

UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

ECON 111 THE ECONOMICS OF INNOVATION AND ENTREPRENEURSHIP

Spring 2024

Instructor:	Robert McDonough	Lecture Time:	T/Tr 9:30-10:45
Email:	USE CANVAS	Lecture Place:	GARD 008
Office:	GARD 208A	Course Site:	Canvas link

Course Description: ECON 111 is an introductory course in microeconomics focused on the fundamental concepts of economics necessary to the understanding of the theory and practice of entrepreneurship. Topics include supply and demand, consumer choice, profit maximization and choice under uncertainty. The presentation of these topics will be structured around a series of case studies of entrepreneurial innovation.

Prerequisites: There are no pre-requisites for this course, but students are expected to have a strong grasp of basic algebra and geometry (e.g., solving equations for a variable, graphing a line based on an equation, calculating areas of shapes).

Course Objectives: What's your big idea? Perhaps it is a novel app or digital business, or a new consumer product just waiting to hit the retail shelves. You may have an idea to improve the production process of an existing industry, or perhaps you've developed a new plan to provide medical care at scale in the developing world. These big ideas—and yours—are quite different from one another; but they share one thing, it will take a successful entrepreneur to translate any big idea into a successful and sustainable initiative.

Entrepreneurs need a toolbox to succeed. In this course, we focus upon the many tools drawn from economics. Entrepreneurs also learn better by practicing their skills. To that end, this course is built around six fascinating case studies of entrepreneurs who did (or unfortunately didn't) use economic principles to create transformational disruptions to existing businesses and markets. We will learn economics by studying choices made by Lyft, Netflix, Partners in Health, Adidas, Tesla and AIG, using these cases to identify the economic principles that businesses can recognize and exploit to create success.

Course Webpage: Canvas will be the primary way to get course information and updates. I will communicate developments and reminders using Canvas announcements. Our page will have a detailed outline of course modules, complete with lecture slides (as they become available), supplemental materials, and assignment details. You will be able to access homeworks and your course grades on Canvas. It is your responsibility to check Canvas regularly, and to ensure that you are receiving announcements promptly.

Instructor Availability: I am available for help with assignments, to answer your questions, or to just chat:

- on Monday at 12:00-1:00PM in the EconAid Center (Gardner 009)
- on Tuesday at 5:00-6:00PM in the EconAid Center (Gardner 009)

TA Our TA will hold help sessions on a weekly basis in the EconAid center. An updated schedule will be posted on Canvas.

Course Questions/Email Policy: You will inevitably have questions during the course of the semester. If you have questions about course materials or course procedures, there are a variety of ways to get help that you can try before sending me a message:

1. If you have general questions about the course material or procedures, check the course syllabus, Canvas page, and Canvas announcements.
2. Ask me questions in-person after class or in help sessions, or ask a TA during their help sessions.
3. Use the Ticket out the Door poll question I will ask at the end of each lecture. Most of these will be answered anonymously in a weekly wrap-up announcement on Canvas.

If the above options are not helping or you have a sensitive or personal question and you need to send me a message, please message me through Canvas: [Link to Canvas inbox](#).

Please use proper formatting when sending messages (Ex: [Example 1](#), [Example 2](#)). If you have not received a response from me in 48 hours, please check to see if your question is answered in the syllabus or on Canvas, then resend the email if you still need help. Please refrain from emailing your TA. If you have questions for them, please talk to them during their help sessions.

I will not respond to messages asking for changes to your final course grade.

Required Course Materials:

Textbook: Stevenson and Wolfers, *Principles of Microeconomics, Second Edition* (ISBN: 9781319434113). You have several options for accessing our textbook. (1) You can purchase a code which will provide access to the ebook version of our text for roughly \$100 from the bookstore or directly from MacMillan. (2) You can purchase a physical loose-leaf copy through the Macmillan website or the bookstore (more expensive, but you get a book). I encourage you to choose the option that works best for you.

E-text Free Trial: Everyone can register with Achieve (MacMillan's online platform for e-texts and digital homeworks) and start a 14-day free trial, which includes access to the textbook. If you have not purchased the textbook before the start of the term, I recommend signing up for the free trial, then purchasing either the loose-leaf bundle from the bookstore or the online version directly from Macmillan.

