

Fall 2016: Chem 95 Environmental Risk

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Abstract

Our environment is a complex web of human development and natural beauty. How we interact with our technologies, food and each other may lead to chemical risks. However, gathering and understanding information related to the severity of risks due to natural or synthetic chemicals is complicated. Is it true that the chemicals in our soil, water, and air are making us sick, allergic, or prone to cancer? An introduction to basic chemical principles will be provided and then used to examine situations that are blatantly problematic. Other chemicals/reactions that are more ambiguous will provide the opportunity for healthy debates and discussions.

Pro/Con Discussion You will work in small groups (3 students) for this exercise. Initially, I will provide you with an article on a topic. The article will be sourced from a national newspaper, scientific/medical journal or the internet. You will be required to read the paper and consider your stance on the topic (pro/con).

Then, using this lead you will need to find one other article supporting or contradicting the proposal. Take this paper with you on our field trip to the Library. We discuss the authority of your paper and investigate good strategies for finding other papers. You will then select two good articles that you feel help your argument and give these to your team. You will be required to read your teammates' papers.

After debating the topic within your team, I will ask you to present the key concerns raised by the authors and your team's responses to the class. Who was for/against and why?

Finally, you will each write a 2-3 page (cited) report on the topic, views held by the authors and the team's interpretations of the tension. This final piece will be an individually graded writing assignment.

Compelling Letter You will work individually on this topic.

Write a letter asking a company, person or public entity (city or state) to consider getting a product or habit to be reduced to reduce environmental risk. Again this can build from either of the previous assignments or a new topic. 2-3 pages. Cite your references.

Status Report You will work individually on this topic.

This will be a formal essay (5-8 pages, double spaced, normal margins, font size 12) reporting on a topic from an assigned list of ten options initially presented in the pro/con discussion. The report will delve into the conflicting stakeholders, science of the problem, possible solutions. Cite your references.

GRADES:

Problem Sets (3 x 15pts) = 45pts

Pro/Con Discussion/Paper = 55pts (30pts in Paper, 25pts in Presentation) (2, 6, 9, 11, 12, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100)

