

**University of Waterloo**  
**Department of Economics**  
**ECON 290: Models of Choice in Competitive Markets (Section 001)**  
**Course Outline – Spring Term 2017**

**Instructor Information**

**Instructor:** Corey Van de Waal

**Office:** HH 103

**Website:** <http://economics.uwaterloo.ca/corey-van-de-waal>

**Class Meets:** 8:30am – 9:50am on Tuesdays and Thursdays.

**Classroom:** PAS 2083

**Email:** [chvandew@uwaterloo.ca](mailto:chvandew@uwaterloo.ca)

When sending email to your instructor, always use your University of Waterloo email account. "ECON 290" must appear in the subject line and the message must include your *full name and student ID number*.

**Office Hours and Other Support Resources**

**Office hours:** Tuesdays and Thursdays from 11:30am – 1pm (Starts May 4<sup>th</sup> and ends July 25<sup>th</sup>).

Office hours for the Final Exam Period will be announced in July.

Office hours are the appropriate venue for asking questions about the material from the course. Email is an inefficient method for communicating course content, and I will not respond to detailed questions regarding the material other than during class or in office hours.

If these office hours are not convenient for you, I am also available by arranging a mutually convenient appointment via e-mail.

Where to find this course outline:

This course outline is available at two locations for the duration of the term:

- Department of Economics website <http://economics.uwaterloo.ca/courses>
- LEARN web site (requires UW user id and password) <http://learn.uwaterloo.ca>

**Brief Summary**

Choice lies at the heart of all economic models. This course focuses on choice by consumers and firms. It explains the notion and use of utility functions and budgets, and shows how their interaction allows economists to make predictions about consumer behaviour. The constrained maximization techniques from ECON 211 are used extensively, and extended to situations covering uncertainty (risk) and time. Profit maximization by firms is explored.

There is a voluminous amount of material to cover in this course. We will attempt to get as far through the topic list as our limited time will allow.

**Prerequisite:** ECON101 or ECON100/COMM103; ECON211 or one of MATH128,138,148; ECON221 or one of ARTS280, ENVS278, KIN222, PSCI214/314, PSYCH292, REC371, SDS250R, SMF230, SOC/LS280, STAT202, 206,211,220,230,240, SWREN250R; or Math/FARM students.

**Antirequisite:** ECON301, ECON302.

### **Course Goals and Learning Objectives**

At the end of the course, students should be able to

- apply elements of microeconomic theory to understand how consumers and producers make rational decisions;
- explain the fundamental features of a competitive market structure;
- apply theoretical understanding to problems of production and costs;
- use applied economic techniques to analyze conceptual problems.

### **Textbook, Coursenotes, and Other Resources**

#### **COURSE NOTES**

I have prepared a set of lecture notes that are available by attending class and taking detailed notes. These notes will serve as your “textbook”.

#### **TEXTBOOK**

There is no required textbook for this class, and my lectures will be based on my own notes. Students are responsible for obtaining notes for lectures that they do not attend. The topics from class are all covered by standard intermediate microeconomics textbooks (that use calculus), and I recommend that you read through the relevant sections of some such book because (a) it can provide a different perspective on material presented in class, (b) it has a more space devoted to discussions and examples, and (c) it serves as a source of exercises and practice problems. Here is a (non-exhaustive) list of such textbooks (any edition is suitable).

- Varian, H., Intermediate Microeconomics.
- Eaton, B.C., Eaton, D.F. and D.W. Allen, Microeconomics: Theory with Applications.
- Perloff, J.M., Microeconomics: Theory and Applications with Calculus.

Examinations in this course are based on the material presented as lecture content and any assigned work (which are strong complements, not substitutes...see Policy on Class Attendance).

## Materials Available on LEARN

- Any additional course materials (news, updates, announcements) will be posted on the LEARN web site <http://learn.uwaterloo.ca>
- The LEARN site is down occasionally. Save all course materials to your computer as soon as they are posted. Always be prepared!
- Students writing test and exams are responsible to save course materials on LEARN before the access to their courses is shut off (normally on the first day of classes of the next term).

