

**BES 311 Writing Assignment Spring 2006**

**Purpose.** This assignment will give you the opportunity to pursue in detail some aspect of environmental chemistry that particularly interests you. The range of subject matter available is quite broad. There must be some connection with the environment, and the aspect of the subject that you investigate must be significantly chemical. As examples, you could explore some chemical aspect of the natural environment, some aspect of the polluted environment, chemistry methods used in environmental analysis, remediation practices, policy aspects of environmental pollution, health aspects of environmental pollutants, etc. This list is not exhaustive, but is meant simply to give you some ideas. The chemistry may build upon, but must go beyond that presented in the text book.

**Length.** This paper should be a minimum of 10 pages, double spaced, with 1 inch margins and a 12 pt font. The upper limit is 12 pages; no more than that will be read. Title pages, tables of contents, bibliographies, etc are not included in the page limits. You are encouraged to use appropriate figures, equations, and data tables. However, the figures and tables are not to be used to fill up a significant amount of your 8 page minimum length. *The use of grand formats (large fonts, wide margins, etc) invites the reader to wonder how complete the study has been.* If you find difficulty working within these limits, discuss it with me.

**Breadth and Depth.** This paper must explain clearly the nature of the problem you are studying and the chemistry involved in it. The scope of the paper may be broad enough to provide some context within a large scale environmental issue, but it must go into depth in at least one aspect of the problem. There should be a balance between detailed, in-depth explanation, and sweeping survey that serves to put the problem into context. You should have at least 10 good quality, scholarly sources that you use in preparing this paper. These sources are most often papers that have appeared in the refereed scientific literature; this will be discussed more in class. In some cases, your paper will be a carefully presented research report, while in others it will be a well-researched thesis-driven paper.

**Citations.** Most physical science articles use the endnote style of referencing; you should do the same. In various scientific publications, you will find both the name-year and citation-sequence systems of endnotes being used. In this class we will use the CBE citation-sequence system, with each endnote referenced by either a superscripted<sup>4</sup> or bracketed number (4). This will be discussed in more detail in a later class. The reference source for information about this is the *Scientific Style and Format: The CBE Manual for Authors, Editors, and Publishers*, ed by Style Manual Committee, Council of Biology Editors. (Cambridge Univ Press, New York, 1994). This style manual is available at the Reference Desk of the UWB Library. The UWB library provides on-line references to the CBE format at <http://www.bothell.washington.edu/library/guides/style.html>

There should be a single list of endnotes with general background references, references that provided the basis of your discussion, and of course, any references that give credit for data or arguments that are paraphrased or quoted. In general, paraphrasing is preferable to direct quotation, because it helps demonstrate that you actually understand the paper being cited. When you paraphrase a discussion presented elsewhere, be sure to add an endnote reference in the introductory part of that section. (e.g., *“Following the arguments presented by Nelson et al<sup>21</sup>,*

*I will explain the importance of computational modeling to theories of the origin of the Universe..”) If you take a figure directly from another source, it should be referenced directly beneath the inserted figure.*

If some of your working references are World Wide Web documents, they may be used in the final paper only if they are the best and most appropriate ones for your purpose. (In many cases, the WWW sources should lead you to better ones in the course of your research.) Their citation should include the name of the author or sponsoring institution, the title of the actual document, the date on which you read it, and the complete URL ( e.g., *http://faculty.washington.edu/jackels/bes311.s06*). In other words, it must be complete enough for the reader to locate and read. Official reports of government agencies are examples of information that is commonly and accurately available on the www. *As with any source*, you bear the burden of evaluating it for merit. Just as with printed material, much of that on the web is simply opinion or worse and is unrefereed. When feasible, a good procedure is to verify that the web page author is also a recognized author or scholar in the area. Sometimes, the web page information can lead into that author’s published contributions. *If you can find published sources for this information, they are very much preferred to the WWW sources. Many of the gov’t pubs on the web are simply copies of usual printed documents and can be referenced as such.*

If you find that WWW sources are dominating your reference list and that you do not have the minimum number of good, high quality printed sources, talk to me about the situation.

**If you use WWW sources that are not readily available in the printed literature, you are expected to print those pages actually cited and have them attached as appendixes to your final paper.**

### **Preliminary Submissions (submitted electronically using E-Submit)**

**First progress reports** will be due on April 24. This report should include:

- Topic definition and an annotated working bibliography of at least four solid sources. These bibliographies are to be annotated in order to provide some indication of what they contain, how you will use their information, and how authoritative they are.
- A proposal of no more than one page that describes the general project being proposed, the approach to be taken, and some sense of how the paper may be organized.

**Second progress reports** will be due on May 8. This report should include:

- Refinement of topic definition.
- Working bibliography that has significant sources for each main topic to be covered. I would expect at least 8 sources at this point.
- Detailed hierarchical outline that gives planned detail within each section of the paper.
- Revision of original proposal as may be necessary and report of progress made thus far. This should now be about 2 pages and should be carefully written to give me some idea of your accomplished writing style.

I will comment upon the bibliographies, outlines, and proposals, giving specific suggestions as to the direction the paper should take. In some cases, I may require you to resubmit the preliminary material after revision. The material presented will also give me an example of your writing style, so that I can provide timely feedback on it. The working bibliographies, outlines and proposals that I have read will be available with the final version so that I can judge how appropriately you have responded to my suggestions.

**Rough Draft.** On May 27, each student will submit a rough draft of whatever has been written by that time. There is no additional work to be done for this; you simply hand in the rough draft files for your paper. *This is meant to be a snapshot of your work one week before submission, not a completed document.*

These preliminary materials and your response to my comments are worth 20% of the grade on your final paper. Failure to submit them on time will result in a 10% penalty on the paper.

**Final Submission:** Due on June 4 electronically.

**Schedule.**

- Progress reports: Apr 24 and May 8
- Rough draft: May 27
- Final versions of the papers will be due on June 4. Final papers will not be accepted more than one week late (5:45 PM on March 18), and a penalty of 10% will be assessed if the final version is at all late.
- All material will be submitted electronically at the course E-submit site (never by e-mail).