

**Philosophy 3330: Philosophy of Science
Spring 2014, Second Exam Questions**

On Monday, April 14th, we will have an in-class exam. I will give you three possible questions to choose from and you will have to answer two of them. Below are sample questions to help you study. The actual exam questions will be drawn from these samples.

Sample Questions:

1. What is Hempel's deductive nomological model of scientific explanation? Carefully describe at least one objection to this model.
2. Are laws important parts of good scientific explanations? Are they essential (are they a part of every good scientific explanation)?
3. Beatty thinks that generalizations in evolutionary biology are only contingently true. What does this mean? Why does he think this is relevant to understanding how biological explanations work?
4. According to Kuhn, what are some of the characteristics of 'normal science'? How does this differ from Popper's model of scientific progress?
5. What does Kuhn have in mind by a 'paradigm'? Does good scientific practice allow for scientists to work in a paradigm in this sense? Does it require them to?
6. Longino argues that values are importantly related to scientific objectivity. How? What does she mean by objectivity? Is the right objectivity can be achieved in this way?
7. Can facts be separated from values? What is the relationship between facts and values in good scientific reasoning?
8. Is the ideal science 'value-free'? In what sense?