# Intermediate Macroeconomic Theory
# Economics 30020-02
# Spring 2026
# The University of Notre Dame du Lac

## Times and Locations
> Section 1: Tuesdays and Thursdays, 9:30-10:45 am, Nieuwland Science Hall 118
> Section 2: Tuesdays and Thursdays, 11-12:15 pm, Nieuwland Science Hall 118

## Instructor
Professor Eric Sims
3020 Jenkins & Nanovic Hall
esims1@nd.edu
Personal Website
Course Website: Canvas
Office hours:
> Wednesdays (starting January 21): 2-3 pm, JNH 3005 (or 3020)
> Fridays (starting January 16): 10:45-12 pm, JNH 3005 (or 3020)

## Teaching Assistant
Celia Schurman
cschurma@nd.edu
Weekly review session: Mondays, 5:30-7 pm, location TBD
Office hours: Wednesday, 5-6:30, JNH 3005

## Course Overview
This is an intermediate-level course in macroeconomic theory. Macroeconomics concerns the behavior of the aggregate economy. In the course, we will examine macroeconomic data and study theoretical models of the aggregate economy. Models provide a lens for analyzing data and allow us to think about the effects of alternative policies.

The course presumes knowledge of both micro and macro at the principles level, as well as differential calculus and high school-level algebra. It is helpful, though not necessary, to have taken Intermediate Micro. You should also be comfortable with a spreadsheet program like Microsoft Excel or Google Sheets. The teaching assistant (TA) will hold a review session on basic topics in mathematics and Excel early in the semester (Friday, January 16, 2:30-4 pm, location TBD).

## Topics
The course is divided into four basic parts:

- Part I: long-run growth. In this section, we will review facts about long-run growth and cross-country income differences. We will use the Solow model as an organizing framework to think about the sources of growth. Approximately five lectures.

- Part II: micro of macro. In this part of the course, we will study the microeconomic underpinnings of households and firms in a dynamic context. We will introduce the concept of competitive equilibrium, explore the basics of fiscal policy, and discuss why households hold money. Approximately eight lectures.
- Part III: business cycles. We will organize our thinking around the neoclassical and new Keynesian models, which we can depict graphically using the micro underpinnings studied in Part II. We will introduce and study the concept of the efficiency of a competitive equilibrium, and examine the long-term relationships among money, inflation, and interest rates. Approximately five lectures.
- Part IV: applications. We will use the IS-MP-PC-AD model (a straightforward extension of the new Keynesian model from part III) as an organizing framework. We will study optimal monetary policy, inflation targeting, and unconventional monetary policy. We will also examine the causes and policy reactions to the Great Recession and the COVID-19 recession. Approximately seven lectures.

A detailed, day-by-day outline is at the end of the syllabus.

## Exams, Assignments, and Grading

There will be three midterm exams and a final. The three midterms will be held in class immediately following the conclusions of parts I, II, and III. The dates for the midterms are:

- Midterm 1: February 3
- Midterm 2: March 5
- Midterm 3: April 2

The final exam is 4:15 to 6:15 on Wednesday, May 6, at a location to be determined by the Registrar, and will be cumulative. All exams will feature a mix of multiple-choice, true-false, and free-response questions. All exams will be scored out of 100 points. Exam scores may be curved.

In addition to exams, there will be five problem sets and five quizzes. The quizzes will be timed and administered online. Students will have a 24-hour window during which to complete each quiz. Once one begins the quiz, one has 25 minutes to complete it. The quizzes will feature multiple-choice and true-false questions. Students are required to use the Respondus LockDown Browser for quizzes. You will first need to download and install the application. When taking a quiz, launch the application. This will open a window that looks like a browser; you may have to do Okta two-step verification to log in. This will take you directly to Canvas and will disable the use of any other applications. Navigate to the "Quizzes" toolbar for this class and take the quiz. When finished, click submit and click the "x" in the upper-right-hand corner of the screen. This will exit the lockdown browser. Do not exit the LockDown Browser application until you have submitted the quiz. If you try to start a quiz but have not yet downloaded the application, there will be a link to do so. Canvas will not allow you to take the quiz outside the application.

