

**Syllabus**  
**ECON 646**  
**Spring 2021**

## Course Information

**Course Number:** ECON 646

**Course Title:** Macroeconomics II, Part 1

**Time:** TR 9:45 - 11am

**Location:** BLOC 105

**Zoom Link:** <https://tamu.zoom.us/j/94903152403?pwd=WE5ZZ21XKzVqY2haQ0IxV1liWXE5UT09>

**Meeting ID:** 949 0315 2403

**Passcode:** 3w881i

## Instructor Details

**Instructor:** Prof. Sarah Zubairy

**E-Mail:** szubairy@tamu.edu

**Office Hours on Zoom or by appointment**

**TBA**

## Teaching Assistant Details

**TA:** Joshua York

**E-Mail:** jryork@tamu.edu

**Recitation Sections:** Josh will hold Friday recitations to cover homework problems and to teach some programming tools or supplementary materials.

**Recitation section:** F 1:35pm-2:50pm

**Office Hours on Zoom**

**TBA**

## Course Description

I will teach Part 1 of ECON 646. ECON 646 covers various topics for the first year PhD sequence in macroeconomics. My part will focus on solving general equilibrium models that take into account agent optimization, dynamics, and expectations formation. Dynamic stochastic general equilibrium (DSGE) models have become the standard workhorse models for the analysis of aggregate fluctuations. The main focus of the course will be on the analysis, solution, calibration, and extensions of DSGE models. We will work with these models in conjunction with data, discussing how to calibrate and evaluate these models. We will then use the models to think about economy policy. Part 1 and Part 2 (taught by Professor Yoon Jo) are independent modules that make up ECON 646.

## Course Prerequisites

First semester Ph.D. Core Courses in Economics (ECON 636) or permission of instructors (both Dr. Jo and myself.)

## Course Learning Outcomes

Upon successful completion of this part of the course, students will be able to:

1. Solve basic real business cycle models and generate model implied moments.
2. Understand the mapping between model and data moments and how calibration works.
3. Analyze the role of various demand and supply side shocks in generating business cycle fluctuations.
4. Augment basic models with features to help them bring closer to data.
5. Analyze the role of fiscal policy interventions.

## Textbook and Resource Materials

1. There is no required text for this part of the course. Some of the journal articles on the syllabus will be required readings. I will indicate which ones in class.
2. eCampus This semester we will be using [eCampus](#) to distribute classroom material and it also hosts an updated gradebook. Every registered student has an automatic access to eCampus for the course using their NetID and password. I will use eCampus to distribute lecture slides, reading materials, and any assignments for the class.

## Grading Policy

Part 1 will consist of homework (counts for 30% of your grade) and an exam (70%). The exam for the first part will take place on **March 11<sup>th</sup>, Thursday**. Your grade in ECON 646 will be determined half from Part 1 and half from Part 2 (taught by Professor Jo).

## Late Work Policy

*Late work is not accepted, unless proof of a university-authorized excuse is presented.* Please become familiar with Student Rule 7 on Excused Absences (<http://student-rules.tamu.edu/rule07>). In particular, per rule 7, “Except in the case of the observance of a religious holiday, to be excused the student must notify his or her instructor in writing (acknowledged e-mail message is acceptable) **prior to the date of absence** if such notification is feasible.”

## Course Outline

(The outline is tentative and subject to change.)

### A. Preliminaries

History of Thought, Notation, Expectation Formation, Stochastic Processes, Impulse Responses, Filtering

*Suggested Readings:*

Mankiw, Greg. “[Macroeconomist as Scientist and Engineer](#).” *Journal of Economic Literature*, 2006.

Woodford, Michael. “[Convergence in Macroeconomics: Elements of a New Synthesis](#),” *American Economic Journal: Macroeconomics*, 2009.

Kocherlakolata, N. “[Modern Macroeconomic Models as Tools for Economic Policy](#),” 2010.

## **B. Real Business Cycle Models**

Solution techniques, Calibration, Simulation, Evaluation, Matching data moments

*Suggested Readings:*

Kydland, Finn and Ed Prescott. "[Time to Build and Economic Fluctuations](#)." *Econometrica*, 1982.

King, Robert and Sergio Rebelo. "[Resuscitating Real Business Cycles](#)." *Handbook of Macroeconomics*, 2000.

Campbell, John. "[Inspecting the Mechanism: An Analytical Approach to the Stochastic Growth Model](#)." *Journal of Monetary Economics*, 1994.

