Chemistry 108: The Chemistry of Everyday Phenomena
Paper Ideas Part Two

Due: Tuesday, March 3\textsuperscript{rd}, 11:00am

Please choose one of the three topics below for your second paper.

Note: Do not merely answer these questions given in the description in the given order, but write a coherent paper that addresses these issues. The paper must be typed, should not be longer than 5 pages (double spaced, reasonable margins), and must include at least 2 references (valid web references are fine). The work must be your own.

Note regarding references:
- Using web references as your sources are okay, but make sure they are valid. For example, listing Wikipedia or Google as your reference is NOT valid. You can start there but you must move to a link that contains an article written by a valid author.
- You must cite your references throughout your paper (by author) and include a bibliography at the end. I am not picky about the format (use MLA or whatever you’re used to) but the bibliography must include the author’s name, article/book name, website address (if applicable), publisher (if applicable), and copyright date/accessed date.

Paper Idea I:
Write a paper on diets. What is the recommended daily calorie intake for an average person? What about calories from fat? What does the average USDA diet look like?

Low-carb (carbohydrates) and high protein diets are in vogue.

What are carbohydrates? What foods are most rich in carbohydrates? How does the body use carbohydrates? What is the official USDA recommended daily amount of carbohydrates for an average person?

What are proteins? What foods are most rich in proteins? How does the body use proteins? What is the official USDA recommended daily amount of proteins for an average person?

Paper Idea II:
Write a paper on the history of soap. What is the earliest recorded evidence of people making soap? How, in general, is soap made? How has the recipe changed over the years? How has it remained similar? What is the difference between soap and detergent? How, in general, does soap work? What is meant by “hard water”? What effect does it have on the effectiveness of soap, and what can be done about it? Include chemical structures in your paper.

Paper Idea III:
Write a paper on one specific scientific technique that is used in identifying compounds. These include mass spectroscopy, thin layer chromatography, or spectrophotometry (choose one of these). Explain how the technique works and how it is used in a crime lab.