

## Intermediate Economics II: Macroeconomics

Economics 512 and Economics 512 (ME)  
Tues/Thurs 3:00 – 4:15

Spring 2014  
Rawls 3082

### **Purdue University Krannert School of Management Department of Economics**

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### **Prerequisites**

Working knowledge of the following fields of Mathematics (for each, a free online course is available that contains material useful for a student to either learn the requisite material or refresh his/her memory):

- **Multivariate calculus**  
Free online material for this course can be found at <http://www.saylor.org/courses/ma103/>
- **Matrix algebra**  
Free online material for this course can be found at <http://www.saylor.org/courses/ma211/>

### **Course description**

The course will introduce the major economic models and analytical tools used by macroeconomists and policymakers to assess and implement macroeconomic policies. The goals of policymakers are twofold: efficiency and growth. In order to achieve these goals, policymakers must understand how the policies, combined with other institutional features present in the economy, affect the macroeconomic variables. This requires a theory about how the decisions of consumers and firms are affected by prices and policy, and how market prices respond to shocks.

For this reason, the course focuses on macroeconomic models that are micro-founded, meaning that decisions are made at the household and firm level by households and firms that solve constrained optimization problems.

Different than traditional courses in macroeconomics, this course introduces the important concepts in financial economics in order to be able to understand the

relationship between financial markets and the real economy. Only with these connections is it possible to assess the recent global financial crisis of 2007-2008.

### **Learning outcomes**

- Develop the necessary tools to be able to model economic phenomena using agent-based models.
- Apply the theoretical concepts to applications from the real world.
- Design policy to be able to confront an economic friction (or combination of economic friction) and understand how policy can mitigate the effects of economic crises.

### **Course website**

All of the course material can be found on the Sharepoint site created for the course:  
<https://intra.krannert.purdue.edu/programs/ms-econ/>

The Discussion Board is a great resource for the course. Any questions will receive a prompt reply, either in written form or as a video reply.

The website contains the following course materials:

- **Video lectures**  
The video lectures vary from 10-25 minutes in length and each covers a different economic idea, economic theory, or type of economic data.
- **Lecture notes**  
As a complement to the video lectures, lecture notes are provided.
- **Homework exercises**  
For each topic, there exists a set of exercises for students to complete at home.
- **Case studies**  
For each topic, students are required to complete a case study. The case study assignments will be posted on the course website.

### **Course structure (5 topics)**

The course will contain 5 topics. Each topic will require 3 weeks of class time.

During this 3-week period, the students are expected to:

- Watch the video lectures and read the lectures notes (typically the latter are redundant and only need to be read to clarify a specific point).
- Complete the homework exercises.
- Complete the case study assignment.

The timeline for each topic is as follows.

Lectures 1-3: Classroom office hours.  
I will be present in class to answer any questions about the material from the video lectures or the homework assignment.  
NO NEW MATERIAL IS COVERED.

Lecture 4: Homework exercises are due at the beginning of class.

Submission is either in person or uploaded on the course website.  
 For the Group Option, case study assignments are then made.  
**IF THE INDIVIDUAL OPTION IS CHOSEN, ATTENDANCE IS NOT REQUIRED.**

Lectures 5 & 6: Case Study presentations  
 For the Group Option, only attend your 15-minute time slot.  
 For the Individual Option, presentations are made online in assigned 45-minute time slots.

**Course calendar (5 topics)**

The dates for the Topics are as follows:

