FARE*6380 Applied Microeconomics for Agricultural Economists

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Lecture Classes: Mon, Wed: 10:00AM - 11:20AM, MACS, Room 129
Labs: Fri: 10:00AM - 11:20AM, CRSC, Room 403

Office hours: Mon, Fri 1:30-2:30 p.m. (Or by appointment)

COURSE OVERVIEW

The objective of the course is to provide students with a thorough understanding of the application of microeconomic concepts and empirical tools to a wide range of topics in food, agricultural and resource markets, as well as public policy issues. The focus is on applied theory, modelling economic problems and formulating economic hypotheses. Microeconomics concepts and models, in conjunction with the necessary empirical data, provide the basis for the analysis of policies by governments wishing to influence the allocation of resources.

FARE*6380 is intensive, and requires a fair amount of commitment from the student. The expectations are high and will require a great deal of effort and discipline. Students are strongly advised to attempt to solve the problems in Varian. At the same time, it should be very rewarding. This course assumes that you are familiar with key mathematical tools and their applications to economic problems. Make sure that you have mastered mathematical skills commonly used in economics (*e.g.,* Alpha Chiang).

LEARNING OUTCOMES

At the end of the course, successful students will be able to:

1. apply microeconomic theory and quantitative methods to empirical analysis of pricing and policy issues in food, agricultural and resource markets
2. conceptualize research problems encountered when studying consumers and firms in the market for food, agriculture and resource
3. identify an appropriate theoretical framework when confronted with microeconomic problems in food, agricultural and resource industries
4. formulate hypotheses related to firm and consumer behaviours in food, agricultural and resource markets
5. frame, develop and communicate an original research paper

In order to achieve the learning outcomes, students are expected to have a basic knowledge of microeconomic theories, and the mathematical and statistical tools required to implement the theories. Further, students are expected to have read assigned materials before class and be able to discuss them as required. By the time you have finished the course you should acquire an ability to identify an appropriate microeconomic theory to conceptualize researchable problems in the context of food, agricultural and resource economics, or general economics.

TEXTBOOK

Varian, H. R. 1992. Microeconomic Analysis, Third Edition, W.W. Norton and Co.

STRONGLY RECOMMENDED READINGS

Nicholson, W. and Snyder, C. 2008. Microeconomic Theory Basic Principles and Extensions, Ten Edition, South-Western Cengage Learning, Mason.

Silberberg, E. and Suen, W. 2001. The Structure of Economics: A Mathematical Analysis, Third Edition, Irwin/McGraw-Hill.

OTHER RECOMMENDED READINGS

Perloff, J. M. 2008. Microeconomics: Theory and Applications with Calculus, Pearson Addison Wesley.
Chambers, R.G. 1988. Applied Production Analysis: A Dual Approach. Cambridge University Press. Cambridge.
Deaton, A and Muellbauer, J. 1980. Economics and Consumer Behaviour, Cambridge University Press, Cambridge.
Jehl, G.A. and Reny, P.J. 2001. Advanced Microeconomic Theory, Second Edition, Addison Wesley.
Dixit, A.K. 1990. Optimization in Economic Theory, Second Edition, Oxford.
Chiang, A. & K. Wainwright . 2005. Fundamental Methods of Mathematical Economics (or earlier editions)
Chiang, A. C. 1992. Elements of Dynamic Optimization. Waveland Press Inc.

ASSESSMENT

Assignments (One)	10%
Homework (Four, 5% each)	20%
Midterm exam (One)	20 %
The Microeconomics of	10%
Final exam	40%
Total	100%

Late assignment/homework and term work will receive a penalty of 10% per day up to a maximum of TWO school days and will not be accepted thereafter. Please contact me ahead of time if there are extenuating circumstances (e.g., health, bereavement) for late work.

INSTRUCTION METHODS

The course will be lecture based, with out-of-class assignment and homework. A learner-centered, problem-based, communicative approach to instruction will be used. The course will consist of conventional lectures and discussion. Some of the course materials are available through CourseLink.

Homework/ASSIGNMENT - 30% OF FINAL GRADE - DUE DATE

Homework/Assignment are due in-class (**Tentative**).

Homework 1	September 23, 2016
Homework 2	October 14, 2016
Homework 3	October 28, 2016
Assignment 1	November 04, 2016
Homework 4	November 11, 2016

EXAMS - 60% OF FINAL GRADE

There will be one midterm exam during the semester and a final exam. The exams will measure your ability to apply the knowledge and skills you have mastered to new problems. The best preparation for exams will be solving problems. Exams are closed books and comprehensive. Midterm exam will be held on **October 21, 2016 during lab time**. Final exam will be held on: **TBA**.

E-MAIL COMMUNICATION

As per university regulations, all students are required to check their <uoguelph.ca> e-mail account regularly: e-mail is the official route of communication between the University and its students.

