

**Econ 420-001: Intermediate Macroeconomics
Economics Department, UNC at Chapel Hill
Summer 1, 2024**

**Class: Mon-Fri: 9:45-11:15 pm
Phillips Hall-Rm 0206**

Instructor: **Hiroyuki Takahashi**
Email: hiroyuki@unc.edu
Office: 401 Gardner Hall
Office Hours: Tuesday 12:30 – 1:30
Wednesday 12:30 – 1:30
Off. Hours Location: EconAid Center

Course Site: Can be found at Canvas course website:
<https://uncch.instructure.com/courses/59959>

Text: Abel, Andrew B. Bernanke, Ben S. and Croushore, Dean.
Macroeconomics, Tenth edition. Pearson, 2020.

Though the lecture is based on the textbook, the textbook purchase is not necessarily required. The best materials in the course are the lecture slides and the assignments.

Prerequisites: 1.) Econ 101
2.) Econ 410 with a grade of at least a C

Course Description: An introduction to contemporary macroeconomic concepts and analysis. Topics include the level, fluctuations, and growth of national income, and monetary and fiscal policies designed to achieve economic goals. Students may not receive credit for both ECON 320 and ECON 420.

Learning Goals: The purpose of this course is to give you a fundamental understanding of modern micro-founded macroeconomic models. By the end of this course you should be able to:

- 1.) Construct and solve a model that matches several stylized facts about the macroeconomy
- 2.) Apply General Equilibrium analysis to a working model of the macroeconomy
- 3.) Evaluate data and media statements regarding shifts and changes to the working model
- 4.) Assess the impacts of fiscal and monetary policy decisions on the macroeconomy and its primary measures

Syllabus Changes

The instructor reserves the right to make changes to the syllabus including project due dates and test dates. These changes will be announced as early as possible.

Contact Information

Emails that have private or sensitive information or concerning your grade or performance in the course should be sent to the instructor directly at hiroyuki@unc.edu

Grading Scheme and Policies

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|------------------------|-----------------------------|-----|
| Grading Scheme: | Poll Everywhere/Attendance: | 5% |
| | Problem Sets (7 or 8): | 20% |
| | Midterms (2): | 40% |
| | Final: | 35% |

You can take absence of 4 lowest in-class poll without penalty, and I will drop your 2 lowest homework grades and then calculate your average for each category with the remaining grades.

Your letter grade will be determined by calculating your aggregate course grade according to the following formula:

$$0.05*(\text{Poll Everywhere/Attendance})+0.2*(\text{Homework Avg})+0.2*(\text{Midterm I Score})+0.2*(\text{Midterm II Score})+0.35*(\text{Final Exam Score})=\text{Aggregate Grade}$$

Your letter grade will then be given by the following table:

| Aggregate Score | Letter Grade |
|-----------------|--------------|
| ≥ 93 | A |
| 92 – 86 | A- |
| 85 – 80 | B+ |
| 79 – 74 | B |
| 73 – 69 | B- |
| 68 – 64 | C+ |
| 63 – 60 | C |
| 59 – 55 | C- |
| 54 – 52 | D+ |

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| 51 – 50 | D |
| ≤ 50 | F |

a.) In-class polls:

We will spend time in class learning by doing. This will include in-class activities and answering some poll questions. **All polls will be only for participation(your answer will not be grade)**. Your attendance average will be the average of the polls response. You must be present in class to answer polls and doing so out of class is an honor code violation. Polls will not necessarily be given every class. **As a reminder, I will drop your 4 poll responses (attendance)**.

b.) Homework Assignments

There will be 7 or 8 homework assignments throughout the length of the course, depending on the progress of the lecture. They will be posted approximately a week before each is due and will be due at 11:59 pm at night on the due date via gradescope. Submission instructions will be on the cover page of each homework. You are encouraged to work in groups with other students, but sharing answers and looking up answers online is a violation of the honor code. You are also expected to at least attempt each question before seeking help from. In addition, **I will drop your lowest 2 problem sets** in calculating your final score.

c.) Midterms/Final Exam

There are 2 in-class midterms. It will consist of multiple-choice and long-form questions. Midterms will be closed book and closed note though you will be permitted the use of a 4 function, or non-programmable or graphical scientific calculator.

