Department of Economics and Finance

ECON*4860
Seminar in Current Economic Problems
Winter 2014

Instructor: B. Ferguson
M, W 1:00 – 2:20, Crop Science 101

It is your responsibility as a student to be aware of and to abide by the University's policies regarding academic misconduct, e-mail communication, maintaining copies of out-of class assignments, what to do when you cannot meet a course requirement, and the drop date for the semester. To better understand these policies, visit:

https://dev.web.uoguelph.ca/economics_d7/important-notice-about-students-responsibilities-and-university-policies

Course Outline

This course will be taught as an advanced course in health economics, with a particular focus on individual health behaviours and decisions. It is often said that economic analysis doesn't apply to health-related issues; one objective of this course will be to show that this statement is wrong. It is also often thought that health economics refers exclusively to the study of the behavior of health care costs. While formal econometric analysis of health cost and expenditure is valuable, and can yield unexpected results, the theory of health economics applies to much more than the time series behavior of costs.

Many health-related decisions, whether dealing with insurance, drug research and development, preventive care or health related behaviours, are problems in intertemporal optimization, meaning that they involve taking decisions today the consequences of which may well not appear until well into the future. Intertemporal optimization can be interpreted as an extension of the techniques of static optimization which are covered in areas like consumer theory to problems which are inherently forward looking, often with a horizon which is well off into the future. As a result, an understanding of techniques of intertemporal optimization is as important in health economics as it is in areas such as financial economics. This course will develop techniques of individual intertemporal optimization and show their applicability to our understanding of health-related problems under conditions of certainty and uncertainty. It will also discuss econometric issues related to the dynamic nature of health economics, and to the fact that individuals select themselves into various types of health-related behaviours.

The starting point for health economics at the level of the individual is Michael Grossman's model of investment in health capital. This course will take Grossman's model as its starting point, and do much of its formal analysis within that framework.

There is, at the moment, no really satisfactory textbook in advanced health economics. Thus the course will be lecture-based with readings and other supporting material made available as appropriate. It will be assumed that students have no background in techniques of intertemporal optimization, so the first lectures will be devoted to setting out techniques of dynamic optimization. There is no required text for this material, but useful references include

Avinash Dixit: Optimization in Economic Theory 2nd edition, Oxford University Press 1990

Daniel Leonard and Ngo van Long: Optimal Control Theory and Static Optimization in Economics Cambridge university Press 1992

Giancarlo Gandolfo: Economic Dynamics first edition, North Holland 1971, Second edition North Holland 1980, third edition, Springer 1996.

Brian Ferguson and G. C. Lim: Introduction to Dynamic Economic Models Manchester University Press 1998.

Brian Ferguson and G. C. Lim: Dynamic Economic Models in Discrete Time, theory and Applications pub. Routledge 2003

For specific applications in health economics, useful references include the Journal of Health Economics and a journal simply entitled Health Economics. Grossman's original model was published as "On the Concept of Health Capital and the Demand For Health" in the Journal of Political Economy, March-April 1972. Another model which we will be considering in dynamic optimization form is the model of rational addiction, developed by Gary Becker and Kevin Murphy in an article entitled "A Theory of Rational Addiction" Journal of Political Economy August, 1988. In both cases familiarity with techniques of dynamic optimization make the models easier to understand than was the case when they were originally published, although there is always value in looking at the original work.

Evaluation: There will be a midterm exam, worth 25% of the final grade, to be written in class time on **Wednesday, February 26** , a major essay of not fewer than 6000 words, worth 25% of the final grade, due in class time on **Wednesday, March 26,** and a final exam worth 50% of the course grade to be written **Friday, April 11, 7pm.** There will be no deferred midterm exam. Any student missing the midterm, or doing better on the final than on the midterm, will have the midterm weight automatically shifted to the final.

Essay: The topic of the essay is Social Capital and Health, Seen From an Economic Perspective. More detail, and specific references, will be given in the first lectures, but in brief, in the literature on population health, Social Capital is a term used to refer to the general social environment, which includes factors such as the distribution of income, and an individual's social interactions. The public health literature argues that an individual's health is affected by the general state of the society in which he lives, and that these conditions can sometime have more impact on an individual's health than direct medical care has. Health economists are of mixed opinions as to the validity of social capital theory. In this essay, students will take some aspect of social capital theory and assess the literature on it using the tools of economic theory and econometrics which they have learned in their economics program. Starting points for reading the social capital literature can be found at http://publications.gc.ca/collections/Collection/H13-5-02-7E.pdf and http://individual.utoronto.ca/lshen/aging.pdf .

Course Evaluation: You will be asked to complete an evaluation of this course at some time during the last two weeks of the semester. Course evaluation will be done in class. The Department of Economics policy regarding the conduct and use of these evaluations will be found at:

https://www.uoguelph.ca/economics/course-evaluation

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

Skills:

(a) Analytical Problem Solving: Students will apply techniques learned in other areas of economic theory to a field which is often not thought of as an area of economics: individual health related behaviours and decisions. They will identify the ways in which familiar approaches to technical economic analysis can be related to a range of health-related issues.

(b) Problem Solving in a Real World Context: Students will assess and appraise the way tools of economic optimization can be used to understand the economics of health-related behaviours and will evaluate the applicability of formal techniques of intertemporal optimization to such issues as the individual's decisions about preventive health care and smoking.

(c) Written Communication: Students will write a major essay in which they will be expected to interpret social capital, a concept more widely used in the public health and sociology literature, into economic terms and assess the literature on that concept from the perspective of an economist.

Knowledge:

(a) Mathematical methods: Students will learn techniques of intertemporal optimization and decision-making under uncertainty and analyze health behaviour and policy related questions using those techniques.

(b) Statistical and Econometric Methodology: Students will interpret the results of studies applying econometric techniques to health related problems, with particular attention to the way selectivity issues arise in health economics.

(c) Microeconomic Modelling: Students will learn to formalize the way the particular institutional features of health care markets must be accounted for when techniques of economic analysis are being applied to health-related decisions.

(d) Understanding Specific Markets: Students will identify the features specific to health care markets which need to be accounted for in the process of investigating the applicability of the techniques of dynamic microeconomic analysis to health care.

(e) Economic Policy and Regulation: Students will appraise the key issues which have to be accounted for in using economic analysis to argue for specific health care and health behaviour related policies.