

**LPS 241: The Philosophy of Howard Stein (Winter 2016)**  
**Draft Syllabus of January 11, 2016**

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Seminar: Th 9:00-11:50 in HICF 100L  
Office Hours: by appointment

**Description:** Howard Stein (b. 1929) is a unique figure in the history of twentieth century philosophy. His work combines history of science of the most subtle and perceptive kind—history that delves deeply both into the context in which the work he discusses was done and into the nature and significance of what the work achieved—with a deep appreciation of how that history bears on issues of lasting importance in metaphysics, epistemology, and philosophy of science. The seminar will consist in reading a substantial portion (though somewhat less than half) of his opus, in some cases in parallel with the texts on which he commented.

**Notes on Readings and Discussion:** In his paper, “Some Reflections on the Structure of our Knowledge in Physics,” Stein expresses concern that “...we often discuss [our philosophical forbears’] work less in the hope of drawing instructive insight from it than as a source of doctrines to analyze, contrast, elaborate, or destroy—in any case, to serve as material for the further exercise of technique.” It is my hope in the present course to avoid this tendency. Stein’s work is rich and textured, and one can learn a great deal about physics, philosophy, and history from reading it. Attempting to extract and dissect “doctrines” from the papers we will read would be an unfortunate distraction; our goal, instead, will be to understand the papers themselves as well as we can, by slowly working through them together.

**Requirements:** All that is required for an S is attendance and occasional participation. If you would like a grade, you have the options of (a) writing a full-length term paper (15-20 pages) or (b) writing three short papers (~ 1000 words).

**Course Schedule:** Below is the course schedule. Readings will be made available electronically.

Meeting 1: Newton and his Contemporaries

7 January 2016

**Readings:**

Stein (1990), “On Locke, the Great Huygenius, and the Incomparable Mr. Newton”  
Stein (1993), “On Philosophy and Natural Philosophy in the 17th Century”

Meeting 2: Newton’s Metaphysics

14 January 2016

**Readings:**

Stein (1967), “Newtonian Space-Time”  
Stein (2002), “Newton’s Metaphysics”  
Newton (1726), *Principia*, “Definitions; Scholium to the Definitions; Laws of Motion; Corollaries”  
Newton (16??), “De gravitatione et aequipondio fluidorum” (Stein trans.)

Meeting 3: Universal Gravitation

21 January 2016

**Readings:**

Stein (1990), “From the Phenomena of Motions to the Forces of Nature: Hypothesis or Deduction?”  
Harper (2002), “Newton’s Argument for Universal Gravitation”

Newton (1726), *Principia*, Book III through Prop. 7

Meeting 4: Fields and the Aether

28 January 2016

**Readings:**

- Stein (1970), “On the Notion of Field in Newton, Maxwell, and Beyond”
- Stein (1981), “‘Subtler Forms of Matter’ in the Period Following Maxwell”

Meeting 5: Caution and Conservatism: Poincare and Kelvin at the Turn of the Century

4 February 2016

**Readings:**

- Stein (1987), “After the Baltimore Lectures: Some Philosophical Remarks on the Subsequent Development of Physics”
- Stein (Unpublished), “Physics and Philosophy Meet: the Strange Case of Poincare”

Meeting 6: Einstein-Minkowski Space-Time

11 February 2016

**Readings:**

- Putnam (1967), “Time and Physical Geometry”
- Stein (1991), “On Relativity Theory and Openness of the Future”
- Stein (2009), “ ‘Definability,’ ‘Conventionality,’ and Simultaneity in Einstein-Minkowski Space-Time”

**Supplemental readings:**

- Stein (1968), “On Einstein-Minkowski Space-Time”
- Malament (1977), “Causal Theories of Time and the Conventionality of Simultaneity”

Meeting 7: General Relativity

18 February 2016

**Readings:**

- Stein (1977), “Some Philosophical Pre-History of General Relativity”
- Stein (1977), “One Space-Time and Ontology: Extract from a Letter to Adolf Grünbaum”

**Supplemental reading:**

- Grünbaum (1977), “Absolute and Relational Theories of Space and Space-Time”

Meeting 8: Quantum Mechanics

25 February 2016

**Readings:**

- Stein (1972), “On the Conceptual Structure of Quantum Mechanics”
- Stein (1982), “On the Present State of the Philosophy of Quantum Mechanics”

Meeting 9: Carnap and Quine

3 March 2016

**Readings:**

- Carnap (1950), “Empiricism, Semantics, and Ontology”
- Quine (1960), “Carnap and Logical Truth”
- Stein (1992), “Was Carnap Entirely Wrong, After All?”

Meeting 10: Scientific Realism?

10 March 2016

**Readings:**

- Stein (1989), “Yes, But...: Some Skeptical Reflections on Realism and Anti-realism”
- Stein (1994), “Some Reflections on the Structure of our Knowledge in Physics”
- Stein (Unpublished), “How Does Physics Bear Upon Metaphysics?”