

17.181/17.182

Sustainability: Political Economy, Science, and Policy

EXAMS

During this course, students will be given two take home exams.

The midterm is worth 25% of the final grade, and will be due during Week 8.

The final exam is worth 35% of the final grade, and will due during Week 13. In lieu of the final exam, students can do a research paper on the topic of their choice with the approval of the instructor.

MIDTERM EXAM

Instructions

- The purpose of this mid-term is for you to:
- Show your grasp of the challenges in this course
- Demonstrate your understanding of the reading assignments and relationship to the seminar discussions
- Show understanding of sustainability issues at this point, and on this basis
- Obtain some feedback from the instructor as relevant

It would be useful to outline your answers before actually writing. Since you will demonstrate familiarity with the assigned readings, please feel free to draw from materials across various weeks - as needed.

When doing so, please indicate the specific reference(s) you are using. Reference format is your choice, as long as author, date, and page(s) are noted. Please be sure to note references for general points you make, and specific pages for specific points or direct quotes.

Please use:

- At least 3 different sources in your answer to each question (excluding your own summaries of materials that you presented in class).
- Sources selected from at least 2 different weeks. You can use the same sources across questions; as long as you do not use only the same 3 sources throughout the midterm (Wikipedia is not on the syllabus).

Regarding length, please use your judgment, but we suggest no less than 4 pages or so of substance per question, with reasonable margins, and 1.5 spaces. Reference page at the end is not included in this count.

Finally, please make sure that the first and last paragraphs of your essays are coherent and related to each other. It would be a simple reminder that you are retaining your chosen focus.

Midterm Exam

Please answer two of the four questions below—with no more than 5–6 pages for each question—spaced at 1.5. Each answer is in essence an 'essay' on the topics you have selected. (Note that you have choices for question 3). If relevant, feel free to use subtitles.

1. The terms “sustainability” and “environment” are closely connected, and often used interchangeably in the context of ‘sustainable development’, but they are not identical. Given that each is in the nature of a ‘moving target’—in the sense that we are in the process of obtaining more knowledge and greater understanding - please:
 1. Review the differences and similarities between these two concepts
 2. Summarize key issues pertaining to an economist’s view of the environment
 3. Indicate similarities and / or differences with a biogeo-chemical-physical (or ecology-centered) view. Where do the “politics” fit in?
2. “The Tragedy of the Commons” is often used as a conceptual device through which to articulate key sustainability dilemmas. What is the ‘tragedy’? What are the commons? What are the issues? What does this representation mean for sustainability conditions within countries? Is the ‘tragedy’ relevant to actors and units other than the state? If so, how? If not, why not?
3. What is the relevance of population (and population issues) to the challenges of sustainability? How do different authors (or analysts) factor in the population variable(s) in discussions of sustainability (in any of the many perspectives or contexts)? What information, evidence, or knowledge would you need in order to better address such questions?

OR

What is the relevance of energy (and energy issues) to the challenges of sustainability? How do different authors (or analysts) factor in the energy variable(s) in discussions of sustainability (in any of the many perspectives or contexts)? What information, evidence, or knowledge would you need in order to better address such questions?

OR

What is the relevance of knowledge (including concepts, data, metrics, etc.) to the challenges of sustainability? What information, evidence, or knowledge would you need in order to better address such questions? How do different authors (or analysts) factor ‘old’ versus ‘new’

knowledge variable(s) in discussions of sustainability (in any of the many perspectives or contexts)?

8. *Time and space*—along with *scale and scope*—are key factors or terms shaping our understanding of “sustainable development”. Please write an essay on these factors as they bear on our understanding of sustainability challenges. In this context, be sure to define the terms, provide specific examples, and illustrate their implications. Wherever relevant, please signal where the “politics” might be evident.

FINAL EXAM

Instructions

Please answer question 1; and then either question 2 or question 3. This is the same type of format and approach as the mid-term.

Suggested length: No fewer than 5 pages and no more than 7 pages for each question, double spaced, not triple spaced with wide margins. (Of course if you can do an excellent essay in less than 5 pages, by all means proceed).

- Each answer is in essence an ‘essay’ on the topics you have selected. You must draw on the assigned readings.
- Do not use the same readings as you did in the mid-term, or focus on the same topic.
- Since you need to demonstrate familiarity with the assigned readings relevant to each question, feel free to draw from materials across the 13 weeks - as needed.
- Do not use the same assigned readings for both questions. If you find it necessary to draw on the same assignments, use additional references to make up for the ‘double duty factor.’
- Try to use least 4 different sources in your answer to each question.

For general points, please note that you need the author’s name; for specific points noted, you need author plus the relevant page. Please add your reference list at the end of each question.

Helpful Hints

- Make sure that the *first* and *last* paragraphs of your essays are coherent and related to each other.
- It is often useful to do an *outline* before writing.

Final Exam

Please answer question 1; and then either question 2 or question 3.

1. In *The Collapse of Complex Societies*, Tainter focuses on the demise of ancient societies. What is the core of his argument? How relevant is it to current conditions? What criteria

of relevance would you use? Would you adapt his logic to 21st century realities? If so how? If not, why not?

2. Please select one issue or “problem” that you consider to be an impediment to sustainability, define the nature of the problem, its key features, and highlight strategies for “solutions” at the national and international levels. This question is intentionally open-ended, to allow you to consider issues or problems of particular interest to you.

OR

4. Compare and contrast the role(s) of governments, private firms and international institutions in the potential management of sustainability. Please address the respective contributions to the ‘creation’ of sustainability problems as well as approaches to ‘resolution’.

You may wish to focus on specific topics (or domains) or, alternatively, you might prefer framing your own approach.