Poll Everywhere: During lecture you will participate in poll questions using the Poll Everywhere response system. Prior to our first poll you must register your device with Poll Everywhere. Registration details for Poll Everywhere are below in the technology section. Participation requires that you have access to a cell phone texting plan or a device that can login to the University's Wi-Fi (e.g., tablet, laptop). If you do not register properly, then your polls will not be counted and you will lose your poll participation grade.

Gradescope: You will turn in problem sets using Gradescope, and you will receive grades and comments on your midterms through Gradescope. Registration details for Gradescope are below in the technology section.

Device: In order to complete Poll Everywhere questions and sign in to class with UNC check in, please bring to class a device that can log on to the University's Wi-Fi (e.g. smart phone, laptop, or tablet). Cell phones and laptops should be silenced during lectures. You may use a computer during class if you feel this is the most effective way to take notes. However, I request that you sit on either side section of the classroom to avoid distracting your peers who choose not to use laptops. If you are being disruptive with technology during lecture, the TAs and I reserve the right to have you leave class, in which case you will receive a zero for any in-class polls or attendance that day.

Basic Calculator: You are allowed to use a basic 4-function calculator on exams. Scientific and graphing calculators will not be permitted. I would recommend this model: [link](#). In case it is unclear or I am in any way concerned that your calculator is too advanced, I reserve the right to confiscate it for the duration of examinations.

Recommended Additional Resources:

Resources for good note-taking:

- A tablet with a stylus (iPad with Apple pencil, surface pro with stylus, etc.)

OR

- One or two 3-ring binders: 1 for lecture notes and 1 for the loose-leaf textbook
- Spiral notebook to keep your reading notes, class notes, and/or scratch work in one place
- Fine-tip colored pens (for clear and readable graphs in your notes and on exams)
- Highlighters
- Sticky Notes or Sticky Tabs (to flag important information or questions in your textbook or notes)

Real-world material to deepen your understanding:

- The Economist: [Link](#)
- The Wall Street Journal: freely available through UNC libraries [Link](#)
- The New York Times: freely available to students [Link](#)
- Money stuff newsletter: delivered free to your inbox with sign-up. [Link](#)
- Planet Money Podcast [Link](#)
- The Indicator Podcast [Link](#)

Technology:

Make sure you have created your UNC email account before you register for any of the supplemental platforms

Poll Everywhere: All students must register for a UNC-affiliated Poll Everywhere account using their Onyens. If you need assistance with Poll Everywhere, please visit <https://poll.unc.edu/> or contact ITS Help.

To register for Poll Everywhere:

1. Follow [this link \(https://edtech.unc.edu/service/poll-everywhere/\)](https://edtech.unc.edu/service/poll-everywhere/) to UNC's registration page.
2. Click on the "Student account registration" button on the top left of the page.
3. Follow the instructions provided.
4. **Be sure to use your official UNC email address.** You can find it in Connect Carolina under Personal Information > Contact Details > Business/UNC Email Address and Domain.

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, your poll scores will not properly sync to Canvas! (It's a problem, for example, if your email is onyen@unc.edu in the UNC directory but onyen@email.unc.edu in Poll Everywhere.) If your emails do not match exactly, please change your email address in Poll Everywhere to what is listed in the UNC Directory.

You can log in during class using the Poll Everywhere mobile app or at Pollev.com. Either way you should enter your official UNC-CH email address, select the Single Sign-On link, and log-in using your onyen and password.

UNC Check-in: This course will use UNC Check-in to record lecture attendance. All students should download the UNC Check-in app for their smartphone or device before coming to class. Instructions for downloading and signing in to the Check-in app can be found [here \(link\)](#). If you need assistance with UNC Check-in, the above link includes a troubleshooting guide and information on how to contact support.

Gradescope: You can register for Gradescope for this course on our Canvas page, by clicking on the link on the menu on the left hand side.

It is your responsibility to make sure your assignments are legible. This also means that you should complete assignments in such a way that they are scanned properly and readable (e.g. use pen or pencil in a dark color, do not write so hard that the color bleeds through to the other side of the page, etc.). Gradescope will let you use a scanner (free scanners are in the libraries) or your phone to upload assignments. When uploading, make sure the pages are properly oriented and clearly indicate where each problem appears.

