










ECO 305





Intermediate Macroeconomics

Summer 2023

Instructor Info —

-  James M. Murray, PhD
-  Pronouns: He/Him/His
-  Professor, Dept of Economics
-  Appointments:
<https://murraylax.org/makeappt/>
-  Office: 2106 Wittich Hall
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<https://www.murraylax.org>
-  Email: jmurray@uwlax.edu

Course Info —

-  Online Asynchronous
-  May 22 - June 11, 2023
-  Prerequisites: None
-  Web: <https://uwlax.edu/canvas>

About —

We take a microfounded approach to the macroeconomy. We examine how optimal decisions of consumers and producers in multiple markets interact to produce macroeconomic outcomes and investigate the implications for economic policy.



Overview

This required course in the Economics major builds off of both principles of macroeconomics and principles of microeconomics. In this course we build a dynamic model of the macroeconomy that encompasses the interdependent decisions in the markets for final goods and services, labor, capital goods, and money. We examine the short-run and long-run impacts of economic shocks and the implications for economic policy. Finally, with a close attention to detail on the modeling strategy, we carefully consider how the assumptions of our models affect our conclusions.

Course Goals

We will develop familiarity with economic tools and theories and develop strategies for framing and solving problems that help us answer the following big questions:

1. Why do some economies grow quickly and others grow slowly?
2. How do some economic factors and economic policies hurt or improve long-run economic growth?
3. How do the behaviors of individual consumers affect macroeconomic outcomes for employment, worker compensation, consumption, savings, and production?
4. How do economic shocks affect consumer behavior, and through this channel, affect macroeconomic outcomes?
5. How do tax policies and government expenditure policies affect consumer behavior, and through this channel, affect macroeconomic outcomes?
6. Are long-run government budget deficits sustainable? Can governments continue to borrow money forever?
7. How do monetary policies / interest rate policies affect consumer behavior, and through this channel, affect macroeconomic outcomes?
8. How do the behaviors of businesses affect macroeconomic outcomes for employment, worker compensation, consumption, savings, and production?
9. How do economic shocks affect businesses' behaviors, and through this channel, affect macroeconomic outcomes?
10. How do tax policies affect businesses' behaviors, and through this channel, affect macroeconomic outcomes?

Learning Outcomes

For successful learning, it is important that you understand why we do the reading, lectures, assignments, etc. we do. Everything we do in this class is meant to achieve the learning objectives below.

1. Describe determinants for economic growth and predict the impact government policies may have on economic growth.
2. Predict the impact that private decisions and government policy can have on investment in the context of an equilibrium model with investment demand, demand for loanable funds, and supply of savings.
3. Predict the impact that private decisions and fiscal and monetary policies can have on aggregate production and employment in the context of an equilibrium model of aggregate production in the short-run and long-run.
4. Identify business cycle fluctuations in macroeconomic data and explain possible causes and government responses using macroeconomic equilibrium models.
5. Explain and critique various theories for business cycle fluctuations, and describe differences in the implications for macroeconomic policy prescriptions.
6. Describe determinants for demand and supply in the market for money and predict the impact monetary policy has on the market for money and the aggregate macroeconomy.
7. Identify assumptions in macroeconomic models and describe how specific conclusions from macroeconomic models depend on the assumptions.

FAQs

? What does it mean that the course is *asynchronous*?

! There are no assigned times for this course. You are not required to meet virtually or logged in to complete a task at any particular time in a day. But this is not a self-paced course. You will have deadlines to meet every week. You can choose what times of day you do the work to meet those deadlines.

? How does a three-week term class work?

! This is an accelerated three-week class that covers the same content as a typical 15-week semester-long class. A typical semester has 15 weeks, and each week has 3 hours of class time and typically at least another 3 hours of doing homework and studying. This adds up to 90 hours of work over the semester. In a three-week course, this comes to *at least 30 hours per week*. Plan to spend at 30-40 hours per week on this class. Only take this class if you can dedicate the time that is required.

? How do I ask questions?

! Post your questions in the 'Questions & Answers' discussion forums that accompany every unit. I will answer your question within one business day, but typically sooner. You can also contact by email.

Economics Major Learning Outcomes

This course is part of the economics major required curriculum. Below are all the learning outcomes for the economics major. The learning outcomes that are highlighted below are ones that we will address in ECO 305.

