

Article Summary Assignment

(Choose **one of the two** attached articles for this assignment)

In Unit 1, you practiced answering Conceptual Questions. The goal was to make connections between your work in the lab and the big ideas inherent to that work (but not always obviously so). The focus was on your ability to articulate your ideas logically, clearly, thoughtfully, and succinctly. These efforts culminated in Long Assignment #1 – your Hypothesis. Congrats on your good work thus far!

In Unit 2, we will read about some of the major ethical quandaries related to protein engineering and you will crystalize your own thinking about them *in writing* as part of your pre-lab preparation. As before, the goal is to form connections – this time between your work in the lab and the **ethical implications** of that (or related) work.

In Meetings 5 & 6, you will read a short article of popular science and then compose a formal **summary** of the salient aspects of the material as a way to assess your comprehension of the material. Later, in Meetings 7 – 9, you will again summarize an article, but then you will also make an argument about it as a way to assess your ability to interpret ethical quandaries with agency and rigor. In other words, your Conceptual Questions, in Unit 2, will become ethical summaries and responses.

Meetings #5 & #6 will progress as follows:

- Read the assigned source with the utmost care so that you accurately understand it.
- Then, in a paragraph of **no more than 16 lines of text** (1" inch margins all around, 12 pt Times New Roman), write a summary of the source *without interpreting it* (i.e. no personal opinion or analysis). Instead, be as objective as you can. Assume that you are writing for intelligent, public readers who are not familiar with the text; present them with a clear, concise, and accurate overview. Some tips:
 - Begin by establishing the basics: the title, author, speaker, and proceed from there.
 - Be sure to include the major ideas or claims of the source, without getting distracted by non-essential details.
 - Follow a logical structure of the source's main ideas, sequential or otherwise.
 - The controlling verb tense should be present tense, and most of your verbs should be active verbs (e.g. "Mukherjee *describes* the research..." not "*It is described* by Mukherjee...")
 - You should quote the source as needed to give your readers a sense of the language and key claims of the text, but do not overdo it.
 - Use spell-check and grammar-check tools before submitting!

Note: Summarizing and evaluating data – be it raw data from an experiment, the ideas put forth in a scientific journal article, or the language of a poem – is how we come to understand that data. It is therefore important that you give yourself any and every opportunity to practice, and it is why we are building your capacity to do so this semester iteratively.

As before, grades for these written responses are binary: for each response, you will receive a grade of Satisfactory or Unsatisfactory as well as some feedback for how to strengthen your critical assessment skills. For these assignments, we will have time to discuss them in class. To aid in the process and to help hone your critical thinking skills, your feedback in the discussion posts should be a helpful critique that highlights portions you feel were well done, but also points you feel were not sufficiently or adequately addressed, points that were over-emphasized, or even places where the overall logic of the post might be reorganized to better make a point. You should also think about the overall implications of the work, as these ideas will be fair game for discussing in class, even if they will not be directly addressed in your summaries.

- Six Steps:**
- (1) Read the source.
 - (2) Compose your summary and/or response in clear, economical prose.
 - (3) **Before the day of class**, make a *discussion post* with your summary.
 - (4) **Prior to class**, reply to at least two of the *discussion posts* from your colleagues with constructive feedback.
 - (5) **Prior to class**, upload your article summary to Gradescope.
 - (6) Come to class prepared to share and discuss with your peers.

ARTICLES FOR LAB 5

<https://www.nytimes.com/2021/09/13/science/colossal-woolly-mammoth-DNA.html>)

<https://www.discovermagazine.com/planet-earth/northern-white-rhinos-are-almost-gone-should-scientists-bring-them-back>)

ARTICLES FOR LAB 6

<https://www.wired.com/story/can-a-genetically-modified-bug-combat-a-global-farm-plague/>)

<https://time.com/6047051/genetically-modified-mosquitoes/>)

