## ECON 303: Intermediate Microeconomic Theory (Fall 2020) College of William & Mary Department of Economics

Professor: Tate Twinam Email: tatwinam@wm.edu Office: Tyler Hall 250 Course Type: Remote Asynchronous Open Meetings: TR 12:30pm-2:30pm Extra Office Hours: By Appointment

### **Course Description:**

This course covers the fundamental theoretical apparatus of modern economics. We will develop the theory of consumer and producer behavior in a competitive market and examine how resource allocation is determined under a price system. From this, we will derive the classical results on competitive general equilibrium and its welfare implications. We will also examine numerous extensions, discussing issues presented by uncertainty and intertemporal choice, externalities, and alternative market structures. This course is essential preparation for advanced work in both macro and microeconomics, and is highly recommended for anyone who intends to pursue upper level coursework or graduate training in related fields such as finance, accounting, operations, or computer science.

### **Prerequisites:**

ECON 101 Principles of Microeconomics (or equivalent).

#### **Topic List:**

Part I: Consumer theory

- Budget constraints (ch. 2)
- Preferences (ch. 3)
- Utility (ch. 4)
- Calculus and optimization (mathematical appendix)
- Choice (ch. 5)
- Uncertainty (ch. 12)
- Demand (ch. 6)
- Intertemporal choice (ch. 10)
- Asset markets (ch. 11)
- Market demand (ch. 15)
- Equilibrium (ch. 16)
- Exchange (ch.32)
- Externalities (ch. 35)

#### Part II: Producer theory

- Technology (ch. 19)
- Profit maximization (ch. 20)
- Cost minimization (ch. 21)
- Cost curves (ch. 22)
- Firm supply (ch. 23)
- Industry supply (ch. 24)
- Monopoly (ch. 25, 26)
- Oligopoly (ch. 16)
- Game theory (ch. 29,30)

### **Important Dates:**

Friday, August 28	Last day to add/drop course
Wednesday, September 30	Midterm exam
Monday, October 12	Last day to withdraw from course
Friday, November 13	Last day of classes
Wednesday, November 18	Final exam $(9am-12pm)$

### **Course Structure:**

This course is designed for remote, asynchronous learning. There will be two primary modes of content delivery. I will post comprehensive lecture notes for each topic on a semiweekly basis. You are strongly encouraged to study these carefully. I will also post video lectures covering important concepts and derivations; these are meant to augment the lecture notes for those who prefer a more audiovisual learning style. All materials will be posted to Blackboard. To help you master the material, I will distribute problem sets that you can work on individually or with peers. While these will be graded, I will also supplement them with additional (ungraded and optional) practice problems. I will post complete solutions to the problem sets so that you can check your answers and discuss any misunderstandings with me (or your peers). On Tuesdays and Thursdays between 12:30pm and 2:30pm, I will host an open Zoom meeting where everyone is welcome to come and discuss lecture materials or the problem sets with me. These meetings are optional, and you can show up or leave at any time; think of them as open office hours where you can clear up any questions you may have. If you cannot join during that specific time, or would prefer a one-on-one meeting, you can email me at any point during the course and we'll set up a time to talk. I highly recommend you take advantage of this!

### **Recommended Textbook:**

This course will follow the treatment of the material given in Hal Varian's classic textbook. There are two versions of this book. The first one listed below integrates calculus in to the main text. The second version is the same, only with the calculus derivations relegated to an appendix at the end of each chapter. The texts are essentially interchangeable. In other words, if you want to get a copy of the book, you can just get one or the other. Older editions of the book are very similar to the current edition - the chapter numbers may differ but the titles generally don't, and little seems to change between updates (aside from the price). Feel free to get an older edition if you'd like. Note that the textbook is NOT required - the written notes I distribute will cover everything you need to know.

Hal Varian, Intermediate Microeconomics with Calculus, 1<sup>st</sup> edition. Hal Varian, Intermediate Microeconomics: A Modern Approach, 9<sup>th</sup> edition.

## **Evaluation Policy:**

Evaluations will be based on two take-home exams and six problem sets. Each exam will be worth 20% of your grade. Each assignment will be worth 10% of your grade. Collaboration with your peers on assignments is permitted and encouraged. However, each student must turn in their own copy. Exams must be completed individually; you may use only the materials specifically allowed, and any clarifying questions should be directed to me only. You will have one week to complete each problem set and exam.

Assignments will be due by email on the date specified on the assignment. A 20% grade penalty will apply to assignments turned in after the due date. I will post solutions to each assignment one week after they are due; assignments will not be accepted after solutions are posted. When you email me an assignment, be sure to include "ECON 303-05 Assignment #" in the subject line - this will help ensure that I do not miss your assignment in my inbox.