Students may consult printouts and handwritten notes when completing the quiz, but may not browse the web, use ChatGPT or any other AI tool, or consult with other members of the class. Quizzes will be available on Canvas from 12:01 am to 11:59 pm on the following days:

- Quiz 1: January 27
- Quiz 2: February 17
- Quiz 3: February 26
- Quiz 4: March 26
- Quiz 5: April 21

The problem sets will feature free-response questions, some of which require students to use Excel, Google Sheets, or a similar program. Students are free to work in groups, but each student must upload scanned images of their own problem set solutions to the Canvas site by 5:00 pm on the posted due date. Problem sets will be graded on a check-plus (100 points; completed and mostly correct), check (85 points; completed with some mistakes), or check-minus (70 points; complete but many mistakes or incomplete) system. Failing to turn in a problem set results in a grade of zero. Due dates for problem sets are as follows:

- Problem Set 1: January 29
- Problem Set 2: February 17
- Problem Set 3: March 3
- Problem Set 4: March 31
- Problem Set 5: April 28

The lowest midterm score will be dropped. The remaining two midterm scores will count 20 percent each toward the final grade. The final exam will count 30 percent toward the final grade. Quizzes and problem sets will each account for 15 percent of the final grade (three percent per quiz and three percent per problem set). Formally, total points, $p$, are determined via the following formula:

$$p = 0.2 \times mt1 + 0.2 \times mt2 + 0.2 \times mt3 - 0.2 \times \min(mt1, mt2, mt3) + 0.3 \times final + 0.15 \times \overline{quiz} + 0.15 \times \overline{ps}$$

Here, $\overline{quiz}$ and $\overline{ps}$ denote the average quiz and problem set scores, respectively. The following is a conversion for points into letter grades, where $p$ denotes total points:

A     $p \geq 94$
A-    $90 \leq p < 94$
B+   $87 \leq p < 90$
B     $84 \leq p < 87$
B-    $80 \leq p < 84$
C+   $77 \leq p < 80$
C     $74 \leq p < 77$
C-    $70 \leq p < 74$
D     $64 \leq p < 70$
F     $p < 64$

I anticipate an average grade point average (GPA) of 3.2 to 3.4 for the semester. The average GPA may be outside these bounds depending on performance. You can monitor your performance throughout the semester using the "Grades" tool in Canvas.

## Textbook

The required textbook for the course is *Intermediate Macroeconomics*. This is the third draft of a textbook authored by yours truly, along with two former Notre Dame PhD students in economics – Julio Garin of Claremont McKenna College and Robert Lester of Colby College. A .pdf copy of the book will be provided to you free of charge on the course website and is also available on my personal [website](). You need not print any or all of the book, and can instead read it on your computer or mobile device. In referencing the textbook, I will call it "GLS" for "Garin, Lester, and Sims." I would *not* recommend printing the whole thing at the beginning of the term (we will not cover the entire book). Should you prefer to print, I would print chapter-by-chapter as we move along.

At the end of each chapter, there is a chapter summary (in bullet points), key terms (in bullet points), and both "Questions for Review" and "Exercises." I will refer to the former as "Questions" and the latter as "Exercises." The Questions typically require only a short, written response and are meant to review the material presented in the textbook. The Exercises are longer, often featuring multiple parts, and require you to do some math and draw graphs. Some of the Exercises include an Excel (or Google Sheets) component. The Questions and Exercises are included for your own self-review. Some of them may be included on assigned problem sets. Other problem set questions will not be from the textbook.

## Other Course Materials

The GLS textbook is available on Canvas. I will post .pdf copies of the lecture slides on Canvas as well. Please note: the slides are intentionally incomplete in some areas. Simply reading the slides is not a substitute for coming to class, where I will also do some work on the board.

In addition to the textbook and lecture slides, I will post a couple of other notes (under the Canvas folder "Technical Notes") and a few short videos (under "Panopto Video") that explain a topic or work through a problem.

## Attendance

There is no formal grade for attendance or participation. That being said, I do monitor attendance patterns. If I notice that you are missing an inordinate number of classes, I may reach out, and I reserve the right to reduce your final course grade if absences are excessive.

## AI

Generative artificial intelligence (AI) is now a part of life. You are free to use AI however you wish in this class, subject to one caveat. I would encourage you to be disciplined with your approach, however. AI can complete the problem sets for you (which is why I'm only grading them on a rough completion scale). But it won't be able to learn for you. You will have to master the material to do well on in-person exams. I encourage you to start with the problem sets without using AI. Use AI if you get stuck, want to check your work, and/or would like an in-depth explanation. You can also use AI to generate practice questions and offer explanations for topics. Be warned, however, AI is not always right.

You may not use AI while taking quizzes. You are required to use the Respondus LockDown Browser tool in Canvas while taking the quizzes. This will disable access to any online resources while taking the quiz. You may consult with printouts and handwritten notes while taking the

quizzes. But remember: these quizzes are timed. You likely do not have enough time to consult the notes extensively. You may not discuss the quizzes with other students during the 24-hour window during which the quizzes are available.

