## Assignment #2: Design, Answer, and Evaluate Chemistry Question

For this assignment, you should come up with a chemistry question, type it into your favorite AI, report the answer it provides, then critique the answer to see how well that AI answers your question. Finally, I want you to write a short reflection on the ethics of having an AI answer your question; you may find the Montreal Declaration helpful for this last part. All of this should be put in a document (Word or pdf) and submitted prior to the deadline. I will grade this for completeness so make sure you include everything I am asking for:

- 1. Write your chemistry question and tell me which AI you use to answer it.
- 2. Copy and paste exactly what the AI responds.
- 3. Evaluate how well the AI answered your question. (Is it correct? Is it the right process? Does it explain it well? Would you learn from its answer?)
- 4. Reflect on the ethical considerations of using an AI to answer the question. (Does it harm anyone? Does it benefit society? Use the link to the <u>Montreal DeclarationLinks</u> to an external site. for ethical guidelines).

## Assessment

The student's work will be assessed using the AAC&U Ethical Reasoning VALUE Rubric available at VALUE Rubrics - Ethical Reasoning | AAC&U (aacu.org) For this assignment, all five evaluation criteria of the ER Value Rubric were utilized. For convenience, the AACU Value Rubric is also provided below:

## ETHICAL REASONING VALUE RUBRIC

for more information, please contact value@aacu.org



Definition

Ethical Reasoning is reasoning about right and wrong human conduct. It requires students to be able to assess their own ethical values and the social context of problems, recognize ethical issues in a variety of settings, think about how different ethical perspectives might be applied to ethical dilemmas, and consider the ramifications of alternative actions. Students' ethical self-identity evolves as they practice ethical decision-making skills and learn how to describe and analyze positions on ethical issues.

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

	Capstone	Milestones		Benchmark
	4	3	2	1
Ethical Self-Awareness	Student discusses in detail/analyzes both core beliefs and the origins of the core beliefs and discussion has greater depth and clarity.	Student discusses in detail/analyzes both core beliefs and the origins of the core beliefs.	Student states both core beliefs and the origins of the core beliefs.	Student states either their core beliefs or articulates the origins of the core beliefs but not both.
Understanding Different Ethical Perspectives/Concepts	Student names the theory or theories, can present the gist of said theory or theories, and accurately explains the details of the theory or theories used.	Student can name the major theory or theories she/he uses, can present the gist of said theory or theories, and attempts to explain the details of the theory or theories used, but has some inaccuracies.	uses, and is only able to present the gist of the	Student only names the major theory she/ he uses.
Ethical Issue Recognition	Student can recognize ethical issues when presented in a complex, multilayered (gray) context AND can recognize cross- relationships among the issues.	Student can recognize ethical issues when issues are presented in a complex, multilayered (gray) context OR can grasp cross-relationships among the issues.	Student can recognize basic and obvious ethical issues and grasp (incompletely) the complexities or interrelationships among the issues.	Student can recognize basic and obvious ethical issues but fails to grasp complexity or interrelationships.
Application of Ethical Perspectives/Concepts	Student can independently apply ethical perspectives/concepts to an ethical question, accurately, and is able to consider full implications of the application.	Student can independently (to a new example) apply ethical perspectives/concepts to an ethical question, accurately, but does not consider the specific implications of the application.	Student can apply ethical perspectives/concepts to an ethical question, independently (to a new example) and the application is inaccurate.	Student can apply ethical perspectives/ concepts to an ethical question with support (using examples, in a class, in a group, or a fixed-choice setting) but is unable to apply ethical perspectives/ concepts independently (to a new example.).
Evaluation of Different Ethical Perspectives/Concepts	Student states a position and can state the objections to, assumptions and implications of and can reasonably defend against the objections to, assumptions and implications of different ethical perspectives/concepts, and the student's defense is adequate and effective.	Student states a position and can state the objections to, assumptions and implications of, and respond to the objections to, assumptions and implications of different ethical perspectives/concepts, but the student's response is inadequate.	Student states a position and can state the objections to, assumptions and implications of different ethical perspectives/ concepts but does not respond to them (and ultimately objections, assumptions, and implications are compartmentalized by student and do not affect student's position.)	Student states a position but cannot state the objections to and assumptions and limitations of the different perspectives/concepts.