Course Components:

Cases: This course will be organized around a series of case studies of entrepreneurial innovation. We will cover each case in sections over multiple lectures, building our understanding of economic thinking alongside the cases. Those case studies will be available in pdf form on Canvas. The text readings for each class are enumerated on the class schedule on Canvas, as well as at the end of the syllabus. Please complete the readings prior to the class indicated on the schedule.

Lecture: Lectures for this course are meant to be an active learning process, and will center around the case being discussed. Lecture will involve classwide discussion, small-group work, example problems we solve together, and poll questions you can use to gauge your understanding. Where necessary, I will supplement this with more traditional lecture. Lecture will be held in person. Lecture attendance is required.

Specifically, you will earn course credit by attending lecture in two distinct ways: (1) I will take attendance at the start of each class. You can miss up to 3 classes before your attendance grade is impacted. The attendance policy and grading is discussed in detail below. (2) During lectures you will have the chance to answer poll questions using Poll Everywhere. You will earn a participation credit for the day if you answer at least half of the poll questions in a given lecture (excluding the Ticket out the Door poll question, which is optional). If there is a lecture during which I do not ask any Poll Questions, everyone will receive the participation point for that lecture. At the end of the semester, your 3 lowest poll credits will be dropped. These drops are designed to deal with absences as well as any technical mishaps with Poll Everywhere, so that you can miss up to 1.5 weeks worth of lecture before your participation grade is impacted.

Attendance Policy: You may miss up to three non-exam lectures before your attendance grade is impacted. After missing 3 classes, your attendance grade will be reduced according to the following schedule:

Absences ... Attendance grade

- 4 95%
- 5 90%
- 6 80%
- 7 70%
- 8 60%
- 9 40%
- 10 0%

I do not differentiate between excused and unexcused absences, with the exception of exam days (discussed below). Your first three unpenalized missing classes are designed to deal with illness, schedule conflicts, and personal emergencies. If you anticipate missing more than 3 classes, you should let me know about this promptly at the start of the term so that we can discuss your situation personally.

You should be able to complete the necessary course requirements without attending the in-person components, if you so choose. Please do not come to class if you have any symptoms of COVID or any other communicable illness. If you think you might be sick, but feel well enough to attend class, please wear a mask. If you are feeling well, I strongly encourage you to attend class. All course assignments and materials (except Poll Everywhere questions) will be posted online so that you can complete your work from home. Regardless of whether or not you attend class, this is a 4 credit hour class which means you are expected to spend about 12 hours per week on the course or 8 hours outside of class.

Problem Sets: There will be 8 problem sets due throughout the term. Problem sets will be submitted through Gradescope. Problem sets will provide you with opportunities to work through more in-depth problems, practice your math and graphing skills on paper, and develop an ability to communicate economic thinking and analysis. You should think of these assignments as practice for the short-answer portion of your exams. You must submit your own problem sets, but collaboration with other students is allowed. Word-for-word copying answers from others, or from online sources, is not allowed. At the end of the semester, your lowest problem set grade will be dropped

It is your responsibility to properly identify where your answers appear when submitting problem sets on Gradescope. The following video tutorial walks you through how to properly identify your answers on Gradescope submissions: [link](#). **If you fail to identify where your answers are on a Gradescope submission, you will receive a 10% penalty.**

Midterms & Final: The two midterms and final for this course will be administered in person. Midterms will be administered in Gardner 008 during our scheduled class time. The final will be administered on Friday, May 10th at 8:00 AM, and will be comprehensive. Dates for the midterms and final are given below.

All exams will be closed note and closed book. You may have a small number of pens or pencils, a ruler or straightedge, and a non-programmable 4-function calculator at your desk while taking an exam. Any other forms of assistance or sources of information are prohibited. Any violations of academic integrity involving an exam will result in a failing grade for the course. All cell phones must be turned off and kept in your bags during examination periods, and all bags must be left at the front or back of the room. No student will be given an exam 30 minutes following the commencement of that exam.

