

**ENV 6438: Physical & Chemical Processes for Drinking Water Treatment**  
**Department of Civil & Environmental Engineering**  
**University of South Florida**

Cunningham

Spring 2020

Semester Project

Due Wednesday, February 19

Stage 2

The second stage of the semester project is an *annotated list of references* relevant to your question. Here are the parameters.

- It is due in class on Wednesday, February 19.
- It will count for 7.5% of your overall project grade.
- Each group should turn in one hard copy.
- Your list must include at least 10 references relevant to your topic.
- References should be formatted according to one of the five following journal formats: *Environmental Engineering Science*, *Environmental Science & Technology*, *Journal of the American Water Works Association*, *AWWA Water Science* (a relatively new journal), or *Water Research*. These are five of the most prominent peer-reviewed journals related to drinking water. You can choose which journal format you like the best. Indicate clearly which reference format you have selected.
- You can include books, articles from scientific journals, articles from reputable magazines (e.g., *Time*, *Newsweek*, *Economist*), articles from reputable newspapers, government reports, reports from other organizations, and/or other printed resources.
- You can use web sites or Internet references, but these *will not count* towards your 10 sources. You must have 10 sources excluding web sites or Internet references. This restriction is for two reasons. First, it is difficult to determine what constitutes a reliable or reputable web site. Second, students tend to over-rely on Internet-based sources of information, and I want you to go through the exercise of obtaining information from other sources. It is fine to use Internet-based search engines to locate sources, but the actual sources of information should not be web sites or Internet references. (Make sure you know the difference.)
- For each of the (at least) 10 references on your list, first provide the complete bibliographic information for the reference in the style of the journal you have selected. Then, write a brief paragraph *in your own words* that summarizes the main points or findings of the article as it pertains to your topic. This means you must actually read and comprehend the articles on your list! On the next page, I give an example of what would constitute an acceptable entry.

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- Suppose you were writing a paper on alternative methods of disinfection to eliminate disinfection by-products. Then you could have an entry like this (with bibliographic style from *Environmental Engineering Science*).

Ince, N.H., and Belen, R. (2001). Aqueous phase disinfection with power ultrasound: Process kinetics and effect of solid catalysts. *Environ. Sci. Technol.* 35, 1885.

Power ultrasound was investigated (lab-scale, not full-scale) as a possible means of disinfecting drinking water. Authors claim that ultrasound would not create disinfection by-products and would therefore be a viable alternative to chlorination. In this study, authors demonstrated that *E. Coli* can be disinfected under lab conditions, and they investigate different catalysts to see if any would make the process proceed more rapidly. The authors saw very promising results, but they didn't consider a couple key practical factors that would be important for full-scale deployment, like if the power requirements would be too high to make this viable full-scale, and/or if ultrasound transmission is technically feasible for treating large volumes of water on a continuous basis. Also, a secondary disinfectant would be required because ultrasound does not leave a residual, similar to ultraviolet disinfection.

Notice that I summarized key points of the paper and indicated how it might relate to my particular project, and *I wrote it in my own words*. **I did not copy and paste!!!**

- Arrange your references in alphabetical order by the last name of the first author. For most journals, this is how the reference list appears. For some, including *ES&T*, the references are numbered and are listed in order of appearance. For now, since you haven't written the paper yet, just put them in alphabetical order, even if you are using *ES&T* format.

If you have questions...ask me!