1. Use economic models in domestic and global contexts to analyze individual decision making, how prices and quantities are determined in product and factor markets, and macroeconomic outcomes.
2. Analyze the performance and functioning of government, markets, and institutions in the context of social and economic problems.
3. Think critically about economic models, evaluating their assumptions and implications.
4. Use data to describe the relationships among variables in order to analyze economic issues.
5. Communicate economic thought and analysis in both written and oral contexts to varied audiences.

Course Materials

Required Text: Williamson, S. *Macroeconomics*. 6th Edition. Pearson. 2018.

The textbook is available from textbook rental without a fee. You can pick up your textbook in person from UW-La Crosse Textbook Rental Service in the basement of the Student Union. You can find the hours and other information for Textbook Rental Services at <https://www.uwlax.edu/textbook-rental/>

Canvas: Course materials will be provided on the UWL Canvas page for this course: <https://www.uwlax.edu/canvas/>

Contact Methods

There are no synchronous classes or office hours in this online class. Use the following tools to ask questions.

Contact me through the 'Questions & Answers' discussion forums in Canvas

- This is my preferred mode of correspondence when it comes to questions about the material in the course.
- If you have a question about course material and/or clarifications on assignments it is likely others do too, and the discussions between us might also be useful to others in the class.
- Rule of thumb: If your question is something you would feel comfortable asking during class in a face-to-face class, you should ask the question through the Canvas discussion forums in this online class.
- I respond to discussion forum questions at the latest by the following weekday (Monday through Friday) at 12:00 PM.
- See the information below that provides more details about the online discussion forums.

Contact me by e-mail at jmurray@uwlax.edu

- I respond to e-mails at the latest by the following weekday (Monday through Friday) at 12:00pm.
- Questions over e-mail should concern personal matters such as concerns or questions about your grade.
- Questions via e-mail would include questions you would be uncomfortable discussing in front of other people during a face-to-face class, but you would instead prefer to talk to me one-on-one outside of class.
- I prefer questions concerning course content be handled in the discussion forums, but if you prefer our correspondence not be public information, you are welcome to contact me via e-mail.

FAQs

? Can I use the book or other resources for quizzes?

! Sure. I encourage this for quizzes. Each quiz is 10 questions, should take about 5-10 minutes if you are prepared, and you are given 60 minutes to complete them. This should be enough time to look something in your textbook or in the Canvas course.

? Can I use the book or other resources for exams?

! Sure, but you might not do too well if you depend on this. The exams have 180 minute time limits and you will likely need all the time to complete the exam. If you frequently need to spend time looking things up, you will likely not be able to complete all of the exam. I recommend you study for the exam and be prepared to take it as if it were a closed-book exam.

? Can I collaborate with other students?

! Yes, with conditions. You may work with other students on the homework assignments, but you still turn in individual work and your work should still be your own. You may help each other out and talk through assignments, but don't copy answers.

You must work independently on exams and quizzes.

Assessments

Your learning will be assessed through quizzes, homework assignments, and three exams. Within each category below, individual items are weighted equally (eg: each quiz is weighted equally, each homework assignment is weighted equally, etc.)

15%	Quizzes (10 total)
25%	Homework Assignments (9 total)
60%	Exams (3 total)

Grading Scheme

I will use the following grading scheme for assigning a final letter grade in the course.

94-100	A	82-88	B	70-76	C
89-93	AB	77-81	BC	60-69	F

Graded Work Response Time

I will grade and provide feedback on submitted work within two weekdays of the due date. Work that is turned in late may not be accepted. If late work is accepted for exceptional circumstances, I may not be able to grade the work within the two-weekday time frame. Grades will be posted on the Canvas grade book.

Weekly Schedule

This is a three-week course that includes all the content from a typical full semester course. Every week has three units and one exam. Each unit has several modules of textbook reading (approximately one chapter's worth), several short videos (3-7 minutes each), a 10-question multiple choice quiz, and a homework assignment with short-answer problem-solving questions. The exam for each week covers the material for the week.

Quizzes

Every unit of the class has a 10-question multiple-choice quiz due on the Thursday of that week at 11:59PM. The quizzes should be completed after reviewing the reading and the videos.