Your final letter grade will be determined according to the following scale:

А	93-100%	$\mathbf{C}$	73-76%
A-	90-92%	C-	70-72%
B+	86-89%	$\mathrm{D}+$	67-69%
В	83-85%	D	63-66%
B-	80-82%	D-	60-62%
C+	77-79%	$\mathbf{F}$	< 60%

### Syllabus Revisions:

The course schedule may change over time due to unforeseen circumstances. I expect you to monitor your William & Mary e-mail account regularly so that I can communicate with each of you electronically.

## Academic Integrity:

William & Mary has had an honor code since at least 1779. Academic integrity is at the heart of the university, and we all are responsible for upholding the ideals of honor and integrity. The student-led honor system is responsible for resolving any suspected violations of the Honor Code, and I will report all suspected instances of academic dishonesty to the honor system. The Student Handbook (www.wm.edu/studenthandbook) includes your responsibilities as a student. Your full participation and observance of the Honor Code is expected. To read the Honor Code, see www.wm.edu/honor.

### **Student Accessibility Services:**

Your experience in this class is important to me, and it is the policy and practice of William & Mary to create inclusive and accessible learning environments consistent with federal and state law. Any student who feels they may need an accommodation based on the impact of a learning, psychiatric, physical, or chronic health diagnosis should contact Student Accessibility Services staff at 757-221-2512 or at sas@wm.edu to determine if accommodations are warranted and to obtain an official letter of accommodation. For more information, please see www.wm.edu/sas.

### **Respect for Diversity:**

Diverse backgrounds, embodiments, and experiences are essential to the critical thinking endeavor at the heart of university education. In this course, students are expected to:

- Respect individual differences which may include, but are not limited to: age, cultural background, disability, ethnicity, family status, gender identity/presentation, immigration status, national origin, race, religion, sex, sexual orientation, socioeconomic status, and veteran status.
- Engage respectfully in discussion of diverse worldviews and ideologies embedded in course readings, presentations, and artifacts, including those course materials that are at odds with personal beliefs and values.

## Parenting Student Resources:

Pregnant and parenting students are encouraged to take advantage of the resources provided on campus; information about these resources can be found at https://www.wm.edu/offices/compliance/title\_ix\_ coord/pregnancy/index.php. You are also welcome to confidentially discuss your pregnancy/parenting status with me if you feel it would help me to help you make the most of your time here.

## For Our Veterans:

If you are a student who has served in our nation's military forces, welcome home, and thank you for your service. I hope that you feel comfortable enough to confidentially self-identify yourself to me so that I can help you make a successful transition from the military to higher education. We at William & Mary understand that the transition into civilian life can be challenging for our veteran students, and we provide resources for any who may want to reach out for guidance or assistance in these matters. Please contact Veteran Services at vabenefits@wm.edu.

# Mandatory Reporting:

William & Mary faculty are required by law to report any information they receive pertaining to sexual misconduct or assault. As a mandatory reporter, any disclosures to me of this nature will have to be further disclosed to the Title IX coordinator on campus. This is not to discourage you from discussing these issues with me; you are welcome to do so. However, if you have issues or concerns regarding yourself or someone else, and would like to share them confidentially, you are strongly encouraged to contact The Haven, a peer-based confidential resource center for those impacted by sexual violence and harassment, relationship violence, stalking, and other gender-based discrimination. They are located at Campus Center 166 and can be reached by email (thehaven@wm.edu) or phone (757-221-2449). You can find more information at https://www.wm.edu/offices/thehaven/index.php.

## **Care Support Services:**

The Dean of Students Office provides Care Support Services to students in need. If you are facing challenges to your mental, physical, and/or social health, you are strongly encouraged to contact them by email (care@wm.edu) or phone (757-221-2511). If you are concerned that a fellow student may be facing physical, emotional, or academic difficulties, you can also contact CSS on their behalf (confidentially and anonymously if you wish). You can find more information at https://www.wm.edu/offices/deanofstudents/services/caresupportservices/index.php.

## **Inclement Weather:**

Note that the campus may be closed due to weather. Information on suspension of operations will be made public and available through the media. Students can learn of campus operations status from the website. You may also sign up with an alert system through Banner that will contact you via email or text message if inclement weather will affect operations. If meetings are disrupted due to power or internet outages, we will work to reschedule them.

## Additional Support Services:

- Campus Libraries: https://www.wm.edu/academics/libraries/.
- Tribe TutorZone: https://www.wm.edu/offices/deanofstudents/services/academicenrichment/tutors/.
- Cohen Career Center: https://www.wm.edu/offices/career/, 757-221-3231.
- Student Counseling Services: https://www.wm.edu/offices/wellness/counselingcenter/index. php, 757-221-3620.
- National Suicide Prevention Lifeline: 1-800-273-8258.