Article Summary Rubric

	Satisfactory	Unsatisfactory
Analysis	<ul style="list-style-type: none"> ○ Addresses all or most of the key points of the article ○ Any quotations from the article are relevant and incorporated to support the summary ○ Writing is objectively written 	<ul style="list-style-type: none"> ○ Missing many of the key points of the article ○ Excessive or improper use of quotations ○ Writing is subjectively written or includes personal opinions and interpretations
Coherence	<ul style="list-style-type: none"> ○ Each sentence flows naturally into the next ○ Every point relates to those around it and contributes to the overall meaning of the paragraph 	<ul style="list-style-type: none"> ○ Points are presented in a jumbled or illogical order ○ A lack of transitions between ideas makes it hard to see how points are connected to each other or the overall purpose of the paragraph
Clarity	<ul style="list-style-type: none"> ○ Grammar and syntax facilitate reader's comprehension 	<ul style="list-style-type: none"> ○ Spelling, grammar errors, and/or awkward sentence construction impedes reader's comprehension
Other	<ul style="list-style-type: none"> ○ Meets length requirements (16 lines or fewer) ○ Meets formatting requirements (1" margins, 12 pt Times New Roman) 	<ul style="list-style-type: none"> ○ Exceeds length requirements (more than 16 lines) ○ Does not meet formatting requirements
Overall mark	SATISFACTORY	UNSATISFACTORY

Article Summary + Response Assignment

(Choose **one of the two** attached articles for this assignment)

We will continue reading about some of the major ethical quandaries related to protein engineering and you will crystalize your own thinking about them *in writing* as part of your pre-lab preparation. As before, the goal is to form connections – this time between your work in the lab and the **ethical implications** of that (or related) work.

In Meetings 5 & 6, you read a short article of popular science and then compose a formal summary of the salient aspects of the material as a way to assess your comprehension of the material. Now, in Meetings 7 – 9, you will again **summarize** an article, but then you will also build an **argument** about the article's presentation of the material as a way to assess your ability to interpret ethical quandaries with agency and rigor. In other words, your Conceptual Questions in this portion of Unit 2 will become ethical summaries and responses.

Meetings #7, #8, & #9 will progress as follows:

- Read the assigned source with the utmost care so that you accurately understand it.
- Then, in a very short paragraph of **no more than 6-8 lines of text** (1" inch margins all around, 12 pt Times New Roman), write a "micro" summary of the source *without interpreting it* (i.e. no personal opinion or analysis). Instead, be as objective as you can. Assume that you are writing for intelligent, public readers who are not familiar with the text; present them with a clear, concise, and accurate overview. Some tips:
 - Begin by establishing the basics: the title, author, speaker, and proceed from there.
 - Be sure to include the major ideas or claims of the source, without getting distracted by non-essential details.
 - Follow a logical structure of the source's main ideas, sequential or otherwise.
 - The controlling verb tense should be present tense, and most of your verbs should be active verbs (e.g. "Mukherjee *describes* the research..." not "*It is described* by Mukherjee...")
 - You should quote the source as needed to give your readers a sense of the language and key claims of the text, but do not overdo it.
 - Use spell-check and grammar-check tools before submitting!
- Next, compose your ethical response in a paragraph of **no more than 20 lines of text**. The most straightforward way to go about this is to structure your response to praise, critique, argue. In other words, articulate (1) one or more ways in which the ethical argument is convincing, compelling, or has merit; (2) one or more ways in which it is lacking, flawed, or otherwise problematic; and then (3) argue your own view in analytical, logical terms (not personal ones).

Note: Summarizing and evaluating data – be it raw data from an experiment, the ideas put forth in a scientific journal article, or the language of a poem – is how we come to understand that data. It is therefore important that you give yourself any and every opportunity to practice, and it is why we are building your capacity to do so this semester iteratively.

As before, grades for these written responses are binary: for each response, you will receive a grade of Satisfactory or Unsatisfactory as well as some feedback for how to strengthen your critical assessment skills. For these assignments, we will have time to discuss them in class. To aid in the

process and to help hone your critical thinking skills, your feedback in the discussion posts should be a helpful critique that highlights portions you feel were well done, but also points you feel were not sufficiently or adequately addressed, points that were over-emphasized, or even places where the overall logic of the post might be reorganized to better make a point. You should also think about the overall implications of the work, as these ideas will be fair game for discussing in class, even if they will not be directly addressed in your summaries.