## Course Requirements and Assessment

The four individual assignments in this course will collectively be worth **20%** of your final grade.

The midterm will be written in the class period on the dates specified below and the result will be worth **30%** of your final grade.

The final exam will constitute **50%** of your final grade and will be comprehensive (i.e. cover all course material from beginning to end).

The course grade will be based on the weighted sum of the four assignments, the midterm exam, and the final examination which will be held during the Official Examination Schedule.

The breakdown is as follows:

Assessment	Date of Evaluation	Weighting
Assignments (4)	TBA	20%
Midterm	June 20, in class	30%
Final Exam	TBA (July 28 – August 11)	50%
<b>Total</b>		100%

### Notes

- The format for both the midterm and the final exam will be a potential mix of multiple-choice questions and written problems.
- The midterm test will be written during the class time.
- The final exam period for the Spring Term 2017 is July 28 – August 11 inclusive. Students are expected to be available during this time. Travel plans are not acceptable grounds for granting an alternative final examination time. <http://uwaterloo.ca/registrar/final-examinations/examination-regulations-and-related-matters>
- The exact date and time for the final exam for this class will be determined by the Registrar's Office. The exam schedule will be posted online, will be announced in class, and posted on LEARN.
- Only the Registrar's Office can issue final grades.

This grading scheme will be implemented strictly for all students in the course (with the exception of verified illnesses – see below).

## **Examination Policy**

### *Missing a Midterm Due to Illness during the Term*

- Missing a midterm will automatically result in a grade of zero for that midterm. If the illness can be documented with a UW Verification of Illness Form (the only acceptable document), with approval you may transfer the weight of the missed midterm to the final exam. This remedy is a privilege and not a right.
- The midterm exam schedule has been set and will not be changed for whatever reason (no make-up midterm exams will be offered).

### *Missing the Final Exam Due to Illness*

- Missing the final exam is a very serious matter which automatically results in a grade of zero for the final exam and possibly a failing grade for the course. Please carefully read the Economics Department policy on deferred final exams for instructions.
- No deferred final exam will be provided for students who missed all the exams (including the final exam) in this course.

### *Submission of Exam Papers*

- Late submission of exam papers is not accepted and missed submissions will receive a zero mark for whatever reason.
- Exam papers must be submitted in whole and on time in the exam room. Exam papers
  - (a) not submitted on time,
  - (b) submitted with missing pages,
  - (c) submitted elsewhere, with the exception of students with permission to write in the AS Office,
  - (d) not received at allwill receive a grade of zero for whatever reason.
- It is the responsibility of students to ensure that they write exams in the location, date, and time assigned to their section. Students writing exams in the wrong section will be assessed a 20% penalty on the final exam grade. There will be no accommodation for possible differences in exam material or content.

### *Policy on Missed/Late Assignments and Tests*

Any assignment that is not handed in to me during the lecture at which this assignment is due will not be marked and will receive a grade of zero. If you miss that lecture due to illness and therefore cannot hand in your assignment, it will be accepted at the next lecture you attend if and only if accompanied by a relevant medical certificate.

No make-up tests will be provided for the midterm exams. Students who miss a midterm and do not have a relevant medical certificate will receive a mark of zero. Students with a valid medical certificate will have the weight of the relevant midterm added to their final exam. If a student misses the final exam, the resulting procedure is outlined in the Economics department's

Deferred Final Exam Policy,

<https://uwaterloo.ca/economics/current-undergraduates/policies-and-resources/deferred-final-exam-policy>

### **Topics covered**

- i. The fundamental model of economic choice
  - (a) Alternatives and budgets
  - (b) Preferences and utility functions
  
- ii. Consumer choice
  - (a) Utility maximisation
  - (b) Application: the Law of Demand
  