WHEN YOU CANNOT MEET A COURSE REQUIREMENT

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons, please advise the course instructor in writing, with your name, id#, and e-mail contact. See the graduate calendar for information on regulations and procedures for Academic Consideration:
http://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/sec_d0e1400.shtml

DROP DATE

The last date to drop one-semester courses, without academic penalty is **Friday, November 4, 2016**. Two-semester courses must be dropped by the last day of the add period in the second semester. Refer to the Graduate Calendar for the schedule of dates: http://www.uoguelph.ca/registrar/calendars/graduate/current/sched/sched-dates-f10.shtml

ACADEMIC MISCONDUCT

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community – faculty, staff, and students – to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring. University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection. The Academic Misconduct Policy is detailed in the Graduate Calendar:
http://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/sec_d0e1687.shtml

RECORDING OF MATERIALS

Presentations which are made in relation to course work—including lectures—cannot be recorded in any electronic media without the permission of the presenter, whether the instructor, a classmate or guest lecturer.

RESOURCES

The Graduate Calendar is the source of information about the University of Guelph's procedures, policies and regulations which apply to graduate programs:
http://www.uoguelph.ca/registrar/calendars/graduate/current/

TENTATIVE COURSE OUTLINES AND READINGS: This course is designed to cover, but not limited to, the following topics at the graduate level.

	Topics	Readings [Chapter]
1.	**Review of Optimization and Economic Models** (**SELF STUDY**) - The Objective Functions - The Feasible Sets - The Envelope Theorem - Comparative Statics - Unconstrained Optimization - Constrained Optimization - Dynamic Optimization	Varian [Chs. 26 & 27]***; Silberberg and Suen [Chs. 1, 2, 3, 5, 6, 7]** Nicholson and Snyder [Chs. 1 and 2]** Dixit* Chiang & Wainwright * Chiang
2.	**Theory of the Firm** - Production Technologies - Properties of Production Technologies - Elasticity of Substitution - Homogeneous and Homothetic Functions - Productivity and Production Efficiency - Profit maximizing Behaviour - Profit Maximization in a Competitive Market - Output Supply and Factor Demand - Cost Minimizing Behaviour - Short Run and Long Run Cost Minimization - Elasticity of Scale - Duality - Dynamic Optimization - Empirical Application	Varian [Chs. 1 - 6]***; Perloff [6 & 7]** Nicholson and Snyder [Chs. 9 and 10]** Silberberg and Suen** [4, 8,9 Chambers [Chs. 1-4]*;
3.	**Theory of the Consumer** - Preference Orders - The Utility Function - The Consumption Decision (Choice) - The Indirect Utility Function - The Expenditure Function - Comparative Statics of Consumer Behaviour - Measuring Welfare Effects - The Expected Utility Hypothesis - Risk Aversion - Random Utility Model - Intertemporal Preferences - Empirical Application	Varian [Chs. 7-11, 19]***; Nicholson and Snyder [Chs. 3, 4, 5 and 6]** Silberberg and Suen** [Chs. 10, 11 & 13.3] Deaton and Muellbauer [Chs. 1 & 2]*; Perloff [Chs. 3, 4 & 5, 16.2]*;
4.	**Other Topics** - Equilibrium in Competitive Markets - Public Goods and Externalities - Imperfect Competition (Market Power) - Co-operatives - Adverse Selection, Signalling and Screening - The principal Agent Problem - Empirical Application	Varian [Chs. 13, 14, 16, 23, 24]***; Nicholson and Snyder [Chs. 12, 14, 15, and 19]** Perloff [Chs. 8 & 9, 17]*;

*** Required readings; ** strongly recommended readings; * recommended readings.

FARE*6380 Applied Microeconomics (10% of final grade)

The Microeconomics of "____" involves selecting a topic of your interest (*e.g.*, The Microeconomics of karaoke, The Microeconomics of crime, Do safer cars necessarily result in fewer traffic deaths? see below for more examples.), developing a research question and hypothesis to be tested and quantitative tools to be used in the analysis. Students will then be required to make a 5 minute in-class presentation (***maximum four-slides***) and submit a written report (***maximum two-pages***).

Use economic concept(s) to apply to one of three types of applications:

1. **Everyday applications** (*e.g.*, renting cars versus taking taxis, dieting and nutrition; tastes of a cocaine addict; Christmas gifts; to take, or not to take, the bus; studying for an exam; to study or to sleep; Fast food restaurant and grease, etc.).

2. **Business applications** (*e.g.,* pricing and quantity discount and optimal choices, retail industry lobbying for daylight savings time; technological change in production; optimal response to labour regulations, etc.).

3. **Policy applications** (*e.g.,* public housing and housing subsidies, taxing goods vs. lump sum taxes, food stamps vs. food subsidies; price subsidies, price taxes, etc.).

The use of both the graphical and mathematical analyses is encouraged.

Paper Due: November 18, 2016 in class
Presentations: December 02, 2016