



Dartmouth College
Department of Economics
Fall 2019

Econ 21: Microeconomics

Section 1: Meets in the 10A slot, Tuesday and Thursday, 10:10–noon, in Rockefeller Room 001. X-hour on Wednesday, 3:30–4:20 p.m.

Section 2: Meets in the 2A slot, Tuesday and Thursday, 2:25–4:15 p.m., in Rockefeller Room 001. X-hour on Wednesday, 4:35–5:25 p.m.

Professor: Christopher Snyder. Office hours: Monday and Wednesday 12:30–2:00 p.m. Silsby 312A; telephone 646–0642; email chris.snyder@dartmouth.edu; webpage <http://www.dartmouth.edu/~csnyder>.

Readings: The required text is Walter Nicholson and Christopher Snyder, 2017, *Microeconomic Theory: Basic Principles and Extensions*, 12th edition, published by South-Western/Cengage Learning. Other articles and handouts will be distributed in class and available as links on Blackboard.

Overview and Philosophy The course will offer a broad survey of the basic concepts of microeconomic theory, including

- derivation of market demand from consumer preferences
- derivation of firm supply from technological constraints
- game theory
- competitive equilibrium and welfare implications
- models of imperfect competition
- uncertainty and information
- adverse selection and moral hazard

- externalities and public goods.

We will employ the neoclassical paradigm, assuming that the behavior of economic agents is guided by the principle of maximizing an objective subject to resource constraints.

The goal of the course is to develop an understanding of the mathematical structure of microeconomics. Concepts will be presented using graphical and algebraic analysis. We will rely extensively on calculus, a major mathematical tool of modern economics. As part of their training in the course, students should develop a facility with the use of calculus in economics.

Given the breadth of the topics covered and the rigor of the mathematical analysis, many students will find this to be a challenging course. The professor will do his utmost to help students master the material, but students will be expected to contribute their best, sustained, and consistent effort in attending classes, studying notes, reading the text, solving problems, and consulting with the professor in office hours.

Learning Objectives: Besides learning the topic areas above, more generally, successful participation in this course will provide students with the tools needed to excel in any course requiring quantitative and analytical thinking. In particular, students will be well prepared for the theoretical work in any courses in the economics major. The course will help prepare you for the rigorous economic analysis used in graduate school or technical jobs in economics or policy analysis and to be able to read academic journal articles in the field. Successful participation will also help hone the longer-term skills necessary for leadership in any field, enhancing students' ability to analyze, to write, and to speak about economics or any technical topic.

Prerequisites Principles of microeconomics (Econ 1: The Price System) and differential and integral calculus (Math 3: Introduction to Calculus).

Course Requirements

- *Participation and attendance:* Students are expected to attend all classes and scheduled X-hours. To preserve precious class time, we will start promptly at the beginning of the period. Please show up on time to avoid disruptions. Students are expected to be prepared by looking at the assigned readings and completing the problem sets in advance of the relevant class and to participate enthusiastically in discussions. I will keep a log of attendance. Students who have perfect attendance receive a token reward (an extra credit point). Attendance and participation otherwise do not count in calculating the raw course score, but will be a factor in determining where grade cutoffs are established and will be considered if and when students later ask for letters of recommendation.
- *Problem sets:* About ten problem sets will be assigned. Student solutions will not be collected and graded. Instead, I will distribute detailed answers to the problem sets (which can

be reviewed in class and in office hours if there are further questions). Occasionally I will assign hard problems that will not be subject material for exams but will offer a challenge even for the best students.

- *Exams*: There will be three quizzes administered during x-hours and a final exam. The quizzes are not comprehensive but only cover the modules leading up to each one. The final exam is comprehensive, including questions that cover material from the remaining classes after the last quiz, questions covering earlier material, and questions providing a synthesis of the course material. The final exam is tentatively scheduled by the registrar to be on Friday Nov. 22 from 11:30 to 2:30. Let me know right away if you have a conflict for this time and we can begin making alternative arrangements.
- *Paper*: A paper, about four pages in length, will be due near the end of the term. Topic and details to be assigned shortly.

Grading

Quizzes	55%
Paper	15%
Final exam	30%
Perfect attendance	+1% extra credit

The Economics Department grading guidelines calls for a B median in Econ 21. I compute this after combining two sections and accounting for withdrawals.

