Behavioral Economics

Department: Economics

Instructor: Prof. David Cesarini

Course Number: V31.0342

Frequency: The course will be offered annually beginning in the Spring 2011 semester.

Points and pre-requisites: The course will carry four points. This course is open to students who have taken Intermediate Microeconomics (V31.0010), Topics in Econometrics (V31.0380) and Calculus II (V63.0122); or Microeconomics (V31.0011), Introduction to Econometrics (V31.0266), and Calculus II (V63.0122). Exceptions require the instructor’s permission.

Properties: The course will meet two times each week for one hour and fifteen minutes each. No unusual audio-visual or technological aids will be used.

A. SYLLABUS

Course Description and Aims

This course introduces students to the field of behavioral economics, which seeks to insert more behavioral realism into economic theory. Typically we try to accomplish this by making non-standard assumptions about human preferences, but occasionally our approach will be to explore non-standard beliefs or emphasize the limitations of our decision making faculties. Topics covered include, but are not restricted to, prospect theory, mental accounting, other-regarding preferences and hyperbolic discounting. We will usually approach a topic by examining evidence of some departure from the assumptions made in the canonical economic model. We then ask how such departures can be formalized theoretically and how the resulting models can be tested empirically. The course requires a command of basic microeconomic theory and econometric analysis of microeconomic data.

We start by reviewing the standard expected utility theory framework, which will serve as our baseline model throughout much of the course. We then study some of the empirical evidence suggesting that people respond to changes in wealth levels more than the expected utility model would predict, and that there appears to be an asymmetry between the evaluation of losses and gains. We then proceed to formally develop prospect theory and its various extensions, for example models of reference dependent preferences. We conclude this topic by reviewing the empirical evidence on the significance of prospect theoretic preferences outside of the laboratory.

In the next part of the course study how people discount the future, with special emphasis on models of inter-temporal choice in which people appear to exhibit present bias. We examine the empirical evidence of such present-biased preferences and explore various models which have attempted to formalize the intuition that humans have a tendency to too often grab immediate rewards. Our basic analytical framework is used to try to illuminate economic questions such as
excessive credit borrowing and saving for retirement. We also ask what, if any, implications these ideas have for public policy.

We then turn to models in which the assumption that people are narrowly self-interested is relaxed. We ask under what situations people manifest such “other-regarding” preferences, surveying the standard experimental paradigms which have been used to elicit social preferences and some of the objections which have been raised to this work. We consider several formal models of non-selfish behavior and explore their implications, with special emphasis on the labor market.

We next study to non-standard beliefs, focusing on a number of other deviations from normative decision theory such as overconfidence and erroneous statistical reasoning. We ask under what circumstances the human decision making machinery functions well, under what circumstances it does not and what implications this has for institutional design. We conclude the course by covering discussing recent work by economists which seeks to explain individual differences in the susceptibility to behavioral anomalies, often using tools from differential psychology.

Course materials and Resources

Most of the readings will be based on notes provided by the instructor and journal articles as part of the course packet described below. Lecture notes will also be provided. A recommended text, containing much of the required readings, is:


Course Requirements

There will be one final exam and approximately 8 assignments for this class. The main purpose of the assignments is to develop model-solving skills.

The exam will count for 60% of the grade, and the assignments will count for 40% of the grade.
SCHEDULE

Below is an outline of topics for the course with the corresponding chapters from Kahneman and Tversky (henceforth K&T) or the relevant journal articles, which are listed after the schedule.

**Introduction and Review of the Expected Utility Framework** – 2 lectures

- Introduction to Behavioral Economics (Ashraf et al., 2005; Rabin, 1998)
- The Expected Utility Framework (Instructor’s Notes)

**Prospect Theory** – 6 lectures

- Motivating Empirical Evidence (Kahneman et al., 1991; K&T, chapter 1)
- Prospect Theory (K&T, chapters 2-3, Instructor’s Notes)
- Models of Reference Dependent Preferences (Köszegi and Rabin, 2006, Instructor’s Notes)

**Hyperbolic Discounting** – 6 lectures

- The Exponential Discounting Model (Instructor’s Notes)
- Empirical Evidence on Hyperbolic Discounting / Present Bias (Mischel et al., 1999; Ariely and Wertenbroch, 2002; Frederick et al., 2002)
- The Beta-Delta Model with Sophistication and Naïveté (O'Donoghue and Rabin, 1999)
- Present-Bias and Public Policy (Jolls et al., 1998; Glaeser, 2006)

**Other-Regarding Preferences & Reciprocity** – 6 lectures

- Empirical Evidence (Camerer and Fehr, 2004; Fehr and Gächter, 2002)
Formal Models of Inequity Aversion and Reciprocity (Fehr and Schmidt, 1999; Charness and Rabin, 2002)

Empirical Extensions (Bandiera et al., 2005)

Miscellaneous Topics – 4 lectures

- Heuristics and Biases (Kahneman and Tversky, 1974)
- Mental Accounting (K&T, chapters 12, 14-15)
- Individual Differences (Benjamin et al., 2006; Frederick, 2005; Cesarini et al., 2009)

JOURNAL ARTICLES


B. INFORMATION ABOUT THE COURSE IN THE CURRICULUM OF CAS
The course will only serve economics majors. No course will be dropped to make way for this one.

C. STATEMENT BY THE DIRECTOR OF UNDERGRADUATE STUDIES
Behavioral economics is the latest modern contribution to the development & extension of micro analysis. We are very lucky to have acquired the talents of David Cesarini to spearhead our contribution in this new and rapidly advancing field. I welcome this course with pleasure and relief in that it fills a long tolerated gap in our instructional program.

This course does not overlap any other course in CAS.

BEHAVIORAL ECONOMICS

CAS Bulletin: This course introduces students to the field of behavioral economics, which seeks to insert more behavioral realism into economic theory. Topics covered include, but are not restricted to, prospect theory, mental accounting, non-materiially maximizing preferences and hyperbolic discounting. We will usually approach a topic by surveying evidence which documents a departure from an assumption made in the canonical economic model. We then examine how such departures can be formalized theoretically and how the resulting models can be tested empirically.