## **C. Extensions of Basic Real Business Cycle Models**

Adjustment costs, Habit formation, Variable factor utilization, Business cycle accounting, Fiscal policy (i. Ricardian Equivalence, ii. Distortionary taxes and debt)

*Suggested Readings:*

Hayashi, Fumio. "[Tobin's Marginal q and Average q: A Neoclassical Interpretation](#)." *Econometrica*, 1982.

Chari, VV, Patrick Kehoe, and Ellen McGrattan. "[Business Cycle Accounting](#)." *Econometrica*, 2007.

Aiyagari, S. Rao, Lawrence Christiano, and Martin Eichenbaum. "[The Output, Employment, and Interest Rate Effects of Government Consumption](#)." *Journal of Monetary Economics*, 1992.

McGrattan, Ellen. "[The Macroeconomic Effects of Distortionary Taxation](#)." *Journal of Monetary Economics*, 1994.

Burnside, Craig, Martin Eichenbaum, and Sergio Rebelo. "[Labor Hoarding and the Business Cycle](#)." *Journal of Political Economy*, 1993.

Burnside, Craig and Martin Eichenbaum. "[Factor Hoarding and the Propagation of Business Cycle Shocks](#)." *American Economic Review*, 1996.

Hansen, Gary. "[Indivisible Labor and the Business Cycle](#)." *Journal of Monetary Economics*, 1985.

Baxter, Marianne and Robert King. "[Fiscal Policy in General Equilibrium](#)." *American Economic Review*, 1983

## **D. Empirical Effects of Business Cycle Innovations**

Technology Shocks, Government Spending Shocks, Tax Shocks (we might cover this list partially and interspersed with the relevant RBC models)

### *Suggested Readings:*

Ramey, Valerie “[Macroeconomic Shocks and Their Propagation](#),” Handbook of Macroeconomics, vol 2, 2016

Blanchard, Olivier and Roberto Perotti. "[An Empirical Characterization of the Dynamic Effects of Changes in Government Spending and Taxes on Output](#)," *The Quarterly Journal of Economics*, vol. 117(4), pages 1329-1368, 2002

Ramey, Valerie. "[Identifying Government Spending Shocks: It's all in the Timing](#)," *The Quarterly Journal of Economics*, vol. 126(1), pages 1-50, 2011

Christina D. Romer & David H. Romer. "[The Macroeconomic Effects of Tax Changes: Estimates Based on a New Measure of Fiscal Shocks](#)," *American Economic Review*, vol. 100(3), pages 763-801, 2010

Mertens, Karel & Morten Ravn. "[The Dynamic Effects of Personal and Corporate Income Tax Changes in the United States](#)," *American Economic Review*, vol. 103(4), pages 1212-1247, 2013

## University Policies

### Attendance Policy

The university views class attendance and participation as an individual student responsibility. Students are expected to attend class and to complete all assignments.

Please refer to [Student Rule 7](#) in its entirety for information about excused absences, including definitions, and related documentation and timelines.

### Makeup Work Policy

Students will be excused from attending class on the day of a graded activity or when attendance contributes to a student’s grade, for the reasons stated in Student Rule 7, or other reason deemed appropriate by the instructor.

Please refer to [Student Rule 7](#) in its entirety for information about makeup work, including definitions, and related documentation and timelines.

Absences related to Title IX of the Education Amendments of 1972 may necessitate a period of more than 30 days for make-up work, and the timeframe for make-up work should be agreed upon by the student and instructor” ([Student Rule 7, Section 7.4.1](#)).

“The instructor is under no obligation to provide an opportunity for the student to make up work missed because of an unexcused absence” ([Student Rule 7, Section 7.4.2](#)).

Students who request an excused absence are expected to uphold the Aggie Honor Code and Student Conduct Code. (See [Student Rule 24](#).)

## Academic Integrity Statement and Policy

“An Aggie does not lie, cheat or steal, or tolerate those who do.”

“Texas A&M University students are responsible for authenticating all work submitted to an instructor. If asked, students must be able to produce proof that the item submitted is indeed the work of that student. Students must keep appropriate records at all times. The inability to authenticate one’s work, should the instructor request it, may be sufficient grounds to initiate an academic misconduct case” ([Section 20.1.2.3, Student Rule 20](#)).

You can learn more about the Aggie Honor System Office Rules and Procedures, academic integrity, and your rights and responsibilities at [aggiehonor.tamu.edu](http://aggiehonor.tamu.edu).

## Americans with Disabilities Act (ADA) Policy

Texas A&M University is committed to providing equitable access to learning opportunities for all students. If you experience barriers to your education due to a disability or think you may have a disability, please contact Disability Resources in the Student Services Building or at (979) 845-1637 or visit [disability.tamu.edu](http://disability.tamu.edu). Disabilities may include, but are not limited to attentional, learning, mental health, sensory, physical, or chronic health conditions. All students are encouraged to discuss their disability related needs with Disability Resources and their instructors as soon as possible.

