University of Minnesota Economics 3101: Intermediate Microeconomics Spring 2019 8:15am-9:30am Tuesday and Thursday, Willey Hall 175 Instructor: Amy Handlan

Email: handl039@ umn.edu

Office: Hanson Hall 3-161 Office Hours: Wednesdays 2-4pm in Hanson 4-117 and by appointment Canvas Website: https://canvas.umn.edu/

Teaching Assistants (Monday Recitations):

| TA-1 | TA-2 | TA-3 | TA-4 |
|---------------------|---------------------|---------------------|---------------------|
| Office: Hanson Hall | Office: Hanson Hall | Office: Hanson Hall | Office: Hanson Hall |
| 3-129 | 3-137 | 3-155 | 3-125 |
| OH: Fridays, | OH: Thursdays, | OH: Wednesdays, | OH: Tuesdays, |
| 10am-12pm | 2:30pm-4:30pm | 10am-12pm | 3pm-5pm |
| Section 004 | Section 003 | Section 002 | Section 008 |
| 10:10am-11:05am | 9:05am-9:55am | 9:05am-9:55am | 12:20pm-1:10pm |
| Blegen 230 | Blegen 145 | Blegen 260 | Blegen 125 |
| Section 007 | Section 006 | Section 005 | |
| 11:15am - 12:05pm | 11:15am - 12:05pm | 10:10am-11:05am | |
| Blegen 125 | Blegen 140 | Blegen 260 | |

Course Description

This course builds on the fundamental concepts and techniques learned in Principles of Microeconomics – ECON 1101. At the intermediate level, however, we will engage in a more mathematically rigorous treatment of microeconomics to sharpen our theoretical understanding of economic models. After completing ECON 3101, you should be able to:

- Solve single and multiple, constrained and unconstrained optimization problems,
- Interpret standard economic models in consumer theory, firm theory, partial equilibrium, general equilibrium, game theory, monopoly, and imperfect competition settings,
- Analyze consumer and firm behavior in models of perfect competition and strategic behavior,
- Define key microeconomic theorems and concepts that constitute the foundation of many upper level economics courses (including intermediate macroeconomics, financial economics, game theory, labor economics, and industrial organization)
- Work on economic problems individually and in groups
- Develop skills to help you in future economic courses and in your future career

Permission Numbers

If you need a permission number, credits approved, or need your econ major status approved, you must email the Undergraduate Economics Advisors at <u>econadv@umn.edu</u>.

Prerequisites

Students must have completed ECON 1101, 1102, and MATH 1271 before taking ECON 3101. Coming into this course, you are expected to:

- Be familiar with key economic definitions that are covered in ECON 1101, 1102
- Be able to graphically solve consumer theory, partial equilibrium, and monopoly problems
- Know game theory basics that are taught in ECON 1101
- Be proficient in algebraic rules (including natural logarithms, exponentials, and fractions)
- Be able to solve a system of equations
- Be able to take derivatives and solve optimization problems for 1 variable functions
- Be able to graph linear, polynomial, and piecewise functions

It is the student's responsibility to make sure they understand the prerequisite economic and math concepts so that we may focus on new mathematical tools and economic analysis.

Textbook

Nicholson-Snyder's *Microeconomic Theory* – *Basic Principles and Extensions* (12th or 11th edition). Students do <u>not</u> need the mindtap Economics Access Card.

Lecture and Recitation

Lecture will be held every Tuesday and Thursday and recitations will be held every Monday. In lecture we will cover course material, practice select problems, and elaborate on the real-world and economic significance of different concepts. In recitation, the teaching assistants (TAs) and you will work through practice problems, review concepts, and address student questions about the course. You will also receive your graded homework assignments and exams at this time, so this is the best time for you to get feedback and ask questions about those. For lecture and recitation, you are expected to:

- Arrive on time for class
- Visit the course Canvas website to preview lecture materials and check course announcements
- Try not to distract or annoy your classmates (turn your cell phone off and only use laptops for legitimate class activities (note-taking, viewing class slides)
- Do not leave class early without okaying it with the instructor/TA in advance
- Ask questions if you are confused
- Participate in class by actively listening, taking notes, working through practice problems with the instructor and teaching assistants or with your peers when we do group work

Contacting the Instructor and Teaching Assistants

Your emails to the Instructor and TAs should be respectful, use complete sentences, and use "Econ 3101: " as the beginning of your email's subject. Allow up to 48 hours for the instructors and TAs to respond to your emails before sending a followup email.

