Section Syllabus

ECON 202A, Macroeconomic Theory (second half)

Fall 2021 *GSI: Ethan M. L. McClure (He/Him)*

## Sections

Times and locations:

- Section 101: Wednesday 8am-10am, CA Time, Morgan 109,
- Section 102: Fridays 2pm-4pm, CA Time, Evans 597

In sections we will be discussing some of the theoretical material that was covered in lecture with a particular focus on intuition. [1] We will also be expanding on some of the topics in class. Finally, if time permits, we will do some additional practice problems. Attendance is not mandatory but it is encouraged. If you are enrolled in one section you might go to the other (or both if you are really into macro) as long as they are not full. If a class is full, priority will be given to students that are actually enrolled in that section.

In theory, sections 101 and 102 will cover the same material, but in practice it is difficult to guarantee uniformity and hence it might be preferable to come to the same section each week. All the section notes will be posted on the bCourses before section website so that you can follow the material even if you skip one section.

Getting the pace of sections correct is difficult. You all have heterogeneous experience with the material and varying familiarity with the numerical/computational techniques we will be employing. Questions are highly encouraged!

### Tentative Section Outline

1. October 26, 28: Section 1, Dynamic Programming and Consumption.

2. November 3, 5: Section 2, Numerical Solutions with MATLAB - Part 1.

3. November 10, 12: Section 3, Numerical Solutions with MATLAB - Part 2.

[1] Section syllabus inherited from Chaewon Baek, then updated.

4. November 17, 19: Section 4, Numerical Solutions with MATLAB - Part 3.

5. November 24, 26: Section 5, **No Section: Thanksgiving**
6. December 1, 3: Section 6, Idiosyncratic Risk and Equity Premium.

7. December 3: Review Section for Exam (After Friday Section, Location TBD)

## Communication

### E-Mail

My email is EthanMLMcClure@berkeley.edu. Please include [ECON 202A] at the beginning of the subject of any email you send me. Allow up to two working days for a reply, although the response time will probably be shorter. I tend to check email in the afternoon and evening. Please, use email correspondence for simple and short questions that could reasonably be answered by email. (e.g. should there be a $\phi$ instead of an $\omega$ in this problem?) If you have more complicated or long questions, please come to office hours to discuss them with me. **Note:** When the demand for my time is high (the day before assignments are due) the price (waiting time for a response) will unfortunately increase. This should be an incentive to start assignments early, and ask questions early!

## Office Hours

Office hours will be held on Tuesdays from 1 p.m. - 3 p.m. CA Time in Evans 536

Come to office hours for any questions you might have about the material covered in class or in section, problems discussed in section, problem set questions or any confusion about the course material. Office hours will end at the above-mentioned ending time, if you have lengthy questions (or you suspect you will get long answers), please plan ahead and come sufficiently early. If you just want to chat about macroeconomics, or research in general, we can set up a time for Zoom coffee.

# MATLAB

MATLAB (Matrix Laboratory) is a popular numerical computing and proprietary programming language in economics - especially macroeconomics. MATLAB is not open source, and thus requires a license. Luckily Berkeley offers a license for free! If any of you are ADAMANT about using an open source language, Octave has nearly all the functionality

of MATLAB *sans some packages*. Otherwise, Julia has similar functionality, though with a style similar to Python and can be written in a Jupyter Notebook format. Python is always a possibility as well. An interesting discussion of their functionality and performance can be found here. I'm happy to help troubleshoot all of these languages (or even FORTAN 90, C/C++) though I will be most helpful if your code is written in MATLAB. More importantly, all demos in class will be on MATLAB exclusively. Also a homework assignment involves adapting MATLAB code that is pre-written and will not be available in other languages - though you could always translate it to another language.

### Downloading

First, create a Mathworks account here. Second, obtain a free MATLAB license through Berkeley here. Third, if you'd like some practice with MATLAB try some of exercise. Please download MATLAB before our second section.

## Problem Sets

As you might have read in the lecture syllabus, problem sets will be assigned. Problem sets are due at the beginning of class; late problem sets will **NOT** be accepted. We are all living in a turbulent time and thus unforeseen circumstances may interfere with your ability to turn in assignments on time. If that's the case please let me know early, preferably more than 24 hours before the assignment deadline, if something is impeding your ability to complete the assignment. **Note:** Starting the assignment late or not understanding a problem are not appropriate reasons for handing assignments in late.

Please turn the problem sets in on Gradescope. There are two options for submitting code. You can copy the lines of code into a text file (e.g. .txt, LaTeX, Word, etc.) or you can submit a PDF of the code. If you're going to use LaTeX, which I personally find easier to use for this, I'd suggest using the "listings" package. This StackExchange link outlines a simple example of how to upload MATLAB code directly into LaTeX directly from your .m files. This is often a better way to go since you don't have to copy and paste your program into LaTeX each time you edit the file, instead all the changes you make in the .m file will automatically show up in the LaTeX document when you recompile it.

Problem sets account for 10% of the total course grade and keeping up with the problem sets is one way to learn the material and to prepare for the midterm. You are encouraged to discuss problems collaboratively, but final solutions must be produced independently. Furthermore, I understand that many of the solutions to problems are on the first-year folder. I strongly discourage you from merely copying the solutions. Instead, use the first-year folder as a reference when you are stuck at a *particular* step in a problem. Also, the problem sets have changed since last year, so the solutions will not be the same.

Problem sets are graded on a 3 level scale:

- Check-plus: all problems are basically solved correctly, minor mistakes.
- Check: all problems are attempted, most of them are solved correctly.
- Check-minus: the problem set is handed in with a reasonably decent attempt at solving most problems.

Notice that not handing in the problem set is even worse than getting a check-minus (it would obtain a 0 in a scale of 0 to 3, with 1 being check-minus, 2 being check and 3 being check-plus, occasionally an extraordinarily good problem set might obtain a 4).

Any form of academic dishonesty will be dealt with according to the U.C. Berkeley policies and can lead to severe consequences including but not limited to getting an F for the course.

## Disability-Related Accommodations

If you need disability-related accommodations in this class, if you have emergency medical information you wish to share with me, or if you need special arrangements in case the building must be evacuated, please inform me immediately. Please see me privately after class or during office hours. For disability-related accommodations, you also need to obtain an accommodations letter from DSP (http://dsp.berkeley.edu) which will be sent directly to the professor.

## Limits to Confidentiality

As UC employees, all course instructors and tutors are Responsible Employees and are therefore required to report incidents of sexual violence, sexual harassment or other conduct prohibited by university policy to the Title IX officer. We cannot keep reports of sexual harassment or sexual violence confidential, but the Title IX officer will consider requests for confidentiality. There are confidential resources available to you, including the PATH to Care Center (http://sa.berkeley.edu/dean/confidential-care-advocate), which serves survivors of sexual violence and sexual harassment.

## Remember Berkeley's Honor Code

As a member of the UC Berkeley community, I act with honesty, integrity, and respect for others.