

PHIL/VAL 291 A: ETHICS IN SCIENCE
Department of Philosophy
University of Washington, Seattle
SPRING 2017

FINAL EXAM – STUDY GUIDE
Friday, June 9, 2:30 - 4:20
Smith 307

The final exam will consist of two sections:

(1) Five short answer / concept definition questions. You will be asked to choose five questions from a set of ten based on the concepts listed below. Your answers should be roughly a paragraph long, the length of a short reading post. Be concise and make specific reference to the source in which the concept is discussed in the assigned readings or in material discussed in lectures and sections.

(2) Two essay questions. For the first essay you will have a choice between two set questions listed on the reverse and, for the second, you will be asked to choose one question from five based on the sample questions, also listed on the reverse. Your responses should be roughly two to three pages long. Be sure to engage the ethics positions and arguments we have discussed in the course of the quarter and, wherever possible, ground your answers in analysis of specific cases or examples.

CONCEPT DEFINITION QUESTIONS

The following are concepts and terms discussed through the quarter on the basis of which we will construct short answer questions.

- domains of research ethics:
 - responsible conduct of research (RCR)
 - broad impact
 - ethics in research practice
- descriptive vs normative accounts of ethics
- role-specific vs general ethical obligations
- utilitarianism: act vs rule
- deontology / social contract theory
- veil of ignorance
- virtue ethics
- care ethics
- strategies of moral reasoning: 'different lenses' / casuistry / reflective equilibrium
- Merton's 'ethos of science'
- value-free ideal
- contexts of discovery, justification, use
- values in science: 'significance' vs 'gap' arguments / 'externality' theses
- inductive risk
- direct vs indirect role for values in science
- impartiality vs wishful thinking
- transparency, representative values, engagement
- Resnik's 'standards of ethical conduct in science' and their 'conceptual foundations'
- Douglas' 'bases' to which scientists are responsible / types & locus of responsibility
- scientific misconduct: fabrication, falsification, plagiarism
- negligence vs error
- bias, individual and/or collective
- dual use research of concern
- Nuremberg Code / Helsinki declaration
- Belmont Report
- principles of respect, beneficence, justice
- Common Rule
- literature pollution / gift authorship
- informed consent
- 3 Rs of animal experimentation
- speciesism / principle of equality'
- moral vs empirical equality
- Oxford principles / anticipatory governance
- modes of engagement with stakeholders
- community based collaborative practice
- modes of engagement with publics
- scientist as sentinel

SHORT ESSAY QUESTIONS: ANALYSIS AND ARGUMENT

I. Set question: defining research ethics

Choose one of the following two questions.

What ethics issues do you see as especially significant for contemporary science? Focusing on one of these explain why it is an ethics issue, why it should be a priority, and how it should be addressed.

Imagine you are charged with designing a code of ethics, or with revising an existing set of guidelines for research practice: what is the most important issue (or cluster of issues) facing contemporary science and how, or by whom, should it be addressed? Explain why you choose this issue and what the rationale is for the response to it that you propose.

II. Topic-specific essay questions

You will be asked to choose one question from a selection of five based on these sample questions.

What does Douglas claim to show about the role of social values in science in her analysis of the Dioxin case? Does she succeed in distinguishing between legitimate and illegitimate roles for values in science?

“Science is valued by society, but that does not erase the fact that science operates within society and that society values other things as well” (Douglas 2014). Identify a specific case in which this conflict of values arises, analyze what is at stake and outline how the conflict should be addressed.

What are the conceptual foundations for Resnik’s ‘standards of ethical conduct in science’? Identify two of his standards and explain how these foundations provide a rationale and a justification for them as relevant to scientific research.

What implications does Stapel’s ‘audacious fraud’ have for contemporary ‘RCR’ guidelines? What needs to change to prevent this type of fraud and why?

Is H5N1 research an example of the sort of research that scientists should not undertake? Where should the line be drawn in such cases? Who should decide, and on what basis? Be explicit about the ethics principles you draw on and explain how they justify your answer.

Who is harmed by research practices that violate the trust of subjects, and what is the nature of the harm(s) they cause? Can the benefits of research outweigh harms of this kind? Discuss with reference to a specific example.

What lessons should we take away from controversy over Milgram’s obedience experiments? Why you identify these as especially important, and what implications do they have for research ethics.

Is it ‘speciesist’ to experiment on animals? Explain why, or why not, and assess current guidelines for animal research in light of your answer.

What responsibilities do scientists have to ‘make a fuss’ when their research has social or environmental implications? Is this a role-specific ethical responsibility, or strictly a moral responsibility? Explain why, or why not, in terms of a specific example.

Do scientists have an ethical obligation to ‘engage’ with stakeholders / the public? Focusing on one type of public engagement, explain why (or why not) with reference to a particular issue and constituency.

What role should scientists play in the regulation of science, and why? Discuss with reference to a specific issue or case discussed this quarter.