

Advanced Introduction to the Philosophy of Science

New York University
Laura Franklin-Hall
Spring 2012

Class Time: Monday, 6:00 - 8:00, 3rd floor seminar room
Office Hours: Tuesday, 10:00 – 12:00 (5 Washington Place, 407)

Course Sketch

The class will be broken into four units of approximately equal length: (1) Laws of Nature (metaphysical accounts); (2) Scientific Realism (3) Special Sciences in a World of Physics (4) Miscellaneous Topics

Requirements

- Participation in seminar
- One presentation in class
- Progress report on term paper (due April 1)
- Term Paper (due May 12th)
- No incompletes

Readings

Readings will be available in PDF form on Blackboard.

Tentative Reading Schedule

1/23: Introduction and Planning

Laws of Nature

1/30: The Best System Account: Loewer "Humean Supervenience," van Fraassen "Ideal Science"

2/6: Universals & Scientific Essentialism: Dretske "Laws of Nature," Bigelow, Ellis, and Lierse "Our World as One of a Kind: Natural Necessity and Laws of Nature"

2/13: Anti-Reductionism & Anti-Realism: van Fraassen "Universals: Laws Grounded in Nature," Carroll "Nailed to Hume's Cross?" Giere "Science Without Laws of Nature"

2/20: President's Day, no class

Scientific Realism

2/27: Success of Science for Realism: Boyd, "The Current Status of Scientific Realism", van Fraassen *The Scientific Image*, chapter 2

3/5: No class, LFH in Israel

3/12: Spring Break (possible make-up class)

3/19: Constructive Empiricism: van Fraassen *The Scientific Image*, chapters 3 and 4, Rosen "What is Constructive Empiricism?"

3/26: History Against Realism, two ways: Laudan "A Confutation of Convergent Realism," Stanford *Exceeding our Grasp* (selection)

High-Level Sciences in a World of Physics

4/2: Laws in the Special Sciences: Beatty "The Evolutionary Contingency Thesis," Mitchell (2000) "Dimensions of Scientific Law," Strevens "Physically Contingent Laws and Counterfactual Support"

4/9: Autonomy of the Special Sciences: Fodor "Special Sciences," Loewer "Why is there anything except physics?"

4/16: Explanatory Autonomy: Strevens "Explanatory Autonomy and Explanatory Irreducibility," Franklin-Hall "The Causal Economy Account of Scientific Explanation"

Miscellaneous Topics (subject to change depending on class interest)

4/23: Model Selection: TBD

4/30: The Social Structure of Science: TBD

5/7: Democratic Science: Kitcher, *Science, Truth and Democracy*