

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

**Class: T-TH: 9:30-10:45 am**  
**Stone Center 0103**

**Instructor:** Christopher Roark  
**Email:** [cjroark@unc.edu](mailto:cjroark@unc.edu)  
**Office:** 304 Gardner Hall  
**Office Hours:** Wednesday 4-5:30pm  
**Off. Hours Location:** TBD

**TAs:**

Irisa Lee – [irisa@email.unc.edu](mailto:irisa@email.unc.edu) – OH: Monday 4-5 pm  
Jonghyuk Lim - [jlim@unc.edu](mailto:jlim@unc.edu) – OH: Tuesday 1:30 – 2:30 pm  
Daniel Coutinho - [dancout@unc.edu](mailto:dancout@unc.edu) – OH: Tuesday 4-5 pm

**ULAs:**

Rowan Bartis – OH: TBD  
Avani Pradhan – OH: TBD  
Katherine Selby – OH: TBD  
Fionn Kenny – OH: TBD  
Ella Culpepper – OH: TBD  
Nhi Tran – OH: TBD  
Charles Harris – OH: TBD  
Tommy Decker – OH: TBD

**TA and ULA Office Hours are held in the EconAid Center: Gardner Hall 009**

**Course Site:** Can be found at <http://canvas.unc.edu>

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

**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 exogenous shifts and changes to the working model
- 4.) Discuss monetary policy in the ample reserves environment vs the limited reserves environment
- 5.) Assess the impacts of fiscal and monetary policy decisions on the macroeconomy and its primary measures

### Syllabus Changes:

The professor 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 [cjroark@unc.edu](mailto:cjroark@unc.edu)

Any questions relating to the material of the course or procedural questions should be posted to Campuswire. I or one of the instructional team will answer there.

$$0.05*(Polls\ avg)+0.2*(Homework\ Avg)+0.2*(Midterm\ I\ Score) \\ 0.2*(Midterm\ II\ Score)+0.35*(Final\ Exam\ Score)=Aggregate\ Grade$$

## Grading Scheme and Policies

<b>Grading Scheme:</b>	In-Class Polls	5%
	Problem Sets (8):	20%
	Midterms (2):	40%
	Final:	35%

I will drop your 4 lowest in-class polls, and your 2 lowest homework grades 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:

At a minimum your letter grade will then be given by the following table:

Aggregate Score	Letter Grade
$\geq 93$	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+
51 – 50	D
$\leq 50$	F

I reserve the right to lower the cutoffs but will not raise them.

**a.) Attendance/In-class polls:**

We will spend time in class learning by doing. This will include in-class activities and answering some poll questions. Almost all polls will be for participation. Some polls will be taken for correctness and others for participation. Your attendance average will be the average of all the scores from the polls. 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 lowest polls.**

**b.) Homework Assignments**

There will be 8 homework assignments throughout the length of the course. 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 **strongly 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 anyone on the instructional team. **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 and Final 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 a cumulative final exam 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 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 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. With a large lecture it will become far too 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.

**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](http://studentconduct.unc.edu).

**h) Regrade Requests**

All grades will be posted on gradescope and **any regrade requests must be made within one week 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 TA or Grader who graded the assignment. If you are still unsatisfied with the result of your regrade request you may contact me via email. Please include the date of the regrade request and the reason for denial as well as your justification for appealing the decision when emailing me.

## **Classroom Policies/Help Resources**

**a.) 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 suggestions.

**b.) 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.

**c.) Poll Everywhere:**

We will use *Poll Everywhere* for polling in class. You can either login at [pollev Everywhere.com](http://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 Canvas.**

**d.) Campuswire**

We will have a course site on campuswire, a free online platform. I will enroll you to it utilizing your email in the UNC directory. We will be utilizing it to answer course related questions. Please post all course related questions there. Both the TAs and I will direct you towards it if you forget. I will be checking campuswire every regularly during the week and a little more sporadically during the weekends to answer any pending questions. The rest of the instructional team will also check it periodically to answer any questions you may have. You are also strongly encouraged to answer each other's questions. You should not utilize it or any other online resources to directly share answers.

**e.) 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 10-12 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.

**f.) Office Hours**

I'm very happy to talk with you during office hours. You can find my office hours on the calendar in Canvas and under Contact Information. I will hold my office hours in a reserved classroom and help students on a first come, first serve basis. The TAs will also offer office hours, the time and location of which can be found on the Canvas calendar and under contact information. Finally the ULAs will offer weekly help sessions also in the Econ Aid Center. You can find the times for these on the Canvas Site under Contact Information

If for whatever reason none of the posted times work for you or there is a compelling reason you need to meet with me outside these hours I am happy to make an appointment on a very limited basis. Please email me at [cjroark@unc.edu](mailto:cjroark@unc.edu) (Please make sure to have the subject line with the course you are emailing me regarding)

**g.) Econ Aid Center and Free Peer Tutoring**

The Econ Aid Center can be found in Gardner 009. This is TA/ULA office hours will be held. It also provides a space for students to work on their assignments individually or in groups. There will also be free peer tutoring available there during the week. The Aid Center is open from 8 am to 8pm every weekday. I will post the link to the free tutoring schedule when it becomes available to me on Canvas.

## University Policies and Resources

**University Policy:** As stated in the University's [Class Attendance Policy](#), no right or privilege exists that permits a student to be absent from any class meetings, except for these University Approved Absences:

1. Authorized University activities: [University Approved Absence Office \(UAAO\) website](#) provides information and [FAQs for students](#) and [FAQs for faculty](#) related to University Approved Absences
2. Disability/religious observance/pregnancy, as required by law and approved by [Accessibility Resources and Service](#) and/or the [Equal Opportunity and Compliance Office](#) (EOC)
3. Significant health condition and/or personal/family emergency as approved by the [Office of the Dean of Students](#), [Gender Violence Service Coordinators](#), and/or the [Equal Opportunity and Compliance Office](#) (EOC).

