ECON 411: Advanced Macro (Fall 2019)
Tues/Thurs 8:00-9:20, Tyler 133

CONTACT INFORMATION

Professor Throckmorton
E-mail: nat@wm.edu
Office: Tyler 268
Office Hours: Wed 8-9:30am and Thurs 11-12:30pm
    or by appointment (please e-mail at least one day in advance)

BOOK

- McCandless, George (2008): *The ABCs of RBCs: An Introduction to Dynamic Macroeconomic Models*. (Cambridge, MA: Harvard University Press)

MATLAB

In addition to theoretical tools, modern macroeconomics often requires extensive computational expertise to solve and estimate models. At several points during the semester, we will use MATLAB, which is commonly used by macroeconomists. Throughout the semester, you may want a guide for learning MATLAB so here are a few options:

- Gilat, Amos (2010): *MATLAB: An Introduction with Applications*, 4th ed. (Hoboken, NJ: John Wiley & Sons)
- Miranda, Mario J. and Paul L. Fackler (2002): *Applied Computational Economics and Finance*. (Cambridge, MA: The MIT Press)
- Pratap, Rudra (2009): *Getting Started with MATLAB: A Quick Introduction for Scientists and Engineers*. (New York, NY: Oxford University Press)
- Judd, Ken (1998): *Numerical Methods in Economics*. (Cambridge, MA: The MIT Press)

There are also countless tutorials and publicly available MATLAB scripts (including my own). W&M has a campus-wide MATLAB license. Please visit W&M licensed software for instructions. In particular, you must e-mail support@wm.edu to create a Mathworks account.

PREREQUISITES AND COURSE DESCRIPTION

This course builds on the theory and tools developed in Intermediate Macro (ECON 304) and Calculus I (MATH 111). We will learn to analytically and numerically solve general equilibrium models, the workhorse models in modern macroeconomics. In the first half of the course, we will study economic fluctuations and develop intuition about what drives these fluctuations through real business cycle models. In the second half of the course, we will learn how to analyze monetary and fiscal policy. This section will begin with perfectly competitive models with flexible wages and prices and then move toward monopolistically competitive models with real and nominal rigidities.

EXAMS

We will have one in-class midterm exam and a comprehensive final exam:

Thursday, Oct 24	Midterm Exam	15% of your course grade
Monday, Dec 16, 2:00-5:00	Comprehensive Final Exam	25% of your course grade

If you miss the midterm exam, the weight will shift to the final exam. **You must take the final.**

Please note that anything discussed in class or any topic in the assigned reading from the textbook is "fair game" for the exams. There may be material presented in class that is not in your textbook, so **make sure that you have a full set of notes**.

ASSIGNMENTS

- In total, there are 4 problem sets, making up 20% of your course grade.

- There are 3 writing assignments worth 35% of the course grade. There is a brainstorming session (5%), a literature review and research proposal (10%), and a final paper (20%). The main goal is to build up to the final paper gradually in a manageable way where rewriting is an important part of the process.

- There is a short 10 minute presentation of your literature review to the class followed by a 5 minute Q&A. That is worth 5% of your final grade.

All assignments must be typeset in LaTeX, and some of the assignments will require MATLAB. All assignments must be turned in on time on the due date by 5pm. Late work will *not* be accepted. I encourage you to work together, and you may work in groups of 3 or less. I will not assign groups nor will I police them; you may change groups throughout the semester. Assignments are graded on accuracy as well as on effort. Answers that are vague, difficult to read, or incomplete will not receive full credit.

GRADES

The classes will be a mixture of lecture, discussion, MATLAB demonstrations, and review. The grading scheme follows:

Activity	Points	Percent
Problem Sets ($4@50$)	200	20%
Presentation	50	5%
Writing Assignments	350	35%
Midterm Exam	150	15%
Final Exam (cumulative)	250	25%

There are 1000 total points available in this class. Please note that it is possible to miss the next highest grade by only a few points. This may happen, so be aware of this possibility. If you want

to appeal any grading, you must contact me no later than one week from the date I post your score. The following table indicates the minimum number of points needed to guarantee a certain grade.

Grade	Minimum Points	%		Grade	Minimum Points	%
A	920	92		C	700	70
A-	880	88		C-	670	67
B+	850	85		D+	640	64
B	800	80		D	580	58
B-	770	77		D-	550	55
C+	740	74		F	<550	<55

HONOR CODE

I expect everyone to follow the Honor Code. Please see your student handbook for details. "As a member of the William and Mary community, I pledge on my honor not to lie, cheat, or steal, either in my academic or personal life. I understand that such acts violate the Honor Code and undermine the community of trust, of which we are all stewards." Financial and economic crises are precipitated by breeches of trust, so you must understand this is not only very important to me but also to our entire society. I will not hesitate to punish violators of the Honor Code.

STUDENT ACCESSIBILITY SERVICES

William & Mary accommodates students with disabilities in accordance with federal laws and university policy. Any student who feels they may need an accommodation based on the impact of a learning, psychiatric, physical, or chronic health diagnosis should contact Student Accessibility Services staff at 757-221-2512 or at sas@wm.edu to determine if accommodations are warranted and to obtain an official letter of accommodation. For more information, please see www.wm.edu/sas.

TENTATIVE COURSE OUTLINE

This is a tentative outline. I encourage you to independently work through these resources. Each topic will take several class meetings. I will announce any modifications to this schedule in class.

1. **Basic Dynamic General Equilibrium Model**
   Readings: McCandless (2008, Chapter 3), Wickens (2012, Chapter 2, on blackboard)

2. **Recursive Methods and Dynamic Programming Introduction**
   Readings: McCandless (2008, Chapters 4-5), Sargent (1987a, Chapter 1, on blackboard)

3. **Linear Rational Expectations Models and the Lucas Critique**
   Readings: McCandless (2008, Chapter 6), Dejong & Dave (2011, Chapters 2, 4, on blackboard)

4. **Real Business Cycle Models**
   Readings: Cooley (1995, Chapter 1, on blackboard), Romer (2011, Chapter 5, on blackboard)

Tentative (except exams) due dates for graded items:

1. Brainstorming Session, Friday, Sept 13

2. Problem set #1, Friday, Sept 20

3. Problem set #2, Friday, Oct 4

4. Problem set #3, Friday, Oct 18

5. Midterm Exam, Thursday, Oct 24

6. Literature Review, Friday, Nov 8

7. Presentations, Nov 12, 14, and 19

8. Problem set #5, Friday, Dec 6

9. Final Paper, Friday, Dec 13

10. Final Exam, Monday, Dec 16, 2:00-5:00

Other important dates:

1. Add/drop ends, Sep 6

2. Fall break, no class Oct 15

3. Last Day to Withdraw, Oct 28

4. Thanksgiving, no class Nov 28