

## LPS/PHIL 108/244: RATIONAL CHOICE

FALL 2014

### COURSE INFORMATION

**Instructor:**

Simon Huttegger (shuttegg@uci.edu)

SST 785 – Office hours: TBA

**Classes:** TuTh 9.30 - 10.50am

**Course description:** Theorizing about rational choices becomes important whenever we have to rely on a notion of “correct” decision making. The modern theory of rational choice there is based on a thin concept of rationality, which regards decisions as wrong that go against what the decision maker herself values. This consistency requirement has been worked out in mathematical detail. In this course, we will work through one of the classics of the field, David Kreps’s “Notes on the Theory of Choice” (Westview Press 1988). This is a mathematically advanced introduction to the field, but one of the best (perhaps the best one) available.

**Course requirements:**

This course is exercise based. There will be three homeworks, due throughout the quarter. Graduate students will be assigned extra problems. The dates will be announced in class (approximately every three weeks). Attendance and participation in class discussion can positively influence your grade.

You are allowed to discuss homework problems with one another. However, each individual student must write up the answers independently. If you collaborated with another student **you must note who that student is and on which problems you collaborated**. Copying answers or failing to note collaboration constitutes academic dishonesty.

**Required reading:**

- D. Kreps (1988). *Notes on the Theory of Choice*. Westview Press.

## COURSE SCHEDULE

- Week 1:** Introductory lecture, set theory and introduction to preferences (Kreps, chapters 1 and 2)
- Week 2:** Preferences & ordinal utility (Kreps, chapter 3)
- Week 3:** More on ordinal utilities & introduction to probability theory
- Week 4:** Choice under uncertainty (Kreps, chapter 4)
- Week 5:** Von Neumann and Morgenstern theory (Kreps, chapter 5)
- Week 6:** Risk and utility for money (Kreps, chapter 6); problems (Kreps, chapter 14)
- Week 7:** Anscombe/Aumann theory (Kreps, chapter 7)
- Week 8:** Qualitative probability (Kreps, chapter 8); Savage's axioms (Kreps, chapter 9)
- Week 9:** Savage's theory (Kreps, chapter 9); conditional choice (Kreps, chapter 10)
- Week 10:** De Finetti's theorem (Kreps, chapter 11)