## Office Hours

I will hold two sets of regularly scheduled office hours. The first set will be from 2:00 to 3:00 pm on Wednesdays (starting January 21). The second set will be on Fridays from 10:45 am to 12 noon (starting January 16). For both sets of office hours, I have reserved room 3005 in JNH (labeled "classroom"). If you take the elevator to the third floor, this room is just down the hall, directly across from the bathrooms.

A couple of notes. First, these are intended to be "group" office hours, meaning any students are welcome to attend at the same time. I think students benefit from hearing other students' questions. If you need to meet with me individually about a matter you do not wish to discuss in front of others, please arrange something outside the regularly scheduled slots. Second, because my office hours are intended to be for multiple students, I have reserved the Department's "classroom" space. If there are no customers, I will typically be in my office (JNH 3020, which is just down the hall). If you show up at 3005 and I'm not there, find me in my office.

## Teaching Assistant

There is one graduate teaching assistant (TA) for the class, Celia Schurman ([cschurma@nd.edu](mailto:cschurma@nd.edu)). Celia will attend class, hold a weekly review session, hold weekly office hours, and be available for questions and consultation via email.

Celia's weekly review session will be on Monday evenings from 5:30 to 7:00 pm (location TBD). She will have prepared material to review the work from the previous week's classes. Attendance is optional, but I would encourage you to attend if you find the material challenging. Celia will also hold drop-in office hours each Wednesday from 5:00 to 6:30 pm in JNH 3005.

Please also note that the Department hosts "peer tutoring" sessions for students in our core courses (Intermediate Micro and Macro, Statistics, and Econometrics). These sessions are available on Monday, Tuesday, and Wednesday evenings from 6:30-8:30 (JNH B058).

## Prayer Before Class

I will open each class with a free-form prayer asking God to guide us as we seek to better understand the world around us. Notre Dame is a Catholic university, and my Catholic faith is important to me. If you would like to add a prayer intention, please email me your intention before class, and I will include it in my opening prayer. Participation is not required.

## Detailed Course Outline

The following is a detailed, day-by-day course outline. The schedule is tentative and subject to revision. Suggested readings appear in brackets.

- Part I: Long-Run Growth

    - January 13: introduction [GLS chapters 1, 2, and 3 and Appendix A]
    - January 15: growth facts and basic Solow model [GLS chapter 4 and 5]

- January 20: steady state and dynamic experiments [GLS chapter 5]
- January 22: golden rule, augmented Solow model [GLS chapters 5 and 6]
- January 27: cross-country income differences [GLS chapter 7]
- January 29: Solow model with AI, review

## Midterm 1 (February 3)

- Part II: Micro of Macro

  - February 5: two-period consumption-saving model [GLS chapter 9]
  - February 10: the consumption function [GLS chapter 9]
  - February 12: life-cycle consumption-saving, permanent income hypothesis, uncertainty [GLS chapters 9 and 10]
  - February 17: competitive equilibrium in an endowment economy [GLS chapter 11]
  - February 19: fiscal policy, debt, taxes, and Ricardian Equivalence [GLS chapters 13.1 and 13.2]
  - February 24: production, labor, and investment demand [GLS chapter 12]
  - February 26: labor supply and money demand [GLS chapters 12 and 14]
  - March 3: competitive equilibrium in a production economy [GLS chapters 12, 13, and 14]

## Midterm 2 (March 5)

- Part III: Business Cycles

  - March 17: neoclassical model 1 [GLS chapters 18 and 19]
  - March 19: neoclassical model 2 [GLS chapters 19 and 20]
  - March 24: efficiency, money, interest rates, and inflation [GLS chapters 15 and 21]
  - March 26: new Keynesian model 1 [GLS chapters 24 and 25]
  - March 31: new Keynesian model 2 [GLS chapter 26]

## Midterm 3 (April 2)

- Part IV: Applications

  - April 7: new Keynesian model dynamics and optimal policy [GLS chapters 27 and 28]
  - April 9: IS-MP-PC model 1 [GLS Appendix E]
  - April 14: IS-MP-PC model 2 [GLS Appendix E]
  - April 16: zero lower bound (ZLB)
  - April 21: interest rates and unconventional monetary policy [GLS chapter 37]
  - April 23: Great Recession and COVID-19
  - April 28: backup and review

## Final Exam (May 6, 4:15-6:15)