



# Philosophy of Science: The Alternative Views

Summer Semester 2012

**Seminar** — B4/V: Philosophy of Science (Elective Seminar)

**Objectives:** In-depth analysis of some themes in philosophy of science for advanced students.

**Classes (weekly):** Tuesday 10:00 - 12:00 - Classroom: RW S40

**Assessment:**

- 2CP: class attendance and participation + questions sheets submissions
- 8CP: 40% (class attendance and participation + questions sheets submissions) + 60% final paper (4000 words)

## Description of the course

In this course we will look at some advanced topics in philosophy of science. The three sections of this course are divided according to three works in contemporary philosophy of science, Thomas Kuhn's *The Structure of Scientific Revolutions* (1962), Philip Kitcher's *Science Truth and Democracy* (2003), and Henry Collins and Robert Evans' *Rethinking Expertise* (2007). In the first part of the course we will read some texts related to Kuhn's landmark work on the progress of science, and try to answer a number of questions on the nature and drivers of scientific progress. In the second part we will be dealing with some topics addressed in Kitcher's 2003 book: the relation between science and society, science and values, and the extremes of positivistic-worship vs. Foucaultian-distrust on the role of scientific research in society. In the third and last module we will look at the contemporary discussion on the role of experts and expertise in science: the sociological and methodological problems that the presence of human subjective judgment in scientific research involves.

## Schedule of classes

★ The following list of readings might change slightly before the start of classes. ★

April 17, 2012

### 1. Introductory Week

#### SECTION I - The Progress of Science

April 24, 2012

### 2. Required readings: *Suggested Readings:*

T. Kuhn (1962) *The Structure of Scientific Revolutions* — Chapters I and II  
Chapter III

May 8, 2012

### 3. Required readings:

T. Kuhn (1962) *The Structure of Scientific Revolutions* — Chapters IX and XII

May 16, 2012

### 4. Required readings:

T. Kuhn (1962) *The Structure of Scientific Revolutions* — Chapter XIII  
Imre Lakatos (1970) *Falsification and the Methodology of Scientific Research Programs*

## SECTION II - Science and Values

May 22, 2012

5. **Required readings:** Kitcher, Philip (2003) *Science, Truth, and Democracy* — Chapter 1

June 5, 2012

6. **Required readings:** Kitcher, Philip (2003) *Science, Truth, and Democracy* — Chapters 2 and 3

June 12, 2012

7. **Required readings:** Kitcher, Philip (2003) *Science, Truth, and Democracy* — Chapters 11 and 12

June 19, 2012

8. **Required readings:** Kitcher, Philip (2003) *Science, Truth, and Democracy* — Chapters 13 and 14

## SECTION III - Experts in Science

June 26, 2012

9. **Required readings:** P.K. Feyerabend (1970) “Experts in a Free Society”

July 03, 2012

10. **Required readings:** Collins and Evans (2007) *Rethinking Expertise*. — Introduction and chapter 5.  
*Suggested readings:* Chapter 1 and conclusion

July 10, 2012

11. **Required readings:** Julian Reiss (2008) *Error in Economics*. — Chapter 2.  
*Suggested readings:* Chapter 1

July 17, 2012

12. **Required readings:** Roger Cooke (1991) *Experts in Uncertainty* — Chapters 1 and 5

## Main Bibliography

1. Kuhn, Thomas, *The Structure of Scientific Revolutions. Second Edition Enlarged*. Chicago: The University of Chicago Press (1962 [1970]).
2. Kitcher, Philip, *Science, Truth, and Democracy*. Oxford: Oxford University Press (2003).
3. Collins, Harry and Robert Evans, *Rethinking Expertise*. Chicago: University of Chicago Press (2007).
4. Feyerabend, Paul K. *Realism, rationalism and scientific method — Philosophical papers. Volume 1*. Cambridge: Cambridge University Press (1981).
5. Lakatos, Imre (1970) “Falsification and the Methodology of Scientific Research Programs.” In *Criticism and the Growth of Knowledge — Proceedings of the International Colloquium in the Philosophy of Science. London, 1965*. Eds. Imre Lakatos and Alan Musgrave. Cambridge: Cambridge University Press.
6. Feyerabend, Paul K. *Knowledge, Science and Relativism — Philosophical papers. Volume 3*. Cambridge: Cambridge University Press (1999).
7. Cooke, Roger M. *Experts in Uncertainty*. Oxford: Oxford University Press (1991).