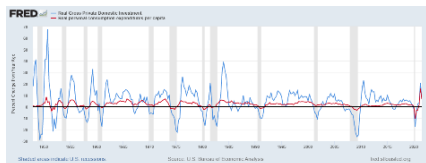# Economics 20200

The Elements of Economic Analysis III
Winter Quarter 2023

%-change in Real Investment and Real Consumption, 1950-2022. Source: FRED series GPDIC1 and A794RX0Q048SBEA

Prerequisites

This class assumes you are comfortable with the contents and pre-requisites of ECON 20100. Econ 19900 or Econ 10200 are recommended but not required for students without a prior macroeconomics course.

Measured Learning Objectives

- *Construct* and solve general equilibrium models of the macroeconomy
- *Evaluate* theoretical predictions using economic data
- *Modify* a theory to evaluate statements or scenarios
- *Execute* basic MATLAB computational analysis of model equilibria

Description

Department Website: As an introduction to macroeconomic theory and policy, this course covers the determination of aggregate demand (i.e. consumption, investment, the demand for money), aggregate supply, and the interaction between aggregate demand and supply. We also discuss economic growth, business cycles, inflation, and money.

Explained: This course extends the theoretical methods from Econ 20100 into dynamic general equilibrium models, allowing you to analyze a "full" economy with firms, consumers, and governments interacting through goods and financial markets. We also discuss the difference between a recession and expansion, and long run economic growth.

Textbooks

I write the topic summaries and practice problems for each class meeting: those are posted to Canvas, along with the class slides. The topic summaries list the relevant chapters to augment or provide details for topics from class using the abbreviations below for each textbook. I do not assign mandatory homework or readings from any textbook. However, there may be mandatory topical readings assigned for homework which will be posted on Canvas and do not need to be purchased.

	(DLS) Matthias Doepke, Andreas Lehnert, & Andrew W. Sellgren, *Macroeconomics*. Free online from authors. https://faculty.wcas.northwestern.edu/~mdo738/book.htm Companion to Barro, Macroeconomics 5th Edition (1997)
	(GLS) Julio Garín, Robert Lester, & Eric Sims, *Intermediate Macroeconomics*. Available for free download. https://www3.nd.edu/~esims1/gls_textbook.html
	(PK) Pablo Kurlat*, A Course in Modern Macroeconomics.* Purchase digital copy here from the author, or the paperback on Amazon. https://sites.google.com/view/pkurlat/a-course-in-modern-macroeconomics?pli=1
	(TR) Topical Readings. Articles or news stories that integrate the course content with current events or context. These will be distributed on Canvas or referenced in homework if they are required reading.

Econ 20200 SCHEDULE				
	CLASS / Discussion	**Course Hours**		**Department Advising Hours**
MO	1:30-2:50pm (Stuart 102)	-	-	10am-Noon SHFE 428
TU	-	4pm-6pm SHFE 428	-	
WE	1:30-2:50pm (Stuart 102)	10am- Noon Zoom	-	
TH	-	-	1pm-3pm Ryerson 352 (the Barn)	
FR	*1:30-2:20pm (Stuart 102)*	-	-	
		Dr. G.C. Pieters	**Stefano Bruzzo-Gallardo**	**Dr. G.C. Pieters at above time**
preferred salutation		Dr. Pieters//Prof. Pieters she/her	Stefano he/him	Advising hours for all lecturers and instructional professors are posted on the door of SHFE 428
Email		gcpieters@uchicago.edu	sbruzzo@uchicago.edu	

STRUCTURE

In most classes, I will show relevant theory with an application to a real-world situation. Each class meeting introduces a "Quick Response Exercise" (QRE): an economic question to be discussed in groups with analysis ultimately shared with the entire class. Discussion sections revisit mathematical techniques and problems from class and introduce or revisit sample problems closely related to the homework. Discussion section material is selected and designed by the TA.

Homework questions are not a regurgitation of in-class examples. I design the homework assignment to evaluate whether you comprehend the material sufficiently to: (1) understand the question, and (2) complete the economic analysis of that question. The expectation is the same for quiz questions as you must understand the material, not simply memorize definitions or techniques. In addition to class attendance, I assume you will work the provided practice problems, attend the discussion sections, and visit class hours or post on the Discussion board as needed.

GRADES CALCULATION

Aggregate Individual Score, AIS_i

Your *aggregated individual score* (AIS_i) will not be rounded and is calculated from the combination of the three graded components of this class: (1) homework, (2) Quick Response Exercises (QRE), and (3) quizzes.

- Each homework assignment is worth at least 5 points. <u>All</u> your homework scores are added together for a *Homework Component* that cannot exceed 20 points.
- Each QRE is worth 1 point. <u>All</u> your QRE scores are added together for a *QRE Component* that cannot exceed 10 points.
- Each quiz is worth 30 points. Your <u>4 highest</u> quizzes are added together for a *Quiz component* out of 120 points.

$$AIS_i = Homework\ Component\ (20) + QRE\ Component(10) + Quiz\ Component(120)$$

