

**Department of Economics
Carleton University**

ECON 4020A – Advanced Microeconomic Theory

Course Information

<u>Professor:</u>	Radovan Vadovic D-896 Loeb, 613-520-2600 x 1509, radovan.vadovic@carleton.ca
<u>Lectures:</u>	Mondays and Wednesdays, 11:35-12:55 in Nicol building (NI) 4050
<u>Tutorial:</u>	Wednesdays, 8:35 – 9:55 in Nicol building (NI) 3030
<u>Office hours:</u>	Tuesdays 14:00-15:00

Prerequisites

ECON 2020 (or ECON 2009) and ECON 2030 each with a grade of C+ or higher; ECON 3001 (or MATH 2000 or MATH 2004) with a grade of C+ or higher; and ECON 2220 (or equivalent, or STAT 2605 or STAT 3502), which may be taken concurrently with ECON 4020.

Course Description

The course will expand on the material covered in ECON 2020 and ECON 2030. We will cover more advanced topics and some key results across various topics in microeconomic theory. This includes the theory of individual choice, market competition, and strategic interactions. Along the way, I will emphasize examples and applications.

Required Textbooks

Nicholson, Walter and Christopher M. Snyder: *Microeconomic Theory: Basic Principles and Extensions*, 2016, Cengage Learning, 12th Edition, 12th edition, ISBN-10: 1305505794, ISBN-13: 978-1305505797. (This is our primary text.)

Osborne, Martin J., and Ariel Rubinstein: *Models in Microeconomic Theory*, 2020, Open Book Publishers, 2nd Edition. (You will use this text for your group project assignment.)

This book can be downloaded free of charge from:

<https://www.openbookpublishers.com/books/10.11647/obp.0362>

Notes that you take in class or that I will distribute will be an important complement to the assigned readings.

All readings will be assigned on weekly basis and posted on Brightspace.

Alternative references:

Jehle Geoffrey, and Philip Reny: *Advanced Microeconomic Theory*, 2010, Pearson, 3rd edition. (This is a more advanced textbook.)

Varian, Hal R.: *Microeconomic Analysis*, 1992, Norton, 3rd Edition (This is a classic textbook.)

Examinations and Grading Policy

Class Participation:	10%	
Midterm examination:	25%	on Wednesday the 16 th of October
Group project:	25%	due on the day of the final exam at midnight EST
Final examination:	40%	scheduled by the University

Each exam or a graded class assignment will be graded on a 100-point scale. The final scores will be combined using the weights above and then translated into an alphabetical final grade in accordance with the percentage equivalents described in the Undergraduate Calendar. If you have any questions about your midterm exam or assignments, please contact the instructor no later than 2 weeks after the grades have been posted on Brightspace.

Examinations: There will be two exams for the course: an in-person mid-term exam (75 min in length) and an in-person final exam (120 minutes in length).

Students who can document a compelling reason for missing the midterm examination will be excused and their final grade will be based on their performance in the rest of the course. Students must inform the instructor of such an absence in advance. There will be no make-up mid-term exam.

The final examination is cumulative but will put more emphasis on the material covered in the second half of the course. The date will be scheduled by the University during the exam period. Students are not to make travel plans during the exam period as that is not a valid reason for missing a final exam.

Students who do not write the final examination because of illness or other circumstances beyond their control may apply to write a deferred final examination by contacting the Registrar's Office no later than three working days after the original final examination was

scheduled. In the event that a student writes a deferred examination, the deferred examination will carry the same weight as the final examination in determining the course grade.

Group project: Group project: Depending on the number of students I will divide the class into several groups. Each group will be assigned a chapter from the book by Osbourne and Rubinstein (2020) and will be in charge of teaching the rest of us about the content of the assigned chapter. The deliverables are:

1. Written teaching notes: 7-10 pages (including figures and tables; excluding references). Notes will be structured as follows:
 - a. Motivation: why is this problem relevant and interesting to learn about? Include examples from ordinary life. Support these examples by newspaper articles that refer to them.
 - b. Leading example: carefully present the leading example (or theorem) from the chapter. Is the textbook presentation clear? Can the example be improved, simplified, or clarified? Come up with your own ideal exposition.
 - c. Clearly present the key idea in one academic paper which directly relates to the theory in your assigned chapter. The article could be
 - i. an empirical exercise, testing the theory from your assigned chapter with some form of data (preferably experimental); or
 - ii. a theoretical exercise, extending the result or applying the result from your assigned chapter.