The quizzes are short and should only take you 5-15 minutes to complete. You are allowed to use your textbook during the quiz and any of the resources posted on Canvas. You must work independently on the quizzes, not consulting with any other persons whether part of this class or not.

You may have **unlimited attempts** to complete each quiz, and only the **highest score** you earn will count toward your grade. Each attempt will have similar, but probably not identical, questions.

Homework Assignments

There is a homework assignment for every unit that involves short-answer and problem-solving-type questions. These problems should be completed by hand and with legible handwriting. When you turn in your handwritten work, combine all pages into a single PDF document. There are apps available for Apple and Android mobile devices that will allow you to easily create PDF documents using your device's camera, including the Apple iPhone's native *Notes* app (use the *scan document* feature) and *Adobe Scan* app available for Android and Apple mobile devices. There are also multiple free online tools that can combine multiple documents of multiple formats into a single PDF document including <https://online2pdf.com/> and <https://www.easypdfcloud.com/>.

Services



Access Center

Office: 124 Wimberly Hall

Phone: 608-785-6900

Email: ACCESSCenter@uwlax.edu

<https://www.uwlax.edu/access-center/>



Center for Transformative Justice

1120 Centennial

Phone: 608-785-5094

Email: transformative@uwlax.edu

<https://www.uwlax.edu/center/transformative-justice/>



Cashier's Office

121 Graff Main Hall

Phone: 608-785-8719

Email: cashiers@uwlax.edu

<https://www.uwlax.edu/cashiers/>



Counseling and Testing Center

Office: 2106 Centennial Hall

Phone: 608-785-8073

<https://www.uwlax.edu/counseling-testing/>



Eagle Help Desk

103 Wing Technology Center

Phone: 608-785-8719

Email: helpdesk@uwlax.edu

<https://www.uwlax.edu/its/client-services-and-support/eagle-help-desk/>



Equity & Affirmative Action

145 Graff Main Hall

Phone: 608-785-5099

Email: equity@uwlax.edu

<https://www.uwlax.edu/equity/>



Multicultural Student Services

1101 Centennial

Phone: 608-785-8225

Email: omss@uwlax.edu

<https://www.uwlax.edu/multicultural-student-services/>



Murphy Library

Phone: 608-785-8505

Email: libraryoffice@uwlax.edu

<https://www.uwlax.edu/murphylibrary/>



Office of Diversity and Inclusion

145 Graff Main Hall

Phone: 608-785-5097

<https://www.uwlax.edu/diversity-inclusion>

Exam Format

Each exam will have two components, (1) a series of multiple choice questions (about 25 questions) and (2) short-answer problem-solving questions. The exam has a strict 180 minute time limit.

The short-answer questions will involve computational and graphical problem solving questions, similar to your homework assignments. For these questions, you will have to do both of the following: (1) Legibly write your answers with a pencil and paper, including any appropriate graphs or computations you need to answer the question, and (2) Type a description of your answer in a text box following the question. Your descriptions must be in complete sentences, they should describe what graphical model you used or what computations you made, then describe the conclusion. You must also upload your hand-written work to the appropriate Canvas assignment area. Unless otherwise stated, credit will only be given for questions that have both typed descriptions and hand-written analysis, and that are consistent with each other. **The hand-written descriptions must be scanned and submitted to the appropriate Canvas assignment area within one hour of submitting your multiple choice and typed answers.**

You are allowed to use your textbook during the exams and any of the resources posted on Canvas, but it is **very strongly recommended to thoroughly read and take notes on all resources and spend time studying for the exam.** If you spend too much time during the exam looking up material you are not likely to finish within the allotted time which can result in a very low grade. You must work independently on the exams, not consulting with any other persons whether part of this class or not. Moreover, you must not consult any Internet resources that are not included in the course.

Exam Schedule

There will be three exams, one at the end of each week. Each exam will be available to take for a 72-hour period from Friday 12:01 AM through Sunday 11:59 PM. You may begin the exam at any time during this 72-hour period, but once you begin the exam, you must **finish within the next 180 minutes.**

- **Exam 1:** Friday - Sunday, May 26-28
- **Exam 2:** Friday - Sunday, June 2-4
- **Exam 3:** Friday - Sunday, June 9-11

Late Work Policy

The accelerated three-week term is not conducive to permitting late submissions. I need to post answer keys to exams and quizzes promptly so that all the students in the class can use these resources for studying for an exam that is always just around the corner. Once an answer key is posted, late work cannot be accepted. Answer keys are typically posted the day following a deadline. Exceptions can be made for extraordinary circumstances such illness, injuries, or emergencies that prevent you from completing assigned work by the deadlines.