	D	D+	C-	C	C+	B-	B	B+	A-	A
Default										
Fixed (% out of 150)	90 60%	99 66%	102 68%	105 70%	114 76%	117 78%	120 80%	129 86%	132 88%	135 90%
Course Curves (cutoff used if lower than "Default")										
Curve 1: Distribution $\mu = Average\ S_i$ $\sigma = Std.Dev.$	$\mu - \frac{3}{2}\sigma$	$\mu - \frac{5}{4}\sigma$	$\mu - \sigma$	$\mu - \frac{3}{4}\sigma$	$\mu - \frac{1}{4}\sigma$	μ	$\mu + \frac{1}{4}\sigma$	$\mu + \frac{3}{4}\sigma$	$\mu + \sigma$	$\mu + \frac{5}{4}\sigma$
Curve 2: Share of Grades			C-: S_i of the top 75th			B-: Median S_i (50th percentile)			A-: S_i of the top 25th	

Grade Cutoffs

You will receive the highest letter grade for which your *aggregated individual score*, AIS_i, exceeds the grade cutoff score: $AIS_i \geq C_g$. If the entire class demonstrates mastery of the material (all scores are higher than the cutoff for an A grade), the entire class gets an A: <u>there is no grade rationing</u>– you are not in a grade competition with other students in this class. I will not certify your understanding as mastery (an A grade) if it is not deserved.

The highest AIS_i needed to **guarantee** a grade is given by the "Fixed" cutoff (If you have 80% you will receive no less than a B). I "curve the class" using one of the two curved cutoffs only if the cutoff is lower than the fixed cutoff. I *will never increase the cutoff above the fixed value*.

A "Pass" for a Pass/Fail grade is a D. You must earn a quality (letter) grade of a C- or higher for the course to count towards any track of the Economics major.

Other Grading Notes

• All your grades and graded work will be available on Gradescope. I will not post scores to Canvas because it cannot calculate grades correctly.

• The class average on assessments may vary greatly from assignment to assignment. Individual assessments will not be curved.

•<u>No "Individual-Only" Extra Credit or "Grade Nudges"</u>. There will be NO additional grade assistance unless offered to the entire class. I ignore (and find insulting) all emails that ask for bonus assignments or a "grade nudge". **Everyone has equal opportunity to earn an A grade or to avoid an F**. Grades will not be adjusted to reflect the hours you report working on the course material, your effort, your class participation, your office hours or discussion section attendance, your financial aid status, etc. Your grades reflect only your understanding of the material as evaluated by assessments. Some students may be able to study for 10 minutes and obtain an A, while others can spend an entire week studying and receive an F.

CALENDAR

The following schedule outlines the due dates. As the course progresses, "Topics" will be updated to reflect what was covered. If the material changes, the date of assessments will **NOT** change, rather the assessment content will be altered. Corresponding textbook and supplementary readings should be determined from the topic summary associated with each lecture that is posted on Canvas along with the class slides and practice problems.

Week	Date	Summary§	Topic	Due
1	Mon, Jan 2		*(Before Quarter Starts)*	
	Wed, Jan 4	1	Measurement and the Macroeconomy	QRE 1
	Fri, Jan 6		*Discussion: Lagrangian/FOC Math Review*	-
2	M, Jan 9	2	Revisiting the Static Economy	QRE 2
	W, Jan 11	3	Savings and Euler Equations	QRE 3
	Fri, Jan 13		*Discussion: Homework 1*	Homework 1
3	M, Jan 16		*(MLK Day – No Class)*	
	W, Jan 18	4	Bond Market	QRE 5
	Fri, Jan 20		*Discussion: **Quiz 1 Administered***	**Quiz 1**
4	M, Jan 23	5	Equity Markets	QRE 6
	W, Jan 25	6	Two-Sided Asset Markets with Infinitely Lived Agents	QRE 7
	Fri, Jan 27		*Discussion: Homework 2*	Homework 2
5	M, Jan 30	7	Economic Growth	QRE 8
	W, Feb 1	8	Growth Accounting: A, H, and K	QRE 9
	Fri, Feb 3		*Discussion: **Quiz 2 Administered***	**Quiz 2**
6	M, Feb 6	9	Solow Model and Steady States	QRE 9
	W, Feb 8	10	Solow Growth Transitions and Steady State Changes	QRE 10
	Fri, Feb 10		*Discussion: Homework 3*	Homework 3
7	M, Feb 13	11	Neoclassical Growth Model	QRE 11‡
	W, Feb 15	12	Business Cycles	QRE 12‡
	Fri, Feb 17		*Discussion: **Quiz 3 Administered***	**Quiz 3**
8	M, Feb 20	13	Real Business Cycle Model	QRE 13‡
	W, Feb 22	14	Money, Interest Rates, Cash-In-Advance	QRE 14‡
	Fri, Feb 24		*Discussion: Homework 4*	Homework 4
9	M, Feb 27*	15	Baumol-Tobin	QRE 15‡
	W, Mar 1	16	OLG Models	-
	Fri, Mar 3		*Discussion: **Quiz 4 Administered***	**Quiz 4**
Finals**	Wed, March 8 12:30-pm-2:30pm. Replacement Quiz 1‡ & Replacement Quiz 2‡, Location TBD 50 minute for Replacement Quiz 1, 20 minute break, then 50 minutes for Replacement Quiz 2.			

*You need to request a W from your **advisor** by email by 5:00pm.

Pass/Fail must be declared by email **at the start of the final exam's time slot.

‡ Assessments may be optional for some students: see "Disruption Accommodation" on the Policies Syllabus.

POLICIES AND RESOURCES

See Econ 20200 Winter 2023 "Syllabus: Policies" and "Syllabus: Resources" sections.