Absences on exam days are the only absences that require notification and documentation. Approved reasons for missing a midterm include severe illness, disability, pregnancy, significant health condition, personal/family emergency, participation in an authorized university event, or a religious observance. Please send me an email before the start of the exam letting me know you will be absent and provide official documentation either to me or the the University Approved Absence Office within 5 business days of the missed exam. If appropriate documentation is received, you will be permitted to shift the weight of the midterm to the final exam.

If you are unable to attend the final, then you will need to provide me with an official “Exam Excuse” from the Dean’s Office, Campus Health, or Academic Advising no later than the last day of classes (or by the start time of the final exam in the case of sickness during the final exam). The make-up for the final will be held on the reading day following the exam during the economics common make-up exam time.

Important Dates:

Add Class Deadline	January 17 th
No Class (Well-being Day)	February 13 th
Midterm 1	(In class) February 20 th
No Class (Spring Break)	March 11 th - 16 th
Midterm 2	(In class) March 26 th
No Class (Well-being Day)	March 28 rd
Final Exam	Friday May 10 th at 8AM

Course Policies:

Grading Policy: Your grade in this course will depend on lecture attendance, participation via answering poll questions, 8 problem sets, two midterms, and a final. The traditional grade scale (90-100% → an A of some kind, 80-89% → a B of some kind, et cetera, modified by + and - where applicable) will be used as a baseline for course grades. Letter grades will never be worse than this scale would imply, but a favorable curve may be applied at my discretion. In other words, a 90% will never be worse than an A of some kind, but I may decide that the boundary between an A and a B falls somewhere below a 90%. Your final percent grade will be calculated under the following scheme. Canvas will display your current course grade based on this scheme.

Assessment	Scheme
Classroom Polls	5%
Attendance	5%
Problem Sets	20%
Midterm 1	20%
Midterm 2	20%
Final	30%

Grade Appeals: For assignments submitted on Gradescope, regrade requests can be submitted online via the Gradescope website for one week after the assignment grades have been returned. Please make sure you understand how to interpret the Gradescope rubric before submitting a regrade request (e.g. on your returned work, you will see the entire rubric for the assignment. Entries in grey do NOT apply to your exam, and entries highlighted in blue with a check by them DO apply to your exam). If we receive a regrade request that stems from you not taking the time to understand the rubric, we will deduct points from your assignment, and these penalties will grow as the semester progresses. Please ask a TA or the instructor in office hours if you have any questions. If you feel that your work has been graded unfairly or incorrectly (this includes errors with grade entry or addition of points), you must justify why you believe your response deserves more points.

All regrade requests should include an argument for why you feel your answer was correct. If a re-grade is warranted in the grader's or my opinion, we will re-grade the entire question when a request is made. All regrades are final.

Academic Integrity: 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. In any course, including mine, what constitutes cheating can change from one activity to another. Please see my guidelines for each activity. If you have any uncertainties about any of your work, please approach me before an assignment's due date. In order to ensure that each student is evaluated fairly, I will be very strict in the enforcement of academic integrity. Any violation of the Honor Code will result in, at a minimum, a zero on the assignment in question and usually an F in the course, in addition to the possibility of further

university sanctions.

I do not consent to having notes from this class uploaded to the internet, including commercial note-selling websites. My course design is copyrighted by me and I do not consent to mass distribution of these materials. My lectures, including slide content, are my intellectual property and your creation of a derivative work (student notes from lecture) falls under this copyright protection. The distribution of course material (including your answers to homework and exams) to a commercial website falls under the UNC's definition of plagiarism (see Honor Code).

You must receive my permission in writing to record any of our course lectures.

Syllabus Changes: In accordance with University Policy, I reserve the right to make changes to the syllabus, including project due dates and test dates. These changes will be announced as early as possible.

Fall 2023 Course Delivery: We will be meeting in person this semester for class. If I need to change the format of the course temporarily, I will announce this via email and the course Canvas site.

Accessibility Resources and Service: [Accessibility Resources and Service](mailto:ars@unc.edu)(ARS – ars@unc.edu) receives requests for accommodations, and through the Student and Applicant Accommodations Policy determines eligibility and identifies reasonable accommodations for students with disabilities and/or chronic medical conditions to mitigate or remove the barriers experienced in accessing University courses, programs and activities. ARS also offers its Testing Center resources to students and instructors to facilitate the implementation of testing accommodations.

