

Biology 108 Critical Writing assignments:

What you are supposed to do:

In 150-250 of your own words, pick **ONE** of the traits described in the case study information posted to create a scientific argument (Fig. 1) that the trait is adaptive to the species' environment. Provide evidence for your claim from the case study information by discussing how the trait increases fitness at the individual level (i.e. a heritable trait that increases reproductive success / survival of offspring), and you should further justify (rationalize) how the trait has persisted at the population level by describing how it is selected for within the population. WE WILL MARK YOU LOWER IF YOU DISCUSS MORE THAN **ONE** TRAIT! (This is not supposed to be long or difficult, but a concise description of one trait with justification – see section below on Background on scientific writing)

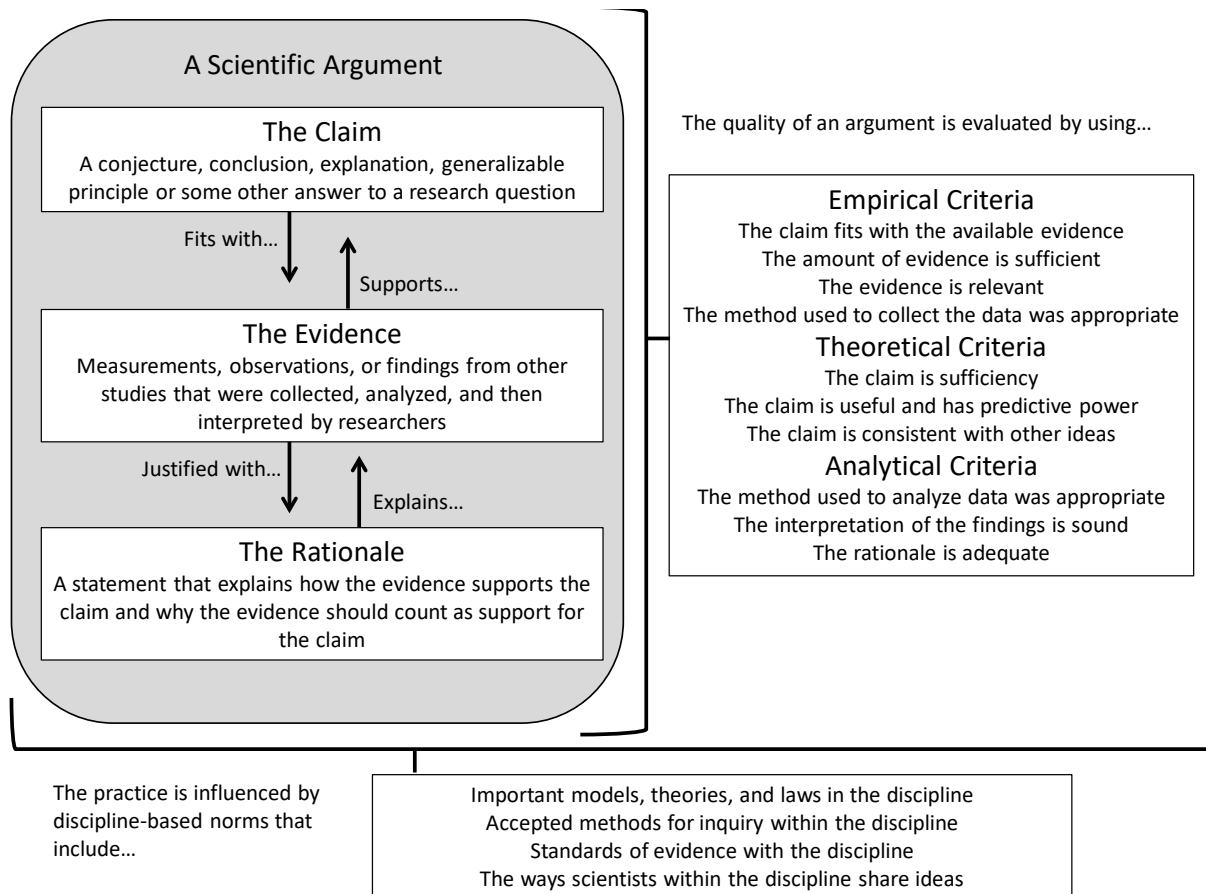


Figure 1. The argument framework for Biology 108. From Figure 1 of Sampson and Phelps Walker (2012). *Cite any factual information or ideas used from the excerpts following the examples provided.*

What your assignment should look like:

Your assignment should be **typed, double-spaced, 11 or 12 point font**, have proper grammar and spelling in complete sentences with proper paragraph structure with a **word count** included. You should use in-text citations and provide the literature cited (alphabetically listed, presented at the end). All information from sources must be paraphrased into your own words; material

quotations will not be considered for grading. Remember that this is an opportunity to practice paraphrasing and get feedback from your instructor.

Background on scientific writing:

Please note that as you take higher level courses in Biology you will be expected to read the original research of authors, and not depend on introductions or review articles to get information. In the lab for Biology 108, we are not expecting that level of scholarship – we will provide the case study information that are excerpts from introductions, discussions and reviews to give you background on the topic to practice reading and citing. You should cite the author that wrote the excerpt (not the authors they got their information from) when you use information from the case study. This is acceptable for the purposes of this assignment, but you should be aware that this is problematic for other types of work. In most cases, creating a good scientific argument requires looking at the evidence from the original study and applying to your claim. This is what responsible research would require – and you are welcome to do this at any point!

References:

Sampson, V., and J. Phelps Walker. 2012. Argument-driven inquiry as a way to help undergraduate students write to learn by learning to write in Chemistry. *International Journal of Science Education* 34: 1443-1485. Doi: 10.1080/09500693.2012.667581