# Final Exam Topics

Philosophy 306, Fall 2019

The exam will require you to respond to 3 short essay questions (answers should be about 4-5 bluebook pages apiece). I will give you 8-10 questions from different sections of the course. You will choose 3 to respond to (from different sections). The exam will be closed note and closed book.

Ideally, going into the exam, you should have a good grip on the following topics. I will not directly ask you about anything from the optional reading list, but you can certainly bring this material in if it helps you to answer the prompt.

### Week 1-3

[Godfrey-Smith Ch. 1-2, van Fraassen, Sober, Carnap\*]

- The demarcation problem
- van Fraassen's definitions of realism and anti-realism (about scientific theories)
- The underdetermination of theory by evidence
- The three central theses of logical positivism: the verificationist theory of meaning, the analytic/synthetic distinction, and the sense/senseless/nonsense distinction
- The positivist critique of metaphysics and ethics
- Sober's definition of reductionism
- The multiple realizability objection to reductionism coming from Putnam and Fodor

### Week 4-5

[Godfrey-Smith Ch. 3, 14, Lecture Notes, Harman, Goodman\*]

- The difference between deductive and inductive reasoning
- Hume's problem
- Reflective Equilibrium
- Grue Problem
- Inference to Best Explanation
- Bayesian Confirmation Theory

# Week 6-9

[Godfrey-Smith Ch. 5-6, 8-9, Roush, Weisberg & Muldoon, Kuhn\*, Longino\*]

- Normal Science v. Revolutionary Science
- Skeptical Meta-Induction
- Roush's reliabilist response
- The critique of logical positivism coming from history, sociology, and feminist philosophy of science
- Social Epistemology
- Weisberg and Muldoon's epistemic landscape models

# Week 10-13

[Godfrey-Smith Ch. 12-13, Worrall, Ney, Maudlin, Feynman\*]

- The No-Miracles Argument
- Structural Realism
- $\bullet\,$  The Quantum Measurement Problem
- $\bullet\,$  Possible solutions: hidden variables, collapse, many-worlds interpretations
- Scientific Explanation: covering law, causal, unificationist models
- Maudlin's thesis linking laws, causation, counterfactuals