Academic Integrity: Students are expected to abide by the honor code. An honor code leads Dartmouth to be different from universities without an honor code in three main ways. (a) There is less overt proctoring and screening as students are assumed to be behaving honorably. (b) Students are expected to report peer honor-code violations. (c) Violations are met with harsh punishments.

The following are details on academic integrity as it relates to this class. Exams will be closed-book; collaboration on examinations is prohibited. Students may obtain help from others on problem sets and are indeed encouraged to work together on them in study groups. For group projects, collaboration within each group is of course permitted and encouraged, but collaboration across groups is not allowed. Students can discuss the broad ideas involved in the paper at a philosophical level with others and obtain pointed (i.e., not extensive) editing assistance from colleagues or the writing center, but otherwise must work on it independently. If you have any questions about whether a certain action (including citation practices for the paper) please ask first before taking the action since ignorance of the code or of reasonable standards of integrity will not serve as an excuse.

One question that often arises in the context of the paper is citation style. General policies about writing are stated in *Sources and Citation at Dartmouth College*, available at

<http://www.dartmouth.edu/~writing/-sources>.

Regarding specific citation format, the best resource is any of the economic journals from which assigned articles are taken.

X-Hour Three x-hours have already been scheduled to administer quizzes. I have no advanced plans to use any of the other x-hours but reserve the right to schedule one or two to make up for a class cancelled due to unforeseen circumstances or to catch up on material.

Computer Resources: Handouts and problem sets will generally be distributed in class, but will also be made available afterwards on Canvas. Articles available through the Dartmouth Library portal or through Canvas links. Bringing laptops or a smartphone to every class is recommended. These devices are only to be used for class purposes (note-taking, experiment response, research), not email or web surfing except during break. It is a distraction to fellow classmates to use your devices for prohibited purposes during class, and you are on your honor not to do so.

Study Groups Study groups are being organized for the class through Dartmouth's Tutor Clearinghouse. Further information will be distributed on the first day of class. Some students find it helpful to form informal study groups with fellow classmates to work on problem sets if they do not participate in the formal program.

Disabilities: Students with learning, physical, or psychiatric disabilities enrolled in this course that may need disability-related classroom accommodations are encouraged to make an office appointment to see me before the end of the second week of the term. All discussions will remain confidential, although the Student Disability Services office may be consulted to discuss appropriate implementation of any accommodation requested.

Religious Observances: Some students may wish to take part in religious observances that occur during this academic term. If you have a religious observance that conflicts with your participation in the course, please meet with me before the end of the second week of the term to discuss appropriate accommodations.

Econ 21 Schedule Fall 2019

	Tues.	Wed. X-hour	Thurs.
Week 1	Sep. 17 Introduction, Math Review NS 2 PS 1 assigned	Sep. 18	Sep. 19 Consumer Theory NS 3-4 PS 1 due
Week 2	Sep. 24 Consumer Theory NS 4 PS 2 assigned	Sep. 25	Sep. 26 Consumer Theory NS 5-6
Week 3	Sep. 30 Consumer Theory PS 2 due, PS 3 assigned	Oct. 1	Oct. 2 Uncertainty NS 7
Week 4	Oct. 8 Uncertainty PS 3 due, PS 4 assigned	Oct. 9 Quiz 1	Oct. 10 Game Theory
Week 5	Oct. 15 Game Theory NS 8 PS 4 due, PS 5 assigned	Oct. 16	Oct. 17 Production, Cost Functions NS 9-10 PS 6 assigned
Week 6	Oct. 22 Profit Maximization, Perfect Comp. NS 11 PS 5 due	Oct. 23 Quiz 2	Oct. 24 Perfect Competition NS 12 PS 6 due
Week 7	Oct. 29 General Equilibrium and Welfare NS 13 PS 7 assigned	Oct. 30	Oct. 31 Monopoly NS 14
Week 8	Nov. 5 Oligopoly NS 15 PS 7 due, PS 8 assigned	Nov. 6 Quiz 3	Nov. 7 Asymmetric Information NS 18
Week 9	Nov. 12 Asymmetric Information PS 8 due	Nov. 13	Nov. 14 Externalities NS 19 PS 9 assigned
Week 10	Nov. 19 Final Review PS 9 due		

Key:
 Class
 Possible Class

Final Exam: Fri. Nov. 22, 11:30 a.m. - 2:30 p.m.