

Research Project Prospectus: This is a team assignment. In fall quarter, you and your team will select your topic, complete some preliminary research, and culminate with a prospectus which describes the research activities you propose to carry out in winter. You will refine the focus of your research with your faculty seminar leader, and complete a rough draft of your proposal ready for peer review by Tuesday, October 27th. After your peers review and return your draft proposal, you will submit a polished draft to faculty by Thurs, November 19th. It is vital that you and your team meet each fall milestone in order to be fully prepared for more independent group project work in winter quarter. (See past years' Energy websites for examples.)

We suggest you pay careful attention to:

(1) **Subject matter.** You have considerable latitude in selecting subject matter. We expect it to deal with some energy/climate problem or situation, with explicit considerations of energy resources, human population dynamics, living standards, and/or technology. Typical interdisciplinary papers involve questions of science, values, politics, and/or policy.

(2) **Scope.** Your fall prospectus should be 4-5 pages (excluding bibliography). The winter project will be 8-12 pages (plus bibliography). (Bibliographies should be annotated.) We do not expect you to solve huge problems, but rather to identify a component of a larger problem, place that in context, and focus evidence, analysis, and discussion on your well-defined component of the larger problem. **Quality** of analysis and argumentation is far more important than quantity of pages. You must seek several reliable sources of information – good articles from reputable journals, not just web sites (and certainly not relying on Wikipedia). Use the Library well.

(3) **Audience.** Your small group members, your faculty reader, and the ESCC class are your main audience. You should also give some thought to who beyond the class you would like to inform and persuade – perhaps your contrary Uncle Fred? Address your writing to your intended audience, not just our class. A good paper has an argument to make. It should develop a persuasive point of view, based on evidence in the literature. It should be analytic and not simply descriptive.

(4) **Evidence.** Your fall paper will largely be based on already-published results of other people's data (though your winter research may well be more original). Exercise creativity, ingenuity and diligence in finding as much relevant material as possible. Explain why your evidence is credible or how it may be limited. Excessive reliance on just a few sources, or on Internet sources, indicates poor research skills. Use appropriate books, articles from quality journals (peer-reviewed whenever possible), etc. Is your central thesis best demonstrated with physical, biological, historical, economic and/or political factors? Be very conscious of the types of evidence you offer, and how you integrate them.

(5) **Illustrations.** Learn to use maps, graphs, tables to bolster the argument you make. Integrate these clearly into the text. All graphs and tables should be specifically cited in the text. You can use footnotes, endnotes, or (Author, date) citation systems. Carefully consult guidelines from our reference librarian.

(6) **Analysis** is designed to help decide whether you can justify your thesis. You should critically examine drafts by asking the same sorts of questions you use when analyzing assigned readings, such as
*What implicit assumptions and premises underlie your analysis?
*How can you defend the logic used to reach your conclusions against anticipated critiques?
*Are you being fair as you ponder results and ask, "What does this allow me to conclude?"

(7) **General Format.** Your paper should be typed, 1.5-spaced, paginated, with 1" margins and a **specific** (and concise, if possible) **title** to indicate what it is about. (Make your title your Subject Header on Moodle.) Include the date, and your name and those of all teammates who contributed. Always check spelling, grammar, punctuation and syntax. Take every first draft to the writing center; read aloud to check for missing, extra, or awkward words; and have a skilled friend go over it carefully with you before turning it in.