Dropping and Adding Courses

Please keep in mind the university's deadlines for making changes to your schedule. In many cases, dropping and adding courses requires the permission of your instructor or your adviser and after certain dates no adding or withdrawing is possible. The policies and deadlines can be found at <https://www.uwlax.edu/records/dates-and-deadlines/>

Technical Support

For tips and information about Canvas visit the UWL Canvas Guide for students at <https://www.uwlax.edu/info/canvas/students/>. This site also links to the 24/7 Canvas support. The Eagle Help Desk can assist you with login issues or general computer assistance. See <https://www.uwlax.edu/its/client-services-and-support/eagle-help-desk/>

Services



Office for Financial Aid
215 Graff Main Hall
Phone: 608-785-8604
Email: finaid@uwlax.edu
<https://www.uwlax.edu/finaid/>



Office of Student Life
Office: 149 Graff Main Hall
Phone: 608-785-8062
Email: studentlife@uwlax.edu
<https://www.uwlax.edu/student-life/>



Pride Center
2216 Student Union
Phone: 608-785-8887
Email: pridecenter@uwlax.edu
<https://www.uwlax.edu/pride-center/>



Records and Registration
Office: 117 Graff Main Hall
Phone: 608-785-8951
Email: records@uwlax.edu
<https://www.uwlax.edu/records/>



Student Health Center
1030 Health Science Center
Phone: 608-785-8558
Email: shcnetworking@uwlax.edu
<https://www.uwlax.edu/student-health-center/>



Student Support Services
Office: 2131 Centennial Hall
Phone: 608-785-8535
Email: sss@uwlax.edu
<https://www.uwlax.edu/student-support-services/>



Textbook Rental
Student Union Lower Level
Phone: 608-785-8853
Email: textbook@uwlax.edu
<https://www.uwlax.edu/textbook-rental/>



Veteran Services
Office: 223 Graff Main Hall
Phone: 608-785-8631
Email: uwlveted@uwlax.edu
<https://www.uwlax.edu/veteran-services/>



Violence Prevention Service
Office: 149 Graff Main Hall
Phone: 608-785-5126
Email: bmcconaughey@uwlax.edu
<https://www.uwlax.edu/violence-prevention/>

Students with Accommodation Needs

Any student with a documented disability (e.g. ADHD, Autism Spectrum Disorder, Acquired Brain Injury, PTSD, Physical, Sensory, Psychological, or Learning Disability) who needs to arrange academic accommodations should contact The ACCESS Center (124 Wimberly Hall), 608-785-6900, ACCESSCenter@uwlax.edu and meet with an adviser to register and develop an accommodation plan. In addition to registering with The ACCESS Center, it is the student's responsibility to discuss their academic needs with their instructors. You can find out more about services available to students with disabilities at The ACCESS Center website: <http://www.uwlax.edu/access-center>.

Equity, Diversity, & Inclusion

I share UWL's core value of "diversity, equity, and the inclusion and engagement of all people in a safe campus climate that embraces and respects the innumerable different perspectives found within an increasingly integrated and culturally diverse global community." If you are not experiencing this class in this manner, please come talk to me about your experiences so I can try to adjust the course if possible.

Academic Integrity

Academic misconduct is a violation of the **UWL Student Honor Code** and is unacceptable. I expect you to submit your own original work and participate in the course with integrity and high standards of academic honesty. When appropriate, cite original sources, following the style rules of our discipline.

PLEASE NOTE that whenever a grade penalty is imposed due to academic misconduct, the instructor is required to write a letter documenting the misconduct. **Copies are sent to the student, to the Office of Student Life (where the letter remains on file in the student's record), and to the Dean of the student's College.** Refer to the **UWL Student Handbook** for a detailed definition of academic misconduct, and for possible sanctions and consequences. The Office of Student Life can also assist.

