

PPE Spring Courses 2007

PPE 008 (PHIL 008) The Social Contract (Freeman)

LEC: MW 10-11 AM

REC: F 10-11AM, 11 AM-12 PM, or 12-1 PM

This course will examine the history and significance of social contract doctrine for modern social and political thought. In particular, the works of Thomas Hobbes, John Locke, J.J. Rousseau, and John Rawls will be studied. We will also study the utilitarian critique of social contract doctrine and the utilitarian views of David Hume, Adam Smith, and J.S. Mill.

PPE 110 Introduction to Decision Theory (Sen) – CGS

Fulfills General Requirement of Formal Reasoning and Analysis for all classes (2009 and earlier, and class of 2010).

TR 6:30-8 PM

The course will provide an introduction to models of human decision making. One of the primary purposes of the course is to provide a set of basic tools that will help the student translate qualitative uncertainty into numbers. A substantial amount of the course will deal with the theory of rational choice in the presence of objective and subjective uncertainty. Rational choice under uncertainty is by far the most used theory of decision making, and its applications are widespread in economics, finance, political science, law, managerial decision making, the economics of health care, and artificial intelligence. The course will use examples heavily from each of these fields (and also fun “paradoxes” such as the Monty Hall Puzzle) in providing an introduction to the basic foundations of decision making. We will also look at the shortcomings of the theory from intuitive and empirical perspectives. Two alternative theories – Prospect Theory and decision making using the Dempster-Shafer rule – will be discussed which address some of these concerns. The course may also be used for any Economics, Philosophy or Political Science requirement in the PPE major. No mathematical prerequisites are necessary beyond high school algebra and arithmetic.

PPE 111 Introduction to Game Theory (Sen)

TR 3-4:30 PM

This course will provide an example driven first course in Game Theory, with an emphasis on applications. We will look at games in strategic forms, games in extensive forms, static games, dynamic games, games of complete and incomplete information, Nash equilibrium, the plausibility of Nash equilibrium as a prediction of outcomes, and alternative equilibrium concepts such as rationalizability. We will also look at new areas of game theory such as evolutionary game theory and behavioral game theory. Concepts

will be taught at an intuitive level, accompanied by lots of class discussion and examples. The examples will be drawn from Economics, Political Science, Philosophy and Computer Science. Prerequisites: prior exposure to elementary (high school level) probability theory.

PPE 153 (PSYC 153) Judgment and Decisions (Baron)

Fulfills college Quantitative Data Analysis requirement and general requirement IV: Formal Reasoning. Class of 2009 and prior.

MW 2-3:30 PM

Judgments, decisions under certainty and uncertainty, problem solving, logic, rationality, and moral thinking.

PPE 180 (MATH 180) Analytical Methods in Economics, Law, and Medicine (Gerstenhaber)

Fulfills General Requirement IV: Formal Reasoning. Class of 2009 and prior.

TR 1:30-3 PM

Elementary applications of decision analysis, game theory, and probability and statistics to issues in accounting, contracting, finance, law, and medicine, amongst others.

PPE 210 (LGST 210) Corporate Responsibility and Ethics (Sandbu, Dunfee, Radin)

TR 10:30 AM-12 PM, 1:30-3 PM or 3-4:30 PM

This course explores business responsibility from rival theoretical and managerial perspectives. Its focus includes theories of ethics and their application to case studies in business. Topics include moral issues in advertising and sales, hiring and promotion, financial management, corporate pollution, product safety, and decision-making across borders and cultures.

PPE 212 (BPUB 212, LGST 212) Economic Analysis of Law (Asher)

TR 10:30 AM-12 PM

This course is designed to teach students how to think as an economist about legal rules; to evaluate alternative legal rules against standards of economic efficiency and distributive justice; and to understand the nature of the legal process and several specific areas of the law. With the use of alternative texts, both deductive and inductive reasoning will be employed to study the formation and interpretation of legal rules.

**PPE 226 (LGST 226, PHIL 279) Markets, Morality and Capital
(Hussain)**

TR 1:30-3 PM

Markets play a central role in the life of a capitalist democracy. But is this a good thing? Should we let markets decide who is rich and who is poor? Who makes decisions and who follows them? Whose ideas get heard and whose ideas do not? The goal of this class will be to examine the market from the perspective of various social values to see whether we should want a market system and, if so, what kind of market system we should want. Among the issues we will examine are the following. Does the market contribute to the common good? If so, how? Does the market conflict with the idea that all human beings are of equal value? What is the relation between the market and freedom? Does the market liberate us or oppress us? Can we reconcile the market with our democratic ideals? What role should corporations play in a healthy democracy? What role should markets play in an increasingly globalized world? We will read several important philosophers, economists, and political theorists writing on these issues, including Adam Smith, John Rawls, Amartya Sen, Friedrich Hayek, Karl Marx, Robert Nozick, Ronald Dworkin, Jurgen Habermas, Peter Singer, and others.

**PPE 319 (OPIM 319) Advanced Decision Systems: Evolutionary
Computation (Kimbrough)**

(Permission of Instructor)

MW 3-4:30 PM

Evolutionary computation is an exciting new technology that applies principles of evolution – such as natural selection, genetic recombination and mutation – to discover solutions to problems, adapt to the environment, and even make it possible for computers to program themselves. This seminar explores genetic algorithms, genetic programming, and classifier systems. It focuses on practical applications of this technology, including: discovering profitable investment strategies, formulating strategies for multilateral negotiations, managing a transcontinental pipeline, modeling decision processes of consumers, and multi-objective planning and scheduling of production. Students apply this technology to sample problems and work in groups on larger term projects of their own choice. Common Lisp is used for all projects, and is learned during the semester. To help students learn Lisp, we will discuss readings from the Lisp textbook and work through generic code written in Lisp for evolutionary computation.

PPE 475 Fairness and Altruism (Dana)

(For PPE students or seniors only, unless petitioned and approved)

MW 2-3:30 PM

Do people exhibit true concern for the welfare of others, without the promise of personal gain? This seminar draws on empirical research from economics and psychology on the nature of fairness and altruism. The impact of fairness concerns on microeconomic behavior will be examined, including individual choice behavior, possible market anomalies, and public policy.

PPE 475 Punishment and Cooperation (Xiao)

(For PPE students or seniors only, unless petitioned and approved)

T 3-6PM

Punishment is an important tool for promoting cooperation in social environments including families, companies, markets and courts. This seminar uses experimental research in economics, law and psychology to explore critical issues in punishment and cooperation. Why do people sometimes incur costs to themselves in order to punish others? How do people behave under punishment threats? Why do punishment threats sometimes have detrimental effects on cooperation? How are emotions and punishment connected? Students will form small groups to investigate these and related research questions. Each group will design an experiment that can inform a single research topic. Groups will make classroom presentations and submit term-papers detailing their topic and the way they address it using laboratory or field experiments.

PPE 475 Natural Justice (Sillari)

(For PPE students or seniors only, unless petitioned and approved)

R 3-6 PM

Why are norms of fairness and justice present in society? In this seminar we shall investigate and discuss answers to such questions, focusing on the view according to which norms of justice are a specific kind of human social behavior that has evolved over time. The analytic tools of evolutionary game theory will be used to support and substantiate such claims, in an interdisciplinary spirit aiming at bringing together topics and explanations from philosophy and economics. The structure of the seminar will follow Kenneth Binmore's book "Natural Justice", combining in each session readings from the book and readings from both philosophers and economists.