- Six Steps:**
- (1) Read the source.
 - (2) Compose your summary and response in clear, economical prose.
 - (3) **Before the day of class**, make a *discussion post* with your summary and article critique.
 - (4) **Prior to class**, reply to at least two of the *discussion posts* from your colleagues with constructive feedback.
 - (5) **Prior to class**, upload your article summary and critique to Gradescope.
 - (6) Come to class prepared to share and discuss with your peers.

ARTICLES FOR LAB 7

(<https://www.nytimes.com/2020/01/11/health/sickle-cell-disease-cure.html>)

(https://journals.lww.com/thehearingjournal/Fulltext/2020/02000/Germline_Gene_Editing_for_Deafness.1.aspx)

ARTICLE FOR LAB 8

(<https://www.nature.com/articles/d41586-021-02903-x>)

ARTICLES FOR LAB 9

(<https://www.nytimes.com/2021/05/31/science/dna-police-laws.html>)

(<https://www.wsj.com/articles/when-your-ancestry-test-entangles-others-11581696061>)

Article Summary + Response Rubric

SUMMARY	Satisfactory	Unsatisfactory
Analysis	○ Addresses all or most of the key points of the article	○ Missing many of the key points of the article
	○ Any quotations from the article are relevant and incorporated to support the summary	○ Excessive or improper use of quotations
	○ Writing is objectively written	○ Writing is subjectively written or includes personal opinions and interpretations
Coherence	○ Each sentence flows naturally into the next	○ Points are presented in a jumbled or illogical order
	○ Every point relates to those around it and contributes to the overall meaning of the paragraph	○ A lack of transitions between ideas makes it hard to see how points are connected to each other or the overall purpose of the paragraph
Clarity	○ Grammar and syntax facilitate reader's comprehension	○ Spelling, grammar errors, and/or awkward sentence construction impedes reader's comprehension
Other	○ Meets length requirements (8 lines or fewer)	○ Exceeds length requirements (more than 8 lines)
	○ Meets formatting requirements (1" margins, 12 pt Times New Roman)	○ Does not meet formatting requirements
Overall mark	SATISFACTORY	UNSATISFACTORY

(continued below)

CRITIQUE	Satisfactory	Unsatisfactory
Analysis	<ul style="list-style-type: none"> ○ Logical reasoning is explicit and sound in evaluation of the merits and flaws of the article 	<ul style="list-style-type: none"> ○ Response lacks clear logic or logic is unsound ○ May rely on personal opinion or <i>ad hominem</i> attacks in lieu of analysis
	<ul style="list-style-type: none"> ○ Articulates one or more ways the piece is compelling/has merit and one or more ways it is flawed or could be taken further 	<ul style="list-style-type: none"> ○ Response does not include at least one merit and flaw or opportunity to extend the author's reasoning
Use of source	<ul style="list-style-type: none"> ○ Response references specific aspects of the text, using quotes/references to support claims about the merits and flaws of the article 	<ul style="list-style-type: none"> ○ Response does not reference specific aspects of the text
		<ul style="list-style-type: none"> ○ Quote excessively giving the impression the student has not digested the source material
		<ul style="list-style-type: none"> ○ Borrows language from the source without citing
Coherence	<ul style="list-style-type: none"> ○ Each sentence flows naturally into the next 	<ul style="list-style-type: none"> ○ Points are presented in a jumbled or illogical order
	<ul style="list-style-type: none"> ○ Every point relates to those around it and contributes to the overall meaning of the paragraph 	<ul style="list-style-type: none"> ○ A lack of transitions between ideas makes it hard to see how points are connected to each other or the overall purpose of the paragraph
Clarity	<ul style="list-style-type: none"> ○ Grammar and syntax facilitate reader's comprehension 	<ul style="list-style-type: none"> ○ Spelling, grammar errors, and/or awkward sentence construction impedes reader's comprehension
Other	<ul style="list-style-type: none"> ○ Meets length requirements (20 lines or fewer) 	<ul style="list-style-type: none"> ○ Exceeds length requirements (more than 20 lines)
	<ul style="list-style-type: none"> ○ Meets formatting requirements (1" margins, 12 pt Times New Roman) 	<ul style="list-style-type: none"> ○ Does not meet formatting requirements
Overall mark	SATISFACTORY	UNSATISFACTORY