ENTS 100 DUE NO LATER THAN Monday, May 26, at 3:00 p.m. Spring 2003
Final Project A Careful Look at Both Sides of an Interdisciplinary Issue Weisberg & Rossi

This page describes the ENTS 100 final project, which you must complete in order to pass this course.

This course is broad in scope, but that doesn't mean it lacks a unifying theme or two! As a result, Joel and I have decided to give you a lot of latitude in deciding on the topic for your final project, while asking you to meet certain requirements true to the themes of the course. Please don't freeze up on us in the face of freedom: we've seen that, and it ain't pretty. Please take advantage of the opportunity we're extending you to focus your academic energy on something that really interests and matters to *you*!

Your mission is to provide the best possible argument in support of *both* sides of a specific, contentious, interdisciplinary, and essentially binary issue of your choosing. That's right, you are going to play your own devil's advocate. One of the themes of this course is that life is full of difficult decisions with no clear answer, and that if you take the time to truly consider most opposing viewpoints, you'll find that the people who disagree with you generally aren't without a rational basis for their positions: you just don't happen to agree with them about what's important. We want you to demonstrate that you are able to see both sides of an issue, and clearly and concisely explain both with an even hand. Your end result need not be perfectly balanced, but the arguments on each side of the issue should be as strong (in your own view) as possible.

What do we mean by a "specific, contentious, interdisciplinary, and essentially binary issue?" I think this will make the most sense in the form of some good and some bad examples, drawn from class. Good examples:

- Robert J. Oppenheimer acted morally in directing the Manhattan project
- The U.S. government should privatize the road system, selling it to a several large, established firms
- All genetic engineering research and experimentation should be banned in the U.S.
- The government should aggressively subsidize hydrogen fueling infrastructure in the U.S.

Bad examples:

× The U.S. should reduce its dependence on fossil fuels (not specific! How should it do so? All fuels?)
× Genetic engineering could be horribly misused (not contentious! Who's going to argue with that?)
× Scientists are becoming more adept at finding oil (not interdisciplinary! As stated, purely scientific.)
× What alternative energy source should the U.S. focus on? (not binary! Too many possible answers!)

We'd like you to prepare some sort of tangible work that demonstrates your ability to understand and explain both sides of your chosen binary issue. You are also free to choose the medium in which you present your work, but we encourage you to choose a format that's highly accessible to the general public. Some examples might include a web page, pro- and con- posters, song(s) and liner notes, a pair of position papers, a picture or story book, a novel, a pamphlet, an advertisement, a screenplay or short film, or an oral presentation.

On May 7 we will ask you to turn in a one-page overview of the topic you have chosen, and the strongest one or two arguments on each side of the issue that you've found or come up with. This page should include all of your references at that point, cited in a bibliography formatted in the style explained on the back of this page.

This assignment is due *no later than* 3:00 p.m. on Memorial Day, Monday, May 26, the start of ninth week. We ***strongly*** encourage you complete it well before then, however! **You will not do a decent job of this if you try to put it all together in the last week!** You can hand this assignment in any time you like, up until the due date. **DON'T PUT THIS OFF UNTIL 8th WEEK!** It isn't unlikely that you'll want to focus on a topic not (yet) covered in the course, and, in fact, we encourage you to do so. Don't let "we're going to talk about it in class" stop you from starting on this project, though: it is an *independent* research project!

If you write a paper, we don't care how long it is, provided that it is understandable, well-researched, and does justice to both sides of the issue. By "well- researched," we mean you should be careful to get corroboration of what you learn! *Don't just paraphrase what you read on one web page!!!* There's a lot of really misleading, poor, and even completely bogus "facts" and arguments on the web! We also mean that you should go beyond what you can find in an encyclopedia: not necessarily in more depth, but what you write should be clearly explained to the average citizen. The target audience you should have in mind would be a typical person sitting next to you on a plane. You should spend about 20 hours working on this project; ideally you should have someone else (like your parents or your roommate) look at it, and they should understand it even if it is well outside of their field of expertise! It will help you a great deal to have a proponent of the position you *don't* favor look over your paper and suggest holes in your argument and ways the counterargument might be strengthened, specifically in response to the pro- argument you've prepared.

This project calls for reading up on a subject, coming to fully understand it, and then preparing something capable of conveying an interesting part of your understanding to the general public. Remember, we are interested in seeing you present both sides of the issue, without giving up your own position and opinion.

It is very important that your final project not consist of a simple regurgitation of what you read or see elsewhere. There should be a good deal of "you" in what you submit! It should be obvious that the information you present has passed through your brain and through your hands. Avoid a boring, stodgy book report at all costs! Don't "core dump" every last fact you know, choose wisely. Be lucid, humorous, and interesting! Include your opinions, your wit, and your personality in what you submit for this assignment!

Be sure to **cite the references** used in putting your work together. This should include people you talked with, books you read, and internet sites you visited. Citations are needed for two important reasons. First, because other people work hard to discover and put information into a format that you can access, and their intellectual and personal effort should be acknowledged. If you use an idea or turn of phrase someone else came up with, you should cite them specifically, like this[1]. Second, you're often taking "someone else's word for it," and unless you want to be personally responsible for the accuracy of a claim, you want to specify who's word you going on! Pragmatically, if you read in lots of different places that tires contain sulfur, just listing those places in your bibliography is enough. But if one or two particular sources are all you have to go on for that fact, you should cite them with citation marker(s), like this[2]. The Endnote program[3], available for download to your own system and on ITS computers, is a very handy way to record and cite bibliographic data, but you are not obliged to use it. If there's enough interest, I'll offer some out-of-class tutorials on how to make the most of it.

Here's an example of the bibliographic format we would like you to use. You don't have to follow it exactly, but please try to make the bibliographic information in your citations/bibliography look something like this. Here's a webpage:

[1]http://www.acad.carleton.edu/curricular/CHEM/courses/rrossi/Chem123_S02/index.htm, accessed on May 21, 2002.

and here are two books, one referring to specific pages and the other to the whole shebang:

[2]D. C. Harris, *Quantitative Chemical Analysis*, 2nd ed., W. H. Freeman & Co.: New York (1987), pp. 492-498.

[3]L. Jones and P. Atkins, *Chemistry: Molecules, Matter and Change*, 4th ed., W. H. Freeman: New York (2000).

and a magazine and a journal article:

[4]R. Jaenisch, "To clone or not to clone," *Scientific American*, May, 2002: p. 10.

[5]R. H. H. Kroger, S. C. Braun, and H. J. Wagner, "Rearing in different photic and chromatic environments modifies spectral responses of cone horizontal cells in adult fish retina," *Visual Neuroscience*, **18,** 857-864 (2001).

and a newspaper article:

[6]A. Park, "An Ounce of Prevention," *New York Times*, May 27, 2002: p. 75.

and finally, here's an example of a conversation as a source:

[7]B. Haloupek, math god: personal communication, (August 4, 1991).

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[1] The number can refer to an entry in a bibliography at the end of your document, or to a footnote on the same page, your choice.

[2] J. N. Ulman and J. R. Gould, *Technical reporting*, 3rd ed., Holt, Rinehart, and Winston: New York (1971), pp. 209-212.

[3] See http://www.library.carleton.edu/it/EndNote/index.html for details. Use the "ENTS100-CC" style in formatting your bibliography. You can copy your bibliography into Powerpoint, or anything else, using the "Copy Formatted" command.