

# PHILOSOPHY 184P: PROBABILITY AND EPISTEMOLOGY SPRING, 2010

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Bld 380, Rm 381U M,W 11:00-12:15

## Description:

In this course we will ask what probability is and what use it is for epistemology. We begin by asking how to interpret probability statements and then we will focus on subjective, personalist views. We then look at arguments for and against probabilism - the view that we should assign degrees of belief to various propositions. We will then look at belief change through time and finally, we will examine what relationship probability has to more traditional epistemological notions like belief, justification, and knowledge.

## Requirements:

Attendance in class and participation in discussion are required and will affect your grade. There will be two papers assigned. One will be due around the sixth week and one will be due during finals week. There is no final exam.

## Office hours:

My office hours are Tues 11:00-12:00 and Wed 1:30-2:30, or by appointment, in 92B on the second floor of building 90 in the main quad.

## Books available at the university bookstore:

Ian Hacking, *Introduction to Probability and Inductive Logic*, Cambridge University Press, 2001

## Books available on reserve at Tanner Library in building 90:

Jeffrey, Richard C., *Probability and the Art of Judgment*

Jeffrey, Richard C., *The Logic of Decision*, 2nd ed.

Eells, Ellery, *Rational Decision and Causality*

Savage, Leonard J., *The Foundations of Statistics*, 2nd ed.

## Reading Schedule:

### Unit 1: Probability Theory

- Mon, Mar 29
  - Basic Logic and Calculating with Probabilities
    - Hacking, Ch 1-7
- Wed, Mar 31 NO CLASS
- Mon, Apr 5
  - Probability: Axiomatic
    - [Appendix 2](#) of Ellery Eells's *Probabilistic Causality*
    - Lyon, [The Philosophy of Probability](#) (first two sections)
    - T. Williamson, [How Probable is an Infinite Sequence of Heads?](#)
- Wed, Apr 7
  - Conditional Probability
    - Hájek, [What Conditional Probability Could Not Be](#)

### Unit 2: Interpretations of Probability

- Mon, Apr 12

- Interpretations I
  - Hacking, Ch 11 + 12
  - Hajek, [Interpretations of Probability](#), *Stanford Encyclopedia of Philosophy* (through 3.4)
  - van Fraassen, [Indifference: The Symmetries of Probability](#)
- Wed, Apr 14
  - interpretations II
    - Gillies, [Varieties of Propensity](#)
    - Eells, [Objective Probability Theory Theory](#)
- Mon, Apr 19
  - Subjective probability
    - Hacking Ch 13 + 14
    - Hajek, [Interpretations of Probability](#), *Stanford Encyclopedia of Philosophy* (3.5)
- Wed, Apr 21
  - Dutch books
    - Skyrms, [Coherence](#)
    - Christensen, [Dutch Books Depragmatized: Epistemic Consistency for Partial Believers](#)
    - Hajek, [Scotching Dutch Book](#)
    - Hajek, [Dutch Book Arguments](#)
- Mon, Apr 26
  - More on Dutch Books
- Wed, Apr 28
  - How are degrees of belief and chances related?
    - Lewis, [A Subjectivist's Guide to Objective Chance](#)
- Mon, May 3
  - Joyce probabilism
    - Joyce, [A Non-Pragmatic Vindication of Probabilism](#)
- Wed, May 5
  - Probabilism II
    - Eriksson and Hajek, [What are Degrees of Belief?](#)

### Unit 3: Bayesian Epistemology

- Mon, May 10
  - Conditionalization 1
    - Hacking Ch 15
    - Lewis, [Why Conditionalize?](#)
    - Teller, [Conditionalization and Observation](#)
    - Kyburg, [Conditionalization](#)
- Wed, May 12
  - On Jeffrey Conditionalization
    - Jeffrey, [Probable Knowledge](#)
- Mon, May 17
  - Conditionalization 2: Reflection
    - van Fraassen, [Belief and the Will](#)
    - van Fraassen, [Belief and the Problem of Ulysses and the Sirens](#)
    - Arntzenius, [Some Problems for Conditionalization and Reflection](#)
- Wed, May 19
  - Sleeping Beauty
    - Elga, [Self-Locating Belief and the Sleeping Beauty Problem](#)
    - Lewis, [Sleeping Beauty: A Reply to Elga](#)
    - Arntzenius, [Reflections on Sleeping Beauty](#)
    - Hitchcock, [Beauty and the Bets](#)
    - Bradley and Leitgeb, [When Betting Odds and Credences Come Apart](#)

### Unit 4: Bayesian and Mainstream Epistemology

- Mon, May 24

- Required Readings
  - Kaplan, [Rational Acceptance](#)
  - Kaplan, [A Bayesian Theory of Rational Acceptance](#)
  - Eells, [On a Recent Theory of Rational Acceptance](#)
- Wed, May 26
  - Required Readings
    - Hawthorne and Bovens, [The Preface, the Lottery, and the Logic of Belief](#)
    - Wheeler, [A Review of the Lottery Paradox](#)
- Mon, May 31
  - Criticisms of Bayesian Epistemology
    - Pollock, [Problems for Bayesian Epistemology](#)
    - Foley, [Beliefs, Degrees of Belief, and the Lockean Thesis](#)
    - Foley, [The Epistemology of Belief and the Epistemology of Degrees of Belief](#)
- Wed, Jun 2
  - Final words?
    - Hajek and Hartmann, [Bayesian Epistemology](#)