Please check with me and get an approval before you select an article.

2. 20-30-minute video presentation including the slides used in your presentation.
3. One worked out exercise of your own making. Your exercise must be different from those in the book, but it can be similar. When in doubt, please check with me.

The parameters of this assignment may change slightly depending on our class size and the groups we will be able to form.

Participation: Each in-class assignment that you turn in to the instructor (could be in electronic form) will earn you a point. If it is a graded assignment, then this point will be multiplied by your score and divided by 100. Your participation score will be calculated as the number points earned during the semester divided by the number of total points possible.

Homework: Homework will be assigned on per-chapter bases. Answers and/or partial solutions to the homework assignments will be presented at the tutorials. Students are encouraged to see the TA or/and myself for help if they struggle with the homework. It is essential that you attempt to do the homework assignments yourself. You will find that solving homework problems is good preparation for the examination.

Satisfactory performance criteria: Students must fulfil all preceding course requirements in order to achieve a passing grade (D- or higher). Failing performance on participation and midterm examination class component (without a documented compelling reason) will result in a grade of FND (“Failure with No Deferred final examination allowed”). Failure to write the final examination when the student has achieved satisfactory performance during the term will result in a grade of ABS (“ABSent from a required final examination”). Standing in a course is determined by the course instructor subject to the approval of the Faculty Dean. This means that grades submitted by the instructor may be subject to revision. No grades are final until they have been approved by the Dean. Application to write a deferred final examination must be made at the Registrar’s Office.

Plagiarism policy

You are responsible for reading and knowing the information about plagiarism, Carleton University resources, and academic accommodations found: www.carleton.ca/economics/plagiarism-resources-and-accommodations.

Other policies

Please be aware that plagiarism is serious offence at Carleton and should be recognized and avoided. For information on how to do so, please see “Pammett on Plagiarism and Paraphrasing” at www.carleton.ca/economics/courses/writing-preliminaries.

Classroom teaching and learning activities, including lectures, discussions, presentations, etc., by both instructors and students, are copy protected and remain the intellectual property of their respective author(s). All course materials, including PowerPoint presentations, outlines, and other materials, are also protected by copyright and remain the intellectual property of their respective author(s).

Students registered in the course may take notes and make copies of course materials for their own educational use only. Students are not permitted to reproduce or distribute lecture notes and course materials publicly for commercial or non-commercial purposes without express written consent from the copyright holder(s).

Other University Policies

For policies on academic accommodations regarding pregnancy obligation, religious obligation, academic accommodations for students with disabilities, survivors of sexual violence, please consult <https://students.carleton.ca/course-outline>.

Also consult equity services at www.carleton.ca/equity/accommodation and the Paul Menton Centre at www.carleton.ca/pmc/students/accommodations.

Readings and Academic Calendar

Tentative Outline of Topics:

Week 1: Preferences (OR: 1)
Week 2: Preferences + choice(NS: 3 and OR: 1-2)
Week 3: Choice and demand (NS: 3-4 and OR: 2)
Week 4: Demand (NS: 4-5)
Week 5: Demand (NS: 5-6)
Week 6: Relation to the theory of the firm (NS: TBD) and catch-up
Week 7: catchup and Midterm exam
Week 8: Winter break
Week 9: Risk and uncertainty (NS: 7 and OR: 3)
Week 10: Risk and uncertainty and game theory (NS: 7-8 and OR: 3)
Week 11: Game theory (NS: 8 and OR: 13-14)
Week 13: Game theory (NS: 8 and OR: 13-14)
Week 13: Market power (NS: 14-15)
Week 14: Market power (NS: 14-15) and wrap -up