

Biology 208 –Rubric for Scientific Article 2020

Description	Excellent/Exceptional (90-100%)	Good/Very Good (70-85%)	Adequate/Good (50-65%)	Marginal (30-45%)	Inadequate (0-25%)
Biological Content /30	A clear, topical description of key issues, biological concepts and information based on correct interpretation of scientific evidence. Information is presented in a way that makes explicit connections between issues and concepts, with reference to alternate biological mechanisms.	Major key issues and biological concepts and information were introduced, though the connections were not always clearly made. The information was generally correct and relevant, with some attempt to provide alternate biological mechanisms.	An obvious main issue was introduced with reference to a related biological concept and information. The information may be incorrect in minor ways relative to the main issue. Connections made may be superficial and may miss obvious alternative biological mechanisms.	The issue introduced was not well supported with relevant biological concepts and information presented; biological concepts and information may be incorrect or extremely superficial. Connections were lacking and there was a lack of alternative biological mechanisms.	Very little use was made of biological concepts and information throughout. The work may not have been framed around a key issue or biological mechanism.
Communication Effectiveness /30	The IMRaD format was followed and effectively used to communicate findings as discussed in the assignment description, in more detail in Appendix I, and during the Peer review. Graph presentation follow the criteria listed in the Peer Reviewer comments under figures.	While the general IMRaD format is presented correctly, there are places where there is missing information or criteria were not followed. Overall the work follows conventions and has relatively few errors.	Minor elements of the IMRaD format may be missing (i.e. title or abstract) but overall the work is complete and main findings are communicated.	Some conclusions are made in the work, but one or more main findings are not adequately presented or discussed.	An incomplete assignment was presented without key findings or conclusions made.
Literature Use Use, formatting and evidence of research /30	The work effectively integrated information from a variety of sources and met or exceeded the minimum number of primary references required. Formatting of references followed Ecology guidelines (for both in-text referencing and the Literature Cited section) as discussed in the assignment description and Appendix I. Appropriate (primary or secondary) scientific references are used for all facts and concepts.	Appropriate sources were used but not well integrated in the presentation of concepts and information. The format of the references included necessary information in approximately the correct order. Generally, facts and concepts have an in-text citation, with most sources from primary or secondary literature.	References were used that are relevant to the topic but may not always accurately reflect the work of authors. Referencing may be inconsistent in the text for facts or concepts. The format used in the Literature Cited section may be inconsistent or may not meet the requirements in the assignment description or Appendix I, and sources used may not meet primary or secondary scientific criteria.	Some references are used but there are interpretation issues of the works, or the references used are generally not scientific (i.e. <u>the lab manual in place of primary/secondary information</u>). The formatting of the Literature Cited may miss occasional information, have major formatting issues, or be incomplete with respect to in-text citations.	The work relied on the nonscientific sources, text, <u>or lab manual information</u> , with or without citation. Too few scientific references were used to support relevant information or concepts.

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Writing Effectiveness and Presentation /10	Writing was appropriate to scientific writing: i.e. clear, effective and added to the delivery of the article. There were very few, or no, grammatical or spelling errors with correct punctuation, word usage, and verb tense. Scientific names followed formatting conventions.	There were minor grammatical, spelling, sentence structure, or scientific convention errors but they did not significantly detract from the quality of the work.	Writing conveyed the basic message but did detract somewhat from the delivery of the key issues, concepts or main findings. There were some errors in grammar, word use, spelling, punctuation, or scientific convention.	Writing interfered with the communication of the article due to errors in grammar, word use, spelling, punctuation, or scientific convention. Informal expressions were present with little attention to scientific conventions.	Reader could not understand the written text of the work as written in many places due to errors in grammar, word use, spelling, punctuation, or scientific convention.