- iii. Intertemporal choice
  - (a) Lifetime utility maximisation
  - (b) Application: consumption dynamics and permanent income
  
- iv. Producer choice
  - (a) Production technology
  - (b) Profit maximisation
  - (c) Application: returns to scale and firm size
  - (d) Cost minimisation
  - (e) Application: costs and profits
  
- v. Choice under Uncertainty
  - (a) Expected utility maximisation
  - (b) Application: attitudes to risk and insurance contracts

### **Tentative Class Schedule**

This class schedule is ambitious. Modifications and/or eliminations of certain content might be required given our limited time together. Any necessary modifications or eliminations to the course content will be communicated to you in the regular class period.

<b>DATE</b>	<b>LECTURE #</b>	<b>TOPICS</b>
May 2/17	-	Introductory Lecture
May 4/17	1	The Fundamental Model of Economic Choice.
May 9/17	2	The Fundamental Model of Economic Choice.
May 11/17	3	Consumer Choice.
May 16/17	4	Consumer Choice.
May 18/17	5	Consumer Choice.
May 23/17	-	<b>VICTORIA DAY HOLIDAY (Monday schedule used – no class)</b>
May 25/17	6	Consumer Choice.

May 30/17	7	Consumer Choice.
June 1/17	8	Consumer Choice.
June 6/17	9	Intertemporal Choice.
June 8/17	10	Intertemporal Choice.
June 13/17	11	Intertemporal Choice.
June 15/17	12	Intertemporal Choice.
June 20/17	-	<b>MIDTERM</b>
June 22/17	13	Producer Choice.
June 27/17	14	Producer Choice.
June 29/17	15	Producer Choice.
July 1/17	-	<b>CANADA DAY HOLIDAY</b>
July 4/17	16	Producer Choice.
July 6/17	17	Producer Choice.
July 11/17	18	Producer Choice.
July 13/17	19	Producer Choice, Choice Under Uncertainty.
July 18/17	20	Choice Under Uncertainty.
July 20/17	21	Choice Under Uncertainty.
July 25/17	22	Catch-up / Additional Topic / Final Exam Review.

## **Other Policies**

### **Electronic Device Policy**

- **THE CLASSROOM IS A HANDHELD-DEVICE-FREE ZONE.**
- Turn off all handheld devices and put them away for the duration of the lecture.
- Laptop computers may only be used to view lecture material.
- Photographic devices are not permitted in class due to copyright and privacy issues.
- Audio or video recording devices are not permitted in class due to copyright and privacy issues.

**Policy on remarking of Tests:** If you feel that your test was not marked properly, you must advise the instructor within 5 business days of the date on which the test is handed back to the class. Any student that submits a test for remarking should understand that the entire test will be remarked and that their grade may improve, remain unchanged or perhaps even decrease as a result of the remarking process.

### **Attendance Policy**

Class attendance is an integral part of your educational experience. While attendance is not an explicitly graded component of this course, it is an important factor in ensuring your complete understanding of the material presented. You are responsible for all material presented in the scheduled lecture periods whether you choose to attend lectures or not.

## **Classroom Protocols**

- I do NOT lend my personal lecture notes to students for any reason.
- In order to maintain a learning environment in this classroom, I expect the highest level of courtesy and professional behaviour from every student. In particular, be punctual and turn off all audible ringers on all devices during class.
- As a courtesy to the custodial staff, if you have coffee, water, etc., please dispose of your garbage when you leave the classroom.
- No private conversations in class will be tolerated.

## **Intellectual Property**

Students should be aware that this course contains the intellectual property of their instructor, TA, and/or the University of Waterloo. Intellectual property includes items such as:

- Lecture content, spoken and written (and any audio/video recording thereof);
- Lecture handouts, presentations, and other materials prepared for the course (e.g., PowerPoint slides);
- Questions or solution sets from various types of assessments (e.g., assignments, quizzes, tests, final exams); and
- Work protected by copyright (e.g., any work authored by the instructor or TA or used by the instructor or TA with permission of the copyright owner).

