

## Intermediate Economics II: Macroeconomics

Economics 512: ONLINE

Spring 2016

**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, policy changes, and shocks, and how market prices respond to policy changes and 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.

Unlike traditional courses in macroeconomics, this course introduces the both the leading business cycle models plus financial models. These different types of models are required in order to make sense of the global financial crisis and economic recession 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/2015/51200/Pages/Home.aspx>

The website contains the following course materials:

- **Video lectures**  
The video lectures contain all the material for the course.
- **Course text**  
The course text is a complement to the video lectures, containing all models and end-of-chapter exercises.
- **Homework problems**  
The list of homework questions will be posted on the Sharepoint site. After the homework problems are submitted, I will post video solutions on the site as well.
- **Case studies**  
The case study assignments will be posted on the Sharepoint site.
- **Quizzes**  
The multiple-choice quizzes can be accessed on the Sharepoint site.

### **Course structure (5 sections)**

The course will contain 5 sections.

#### **Section 1: Macroeconomic Accounting**

Mathematical Preliminaries and Chapter 1 in the course text.

Watch videos in Mathematical Preliminaries and Chapter 1: Macroeconomic Accounting.

Plan to host online office hours (invitations sent by e-mail to join WebEx live chat):

Wednesday, January 20	7-10 pm (EST)
Thursday, January 21	8-9 am, 7-10 pm (EST)
Friday, January 22	8-9 am (EST)

Friday, January 22    **Homework 1 due (by 10 pm EST)**

**Quiz 1 due (by 10 pm EST)**

Case study sign-up e-mail goes out @ 3 pm EST

Students will sign up for one of the following case study presentation sessions:

Wednesday, January 27	7:00-7:45 pm, 8:00-8:45 pm, 9:00-9:45 pm (EST)
Thursday, January 28	8:00-8:45 am, 7:00-7:45 pm, 8:00-8:45 pm, 9:00-9:45 pm (EST)
Friday, January 29	7:00-7:45 am, 8:00-8:45 am (EST)

#### **Section 2: Microfoundations**

Chapter 2 in the course text.

Watch videos in Chapter 2: Microfoundations.

Plan to host online office hours (invitations sent by e-mail to join WebEx live chat):

Wednesday, February 3	7-10 pm (EST)
Thursday, February 4	8-9 am, 7-10 pm (EST)
Friday, February 5	8-9 am (EST)

Friday, February 5    **Quiz 2 due (by 10 pm EST)**

#### **Section 3: Growth Theory**

Chapter 3 in the course text.

Watch videos in Chapter 3: Growth Theory, including History and Background.

Plan to host online office hours (invitations sent by e-mail to join WebEx live chat):

Wednesday, February 17	7-10 pm (EST)
Thursday, February 18	8-9 am, 7-10 pm (EST)
Friday, February 19	8-9 am (EST)

Friday, February 19    **Homework 3 due (by 10 pm EST)**

**Quiz 3 due (by 10 pm EST)**

Case study sign-up e-mail goes out @ 3 pm EST

Students will sign up for one of the following case study presentation sessions:

Wednesday, February 24	7:00-7:45 pm, 8:00-8:45 pm, 9:00-9:45 pm (EST)
Thursday, February 25	8:00-8:45 am, 7:00-7:45 pm, 8:00-8:45 pm, 9:00-9:45 pm (EST)
Friday, February 26	7:00-7:45 am, 8:00-8:45 am (EST)

#### **Section 4: Monetary Theory**

Chapter 4 in the course text.

Watch videos in Chapter 4: Monetary Theory, including History and Background.

Friday, March 4      Case study sign-up e-mail goes out @ 3 pm EST

Students will sign up for one of the following case study presentation sessions:

Wednesday, March 9	7:00-7:45 pm, 8:00-8:45 pm, 9:00-9:45 pm (EST)
Thursday, March 10	8:00-8:45 am, 7:00-7:45 pm, 8:00-8:45 pm, 9:00-9:45 pm (EST)
Friday, March 11	7:00-7:45 am, 8:00-8:45 am (EST)

March 14-18      **SPRING BREAK**

Plan to host online office hours (invitations sent by e-mail to join WebEx live chat):

Wednesday, March 23	7-10 pm (EDT)
Thursday, March 24	8-9 am, 7-10 pm (EDT)
Friday, March 25	8-9 am (EDT)

Friday, March 25      **Homework 4 due (by 10 pm EDT)**  
**Quiz 4 due (by 10 pm EDT)**

#### **Section 5: Economic Recessions**

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, including History and Background.

