University of Waterloo Department of Economics Econ 391 Equilibrium in Market Economies Fall 2018 1:30 – 2:20 MWF, STC 0020

Instructor Information Instructor: Ahmet OZKARDAS Office: PAS 1049 Office Hours: Wednesday 10 am – 12:00 pm/ Thursday 9 – 10:30 am Email: aozkarda@uwaterloo.ca

Course Description

Central to the study of economics is the concept of an equilibrium. This is a situation in which the actions of individuals are not only individually optimal, but are also consistent with each other. This course introduces students to the notion of equilibrium for a single market and for a market economy. The properties of such equilibria are explored, both in terms of model logic (existence, uniqueness) as well as in terms of the desirability of the equilibrium outcomes (efficiency, welfare). Partial equilibrium (in a single market) as well as general equilibrium (in all markets at once) are covered for models with endowments, production, uncertainty, and time.

Prereq: ECON 290 Please note that Econ 290 material is an essential background for this course and is assumed. If you had significant struggles in 290 you may want to review that course during the first two weeks and while doing assignment 1.

Course Goals and Learning Outcomes

The main objective of the course is for students to gain an understanding and appreciation of what an equilibrium in economic models entails. Students will be able to derive equilibria for simple example economies in the standard settings.

Course Materials

No formal textbook is required.

However, this course will be loosely based on '*Intermediate Microeconomics: a Modern Approach*' (9th edition) by Hal Varian, Norton 2014 (previous editions should work too). An alternative textbook you may find useful is '*A Short Course in Intermediate Microeconomics with Calculus*" by Roberto Serrano and Allan Feldman, Cambridge University Press, 2013. However, the course should also be self-contained. Everything you need will be presented in class and/or available on the class website. The textbooks are useful, recommended, but not required.

Readings Available on LEARN

- Assignments and assignment solutions will be posted on LEARN.
- Lecture notes ARE NOT posted, and are not available from the instructor. Class attendance and note taking are therefore of higher importance than usual. If you think you need to miss a class, be sure to arrange for a colleague to be willing to share notes with you.

Course Requirements and Assessment		
Assessment	Date of Evaluation (if known)	Weighting
Assignments (approx. 5)	TBA	20%
Midterm 1	Friday, October 12 (in class)	20%
Midterm 2	Friday, November 9 (in class)	20%
Final Exam	Determined by Registrar's Office	40%
Total		100%

Course Requirements and Assessment

There will be no adjustments to the above grading scheme. Especially not for an individual student.

Assignments

Assignments will be due at the beginning of class on the due date. Late assignments are not accepted. Assignments will be handed out 5-7 days in advance of the due date, while the material is covered in lectures. Due to the extended time for completion, medical notes will usually not be accepted.

Midterms

Midterms are in class, closed book, no aids of any kind. Due to the nature of the material in the course the second midterm will be "cumulative", that is, material from the first midterm may be tested implicitly in the second, even though it will not be the focus of the test.

The weight of a midterm for which a VIF is accepted will be moved to the other midterm and the final exam in equal parts. If you happen to be sick for both midterms you should consider dropping the course.

Final Exam

The final exam is cumulative and will test all of the material in the course. It is closed book, no aids. The final exam is scheduled by the Registrar's office during the final examination period. Travel plans are not an acceptable reason to reschedule a final exam. Also note that the final will not be rescheduled under any circumstances if both midterms have been missed. You should by now be familiar with the deferred final exam policy of the department.

Notes on contacting the instructor

When sending email, please use your official uwaterloo account and have ECON 391 in the subject line. It is generally a good idea to also have a signature line that includes your full name and student ID. Please treat email correspondence as a somewhat formal venue of communication.

Course Outline

Note: I will not follow this schedule rigidly, but will adapt the timing of topics as needed to best make use of class time.