Course materials and the intellectual property contained therein, are used to enhance a student's educational experience. However, sharing this intellectual property without the intellectual property owner's permission is a violation of intellectual property rights. For this reason, it is necessary to ask the instructor, TA and/or the University of Waterloo for permission before uploading and sharing the intellectual property of others online (e.g., to an online repository).

Permission from an instructor, TA or the University is also necessary before sharing the intellectual property of others from completed courses with students taking the same/similar courses in subsequent terms/years. In many cases, instructors might be happy to allow distribution of certain materials. However, doing so without expressed permission is considered a violation of intellectual property rights.

Please alert the instructor if you become aware of intellectual property belonging to others (past or present) circulating, either through the student body or online. The intellectual property rights owner deserves to know (and may or may not have already given their consent).

**Institutional-required statements for undergraduate course outlines approved by Senate Undergraduate Council, April 14, 2009.**

**Economics Department Deferred Final Exam Policy**

Deferred Final Exam Policy found at <https://uwaterloo.ca/economics/current-undergraduates/policies-and-resources/deferred-final-exam-policy>.

**Cross-listed course**

Please note that a cross-listed course will count in all respective averages no matter under which rubric it has been taken. For example, a PHIL/PSCI cross-list will count in a Philosophy major average, even if the course was taken under the Political Science rubric.

**Academic Integrity**

In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility. See the [UWaterloo Academic Integrity Webpage \(https://uwaterloo.ca/academic-integrity/\)](https://uwaterloo.ca/academic-integrity/) and the [Arts Academic Integrity Office Webpage \(http://arts.uwaterloo.ca/current-undergraduates/academic-responsibility\)](http://arts.uwaterloo.ca/current-undergraduates/academic-responsibility) for more information.

**Grievance**

A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read [Policy 70, Student Petitions and Grievances, Section 4 \(https://uwaterloo.ca/secretariat/policies-procedures-guidelines/policy-70\)](https://uwaterloo.ca/secretariat/policies-procedures-guidelines/policy-70). In addition, read [the Student Grievance Process](https://uwaterloo.ca/arts/current-undergraduates/student-support/student-grievances-faculty-arts-processes) for the Faculty of Arts found at <https://uwaterloo.ca/arts/current-undergraduates/student-support/student-grievances-faculty-arts-processes>.

**Discipline**

A student is expected to know what constitutes academic integrity, to avoid committing academic offenses, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offense, or who needs help in learning how to avoid offenses (e.g., plagiarism, cheating) or about “rules” for group work/collaboration should seek guidance from the course professor, academic advisor, or the undergraduate associate dean. When misconduct has been found to have occurred, **including writing exams in a section that you are not registered in**, disciplinary penalties will be imposed under [Policy 71 – Student Discipline](http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm). For information on categories of offenses and types of penalties, students should refer to [Policy 71, Student Discipline \(http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm\)](http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm).

For typical penalties check [Guidelines for the Assessment of Penalties \(http://www.adm.uwaterloo.ca/infosec/guidelines/penaltyguidelines.htm\)](http://www.adm.uwaterloo.ca/infosec/guidelines/penaltyguidelines.htm).

## **Appeals**

A student may appeal the finding and/or penalty in a decision made under Policy 70 - Student Petitions and Grievances (other than regarding a petition) or Policy 71 - Student Discipline if a ground for an appeal can be established. Read [Policy 72 - Student Appeals](#).

### **Academic Integrity website (Arts):**

[http://arts.uwaterloo.ca/arts/ugrad/academic\\_responsibility.html](http://arts.uwaterloo.ca/arts/ugrad/academic_responsibility.html)

**Academic Integrity Office (uWaterloo):**<http://uwaterloo.ca/academic-integrity/>

## **Accommodation for Students with Disabilities**

### **Note for students with disabilities:**

The [AccessAbility Services office](#), located in Needles Hall Room 1132, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with the AS office at the beginning of each academic term.