## Title IX and Statement on Limits to Confidentiality

Texas A&M University is committed to fostering a learning environment that is safe and productive for all. University policies and federal and state laws prohibit gender-based discrimination and sexual harassment, including sexual assault, sexual exploitation, domestic violence, dating violence, and stalking.

With the exception of some medical and mental health providers, all university employees (including full and part-time faculty, staff, paid graduate assistants, student workers, etc.) are Mandatory Reporters and must report to the Title IX Office if the employee experiences, observes, or becomes aware of an incident that meets the following conditions (see [University Rule 08.01.01.M1](#)):

- The incident is reasonably believed to be discrimination or harassment.
- The incident is alleged to have been committed by or against a person who, at the time of the incident, was (1) a student enrolled at the University or (2) an employee of the University.

Mandatory Reporters must file a report regardless of how the information comes to their attention – including but not limited to face-to-face conversations, a written class assignment or paper, class discussion, email, text, or social media post. Although Mandatory Reporters must file a report, in most instances, you will be able to control how the report is handled, including whether or not to pursue a formal investigation. The University’s goal is to make sure you are aware of the range of options available to you and to ensure access to the resources you need.

Students wishing to discuss concerns in a confidential setting are encouraged to make an appointment with [Counseling and Psychological Services](#) (CAPS).

Students can learn more about filing a report, accessing supportive resources, and navigating the Title IX investigation and resolution process on the University's [Title IX webpage](#).

## Statement on Mental Health and Wellness

Texas A&M University recognizes that mental health and wellness are critical factors that influence a student's academic success and overall wellbeing. Students are encouraged to engage in proper self-care by utilizing the resources and services available from Counseling & Psychological Services (CAPS). Students who need someone to talk to can call the TAMU Helpline (979-845-2700) from 4:00 p.m. to 8:00 a.m. weekdays and 24 hours on weekends. 24-hour emergency help is also available through the National Suicide Prevention Hotline (800-273-8255) or at [suicidepreventionlifeline.org](https://suicidepreventionlifeline.org).

## COVID-19 Temporary Amendment to Minimum Syllabus Requirements

### *Campus Safety Measures*

To promote public safety and protect students, faculty, and staff during the coronavirus pandemic, Texas A&M University has adopted policies and practices for the Spring 2021 academic term to limit virus transmission. Students must observe the following practices while participating in face-to-face courses and course-related activities (office hours, help sessions, transitioning to and between classes, study spaces, academic services, etc.):

- Self-monitoring—Students should follow CDC recommendations for self-monitoring. **Students who have a fever or exhibit symptoms of COVID-19 should participate in class remotely if that option is available, and should not participate in face-to-face instruction.**
- Face Coverings—[Face coverings](#) (cloth face covering, surgical mask, etc.) must be properly worn in all non-private spaces including classrooms, teaching laboratories, common spaces such as lobbies and hallways, public study spaces, libraries, academic resource and support offices, and outdoor spaces where 6 feet of physical distancing is difficult to reliably maintain. Description of face coverings and additional guidance are provided in the [Face Covering policy](#) and [Frequently Asked Questions \(FAQ\)](#) available on the [Provost website](#).
- Physical Distancing—Physical distancing must be maintained between students, instructors, and others in course and course-related activities.
- Classroom Ingress/Egress—Students must follow marked pathways for entering and exiting classrooms and other teaching spaces. Leave classrooms promptly after course activities have concluded. Do not congregate in hallways and maintain 6-foot physical distancing when waiting to enter classrooms and other instructional spaces.
- To attend a face-to-face class, students must properly wear an approved face covering. If a student refuses to wear a face covering, the instructor should ask the student to leave and join the class remotely. If the student does not leave the class, the faculty member should report that student to the [Student Conduct office](#) for sanctions. Additionally, the faculty member may choose to teach that day's class remotely for all students, or dismiss the class in the case of a traditional face to face lecture.

### *Personal Illness and Quarantine*

Students required to quarantine must participate in courses and course-related activities remotely, if that option is available, and **must not attend face-to-face course activities**. Students should notify their instructors of the quarantine requirement. Students under quarantine are expected to participate in courses

and complete graded work unless they have symptoms that are too severe to participate in course activities.

Students experiencing personal injury or Illness that is too severe for the student to attend class qualify for an excused absence (See [Student Rule 7, Section 7.2.2.](#)) To receive an excused absence, students must comply with the documentation and notification guidelines outlined in Student Rule 7.