EconAid Center: The EconAid Center offers free peer tutoring in person in Gardner Hall 009 (basement level). The EconAid Center is closed on days that the University is closed.. You can find the schedule for course-specific help on our Canvas site or the full EconAid schedule is available online.

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>.

Counseling and Psychological Service: 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.

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 (email reportandresponse@unc.edu or see additional contact info at safe.unc.edu) or the Equal Opportunity and Compliance Office at <https://eoc.unc.edu/report-an-incident/>.

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/> or by contacting the University's Title IX Coordinator (Elizabeth Hall, titleixcoordinator@unc.edu) or the Report and Response Coordinators in the Equal Opportunity and Compliance Office (reportandresponse@unc.edu). Confidential resources include Counseling and Psychological Services and the Gender Violence Services Coordinators (gvsc@unc.edu). Additional resources are available at safe.unc.edu.

Student Athletes: If you are a student athlete and will need special accommodations, it is your responsibility to notify me in a timely and appropriate manner, and to support your request for special accommodations by providing appropriate documentation.

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.

Tentative Schedule:

Class	Topic	Chapters	Cases and Class Material	Problem Sets
1 (01/11)	Entrepreneurship and Economics	Ch. 1	Economics_of_Entrepreneurship	Sign up for Poll Everywhere and Gradescope
2 (01/16)	Case 1A: The market for rides in San Francisco	Ch. 2, 3	SF_Cab_A	
3 (01/18)	Graphing Supply and Demand	Ch. 4	Demand_and_Supply_rides	
4 (01/23)	Case 1B: What moves the market?		SF_Cab_B	
5 (01/25)	Case 1C: The Entrepreneurial Disruption of Ridesourcing		SF_Cab_C & Chauffeurs Rule	PS1 Due
6 (01/30)	Regulating the market	Ch. 6, parts of 7		
7 (02/01)	Case 2A: Netflix and Consumer Choice		Netflix_A	PS2 Due
8 (02/06)	Case 2B: Utility and Marginal Utility		Netflix_B	
9 (02/08)	Efficiency and pricing			
(02/13)	No class			
10 (02/15)	Case 2C: The Entrepreneurial Disruption of On-demand Entertainment		Netflix_C	PS3 Due
11 (02/20)	Midterm 1			
12 (02/22)	Case 3A: Adidas and Innovating from Within		Adidas_A, adidas_ar_21	
13 (02/27)	The Theory of the Firm			
14 (02/29)	Business in the long-term	Ch 15		PS4 Due
15 (03/05)	Case 3B: The Entrepreneurial Disruption of Carbon 3D soles		Adidas_B	
16 (03/07)	Case 4A: Tesla Competes in the Market	Ch 14.	Tesla_A	
(03/12)	Spring Break No class			
(03/15)	Spring Break No class			
17 (03/19)	Case 4B: Tesla and Game Theory	Ch 18	Tesla_B	
18 (03/21)	Case 4C: Tesla takes on the Big 3		Tesla_C	PS5 Due
19 (03/26)	Midterm 2			
(03/28)	No class			
20 (04/02)	Case 5A: Profits and Non-profits		PIH_A	
21 (04/04)	Case 5B: What's the Non-profits Goal?		PIH_B	PS6 Due
22 (04/09)	Case 6A: Accounting for Entrepreneurs		Accounting_for_Entrepreneurs	
23 (04/11)	Case 6B: Spotify's Accounting Entrepreneurial Disruption		Spotify_A	PS7 Due
24 (04/16)	Case 7A: Risk, Return, and AIG	Ch 20	Bank_Risk_A	
25 (04/18)	Case 7B: Uncertainty and Insurance	CH 19	Bank_Risk_B	
26 (04/23)	Case 7C: Entrepreneurial Disruption and Credit Default Swaps		Bank_Risk_C	
27 (04/25)	Case 8A: Compensating the Entrepreneur			PS8 Due
28 (04/30)	Last Class			