

**Phil 125: Philosophy of Science**  
Winter, 2017

Tuesday and Thursday, 5:20–6:55pm, Cowell Com 134

**Contact Information**

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Office hours: Thurs. 2–3pm, or by appointment

**Course Description**

We will read some of the classic texts which created and set the stage for later developments within the subdiscipline now known as philosophy of science. The course will be divided into two halves, corresponding to two fundamentally different views about what makes science distinctively rational (due to Rudolf Carnap and Karl Popper); in each case we will also read important works which were taken to undermine the view in question.

**Course Requirements**

A midterm assignment (your choice of a take-home exam **or** a 6–10 page paper) due Tuesday, February 21, and a final assignment (your choice of a take-home exam **or** a 6–10 page paper), due Wednesday, March 22.

**Texts**

Rudolf Carnap, *The Logical Structure of the World* (Open Court, 2003) (ISBN: 0812695232).

(This book is generally known as “the *Aufbau*,” following its original German title, *Der logische Aufbau der Welt*.)

Nelson Goodman, *Fact, Fiction, and Forecast* (Harvard, 1983) (ISBN: 0674290712).

Thomas Kuhn, *The Structure of Scientific Revolutions* (Univ. of Chicago Press, 2012) (ISBN: 0226458121).

Karl Popper, *The Logic of Scientific Discovery* (Routledge, 2002) (ISBN: 8130908115).

The above texts should be available at the Literary Guillotine, and they will also be put on reserve at McHenry. Readings not from texts on the above list, if any, will be available on eCommons.

## Readings

Tuesday, January 10: (no reading, first class).

### Part I: Carnap/Goodman/Quine

Thursday, January 12: Carnap, *Aufbau*, Preface to 1st Edition (pp. xv–xviii); §§1–5 (pp. 5–10); §§17–25 (pp. 31–43).

Tuesday, January 17: Carnap, *Aufbau*, §§26–41 (pp. 47–70); §§46–60 (pp. 78–97).

Thursday, January 19: Carnap, *Aufbau*, §67 (pp. 107–9); §§95–6 (pp. 152–4); §§98–103 (pp. 156–63); §§125–8 (pp. 194–9); §157 (p. 246); §§160–61 (pp. 254–7); §§165–9 (pp. 263–72).

Tuesday, January 24: Carnap, *Aufbau*, §§175–83 (pp. 281–98).

Thursday, January 26: Carnap, *The Unity of Science*, §§1–3 and 6; Neurath, “Protocol Sentences”; Carnap, “On Protocol Sentences.”

Tuesday, January 31: “The Methodological Character of Theoretical Concepts,” §§1-6, beginning of §7 (through the paragraph that ends on top of p. 54), and §§8–10; Putnam, “What Theories Are Not.”

Thursday, February 2: Goodman, *Fact, Fiction, and Forecast*, §§2–3 (pp. 31–83).

Tuesday, February 7: Goodman, *Fact, Fiction, and Forecast*, §4 (pp. 84–124).

Thursday, February 9: Quine, “Epistemology Naturalized.”

## **Part II: Popper/Kuhn**

Tuesday, February 14: Popper, *LSD*, ch. 1 and 2 (pp. 3–34).

Thursday, February 16: Popper, *LSD* ch. 3 (pp. 37–56).

Tuesday, February 21: Popper, *LSD*, ch. 4 (pp. 57–73) (and **Midterm assignment — exam or paper — due**).

Thursday, February 23: Popper, *LSD*, ch. 5 (pp. 74–94).

Tuesday, February 28: Popper, *LSD*, ch. 10 beginning and §79 (pp. 248–52); §82 (pp. 264–7); §84 through end (including Addendum), pp. 273–82.

Thursday, March 2: Neurath, “Pseudorationalism of Falsification”; Putnam “The ‘Corroboration’ of Theories”; Lakatos, “Popper on Demarcation and Induction,” through end of part I (pp. 241–52).

Tuesday, March 7: Kuhn, *SSR*, ch. 1–5, pp. 1–51.

Thursday, March 9: Kuhn, *SSR*, ch. 6–8, pp. 52–91.

Tuesday, March 14: Kuhn, *SSR*, ch. 9–10, pp. 92–135.

Thursday, March 16: Kuhn, *SSR*, ch. 11–13, pp. 136–73.

Wednesday, March 22: **Final assignment — exam or paper — due.**