

## Intermediate Economics II: Macroeconomics

Economics 512  
Mon/Wed 3:00-4:15

Spring 2015  
KRAN G012

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

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### **Prerequisites**

Working knowledge of the following fields of Mathematics (the course opens with a brief review of mathematics):

- **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**

- Analyze economic data and synthesize the findings into coherent policy recommendations.
- Develop the necessary tools of economic modeling and apply the theoretical concepts to applications from the real world.
- Design policy to be able to confront an economic friction (or combination of economic frictions) 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/2014/ECON-51200/Pages/Home.aspx>

The website contains the following course materials:

- **Video lectures**  
The video lectures contain all macroeconomic models and data analysis techniques for the class, organized into brief 10-minute snippets.
- **Course text**  
The course text is a complement to the video lectures.
- **Homework exercises**  
For each topic, I will assign a set of exercises for students to complete at home. The exercises can either be submitted as a hard copy in class or uploaded onto the course website.
- **Case studies**  
For most topics, students are required to complete a case study. The case study assignments will be posted on the course website.
- **Quizzes**  
For the first two topics, students must complete a multiple-choice online quiz. The quizzes can be accessed on the course website.

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

The course will contain 5 topics. Class will only meet on days specified below. Meeting time is 3:00-4:15 in KRAN G012.

#### **Topic 1: Macroeconomic Accounting (Weeks 1-3)**

Chapter 1 in the course text

Watch videos in Mathematical Preliminaries and Chapter 1: Macroeconomic Accounting

Monday, January 12

Class lecture

Course introduction

Wednesday, January 14	No class meeting
Monday, January 19	Martin Luther King, Jr. Holiday (no class meeting)
Wednesday, January 21	<b>Homework 1 due</b> Students must attend class Case study selection Students randomly assigned to groups for the case study assignment
Monday, January 26	Case Study Presentation I (half the groups)
Wednesday, January 28	Case Study Presentation II (half the groups)
Friday, January 30 (9 pm)	<b>Deadline to complete Quiz 1 (online)</b>

### **Topic 2: Microfoundations (Week 4)<sup>1</sup>**

Chapter 2 in the course text

Watch videos in Chapter 2: Microfoundations and/or attend 2 class lectures

Monday, February 2	Class lecture	Equilibrium
Wednesday, February 4	Class lecture	Welfare theorems
Friday, February 6 (9 pm)	<b>Deadline to complete Quiz 2 (online)</b>	

### **Topic 3: Growth Theory (Weeks 5-7)**

Chapter 3 in the course text

Watch videos in Chapter 3: Growth Theory and/or attend 2 class lectures

Monday, February 9	Class lecture	Neoclassical growth model
Wednesday, February 11	Class lecture	Monopolistic competition
Monday, February 16	Review session	Solving Homework 3 problems
Wednesday, February 18	<b>Homework 3 due</b> Students must attend class Case study selection Students randomly assigned to groups for the case study assignment	
Monday, February 23	Case Study Presentation I (half the groups)	
Wednesday, February 25	Case Study Presentation II (half the groups)	

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<sup>1</sup> There is no Homework 2.

#### **Topic 4: Monetary Theory (Weeks 8-10)**

Chapter 4 in the course text

Watch videos in Chapter 4: Monetary Theory and/or attend 2 class lectures

Monday, March 2	Class lecture	Classical monetary doctrine
Wednesday, March 4	Class lecture	Monetary models
Monday, March 9	Review session	Solving Homework 4 problems
Wednesday, March 11	<b>Homework 4 due</b> Case study selection	Students must attend class Students randomly assigned to groups for the case study assignment
Saturday, March 14- Sunday, March 22	SPRING BREAK	
Monday, March 23	Case Study Presentation I (half the groups)	
Wednesday, March 25	Case Study Presentation II (half the groups)	

#### **Topic 5: Financial Crisis (Weeks 11-15)**

Chapters 5-7 in the course text

Watch videos in Chapter 5: Real Business Cycle Model, Chapter 6: New Keynesian Model, and Chapter 7: Leverage Cycle Model and/or attend 3 class lectures

Monday, March 30	Class lecture	Real business cycle model
Wednesday, April 1	Class lecture	New Keynesian model
Monday, April 6	Class lecture	Leverage cycle model
Wednesday, April 8	Review session	Solving Homework 5 problems
Monday, April 13	<b>Homework 5 due</b> Case study selection	Students must attend class Students randomly assigned to groups for the case study assignment
Monday, April 20	Case Study Presentation I (half the groups)	
Wednesday, April 22	Case Study Presentation II (half the groups)	
Monday, April 27	No class meeting	
Wednesday, April 29	No class meeting	

Friday, May 1 (9 pm)

Deadline to submit Financial Crisis Paper

### **Final Exam**

TBA: between Monday, May 4 and Saturday, May 9

### **Methodology**

The course will be based on a series of lectures, online lectures and in-class lectures are perfect substitutes, and supported by the course text. The course material is reinforced by:

#### *1) Homework*

Homework problems are assigned for Topics 1, 3, 4, and 5.

Homework problems can either be submitted as a hard copy in-class or can be uploaded as a pdf on the course Sharepoint site.

Homework problems must be submitted by 3 pm on the due date.

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

Solutions to selected homework problems will be made available as videos on the course website.

#### *2) Quizzes*

For Topics 1 and 2, students will complete an online quiz. The quiz can be accessed on the course Sharepoint site.

The quiz is automatically timed and will close when the time runs out. Students will have 30 minutes to complete a quiz.

All quiz questions are multiple-choice. Each quiz question is worth 1-point, with correct responses receiving full credit and incorrect responses receiving 0 points.

For the quizzes, you are free to use any course materials, but are forbidden from using assistance from another human being.

The quiz questions are similar for all students, but the exact numbers in the question are randomly assigned.

#### *3) Financial Crisis Paper*

The course paper on the Financial Crisis is due by 9 pm on Friday, May 1. The paper must be submitted as a pdf on the course Sharepoint site.

The paper is a written report of the Topic 5 case study presentation. The paper must address all questions asked in the case study assignment.

The paper must satisfy the following requirements:

- 3-5 pages in length
- 1" margins on all sides
- 1.5 line spacing
- Figures, charts, and tables contained in an Appendix (which does not count toward the page limit)
- As with the presentation, the total number of figures, charts, and tables cannot exceed 3

#### 4) *Case Studies*

For Topics 1, 3, 4, and 5, students will work in groups to complete a case study.

During the Case Study Selection Process, students will indicate which case study they wish to work on.

Based upon the responses, students are randomly assigned to teams of 3-4 students. Each group is assigned a 20-minute presentation time slot. The group only needs to attend their assigned 20-minute time slot.

The case study presentation is a 10-minute oral policy assessment, followed by 5 minutes of question and answer.

Groups are not allowed to use slides, but are permitted to provide the instructor with figures, charts, and tables (whose total number cannot exceed 3).

Further details about the requirements for the case studies can be found in the document "Grading Rubric":

[https://intra.krannert.purdue.edu/programs/ms-econ/2014/ECON-51200/Files/Case\\_Study\\_Presentation.pdf](https://intra.krannert.purdue.edu/programs/ms-econ/2014/ECON-51200/Files/Case_Study_Presentation.pdf)

#### 5) *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 4 through Saturday, May 9.

The exam is closed notes and closed books. The exam will be cumulative, but will focus on material in Topics 3, 4, and 5. Students are permitted 120 minutes to complete the exam. A make-up exam will not be given.

**Assessment**

Homework	15%
Quizzes	10%
Paper	10%
Case Studies	40%
Final Exam	25%