



College of
Business+
Economics

ECON*4710
Advanced Topics in Microeconomics F15
0.50 credit weight

General Course Information

Instructor: Michael Hoy
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Office Location MacKinnon 725 (Chair's office) and 701
Office Hours Mondays and Wednesdays 10:30 to 12:00 (or by arrangement)
Department/School Department of Economics and Finance

Class Schedule: Mondays, Wednesdays: 8:30 to 9:50 (MCKN 236)

Pre-requisites: ECON*2770, ECON*3710

Course Description

An intensive study of the scope, methodology, and content of contemporary microeconomics; selected topics in partial and general equilibrium analysis.

Course Content

Much of the microeconomics you have studied to date has dealt with *standard* market transactions that generally involve the study of the production (cost) and sale (price) of some product or service. Such transactions involve profits for firms and utility for consumers. In this course I hope you will learn that microeconomics has a much broader scope and substantially more power in providing an understanding of various relationships among economic and social agents. Although to date the definition of economics as “the study of the allocation of resources” has probably been quite adequate, for this course the emphasis is on “the study of incentives”.

You can imagine that “the study of incentives” can be very broad indeed. In fact, my principle concern with setting up a course outline and schedule of study (readings, assignments, examinations, essays) is to provide you with the appropriate incentive to learn how to apply certain economic concepts and principles. The study of incentives can be used to help understand peoples choices concerning a very broad range of phenomena, such as an individual’s choice of how much care to take in driving, a firm’s choice of technology, an investor’s choice of financial portfolio, a young person’s educational choice, a person’s or a couple’s choice of how many children to have.

The setting for our analysis will be an environment of uncertainty with a particular concern with information one can obtain and make use of and also with relationships when one person (or group of persons) has more information about certain aspects of the environment than does another. A simple example of such a setting is the relationship between an automobile insurance company and its customers. Accidents occur in an environment of uncertainty and insured drivers know how carefully they drive better than does the insurance company. Thus, the company wishes to design insurance contracts which provide appropriate incentives to its customers to drive with an appropriate level of care. One way of doing this is to offer only partial insurance (i.e., include a deductible) and to use a bonus malus system (i.e., a penalty on future premiums for those persons who do have an accident) so that drivers will have an incentive to drive with more care than they otherwise might. The insurance company also wishes to design a menu of contracts, depending on age, sex, driving experience, type of car, etc., which indirectly provide information on which drivers are more or less inherently careful or skillful in their driving habits.

By taking this course you should achieve a better understanding of various observed institutional arrangements in both the private and public sectors, including such items as terms of private contracts and government regulations. Moreover, you will also develop further your ability to construct economic models in order to understand various real world phenomena, which are not covered in this course, involving economic situations where uncertainty and informational problems are important elements. The study of the area of uncertainty and information has become one of the most important in economics over the past thirty years due to its many fruitful applications. I hope you will obtain an appreciation of these developments. For those of you intending to go on to graduate school, this is a very important objective. However, the course is designed for all economics students, with important applications to various areas of economics and business.

TENTATIVE OUTLINE AND READINGS

There will be additions to and possibly deletions from the readings below.

1. Review of Concepts of Efficiency [Especially the Pure Exchange Model and Edgeworth Box Diagram]

*Nicholson, [Ch. 12 in the 9th edition or Ch. 13 in the 10th edition]

2. Choice Under Uncertainty and the Economics of Information

*Nicholson, [Chs. 18 and 19 in the 9th edition or Chs. 7 and 18 in the 10th edition]

*Hirshleifer and Riley, Ch. 1

Raiffa, Ch. 4

3. More on Choice Under Uncertainty and the Value of Information

*Hirshleifer and Riley, Ch. 2, Ch. 3 (pp. 83-99), Ch. 4 (pp. 120-134), Ch. 5 (pp.167-208)

*Harrington, S. and G. Niehaus (2003), "United Grain Growers: Enterprise Risk Management and Weather Risk," *Risk Management and Insurance Review*, Vol. 6, no.2 pp. 193-217.