Names and Pronouns

I will do my best to address you by a preferred name and gender pronoun that you have identified. Please advise me of this preference early in the semester so that I may make appropriate changes to my records. UWL has a preferred name policy here, <https://www.uwlax.edu/records/preferred-name/>. For information on why attention to pronouns is important for an inclusive environment, see <https://mypronouns.org>. UWL's Pride Center is available for additional assistance. See <https://www.uwlax.edu/pride-center/>.

Mandatory Reporter of Sexual Harassment

As an employee of the University of Wisconsin-La Crosse, I am a mandated reporter of sexual harassment and sexual violence that takes place on campus or otherwise affects the campus community. This means that if I receive detailed or specific information about an incident such as the date, time, location, or identity of the people involved, I am obligated to share this with a member of UWL's team in order to enable the university to take appropriate action to ensure the safety and rights of all involved. For students not wishing to make an official report, there are confidential resources available to provide support and discuss the available options. Please see Title IX resource page at <https://www.uwlax.edu/title-ix/> for more resources or to file a report.

Illness and Emergency Policy

Illness, injury, or other emergency may prevent you from being well enough or prepared enough to complete the assigned work by their due dates. Please contact me as soon as reasonable if an illness or emergency prevents you meeting assignment or exam due dates and we can make alternative arrangements.

About Me

Education



B.S. Economics
UW-La Crosse, 2000



M.A. Economics
University of Notre Dame, 2002



Ph.D. Economics
Indiana University, 2008

Academic



Courses I Teach:

ECO 120: Global Macroeconomics
ECO 230: Data Analysis for Bus
ECO 301: Money and Banking
ECO 305: Intermediate Macro
ECO 307: Intro to Econometrics
ECO 499: Mathematical Economics



Research:

Macroeconomics of Expectations
Fiscal and Monetary Policy
Scholarship of Teaching & Learning

Personal



My Hobbies:

Running, biking, hiking, drinking coffee, drinking IPAs, computer programming, Linux, messing up computer configurations, speed cubing



My Family:

I am happily married and I have two school-age boys. Our favorite family activities involve being active outdoors together, enjoying nature, playing board games, solving Rubik's cubes, and watching Marvel and Star Wars movies and series.

Biography

<https://murraylax.org/biography.html>



Veterans and Active Military

Veterans and active military personnel with special circumstances (e.g., upcoming deployments, drill requirements, disabilities) are welcome and encouraged to communicate these, in advance if possible, to me. For additional information and assistance, contact the Veterans Services Office (<http://www.uwlax.edu/veteran-services/>). Students who need to withdraw from class or from the university due to military orders should be aware of the military duty withdrawal policy (<http://catalog.uwlax.edu/undergraduate/academicpolicies/withdrawal/#military-duty-withdrawal-university>).

Religious Accommodations

Per the UWL Undergraduate Catalog, "any student with a conflict between an academic requirement and any religious observance must be given an alternative means of meeting the academic requirement. The student must notify the instructor within the first three weeks of class (within the first week of summer session and short courses) of specific days/dates for which the student will request an accommodation." See <http://catalog.uwlax.edu/undergraduate/aboutuwlax/> for more information.

Concerns, Complaints, and Grievances

The following describes the UWL policies and procedures for addressing students' complaints or grievances on issues relating to the course and/or the instructor.

Informal Complaints

If a student has a concern or a complaint about a faculty member or course, the general process for making informal complaints is outlined in steps 1-3 below. Students are welcome to bring a friend or a UWL staff member with them during the following steps. Students who report concerns/complaints/grievances, whether informally or formally, will be protected from retaliation and have the right to expect an investigation and the option to have regular updates on the investigation:

1. The student should speak directly to the instructor.
2. If the student is uncomfortable speaking with the instructor, or they are unsatisfied with the solution, they should go to the chair of the faculty member's home department.
3. If the student is uncomfortable speaking with the department chair, or the chair is the faculty member in question, or they are unsatisfied with the solution, the student should speak with their college dean.