Assignments

There will be 5 problem sets, 4 of which will count toward the final grade. For problem sets, you are expected to:

- Download the problem sets from the Canvas webpage, and print and staple the pages together,
- Write your name as it is written in the University of Minnesota system, student ID number, and discussion section number on all assignments,
- Write down the names of classmates with whom you collaborated with on the assignment,
- Write or type your answers neatly and legibly in the space provided on the assignment sheet,
- Show all work to solve problems and provide thorough explanations,
- Submit your own problem sets by the assignment deadline (8:15am see calendar for dates). Failure to meet the above assignment expectations will result in grade penalties. Late homework will not be accepted. Only documented excused absences and special circumstances are possible exceptions to this. If you cannot attend class on the due date, you must arrange with your TA to turn it in early.

Exams

There will be two midterm exams and one final exam, the weights for your overall grade explained below. For exams, you will be expected to:

- Bring your own pencil/pen (you may also bring an eraser, a ruler, and colored pencils)
- Work on your exam only during the exam time and stop writing when the exam is over
- Not talk and be quiet once the exam begins and until you leave the exam room
- Not bring materials that are prohibited on exams (notes, phones, calculators, watches, etc)
- Not copy answers from other students or reference notes or solutions during the exam
- Move your bags to the front of the classroom, move seats, or put phone in your bag, if asked

Failing to meet these expectations can result in grade penalties and/or scholastic dishonesty reports.

Scholastic Dishonesty

There is zero tolerance for cheating on exams or on assignments. We take cheating very seriously, and incidents of scholastic dishonesty will be reported to the Economics Director of Undergraduate Studies and the Office of Community Standards. Identical assignments, assignments copied from previous years' solutions, talking or using prohibited material on exams, etc. will result in a 0 on that assignment/exam and the incident will be referred to the Economics DUG and OCS.

Grading Weights

| Homework Assignments (Average of best four out of five) | 25% |
|--|-----|
| Your Higher Midterm Score (either Midterm I or Midterm II) | 25% |
| Your Lower Midterm Score (either Midterm I or Midterm II) | 15% |
| Final Exam | 35% |

If there is anything you need to dispute in terms of a grading error on an assignment or exam, you must discuss it with your TA as soon as you pick up that assignment or exam. Once you take the assignment or exam home, there are no grade changes.

Grading Scale

| Percent | 0-59 | 60-67 | 68-69 | 70-71 | 72-77 | 78-79 | 80-81 | 82-87 | 88-89 | 90-91 | 92+ |
|---------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|
| Grade | F | D | D+ | C- | С | C+ | B- | В | B+ | A- | А |

We reserve the right to lower the grading scale cut-offs points for final grades (i.e., increase the letter grades for percentages), but we will not raise the cut-offs (i.e. make it harder to get good grades). Grade curves, if given, will be decided with the Economics Director of Undergraduate Studies at the end of the semester, per department policy.

Reflection and Career Readiness Extra Credit

This course focuses on developing skills that will help students in future economic courses and in their post-undergraduate endeavors, whether that be starting a career or pursuing a graduate degree. The two extra credit assignments in this class will center around

- Reflecting on your study and class participation habits
- Reading research on effective study strategies
- Applying new study methods to your own learning to work on self-directed learning
- Articulating class experiences as development of Core Career Competencies (see below)
- Matching experiences and Core Career Competencies to your future career/school objectives

CLA has identified 10 general skills, called Core Career Competencies, that students may acquire during their CLA studies which employers deem as valuable. Over the semester, ECON 3101 students have the opportunity to build on many Core Career Competencies - such as Applied Problem Solving, Written Communication, Teamwork and Leadership, and others. For more information on Career Readiness, visit <u>https://cla.umn.edu/academics-experience/signature-cla-experiences/career-readiness</u>.