* Guiso, L. and M. Paiella (2005), "The Role of Risk Aversion in Predicting Individual Behaviours," Banca D'Italia, Working paper no. 546, URL:

http://www.bancaditalia.it/pubblicazioni/econo/temidi/td05/td546_05/td546/tema_546.pdf

4. An Introduction to the Problems of Asymmetric Information

*Macho-Stadler and Pérez-Castrillo, Chs. 1, 2

Akerlof, G. A., (1970): "The Market for Lemons: Quality Uncertainty and the Market Mechanism," *Quarterly Journal of Economics*, vol. 84, pp. 488-500.

5. The Problem of Moral Hazard

*Macho-Stadler and Pérez-Castrillo, Ch. 3 (pp. 35 to 87)

*Norton, S. W. (1988), "An Empirical Look at Franchising as an Organizational Form," *The Journal of Business*, Vol. 61, No. 2, pp. 197-218.

Lafontaine, F. and J. Oxley (2001), "International Franchising: Evidence from US and Canadian Franchisors in Mexico," NBER working paper #8179.

6. The Problem of Adverse Selection

*Macho-Stadler and Pérez-Castrillo, Ch. 4 (pp. 101 to 116, Section 4B - pp. 142-149)

*Rothschild, M. and J. Stiglitz (1976): "Equilibrium in Competitive Insurance Markets: An Essay on the Economics of Imperfect Information." *Quarterly Journal of Economics*, vol. 90, pp. 629-649.

*Hoy, M. and M. Ruse: "Regulating Genetic Information in Insurance Markets," *Risk Management and Insurance Review*, vol. 8, no. 2, pp. 211-237.

7. Problems Involving Dual Asymmetric Information

*Chan, R. and M. Hoy (1991), "East-West Joint Ventures and Buyback Contracts," *Journal of International Economics*, vol. 30, pp. 331-343.

8. Signalling Equilibria - *Macho-Stadler and Pérez-Castrillo, Chapter 5 (pp. 183-190)

Course Assessment

Assessment 1:	Assignments – best 2 of 3	15%
Assessment 2:	Midterm (Oct. 26, in class)	35%
Assessment 3:	Bonus Quiz (Sept. 23, in class)	5% (bonus)
Assessment 4:	Final Exam	50%
Total:		100%

NOTE: If your final exam grade is higher than your term work (subtotal), the weights will change to 70% on the final exam and 30% for term work. Please check your final exam date from the information provided by the registrar's office.

Teaching and Learning Practices (*as appropriate*)

Lectures Partial lecture notes will be provided in advance of the lectures (available on courselink web site). You are strongly recommended to print these and add notes from the lectures. The lecture notes on their own are not complete descriptions of the content taught in lectures.

Course Resources

Required Texts:

1. **An Introduction to the Economics of Information: Incentives & Contracts**, by Inés Macho-Stadler and David Pérez-Castrillo, Oxford University Press, 1997.
2. **The Analytics of Uncertainty and Information**, by Jack Hirshleifer and John G. Riley, Cambridge University Press, 1992.

Please note that, rather paradoxically, I have chosen **TWO** textbooks in order to (a) save you money and (b) provide you with material that is presented in a better pedagogical fashion and also is much more user friendly than would be the case if I had chosen a single text. Although there are a number of suitable comprehensive textbooks in microeconomics which cover all of the course material, any of these costs over \$150 and so would be much more expensive than the two books I use. Moreover, these other texts are for the most part extremely dense, terse and use a substantially more (unnecessarily) sophisticated mathematical approach.

Recommended Texts:

I will also refer to the text from the course ECON*3710 Advanced Microeconomics, which is:

MICROECONOMIC THEORY: Basic Principles and Extensions, 9th or 10th edition, by Walter Nicholson (& Christopher Snyder for the 10th edition).

If you do not still have this book (either of the above editions would be fine), you can photocopy relevant chapters from the copy that is on reserve in the library. Also useful and to be placed on reserve is the book:

Decision Analysis, Introductory Lectures on Choices Under Uncertainty, Raiffa (Addison Wesley 1968), [Raiffa]

Other readings are given later in this outline in the Schedule of Readings section. Some of these you will need to photocopy, while others will be made available to you.

Course Policies

Grading Policies

There will be penalties for late submissions of assignments indicated on each assignment. Due dates will be given well in advance and will depend on the progress we make throughout the semester.

<http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-grds.shtml>

Please note that these policies are binding unless academic consideration is given to an individual student.

