#">Solow Growth Model</a> Lecture Notes: <a href="#">Endogenous Growth Model</a>
4-5	PUBLIC FINANCE - taxation: optimal consumer and government behavior (fiscal policy, tax receipts, debt).	
6-8	IS/LM Framework - The short run: Keynesian analysis of goods and financial markets. The Classical Model in detail.	Textbook: 3-5 Lecture Notes: <a href="#">IS/LM Model</a>
9-11	AS/AD - The medium run: Keynesian business cycle theory. Labor markets and employment accumulation. Over Lapping Generations Model.	Textbook: 6-8
12-13	UNEMPLOYMENT AND INFLATION - Phillips curve and anticipated inflation.	Textbook: 9, 13
14	RATIONAL EXPECTATIONS - rational economic behavior under stochastic uncertainty.	Textbook: 15-17