The final exam is cumulative and will consist of both multiple-choice and long-form questions. You can only take the final exam at an alternate time if you present me with an official exam excuse. Outside of this, no alternate times for the final exam will be granted.

d.) Calculator:

Only a non-programmable and non-graphical calculator is permitted on exams. If your calculator is not a basic four-function calculator (think the cheap 10 dollar calculators you can purchase at the grocery store) then it must be approved by me before an exam. **No Exceptions** will be permitted.

e.) Late and/or Makeup Policy

All due dates are **non-negotiable** and **no extensions** or makeups will be given. I recognize that people are ill or family or other emergencies or something glitches and you're unable to turn in something. It is for all of these reasons that I put drops into the course. That means that these drops are to cover all life events and including whether a conflict or absence is university excused or not. It will become difficult logistically to keep track of exceptions and I run the risk of not treating all students to the same standard for relatively minor episodes. A general rule to avoid being late is to turn it in on time, and if gradescope will still accept it we will also accept it.

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Exceptions can be made in the event of ongoing or severe illnesses or other events that will last greater than one week. In this event you must provide a University Excused absence and then communicate with me before or during the week you return to class so we can make a plan to help get you back on track.

No makeup midterm exams will be offered! In the event of a University Excused absence the weight of the missed midterm will be divided between the other midterm and the final exam. In this case your other midterm will be 30% of your final grade and your final will be 45%. Any other reasons for missing an exam that do not have a University Excused Absence will result in a zero for the exam.

f.) Extra Credit

I do not offer extra credit for the course, nor can I offer any ex-post. Once again this is a fairness issue and would need to offer it for all students.

g) Honor Code

All students are expected to follow the guidelines of the UNC Honor Code. In particular, students are expected to refrain from “lying, cheating, or stealing” in the academic context. If you are unsure about which actions violate the Honor Code, please see me or consult studentconduct.unc.edu.

h) Regrade Requests

All grades will be posted on gradescope and **any regrade requests must be made within three days of the grade being posted.** In addition, all regrade requests require a written justification for why you believe the assignment or question is incorrectly graded.

Regrade requests will be addressed by the grader and the instructor.

Classroom Policies

a.) Course Announcements and Additional Materials:

All course announcements will be conducted through the Canvas Page. Problem sets and any additional supplementary material will also be posted to Canvas. Canvas will ultimately be my main way of communicating with the class. Please ensure that you are receiving updates from Canvas via email or at the very least are checking it regularly. If you are unable to access the course on Canvas for any reason, please notify me right away.

b.) Poll Everywhere:

We will use *Poll Everywhere* for polling in class. You can either login at pollev Everywhere.com or by using the Poll Everywhere mobile app. No matter which method you utilize, **you must use your official UNC-CH email address**, select the single sign-on link, and then enter your Onyen and Password. **IMPORTANT:** The email address you have listed under your profile in Poll Everywhere must exactly match the email address you have listed in the UNC Directory. If this is not the case, you will not receive credit for the polls you do as it will not properly synch with

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Canvas.

c.) Workload Expectations

This is a required course for the economics major that is worth 3 credit hours. For many of you this will be the primary course that teaches you the basics of macroeconomics and so you should expect to spend 15-20 hours per week including class time on this course. Keep in mind that with everything including quantitative economics that you need to practice to get better at it. That is especially true for this course, the more you practice and the more you study over time the better you will retain the information and the better you will do on exams. Don't expect to cram the week of and excel.

