# BIO 111 Tutorial Response Rubrics

## Abstract Scoring

| | Beginning (1) | Developing (2) | Exemplary (3) |
|---|---|---|---|
| **Tutorial Question**<br>Why do you think it isn't enough just to read an article's abstract if you want to cite its findings?<br><br>**Related Learning Outcome**<br>Students will be able to describe strategies for reading scientific research articles strategically | Incorrect or overly vague summary of an article abstract's structure or purpose **AND** doesn't provide strategies for engaging with the full article | May generally characterize the abstract as an overview or summary but stops short of mentioning specific details readers should look for before attempting to summarize an article's findings | May characterize the abstract as an overview or summary **AND** provides specific details readers should look for before attempting to summarize an article's findings |

## Source Location

| | Beginning (1) | Developing (2) | Proficient (3) | Exemplary (4) |
|---|---|---|---|---|
| **Tutorial Question**<br>Your goal is to find one promising article about using macroinvertebrate populations to help assess stream health.<br><br>**Related Learning Outcome**<br>Students will be able to assess and evaluate database search results in order to identify the most relevant articles for their literature reviews | Article does not come from a scholarly journal with a peer-review process | Article comes from a scholarly journal with a peer-review process **BUT** it is not an empirical research article (e.g., review article, news piece, commentary) **OR** the article is not about stream ecology | Article comes from a scholarly journal with a peer-review process **AND** is an empirical research article **BUT** the student lists some other piece of information instead of the journal's name (e.g., the name of the publisher) **OR** the student includes additional information (e.g., volume, issue, page range) along with the journal name | Article comes from a scholarly journal with a peer-review process **AND** is an empirical research article **AND** student correctly lists some version of the journal's name without any additional details (e.g., no volume, issue, or page range) |

## Source Engagement

| | Beginning (1) | Developing (2) | Proficient (3) | Exemplary (4) |
|---|---|---|---|---|
| **Tutorial Question** *Introduction*: What was the authors' hypothesis? (one sentence) | Response does not contain a meaningful attempt to engage with specific information beyond what is presented in the abstract | Response attempts to summarize information from the introduction section **BUT** does not address *any* portion of the hypothesis as presented in the article | Response attempts to summarize at least a portion of the authors' hypothesis **BUT** omits significant details and specificity in a way that implies a lack of full understanding | Response summarizes the authors' complete hypothesis in a way that demonstrates full understanding |
| **Tutorial Question** *Methods*: Explain exactly how the experiment was done. (one or two sentences) | Response does not contain a meaningful attempt to engage with specific information beyond what is presented in the abstract | Response attempts to summarize 1–2 steps described in the methods section **AND** may not attempt to contextualize those steps within the larger procedure | Response attempts to summarize multiple (2+) steps described in the methods section **BUT** omits details about additional, essential steps in a way that implies a lack of understanding of the full procedure | Response summarizes the authors' methods in a way that acknowledges or addresses the most essential steps in the procedure, demonstrating full understanding |
| **Tutorial Question** *Results*: Summarize the major findings. (one or two sentences) | Response does not contain a meaningful attempt to engage with specific information beyond what is presented in the abstract | Response attempts to summarize information from the results section **BUT** misinterprets or misrepresents details in a way that *definitively* indicates a lack of understanding | Response attempts to summarize a portion of the authors' major findings **BUT** characterizes those findings in an incomplete way, implying a lack of full understanding | Response summarizes the authors' major findings in a way that demonstrates full understanding |
| **Tutorial Question** *Discussion*: List one area for future research the authors suggest. (one sentence) | Response does not contain a meaningful attempt to engage with specific information beyond what is presented in the abstract | Response attempts to summarize information from the discussion section **BUT** does not provide any details associated with suggested areas for future research | Response attempts to summarize one of the authors' suggestions for future research opportunities **BUT** omits significant details and specificity in a way that implies a lack of full understanding | Response summarizes one of the authors' suggestions for future research opportunities in a way that demonstrates full understanding |

*For this assessment section, we will exclude tutorial responses that did **not** receive a score of 3+ for "Locate One Peer-Reviewed Empirical Research Article"*

## Source Use

| | Beginning (1) | Developing (2) | Proficient (3) | Exemplary (4) |
|---|---|---|---|---|
| **Citation Mechanics** | Multiple bibliographic entries or in-text citations contain major CSE-style formatting errors that make them unrecognizable as references **OR** multiple bibliographic entries or in-text citations omit necessary elements in such a way that it is impossible to determine source type from the references alone | One or more bibliographic entries or in-text citations lack necessary CSE-style elements **OR** contain extraneous information (e.g. proxy links to database records) **BUT** it is still possible to determine source type from the references alone | All bibliographic entries and in-text citations contain all necessary elements **BUT** one or more references contain minor CSE-style formatting errors (e.g., all-caps titles) **OR** one or more references transpose necessary elements and present them in the wrong order | All bibliographic entries and in-text citations contain all necessary elements **AND** are properly formatted using CSE style |
| **Introduction of Evidence** | Introduction of sources almost always interrupts the narrative flow of students' writing **OR** students include one or more dropped quotes from cited works | Introduction of sources frequently interrupts the narrative flow of students' writing **OR** students include one or more quotations (>3 words) from cited works instead of paraphrasing | Introduction of sources may occasionally interrupt the narrative flow of students' writing **AND** students always attempt to paraphrase cited works instead of including quotations (>3 words) | Introduction of sources almost never interrupts the narrative flow of students' writing **AND** students always attempt to paraphrase cited works instead of including quotations (>3 words) |
| **Engagement with Evidence** | Sources are almost always presented without context or interpretation and evaluation that acknowledges how they relate to the students' own work at Marsh and Rock Creeks | Sources are frequently presented without context or interpretation and evaluation that acknowledges how they relate to the students' own work at Marsh and Rock Creeks | Sources are occasionally presented without context or interpretation and evaluation that acknowledges how they relate to the students' own work at Marsh and Rock Creeks **BUT** frequently overlooks significant differences (e.g., the fact that a cited study was conducted in a very different ecological setting) | Sources are never presented without context or interpretation and evaluation that explicitly acknowledges how they relate to the students' own work at Marsh and Rock Creeks **AND** frequently acknowledges relevant, significant differences between cited studies and BIO 111 lab work |