Instructors may work with students to meet attendance needs that do not fall within University approved absences. For situations when an absence is not University approved (e.g., a job interview, illness/ flu or club activity), instructors are encouraged to work directly with students to determine the best approach to missed classes and make-up assessment and assignments.

**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 University website "[Safe Computing at UNC](#)" for information about the 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 disabilities, including mental health disorders, chronic medical conditions, a temporary disability or pregnancy complications resulting in barriers to fully accessing University courses, programs and activities.

Accommodations are determined through the Office of Accessibility Resources and Service (ARS) for individuals with documented qualifying disabilities in accordance with applicable state and federal laws. See the ARS Website for contact information:

<https://ars.unc.edu> or email [ars@unc.edu](mailto: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 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 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](mailto:titleixcoordinator@unc.edu)), Report and Response Coordinators in the Equal Opportunity and Compliance Office ([reportandresponse@unc.edu](mailto:reportandresponse@unc.edu)), Counseling and Psychological Services (confidential), or

the Gender Violence Services Coordinators ([gvsc@unc.edu](mailto:gvsc@unc.edu); confidential) to discuss your specific needs. Additional resources are available at [safe.unc.edu](http://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 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](http://safe.unc.edu)) or the [Equal Opportunity and Compliance Office](#), or online to the EOC at <https://eoc.unc.edu/report-an-incident/>.

### **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>.

**Tentative Course Schedule:**

<b>Date</b>	<b>Topic</b>	<b>Text</b>	<b>Assignment Due?</b>
<b>R - Jan 11</b>	Introduction	Ch. 1	
<b>T – Jan 16</b>	National Accounting: GDP	Ch. 2	
<b>R - Jan 18</b>	National Accounting: Indices	Ch. 2	
<b>T – Jan 23</b>	National Accounting: Labor Market Measures	Ch. 8	
<b>R – Jan 25</b>	Constrained Optimization: Lagrangian Method	Course Notes	<b>Problem Set 1 Due</b>
<b>T – Jan 30</b>	Static Models: Labor Supply	Ch 3	
<b>R – Feb 1</b>	Static Models: Labor Demand	Ch. 3	<b>Problem Set 2 Due</b>
<b>T- Feb 6</b>	Static Models: Labor Market Equilibrium	Ch. 3	
<b>R – Feb 8</b>	Okun’s Law and Introduction to Savings	Ch 3 and Ch. 4 (including the appendix)	<b>Problem Set 3 Due</b>
<b>T – Feb 13</b>	<b>Well-Being Day</b>	<b>Well-Being Day</b>	<b>Well-being Day</b>
<b>R – Feb 15</b>	Consumption Savings Model : Savings Demand	Ch. 4	
<b>T – Feb 20</b>	<b>Catch Up/Review</b>		
<b>R – Feb 22</b>	<b>Midterm I</b>	<b>Midterm I</b>	<b>Material through Feb 8</b>
<b>T – Feb 27</b>	Consumption Savings Model: Permanent Income Hypothesis	Ch. 4	
<b>R – Feb 29</b>	Consumption Savings Model: Interest Rate Impacts	Ch. 4	
<b>T – Mar 5</b>	Investment Demand and the Savings Market	Ch. 4	
<b>R – Mar 7</b>	Goods Market Equilibrium	Ch. 4	<b>Problem Set 4 Due</b>
<b>T – Mar 12</b>	<b>Spring Break</b>	<b>Spring Break</b>	<b>Spring Break</b>
<b>R – Mar 14</b>	<b>Spring Break</b>	<b>Spring Break</b>	<b>Spring Break</b>
<b>T – Mar 19</b>	Money and Money Demand	Ch. 7	
<b>R – Mar 21</b>	Money Supply and Equilibrium	Ch. 7	<b>Problem Set 5 Due</b>

<b>T – Mar 26</b>	Money Market Equilibrium and the Quantity Theory of Money	Ch. 7	
<b>R – Mar 28</b>	<b>Well-Being Day</b>	<b>Well-Being Day</b>	<b>Well-being Day</b>
<b>T – Apr 2</b>	General Equilibrium	Ch 9	
<b>R – Apr 4</b>	ISLM – FE Set up	Ch. 9	<b>Problem Set 6 Due</b>
<b>T – Apr 9</b>	<b>Catchup/Review</b>	<b>Catchup/Review</b>	<b>Catchup/Review</b>
<b>R – Apr 11</b>	<b>Midterm II</b>	<b>Midterm II</b>	<b>Material Through Apr 2</b>
<b>T- Apr 16</b>	ISLM – FE Equilibrium	Ch 9	
<b>R – Apr 18</b>	Monetary Policy Under Ample Reserves	External Reading – Federal Reserve Board of St. Louis	
<b>T – Apr 23</b>	Inflation and Potential Output – The Phillips Curve	Ch. 14	<b>Problem Set 7 Due</b>
<b>R – Apr 25</b>	Open Economy Macroeconomics – Savings and Investment in the Open Economy	Ch. 5	
<b>T – Apr 30</b>	Open Economy Macroeconomics – Exchange Rates	Ch 15	<b>Problem Set 8 Due (LDOC)</b>
<b>Friday – May 10 8 AM</b>	<b>Final Exam</b>	<b>Final Exam</b>	<b>Final Exam</b>