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Tentative Course Schedule:

| Day | Topic | Text | Assignment Due |
|------------|---|-------------------------------|-------------------------|
| 5/15 (Wed) | Introduction | Ch. 1 | |
| 5/16 (Thu) | National Accounting GDP and Price Indices | Ch. 2 | |
| 5/17 (Fri) | National Accounting GDP and Price Indices/Labor Demand | Ch. 3 | |
| 5/18 (Sat) | | | |
| 5/19 (Sun) | | | Problem Set 1 Due |
| 5/20 (Mon) | Static Models: Labor Leisure Decisions | Ch. 3 | |
| 5/21 (Tue) | Static Models: Labor Supply | Ch. 3 | |
| 5/22 (Wed) | Static Models: Labor Market Equilibrium | Ch. 3 | Problem Set 2 Due |
| 5/23 (Thu) | Unemployment | Ch. 3 | |
| 5/24 (Fri) | Midterm I | | Material through May 22 |
| 5/25 (Sat) | | | |
| 5/26 (Sun) | | | |
| 5/27 (Mon) | Memorial Day | No Class Held | |
| 5/28 (Tue) | Economic Growth – The Solow Model | Ch. 6 | |
| 5/29 (Wed) | Economic Growth – The Solow Model | Ch. 6 | |
| 5/30 (Thu) | Dynamic Models: Consumption Savings | Ch 4 | Problem Set 3 Due |
| 5/31 (Fri) | Dynamic Models: Consumption Savings/Permanent Income Hypothesis | Ch. 4(including the appendix) | |
| 6/1 (Sat) | | | |
| 6/2 (Sun) | | | |
| 6/3 (Mon) | Dynamic Models: Consumption Savings/Permanent Income Hypothesis | Ch. 4 | |
| 6/4 (Tue) | Consumption Savings: Substitution Effects and Savings Schedule | Ch 4 | Problem Set 4 Due |
| 6/5 (Wed) | Investment Demand and the Savings Market | Ch. 7 | |
| 6/6 (Thu) | Money and Asset Markets | Ch.7 | |
| 6/7 (Fri) | Midterm II | | Material Through June 5 |
| 6/8 (Sat) | | | |
| 6/9 (Sun) | | | |
| 6/10 (Mon) | Asset Markets and Money Demand | Ch. 9 | Problem Set 5 Due |
| 6/11 (Tue) | IS-LM-FE Framework | Ch 9 | |
| 6/12 (Wed) | IS-LM-FE Framework Fiscal Policy and Monetary Policy | Ch. 9 | |
| 6/13 (Thu) | IS-LM-FE Framework and New Keynesian Model | Ch 12 | Problem Set 6 Due |
| 6/14 (Fri) | Growth Model in General Equilibrium | Ch. 14 | |
| 6/15 (Sat) | | | |

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|------------|-------------------------------------|---------------|-------------------|
| 6/16 (Sun) | | | Problem Set 7 Due |
| 6/17 (Mon) | Growth Model in General Equilibrium | NA | |
| 6/18 (Tue) | Review | NA | |
| 6/19 (Wed) | Juneteenth | No Class Held | Problem Set 8 Due |
| 6/20 (Thu) | Reading Day | No Class Held | |
| 6/21 (Fri) | | | |
| 6/22 (Sat) | Final Exam | | All the material |

Help Resources

Acceptable Use Policy

By attending the University of North Carolina at Chapel Hill, you agree to abide by the University of North Carolina at Chapel Hill policies related to the acceptable use of IT systems and services. The Acceptable Use Policy (AUP) sets the expectation that you will use the University's technology resources responsibly, consistent with the University's mission. In the context of a class, it's quite likely you will participate in online activities that could include personal information about you or your peers, and the AUP addresses your obligations to protect the privacy of class participants. In addition, the AUP addresses matters of others' intellectual property, including copyright. These are only a couple of typical examples, so you should consult the full [Information Technology Acceptable Use Policy](#), which covers topics related to using digital resources, such as privacy, confidentiality, and intellectual property.

Additionally, consult the [Safe Computing at UNC](#) website for information about data security policies, updates, and tips on keeping your identity, information, and devices safe.