Disabilities

Students with disabilities must be registered with Disability Services. Contact <u>http://ds.umn.edu</u>, submit an up-to-date accommodation letter to the instructor, and discuss their specific accommodations with the instructor as soon as possible. The Department of Economics, in conjunction with Disability Services, will make appropriate accommodations for students with disabilities. Specifically, exams will be administered by Disability Services to meet student needs. It is the student's responsibility to schedule exams with the Disability Resource Center (DRC). Note: you will not be able to schedule exams the day of exams. Please schedule well in advance to ensure that you will get the correct accommodations for testing. Exam dates are already posted in the syllabus and on Canvas. Also note: accommodation letter before you receive accommodation and accommodation cannot be retroactively provided, per university policy.

Resources outside of the classroom

Office Hours for Instructor/Teaching Assistants: We are available during office hours and right after class/recitation to answer general questions about the course material. If the set times do not work for you please email your TA to try to arrange a meeting. You may attend any/all of the TA's office hours.

Your Classmates

Working with your fellow classmates is strongly encouraged. Remember, however, that each student must submit his or her own assignments. Also, please cite the people you work with on your homework assignments.

ECON 3101 PAL Sessions

Peer-Assisted Learning sessions are offered weekly to aid students in efficiently studying ECON 3101 material. Information on the PAL facilitator, location, and timing of PAL sessions is available on the course website.

**The following three resources do not have access to any class materials (i.e. lecture notes or homework) and are not affiliated with this course in any way. While some students find these resources to be of assistance, their use is an agreement between the student and the service, and does not reflect the endorsement of the instructor or the economics department.

SMART Learning Commons

This is a service of the University that offers FREE academic support. Go to http://smart.umn.edu/ for more information.

ESO Tutors

This is a service of the Economic Student Organization that offers FREE tutoring for economics 1101 and 1102. Go to http://www.tc.umn.edu/~eso/index.php/Tutoring/ for more information.

Hire a Tutor

The resources above are included with your tuition. They should be sufficient for most students and every student should start with these. A student needing help beyond this may consider hiring an economics Ph.D. student as a tutor. You can find a list of tutors at the Economics Department Office, Hanson Hall, 4-101. You would have to negotiate the price with the TA, but generally it is around \$25-35 per hour. Depending on the tutor, you may be able to share this cost by going to the tutor with another student.

Tentative Course Outline: (subject to change, see Canvas site for current schedule)

| Week | Торіс | Materials | Important Dates | | | | | |
|------|--|---|---|--|--|--|--|--|
| 1 | Introduction / Math Review and Introduction | NS Chapter 2 Math Review on Canvas | | | | | | |
| 2 | Math Introduction/ Consumer Theory | NS Chapter 2-3 Consumer Theory Notes | Last day to add classes Monday, Jan 28 | | | | | |
| 3 | Consumer Theory | NS Chapter 4 | | | | | | |
| 4 | Consumer Theory | NS Chapter 5 | PS 1 Due Feb 12 | | | | | |
| 5 | Consumer Theory/Firm Theory | NS Chapter 6, 9 Firm Theory Notes | | | | | | |
| 6 | Firm Theory / Review | NS Chapter 10 | PS 2 Due Feb 26 | | | | | |
| 7 | Midterm 1/ Firm Theory | NS Chapter 11 | Midterm 1 Mar 5 | | | | | |
| 8 | Firm Theory/Partial Equilibrium | NS Chapter 12 Partial Eq. Notes | | | | | | |
| | | Spring Break | | | | | | |
| 9 | Partial Equilibrium/ General Equilibrium | NS Chapter 13 General Eq. Notes | Extra Credit 1 Due Mar 25 / PS 3 Due Mar 26 | | | | | |
| 10 | General Equilibrium/ Game Theory | NS Chapter 7-8 Game Theory Notes | Last day to drop and not receive a "W" Apr 1 | | | | | |
| 11 | Game Theory / Review | | PS 4 Due Apr 11 / Last day to drop and receive a "W" Apr 8 | | | | | |
| 12 | Midterm 2/ Monopoly | NS Chapter 14 Monopoly Notes | Midterm 2 Apr 16 | | | | | |
| 13 | Monopoly/ Imperfect Competition | NS Chapter 15 Imperfect Comp. Notes | Extra Credit 2 Due Apr 29 | | | | | |
| 14 | Imperfect Competition /Final Review | | PS 5 Due Apr 30 /Last lecture May 2 | | | | | |
| | Final Exam: N | May 15th, 1:30-3:30pm | | | | | | |

NS = Nicholson - Snyder Textbook, *Microeconomic Theory*, Edition 11 or 12

DEPARTMENT OF ECONOMICS -- PROCEDURES AND POLICIES 2018-2019

4-101 Hanson Hall (612-625-6353)

CLASS ASSIGNMENTS:

Written answers to homework assignments must be typed; Graphs and numerical work need not be typed, but should be legible.

