University of Pennsylvania

Fall Term 2020

ECON 712– Decision Theory

Lectures: Tuesday and Thursday 1.30-3.00, in Zoom (link: )

Instructor: David Dillenberger, ddill@sas.upenn.edu

Office hours: By appointment

Course home page: usual Canvas https://canvas.upenn.edu/

Requirements:

• Either a research paper or a take-home final exam. (The choice between these two options is yours); or

• Presentation in the second part of the course (list of suggested papers is in Section 6 below).

Course description: Most economic theories start from a model of individual decision making and then use it as a building block to model interaction between agents, groups of agents and firms, the economy as a whole, etc. In this course, we study a suite of standard models, discuss critiques of these models, and introduce alternative models (sometimes known as “exotic preferences”) that deal with these critiques. For example, we will discuss topics such as present bias, temptation and self-control, non-expected utility, and ambiguity.

COURSE OUTLINE


1.2 Deterministic Choice: Preference Relation, Utility and Choice Function
Readings: Kreps, Chapters 2 and 3

1.3 Expected Utility Theory
Readings: Kreps, Chapters 5 and 6

1.4 Subjective and Objective Uncertainty: The Anscombe-Aumann Model
Readings: Kreps, Chapter 7

1.5 Subjective Probability and Savage’s Theorem
Readings: Kreps, Chapters 8 and 9

2. Addressing Allais and Ellsberg

2.1 Ambiguity aversion


2.2 Non expected utility under risk


### 2.3 Further Readings


### 3 Dynamic Choice/Choice over Opportunity Sets

#### 3.1 Standard Model of Dynamic Choice

Kreps, Chapter 13

#### 3.2 Preference for Flexibility


#### 3.3 Preference for Commitment


#### 3.4 Further readings on Preference for Commitment


3.5 Further Readings on Preference for Flexibility


4 Time preferences with risk


4.1 Further readings


5 Stochastic choice


6 Models of bounded rationality/other topics/students’ presentation