

PHL 311 Final Exam
Tuesday, May 2
Exam: 8:00-10:30am

The final exam will be in three parts. The first two parts you will do at home. You will bring them to the exam and you may use them during the exam. Additionally you may bring one page of notes to the exam. The first two parts of the exam focus on the readings for the course.

Explanation, Causation and Laws

Two Models of Scientific Explanation, Carl Hempel
The Pragmatics of Explanation, van Fraassen
Explanatory Unification and the Causal Structure of the World, Philip Kitcher
Scientific Explanation: Causation and Unification, Wesley C. Salmon
The Logic of Conditionals, J.L. Mackie
Laws of Nature, John Earman

Scientific Theories and Conceptual Change

Experimental Laws and Theories, Ernest Nagel
Explanation, Reduction and Empiricism, Paul Feyerabend
Theories, Theorists and Theoretical Change, Philip Kitcher

Scientific Realism

The Cognitive Status of Theories, Ernest Nagel
A Confutation of Convergent Realism, Larry Laudan
Scientific Realism versus Constructive Empiricism: A Dialogue, Gary Gutting
A Case for Scientific Realism, Ernan McMullin

Testing and Confirmation of Theories

On Induction, Bertrand Russell
Science, Conjectures and Refutations, Karl Popper
Darwinism as a Metaphysical Research Programme, Karl Popper
Difficulties of the Theory, Charles Darwin
The Grue Paradox, Peter Achinstein
Seeing and Seeing As, N. Russell Hanson
Two Dogmas of Empiricism, W.V. Quine
Empirical Equivalence and Undetermination, Larry Laudan and Jarrett Leplin
Bayes's Theorem and the History of Science, Wesley Salmon

Science in Context: The Challenge of History and Sociology

The Structure of Scientific Revolutions, Dudley Shapere
Objectivity, Value Judgement and Theory Choice, Thomas Kuhn
The Strong Programme in the Sociology of Knowledge, David Bloor
Feminist Epistemology: An Interpretation and a Defense, Elizabeth Anderson
The Social Dimensions of Science, Ernan McMullin

And the appropriate chapters in the Rosenberg text.

Part 1.

Select one of the topics from the list presented above and select one paper from that topic. Your objective is to clearly present the content of the paper. The essay should be no longer than three pages.

Part 2.

Select one of the topics from the list presented above. Your objective is present your opinion about some aspect of the topic. You should use at least two different references in developing your position. The essay should be no longer than three pages.

Part 3.

This part will be done during the exam period. You will build an essay the covers various aspects of the topics that we have covered in the course. It will be focused on the example of the blue sky.