Directions:

1. Read the questions carefully and answer as directed. You will lose points if your answers do not respond to the question, even if you provide relevant information.

2. Do not exceed the page limit for each question. Do not write more than you need to just to fill pages. You will be graded on the quality of your answers, not the length.

3. Hand in your paper by 4:00 PM, Monday, December 15. Pete will be in his office from 2:00-4:00 if you want to hand your exam in person. If not, put your exam in his mailbox in History (Tisch Hall). Late papers will be graded down one grade for each hour late.

4. Finally and most importantly, the work you hand in must be your own work. If we feel that two or more students have given answers that are too similar, we will reserve the right to give these students an incomplete in the course and require them take a new exam next semester.

I. Short answer: Maximum 2 pages, double-spaced, 12 pt type.

Short Answer 1. Provide a brief definition for "objectivity" in science. Then discuss how objectivity plays out in one of the major cases discussed during the last third of the course (AIDS, breast implants, hazardous chemicals, and so on). Does the case provide examples of objectivity in science? If so, explain these examples. Does it cast doubt upon the objectivity of science? If so, explain how using examples.

Short Answer 2. Provide three examples of the way science is used by society in decision making and then explain, using examples, why some questions that seemingly should have scientific answers cannot be answered using science.

Short Answer 3. A friend who has been studying science/engineering asks you if you know anything about how science/technology policy decisions are made. You respond that you have just finished a course that talked at length about this topic, as you would be glad to explain if your friend has an hour or two to spare. Much to your disappointment, all your friend wants is a brief, 1-2 page summary. Since the same question happens to be on your History 285 exam, you decide to type something up for your friend. Your friend knows very little about recent events, so in writing your response make sure you provide examples to illustrate the points you are making.

II. Essay. Maximum 4-6 pages, double spaced, 12 pt type.

Essay 1. History 265 is divided into three periods: 1) the immediate Cold-War era (1945-1965), 2) the 1960s and 1970s, and 3) the 1980s to the present. The first period was characterized as one of optimism and strong support for science and technology; the second as one of doubt and criticism based on concerns about the environment, energy, and the values of science more generally.
Based on what you know about the 1980s to the present, how would you characterize this period? Write an essay in which you first outline your theme or characterization of this period and then provide examples to illustrate this theme. Once you have finished your discussion of your theme, discuss whether there are any events or examples that do not fit your general theme and explain why they do not fit (or alternatively why the theme is universally accepted).

**Essay 2.** Throughout the course we have talked about science and technology in terms of four layers or types of activity: 1) theories and laws, 2) methods, 3) professionalism, and 4) society. Write an essay based on the material covered in the last third of the course in which you explain how these different aspects of science/technology interact and influence each other. How does theory/law influence method, professionalism, and/or society? How does society or professionalism influence method or theory? Explain to someone who does not understand science and/or technology how they are dynamic activities that take place in different setting, involve different characters, and develop in response to many different factors. Make sure you bring in information from lectures, readings, and discussion and focus primarily on the last third of the course, although you can use examples from other periods if this would be helpful.

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Optional feedback on the take-home exam format. If you feel comfortable doing so, please answer the following questions. Your answers will have no bearing on your grade. We simply would like to know whether you preferred the take-home exam format.

1. How did the time you spent preparing for and writing this exam compare with the time you think you would have spent for a comparable in-class exam?
   - More time
   - Less time
   - About the same

2. How much did you learn in preparing for and writing this exam in comparison with a standard in-class exam?
   - Learned more
   - Learned less
   - Learned about the same

3. Would you vote for a take-home exam again if given the option?
   - Yes
   - No