Part 1: Consumer/Producer Theory (Brief summary of ECON290)

1. Preferences and Utility

Recommended Readings: Varian, H. Chapter 3, pg. 34 – 52, Varian, H. Chapter 4, pg. 57 – 69, Serrano, R., Feldman, A., Chapter 2, pg. 7 – 21

2. Budget Constraint and the Consumer's Optimal Choice *Recommended Readings:*

Varian, H. Chapter 2, pg. 20 - 31, Varian, H. Chapter 5, pg. 73 - 89, Serrano, R., Feldman, A., Chapter 3, pg. 25 - 35

3. Demand Functions

Recommended Readings: Varian, H. Chapter 6, pg. 96 - 114, Varian, H. Chapter 8, pg. 137 – 156, Serrano, R., Feldman, A., Chapter 4, pg. 43 – 59

4. Welfare – Consumer Surplus

Recommended Readings: Varian, H. Chapter 14, pg. 252 - 267, Serrano, R., Feldman, A., Chapter 7, pg. 103 – 115

5. Production, Profit Maximization, Cost Minimization

Recommended Readings: Varian, H. Chapter 19, pg. 350 – 361, Varian, H. Chapter 20, pg. 363 – 378, Varian, H. Chapter 21, pg. 382 – 392, Serrano, R., Feldman, A., Chapter 9, pg. 141 – 155, Serrano, R., Feldman, A., Chapter 10, pg. 163 – 169

Part 2: Partial Equilibrium Analyses

1. Intertemporal Choice

Recommended Readings: Varian, H. Chapter 10, pg. 182 – 202

2. Uncertainty

Recommended Readings: Varian, H. Chapter 12, pg. 217 – 232, Serrano, R., Feldman, A., Chapter 19, pg. 346 – 356

3. Market Demand

Recommended Readings: Varian, H. Chapter 15, pg. 270 – 285

4. Perfectly Competitive Markets Equilibrium

Recommended Readings: Varian, H. Chapter 16, pg. 293 – 313, Serrano, R., Feldman, A., Chapter 11, pg. 177 – 190

Part 3: General Equilibrium Analyses

1. An Exchange Economy

Recommended Readings: Varian, H. Chapter 32, pg. 602 – 625, Serrano, R., Feldman, A., Chapter 15, pg. 263 – 275

2. A Production Economy Recommended Readings: Varian, H. Chapter 33, pg. 628 – 647, Serrano, R., Feldman, A., Chapter 16, pg. 282 – 297

Information on Plagiarism Detection

Assignments are meant as a learning opportunity. It is acceptable and sensible practice to work in study groups, and to discuss solution approaches. However, assignments must be individually written and submitted. Obvious cases of "copying" will result in a zero grade.

Electronic Device Policy

University policy prohibits a prohibition of laptop use in class. However: cell phones, tablets and other electronic devices are not welcome. The recording of lectures (audio or video) is prohibited by University policy unless explicit permission has been given. The use of photography is prohibited. This includes pictures taken with a cell phone.

Please ensure your phones are set to silent (ideally to airplane mode) and are off your desk.

Attendance Policy

There is no attendance policy. It is your time and money, after all. However, missing a class does not excuse you from knowing what went on, nor does it imply that you might obtain a private catch up lesson. If you have to miss a class, please arrange access to the class notes with another student.

Economics Department 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

Academic Integrity: In order to maintain a culture of academic integrity, members of the University of Waterloo are expected to promote honesty, trust, fairness, respect and responsibility. See the <u>UWaterloo Academic Integrity</u> webpage and the <u>Arts Academic Integrity</u> webpage for more information.

Discipline: A student is expected to know what constitutes academic integrity, to avoid committing academic offences, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (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, disciplinary penalties will be imposed under Policy 71 – Student Discipline. For information on categories of offenses and types of penalties, students should refer to Policy 71 - Student Discipline. For typical penalties check <u>Guidelines for the Assessment of Penalties</u>.

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. <u>Read Policy 70 -</u> <u>Student Petitions and Grievances</u>, Section 4. When in doubt, please be certain to contact the department's administrative assistant who will provide further assistance.

Appeals: A decision made or penalty imposed under Policy 70 - Student Petitions and Grievances (other than a petition) or Policy 71 - Student Discipline may be appealed if there is a ground. A student who believes he/she has a ground for an appeal should refer to <u>Policy 72 - Student Appeals</u>.

Accommodation for Students with Disabilities

Note for students with disabilities: <u>The AccessAbility Services office</u>, located on the first floor of the Needles Hall extension (1401), 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.

If you are using Turnitin® in your course

Turnitin.com: Text matching software (Turnitin®) will be used to screen assignments in this course. This is being done to verify that use of all material and sources in assignments is documented. Students will be given an option if they do not want to have their assignment screened by Turnitin®. In the first week of the term, details will be provided about arrangements and alternatives for the use of Turnitin® in this course.

Note: students must be given a reasonable option if they do not want to have their assignment screened by Turnitin®. See <u>guidelines for instructors</u> for more information.