Course Policy on Group Work:

There is no group work in this course. However, you are welcome to discuss assignment questions with each other and form study groups accordingly. I view assignments more as learning instruments than as testing instruments. However, you **MUST** write your solutions to assignment questions totally independently.

University Policies

Academic Consideration

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 academic calendar for information on regulations and procedures for

Academic Consideration: <http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-ac.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. Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

The Academic Misconduct Policy is detailed in the Undergraduate Calendar:

<https://www.uoguelph.ca/registrar/calendars/undergraduate/2015-2016/>

Accessibility

The University of Guelph is committed to creating a barrier-free environment. Providing services for students is a shared responsibility among students, faculty and administrators. This relationship is based on respect of individual rights, the dignity of the individual and the University community's shared commitment to an open and supportive learning environment. Students requiring service or accommodation, whether due to an identified, ongoing disability or a short-term disability should contact the Centre for Students with Disabilities as soon as possible.

For more information, contact CSD at 519-824-4120 ext. 56208 or email csd@uoguelph.ca or see the website: <http://www.csd.uoguelph.ca/csd/>

Course Evaluation Information

Please refer to: <https://www.uoguelph.ca/economics/course-evaluation>

Drop date

The last date to drop one-semester courses, without academic penalty, is **November 6, 2015**. For regulations and procedures for Dropping Courses, see the Academic Calendar:

<https://www.uoguelph.ca/registrar/calendars/undergraduate/2015-2016/>

Additional Course Information

Mathematics Review:

Although all of the material from the courses **ECON*2770 Introductory Mathematical Economics** is important background to this course, those sections that are most relevant to the development of microeconomic models used in this course are covered in Chapters 3, 5, 6, 11, 12, 13 and 14 of the text Mathematics for Economics, 2nd ed. by Hoy, Livernois, McKenna, Rees and Stengos (MIT Press, 2001). The Review Questions below serve as a self-test for you to determine whether you need to review this material. If you have any concern that your mathematics background is too

weak for this course, **TRY THESE QUESTIONS!** If you have any difficulties with these questions you should immediately begin reviewing the relevant material. There are solutions to all of these exercises in the **Student Solutions Manual** which accompanies the text.

Relevant review exercises from **Mathematics for Economics, 2nd ed.**, by Hoy, et al.:

Chapter 3: Exercises to Section 3.5 (pp. 108-110): number 8

Chapter 5: Review Exercises (pp. 224-226): numbers 1, 3, 5, 7, 9

Chapter 6: Review Exercises (pp. 274-276): numbers 3 (pick a few), 5, 9

Chapter 11: Review Exercises (pp. 541-543): numbers 1, 3, 5

Chapter 12: Review Exercises (pp. 581-583): numbers 1 (pick a few), 5

Chapter 13: Exercises to Section 13.1 (pp. 615-616): numbers 1 (pick a few), 5, 7

Relevant review exercises from **3rd edition** of above text:

Chapter 3: Exercises to Section 3.5 (pp. 95-96): number 5

Chapter 5: Review Exercises (pp. 191-193): numbers 1, 3, 5, 7, 9

Chapter 6: Review Exercises (pp. 230-232): numbers 3 (pick a few), 5, 9

Chapter 11: Review Exercises (pp. 471-472): numbers 1, 3, 5

Chapter 12: Review Exercises (pp. 500-501): numbers 1 (pick a few), 5

Chapter 13: Exercises to Section 13.1 (pp. 515-616): numbers 1 (pick a few), 5, 7

Course Learning Outcomes

The Department of Economics & Finance *Learning Objectives (skills and knowledge competencies)* for this course are:

Skills

- Numerical Problem Solving (tested in all assignments and examinations)
- Analytical Problem Solving (tested in all assignments and examinations)
- Problem Solving in a Real World Context; e.g., using models to explain how insurance or labour contracts are structured to avoid problems of moral hazard and adverse selection in markets characterized by uncertainty. (tested in all assignments and examinations)

Knowledge

- Mathematical Methodology (calculus, algebra, optimization, etc. – tested in all assignments and examinations)
- Modelling (decision making under risk and uncertainty, etc. – tested in all assignments and examinations)

Understanding the importance of risk and uncertainty for individuals, markets, and the overall economy (tested in all assignments and examinations)