Friday, April 8      Case study sign-up e-mail goes out @ 3 pm EDT

Plan to host online office hours (invitations sent by e-mail to join WebEx live chat):

Wednesday, April 13	7-10 pm (EDT)
Thursday, April 14	8-9 am, 7-10 pm (EDT)
Friday, April 15	8-9 am (EDT)

Friday, April 15      **Homework 5 due (by 10 pm EDT)**  
**Quiz 5 due (by 10 pm EDT)**

Students will sign up for one of the following case study presentation sessions:

Wednesday, April 20	7:00-7:45 pm, 8:00-8:45 pm, 9:00-9:45 pm (EDT)
Thursday, April 21	8:00-8:45 am, 7:00-7:45 pm, 8:00-8:45 pm, 9:00-9:45 pm (EDT)
Friday, April 22	8:00-8:45 am (EDT)

Friday, April 29      **Economic Recessions Paper due (by 10 pm EDT)**

### **Final Exam**

The Final Exam will take place on Thursday, May 5 and Friday, May 6. Students will sign up for a 120-minute time slot that fits their schedule.

### **Methodology**

The course will be based on a series of online lectures and supported by the course text. The course material is reinforced by:

#### *1) Homework*

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

Homework problems must be submitted as a pdf and uploaded on the course Sharepoint site.

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 Sections 1, 2, 3, 4, and 5, students will complete an online quiz. The quiz can be accessed on the course Sharepoint site.

Students have as many minutes as they want to complete a quiz. They can even return at a later time to change an answer or complete unanswered quizzes.

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

#### *3) Economic Recessions Paper*

The course paper on Economic Recessions is due by Friday, April 29. The paper must be submitted as a pdf on the course Sharepoint site.

The paper is a written report of the Section 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.
- Font size 11 or 12.
- Title Page containing paper title, student name, course name and semester, and a technical abstract (100 words or less) is required (does not count toward the page limit).
- Reference List contained in Appendix (does not count toward the page limit; references must adhere to either APA, MLA, or Chicago Manual of Style guidelines).
- Footnotes cannot include references. Complete references must appear in the Reference List. Citations in the text should refer to an item in the Reference List and adhere to APA, MLA, or Chicago Manual of Style guidelines.
- 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 Sections 1, 3, 4, and 5, students will work individually to complete a case study.

The ‘Case Study Signup E-mail’ will contain a link to a Doodle poll in which each student will select one time slot and one topic for presentation. Signup occurs on a first come, first served basis. Each time slot lasts 1 hour. There are time slots in the evenings and mornings (US time). I set aside time slots in the mornings for students living in Asia, Oceania, and the Middle East.

Each time slot contains 3 students, each presenting on a different topic. Each student will deliver a 10-minute oral policy assessment, followed by 5 minutes of question and answer from the audience (instructor plus the 2 students not presenting).

All students must be present (on the video chat) for this entire period and are responsible for asking questions (students Question and Answer grade is based upon both the ability to answer questions after presenting and the ability to ask questions when others present).

Students are not allowed to use slides, but are permitted to provide the audience (the instructor plus the two classmates) 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/2015/51200/Files/Presentations\\_Grading\\_Rubric.pdf](https://intra.krannert.purdue.edu/programs/ms-econ/2015/51200/Files/Presentations_Grading_Rubric.pdf)

5) *Final Exam*

The exam will take place during a 120-minute time slot on Thursday, May 5 or Friday, May 6.

The exam is cumulative and is taken with closed notes and closed books. Students are permitted 120 minutes to complete the exam. A make-up exam will not be given.

**Assessment**

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