Depending on the specifics of the concern, it may be helpful for students to reach out to additional offices:

- Complaints/concerns/grievances about grades, teaching performance, course requirements, course content, incivility, or professional ethics should follow the process outlined above. Students may also wish to seek support from the [Office of Student Life](#).
- Complaints/concerns/grievances related to hate/bias and discrimination may follow the process outlined above, and in addition or instead students may contact the [Center for Transformative Justice office](#) and/or submit a [hate/bias incident report](#).
- Complaints/concerns/grievances related to sexual misconduct may begin with the process outlined above, but will need to also involve the [Equity & Affirmative Action](#) and [Violence Prevention](#) offices, and/or the [Title IX Team](#). Students should know that faculty members are [mandatory reporters](#) of sexual misconduct, but that confidential resources are available to them.

Formal Complaints

If the student is unsatisfied with the solution of their informal complaint, they have the right to file a formal institutional complaint with the Student Life office, as described in the Student Handbook (see <https://www.uwlax.edu/student-life/student-resources/student-handbook/#tm-institutional-complaint-process>).

Class Schedule

WEEK 1: Optimal Behavior of Consumers and Producers

Unit 1	Due Tue May 23	Optimal consumption and leisure decisions of a representative household	Williamson, Ch 4, pp. 98-117
		Optimal labor demand and production decisions of a representative firm	Williamson, Ch 4, pp. 122-135
Unit 2	Due Wed May 24	Socially optimal allocation of consumption and leisure	Williamson Ch 5, pp. 142-150
		Pareto optimality of competitive equilibrium	Williamson Ch 5, pp. 150-155
		Optimal responses of the economy to government expenditure and technology shocks	Williamson, Ch 5, pp. 155-164
Unit 3	Due Thurs May 25	Solow Growth Model	Williamson Ch 7, pp. 249-255
		Long-run effects from changes to savings, technology, depreciation, labor force growth	Williamson, Ch 7, pp. 255-264
Exam 1	May 26-28	EXAM 1 Take your exam between Friday, 12:01AM and Sunday, 11:59PM. The exam has a 180-minute (3-hour) time limit.	

WEEK 2: Behavior in Dynamic Models

Unit 4	Due Tue May 30	Convergence & divergence in economic development	Williamson, Ch 8, pp. 281-290
		Endogenous growth with human capital accumulation	Williamson, Ch 8, pp. 290-300
Unit 5	Due Wed May 31	Consumption and savings decisions	Williamson, Ch 9, pp. 306-321
		Effects on decisions from changes in income	Williamson, Ch 9, pp. 321-324
		Effects on decisions from changes in interest rates for savers and borrowers	Williamson, Ch 9, pp. 327-332
		Ricardian Equivalence	Williamson, Ch 9, pp. 337-343
Unit 6	Due Thurs June 1	Two-period dynamic model - Consumer decisions for consumption, saving, leisure, and labor supply	Williamson, Ch 11, pp. 379-388
		Two-period dynamic model - Producer decisions for labor demand, investment demand, and production	Williamson, Ch 11, pp. 389-397
Exam 2	June 2-4	EXAM 2 Take your exam between Friday, 12:01AM and Sunday, 11:59PM. The exam has a 180-minute (3-hour) time limit.	

WEEK 3: Dynamic General Equilibrium Models

Unit 7	Due Tue June 6	Competitive general equilibrium in the two-period dynamic model	Williamson, Ch 11, pp. 401-414
		Dynamics macroeconomic effects from changes in government expenditures	Williamson, Ch 11, pp. 414-417
		Dynamics macroeconomic effects from changes in capital stock	Williamson, Ch 11, pp. 417-421
		Dynamics macroeconomic effects from changes in total factor productivity	Williamson, Ch 11, pp. 421-425
Unit 8	Due Wed June 7	Dynamic model of money supply and demand	Williamson, Ch 12, pp. 442-457
		Complete dynamic macroeconomic model with money	Williamson, Ch 12, pp. 457-459
		Money neutrality	Williamson, Ch 12, pp. 460-464
		Shifts in Money Demand	Williamson, Ch 12, pp. 464-467
Unit 9	Due Thurs June 8	New Keynesian model framework	Williamson, Ch 14, pp. 509-513
		Non-neutrality of money	Williamson, Ch 14, pp. 513-515
		Government policy in the New Keynesian model	Williamson, Ch 14, pp. 515-518
Exam 3	June 9-11	EXAM 3 Take your exam between Friday, 12:01AM and Sunday, 11:59PM. The exam has a 180-minute (3-hour) time limit.	