Course Introduction	Tuesday, January 14
<u>Topic 1:</u> Macroeconomic Accounting	<u>Homework exercises due:</u> Jan 23 (Thurs), 3:00 PM EST <u>Case study presentation:</u> Week of Jan 27 (Mon) – Jan 31 (Fri) <u>Classroom office hours:</u> Jan 16 (Thurs) and Jan 21 (Tues)
<u>Topic 2:</u> Microfoundations	<u>Homework exercises due:</u> Feb 13 (Thurs), 3:00 PM EST <u>Case study presentation:</u> Week of Feb 17 (Mon) – Feb 21 (Fri) <u>Classroom office hours:</u> Feb 4 (Tues), Feb 6 (Thurs), and Feb 11 (Tues)
<u>Topic 3:</u> Growth Theory	<u>Homework exercises due:</u> Mar 6 (Thurs), 3:00 PM EST <u>Case study presentation:</u> Week of Mar 10 (Mon) – Mar 14 (Fri) <u>Classroom office hours:</u> Feb 25 (Tues), Feb 27 (Thurs), and Mar 4 (Tues)
SPRING BREAK	NO CLASS
<u>Topic 4:</u> Classical Monetary Theory	<u>Homework exercises due:</u> Apr 3 (Thurs), 3:00 PM EST <u>Case study presentation:</u> Week of Apr 7 (Mon) – Apr 11 (Fri) <u>Classroom office hours:</u> Mar 25 (Tues), Mar 27 (Thurs), and Apr 1 (Tues)
<u>Topic 5:</u> Lagniappe	<u>Homework exercises due:</u> Apr 24 (Thurs), 3:00 PM EST <u>Case study presentation:</u> Week of Apr 28 (Mon) – May 2 (Fri) <u>Classroom office hours:</u> Apr 15 (Tues), Apr 17 (Thurs), and Apr 22 (Tues)
FINAL EXAM	TO BE ANNOUNCED

## **Methodology**

The course will be based on a series of lectures, available to be viewed on the course website, and supported by the course text. The course material is reinforced by:

### *1) Exercises*

In each topic, homework exercises are assigned. The exercise due dates are in the calendar above.

Homework exercises can either be submitted in person, or can be uploaded on the course website. For uploaded submissions, please submit as a pdf. The submissions can either be typed, or can be legible scans of handwritten work.

Each exercise is graded on a 5-point scale based on correctness, with partial credit given as a strictly increasing function of effort.

After exercises have been submitted, solutions will be posted on the course website.

### *2) Case Studies*

For each topic, students must complete a case study.

Students will have two options for the case study: Group Option or Individual Option.

Students enrolled in the online version of this course will naturally be required to choose the Individual Option.

Students enrolled in the classroom version of this course can choose the Group Option for one topic, and then the Individual Option for another topic.

#### **Group Option:**

- Students are randomly assigned to teams of 3-4 students and randomly assigned 1 of 3 possible topics.
- Once paired, students are not allowed to “opt out” and select the Individual Option.
- After receiving the topic, the team must set a research agenda for the case study.
- The research agenda (how many times will the team meet, how will the labor be divided) must be approved by the instructor.
- If the team does not get a research agenda approved before the end of the class meeting time, then they must meet outside of class with the instructor.

- The case study presentation is a 10-minute policy assessment, followed by a 5-minute intensive question and answer session with the instructor.
- Teams may not use slides. However, they are permitted to provide the instructor with up to 3 figures. A figure is one of the following: a chart, a table, or a graph.
- All team members receive the same grade.

**Individual Option:**

- Students work alone.
- Students are randomly assigned 1 of 3 possible topics.
- Student presentations occur in 45-minute time slots on Google Hangout.
- Each 45-minute time slot contains 3 students.
- Each student is responsible for a 10-minute policy assessment, followed by 5-minute intensive question and answer session with the instructor AND the other 2 students.
- A student may not use slides. However, they are permitted to provide the instructor with up to 3 figures. A figure is one of the following: a chart, a table, or a graph.
- A student’s grade is based upon the case study presentation (80%) and on the active participation during the other 2 talks (20%).

3) *Final Exam*

The date, time, and location for the Final Exam will be provided by Purdue in the coming weeks. Exam week at Purdue extends from Monday, May 5 through Saturday, May 10.

Students registered in the traditional Econ 512 course are required to take the exam in person, during the mandated testing time slot.

Students registered in the online course can choose to either take the exam in person, or can follow standard protocol and take the exam at an authorized testing center or with an authorized proctor.

The exam is closed notes and closed books. The exam will cover material from each and every one of the 5 topics. Students are permitted 120 minutes to complete the exam. A make-up exam will not be given.

**Assessment**

Exercises	20%
Case Studies	50%
Final Exam	30%