Accessibility Resources and Service

The University of North Carolina at Chapel Hill facilitates the implementation of reasonable accommodations, including resources and services, for students with a disability and/or a chronic health diagnosis resulting in barriers to fully accessing University courses, programs and activities.

Accommodations are determined by the Office of Accessibility Resources and Service (ARS) through their Student and Applicant Accommodations Policy, which documents qualifying disabilities in accordance with applicable state and federal laws. See the ARS website (<https://ars.unc.edu>) for contact information or email ars@unc.edu.

Counseling and Psychological Services

UNC-Chapel Hill is strongly committed to addressing the mental health needs of a diverse student body. The [Heels Care Network](#) website is a place to access the many mental health resources at Carolina. CAPS is the primary mental health provider for students, offering timely access to consultation and connection to clinically appropriate services. Go to their website <https://caps.unc.edu/> or visit their facilities on the third floor of the Campus Health building for an initial evaluation to learn more. Students can also call CAPS 24/7 at 919-966-3658 for immediate assistance.

Title IX and Related Resources

Any student who is impacted by discrimination, harassment, interpersonal (relationship) violence, sexual violence, sexual exploitation, or stalking is encouraged to seek resources on campus or in the community. Reports can be made online to the EOC at <https://eoc.unc.edu/report-an-incident/>. Please contact the University's Title IX Coordinator (Elizabeth Hall, titleixcoordinator@unc.edu), Report and Response Coordinators in the Equal Opportunity and Compliance Office (reportandresponse@unc.edu), Counseling and Psychological Services (confidential), or the Gender Violence Services Coordinators (gvsc@unc.edu; confidential) to discuss your specific needs. Additional resources are available at safe.unc.edu.

Policy on Non-Discrimination

The University is committed to providing an inclusive and welcoming environment for all members of our community and to ensuring that educational and employment decisions are based on individuals' abilities

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and qualifications. Consistent with this principle and applicable laws, the University's [Policy Statement on Non-Discrimination](#) offers access to its educational programs and activities as well as employment terms and conditions without respect to race, color, gender, national origin, age, religion, genetic information, disability, veteran's status, sexual orientation, gender identity or gender expression. Such a policy ensures that only relevant factors are considered, and that equitable and consistent standards of conduct and performance are applied.

If you are experiencing harassment or discrimination, you can seek assistance and file a report through the Report and Response Coordinators (see contact info at safe.unc.edu) or the Equal Opportunity and Compliance Office at <https://eoc.unc.edu/report-an-incident/>.

Diversity Statement

I value the perspectives of individuals from all backgrounds reflecting the diversity of our students. I broadly define diversity to include race, gender identity, national origin, ethnicity, religion, social class, age, sexual orientation, political background, and physical and learning ability. I strive to make this classroom an inclusive space for all students. Please let me know if there is anything I can do to improve. I appreciate any suggestions.

Undergraduate Testing Center

The College of Arts and Sciences provides a secure, proctored environment in which exams can be taken. The center works with instructors to proctor exams for their undergraduate students who are not registered with ARS and who do not need testing accommodations as provided by ARS. In other words, the Center provides a proctored testing environment for students who are unable to take an exam at the normally scheduled time (with pre-arrangement by your instructor). For more information, visit <http://testingcenter.web.unc.edu/>.

Learning Center

Want to get the most out of this course or others this semester? Visit UNC's Learning Center at <http://learningcenter.unc.edu> to make an appointment or register for an event. Their free, popular programs will help you optimize your academic performance. Try academic coaching, peer tutoring, STEM support, ADHD/LD services, workshops and study camps, or review tips and tools available on the website.

Writing Center

For free feedback on any course writing projects, check out UNC's Writing Center. Writing Center coaches can assist with any writing project, including multimedia projects and application essays, at any stage of the writing process. You don't even need a draft to come visit. To schedule a 45-minute appointment, review quick tips, or request written feedback online, visit <http://writingcenter.unc.edu>.