COURSE PREREQUISITES:

Students are expected to have successfully completed all prerequisites prior to taking an Economics course.

DISABLED STUDENTS:

Reasonable accommodations will be provided for all students with documented disabilities (by the OSD). Contact the instructor at the beginning of the semester to work out details. This information will be kept confidential.

STUDENT MENTAL HEALTH AND STUDENT COUNSELING SERVICES:

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. University of Minnesota services are available to assist you with addressing these and other concerns. Information about confidential mental health services is available on campus at: http://www.mentalhealth.umn.edu/. Student Counseling Services website: http://www.uccs.umn.edu/index.html

DROPPING A CLASS:

Termination of attendance alone is not sufficient to drop a class. You must notify the Registrar's office. Please contact your academic (college) advisor for details on this process and pay attention to University deadlines for add/drop.

INCOMPLETE GRADE:

Low class standing is not a valid reason for an Incomplete grade. An I is given only in exceptional circumstances like family emergencies or hospitalization; arrangements must be worked out between the student and instructor before the final exam. We require written proof of emergencies. Details about I grades and how to make it up -in the Economics Undergraduate Handbook.

MAKE-UP EXAMS:

Make up exams are possible for the final exam only if the student has another exam scheduled at the same time, or has three exams within a 16 hour period. This should be pre-arranged with the instructor at least three weeks before the final exam. Make up final exams may also be possible for documented medical emergencies.

SCHOLASTIC DISHONESTY:

"The College of Liberal Arts defines scholastic dishonesty broadly as any act by a student that misrepresents the student's own academic work or that compromises the academic work of another. Examples include cheating on assignments or exams, plagiarizing (misrepresenting as one's own anything done by another), unauthorized collaboration on assignments or exams, or sabotaging another student's work".

The University Student Conduct Code defines scholastic dishonesty as "Submission of false records of academic achievement; cheating on assignments or examinations; plagiarizing; altering, forging, or misusing a University academic record; taking, acquiring, or using text materials without faculty permission; acting alone or in cooperation with another to falsify records or to obtain dishonestly grades, honors, awards, or professional endorsement."

Penalties for scholastic dishonesty of any kind in any course will entail an "F" for the particular assignment/exam or the course.

Website for information on Student Academic Misconduct --

http://oscai.umn.edu/avoid-violations/avoiding-scholastic-dishonesty

STUDENT CONDUCT AND CLASSROOM BEHAVIOR:

Students are expected to contribute to a calm, productive, and learning environment. Information on student classroom behavior issues is at: http://policy.umn.edu/education/studentconductcode-proc01.Check the Student Conduct Code to find out what is expected of you.

STUDY ABROAD IN ECONOMICS:

The Department encourages you to undertake Study Abroad. There are many courses in foreign countries that can satisfy some economics major, minor, or Liberal Education requirements. For more information, please contact our Undergraduate Advisors, Ms. Annie Bigley and Ms. Tiffany Kroeze Murphy, or the University's Learning Abroad Center at http://www.umabroad.umn.edu/

UNDERGRADUATE ADVISORS:

Contact the Undergraduate Advisors if you wish to sign up for an Economics major or minor or to get information about institutions of higher study. Your APAS form will list your progress toward an Economics degree.

Advisor: Ms. Tiffany Kroeze Murphy and Ms. Annie Bigley (econadv@umn.edu); Sign up for appointments at econ.appointments.umn.edu

Office: 4-100 Hanson Hall, Phone number: 612-625-5893.

UNDERGRADUATE PROGRAM INFORMATION:

Available on the Internet at: https://cla.umn.edu/economics/undergraduate. Registration policies are listed in the University Course Schedules and College Bulletins.

COMPLAINTS OR CONCERNS ABOUT COURSES:

All course grades are subject to department review.

Please contact your instructor or TA if you have any complaints/concerns about the course. If your concerns are not resolved after talking with your instructor, you can contact: Professor Simran Sahi, Director of Undergraduate Studies.

(Phone): 612-625-6353 and E-mail: ssahi@umn.edu .