

MSF 6621

Finance Within the Macroeconomy

Spring 2022

Prof. Murray Z. Frank

Class Time: Tuesday and Thursday 3:45 PM to 5:25 PM

Class Room: CSOM 1-132

Office Hours: TBA

Teaching Assistant: Dan Su, e-mail: suxxx478@umn.edu

This course will provide you with an understanding of macroeconomics with special interest in the role of financial markets and institutions. Modern macroeconomics is quantitative, and so you will practice and improve your Python skills. As a result, while you study macroeconomics, you will be strengthening your intellectual toolkit.

Textbook: Jones, C. 2020 Macroeconomics, 5th edition, W.W. Norton.

Grades: Assignments 1, 2 and 3 are each 10%, Hands on class presentation 20%, Class participation 10%, Exam 40%

Assignment Dates: All are due to be submitted on our class Canvas page by 11:59 PM on the due date (Feb 3, Feb 13, Feb 23).

1 Introduction

Topic: **Measuring the Economy**

Date: January 18, 2022

Read before class: Jones ch 1 and 2

Topic: **Production Equilibrium**

Date: January 20, 2022

Read before class: Jones ch 4

2 Long Run Economic Growth

Topic: **Growth 1: Solow**

Date: January 25, 2022

Read before class: Jones ch 3 and 5

Hands on: https://python-programming.quantecon.org/python_oop.html

Topic: **Growth 2: Growth and Ideas**

Date: January 27, 2022

Read before class: Jones ch 6

Hands on: https://python.quantecon.org/scalar_dynam.html

3 Unemployment

Topic: **Unemployment and the Labor Market**

Date: February 1, 2022

Read before class: Jones ch 7 excluding section 7.4

Hands on: https://python.quantecon.org/geom_series.html

February 3: Assignment 1 due

Topic: **Unemployment Markov Dynamics**

Date: February 3, 2022

Read before class: Jones ch 7 section 7.4

Read before class: https://python.quantecon.org/finite_markov.html

4 Inflation

Topic: **Money**

Date: February 8, 2022

Read before class: Jones ch 8 sections 8.1 - 8.2

Topic: **Inflation**

Date: February 10, 2022

Read before class: Jones ch 8 sections 8.3 - 8.6

Hands on: https://python.quantecon.org/lake_model.html (group 1)

February 13: Assignment 2 due

5 Short Run Fluctuations

Topic: **The IS curve**

Date: February 15, 2022

Read before class: Jones ch 9 and 11

Hands on: https://python.quantecon.org/heavy_tails.html (group 2)

Topic: **Monetary Policy**

Date: February 17, 2022

Read before class: Jones ch 12

Hands on: https://python.quantecon.org/ar1_processes.html (group 3)

Topic: **Fluctuations and AD/AS**

Date: February 22, 2022

Read before class: Jones ch 13

Hands on: https://python.quantecon.org/markov_asset.html (group 4)

February 23: Assignment 3 due

6 Topics

Topic: **Government Macro-Policy**

Date: February 24, 2022

Read before class: Jones ch 18

Hands on: https://python.quantecon.org/wealth_dynamics.html (group 5)

Topic: **A Unified Perspective: DSGE**

Date: March 1, 2022

Read before class: Jones ch 15

March 3: Exam

Assignment Advice: Discussing things with your classmates is a good idea, but the work you hand in for assignments must be your own work.

Late assignments will be penalized, 20% per day. Anything you submit ought to be a professional product. Anything less will be downgraded. This means that you will state your answer clearly and prominently. The answer must not be hidden in a pile of calculations. Your answer will be well justified and succinctly explained.

Group Hands-On Presentations: Everyone will be assigned to a group. Each group will record a video presentation using Voicethread. It will be about 25 minutes long. If your presentation is more than 30 minutes your grade will be reduced. Your video will explain the assigned

hands-on exercise to the class. These hands-on Python exercises are intended to strengthen your conceptual foundations as well as your ability to use Python. Your group will explain both the economic content and the programming content. The group will use slides to explain: 1) key economic features, and 2) what the key parts of the code are actually doing.

Your presentation does not need to cover every single thing in the reading as long as you get the main ideas across in the available time. If you are in doubt, please check with the Prof at least a week in advance. You should pay special attention to anything that you found confusing as your group was working through the exercise. The most important thing is that the class really be able to understand. It is not necessary for every group member to appear in the video, as long as everyone is contributing properly.

Your slides and your video will be submitted on Canvas the night before. The videos will be shown to the class and there will be a question and answer opportunity immediately after. **In addition to correctness and clarity, the videos and slides will be graded for professionalism and the extent to which they are helpful to your classmates. A presentation that the audience finds fun and interesting, is much better than a tediously boring presentation!! This matters.** When making a professional presentation it is very important to think about it from the perspective of the audience. What will they be able to recall, and be able to use later on?

Python Advice: You have already studied programming in Python. If you need a basic Python refresher, both of these are very good:

1. <https://python-programming.quantecon.org/intro.html>
2. <https://scipy-lectures.org/>

In this class we will put your knowledge to work while learning macroeconomics. This will be done using several hands on macroeconomic exercises using Python. They go significantly beyond the textbook. These exercises develop methods and tools that are fundamental to modern macroeconomics. You should work through the hands on exercises at home before the class. Figure out what the code is doing. Try small changes and see what happens. Try doing the assignment exercises that are provided.

For Fun, Not Grades

Some popular macro blogs. It is not hard to figure out their points of view.

<http://gregmankiw.blogspot.com/>
<http://johnhcochrane.blogspot.com/>
<http://larrysummers.com/category/blog/>
<http://krugman.blogs.nytimes.com/>
<http://newmonetarism.blogspot.com/>
<http://www.johnbtaylor.com/>

Academic Policies

The Carlson School defines academic misconduct as any act by a student that misrepresents the student's own academic work or that compromises the academic work of another. Scholastic misconduct includes (but is not limited to) cheating on assignments or examinations, plagiarizing, i.e., misrepresenting as one's own work any work done by another, submitting the same paper, or substantially similar papers, to meet the requirement of more than one course without the approval and consent of the instructors concerned, or sabotaging another's work. Within this general definition, however, instructors determine what constitutes academic misconduct in the courses they teach. Students found guilty of academic misconduct face penalties ranging from lowering of the course grade or awarding a grade of F or N for the entire course, to suspension from the University.

http://www1.umn.edu/regents/policies/academic/Student_Conduct_Code.html

Accommodations for Students with Disabilities

The University of Minnesota is committed to providing all students equal access to learning opportunities. Disability Services is the campus office that works with students who have disabilities to provide and/or arrange reasonable accommodations. Students registered with Disability Services, who have a letter requesting accommodations, are encouraged to contact the instructor early in the semester. Students who have, or think they may have, a disability (e.g. psychiatric, attention, learning, vision, hearing, physical, or systemic), are invited to contact Disability Services for a confidential discussion at 612-626-1333 (V/TTY) or at ds@umn.edu. Additional information is available at the DS website <http://ds.umn.edu>