Objective 1.4: Information Literacy   Course: BIOL 442

Students will effectively and responsibly gather, evaluate, and use information for scholarship and problem-solving.

By graduation students will:	Not Proficient	Developing Proficiency	Proficient	Exceeding Proficiency
1. Design a research plan that (a) incorporates a clear research question and identifies appropriate information resources.	Student identifies a question that is not something they can reasonably find information about. The question is unclear or poorly-worded.	Student identifies a question that is either too broad or too narrow and needs to be scaled more. The question can be answered without searching for scholarly sources.	Student identifies a question that is scalable, not too narrow or broad, and is something they can find information about. The question requires searching for scholarly sources in order to be addressed.	Student identifies a question that they are enthusiastic about and can find information about but for which there are still unanswered questions that generate further research.
1. Design a research plan that (b) identifies appropriate information resources.	Student does not identify appropriate source types, search tools or search terms.	Student identifies source types, but they are not appropriate for their discipline. Student identifies one appropriate search tool. Search terms and filtering criteria are provided, but they do not fulfill all of the student's research needs.	Student identifies source types appropriate for their discipline. Student identifies three appropriate search tools. Student develops clear search terms and filtering criteria that are appropriate for their research topic.	Student expertly identifies appropriate source types, academic indexing databases, search terms, and filtering criteria.

2. Produce a research log that clearly demonstrates the application of appropriate keyword search criteria, such as Boolean operators, source types, and filters.	Student uses 1 unique combination of keywords, operators, and filters OR reuses one or more of these Student logs results of searches that are irrelevant or unhelpful to their topic.	Student uses 1-2 unique combinations of keywords, operators, and filters Student records the results of these searches, but some may be irrelevant or unhelpful to their topic.	Student uses at least 3 unique combinations of keywords, operators, and filters Student records the results of these searches	Student uses at least 5 unique keyword, operator, and filter combinations Student has a well-organized log of these results
3. Write an annotated bibliography that (a) critically analyzes the context, relevance, and authority of information sources, particularly in light of new perspectives, additional voices, and changes in schools of thought.	Student selects sources that are not appropriate for the topic or the assignment Student fails to explain how their sources relate to their topic or why sources were chosen Student does not use evaluative criteria effectively and does not offer up critical analysis of their sources Student does not examine connections between their sources and broader ideas, or among their different sources Student does not explain how they plan	Student selects sources that relate to their chosen topic but is unable to clearly articulate how those sources relate to the topic and/or why those sources were chosen Student lacks a variety of sources Student uses evaluative criteria, but their source analysis is more superficial Students will provide a more superficial analysis of connections between their source and broader ideas and themes Student provides vague explanations for how they plan to use their sources	Student selects a variety of credible scholarly sources that relate to their chosen topic Student is able to articulate how their sources relate to their topic and why they selected a source Student uses evaluative criteria to critically analyze and discuss their sources Student establishes and examines connections between their sources and broader ideas in their topic, and among different sources. Student discusses how they plan to use their	Student selects a variety credible scholarly sources that are specific to their research question Student has chosen where in their proposal specific references will be used Student can contextualize references with conflicting results and discuss why there is disagreement

	to use their sources		sources	
3. Write an annotated bibliography that (b) applies appropriate disciplinary conventions of citation.	Student fails to identify a citation style appropriate to their subdiscipline All citations are inconsistently formatted using more than one citation style	Student identifies citation style appropriate to their subdiscipline Only ~50% of citations are consistently formatted using the chosen citation style	Student identifies citation style appropriate to their subdiscipline All citations are consistently formatted using the chosen citation style with 1-2 minor mistakes	Student identifies citation style appropriate to their subdiscipline All citations are expertly and perfectly formatted using the chosen citation style

Assignment meeting Outcome 1a: Assignment 1A: Research plan and initial research question

Assignment meeting Outcome 1b: Assignment 1A: Research plan and initial research question

Assignment meeting Outcome 2: Assignment 1B: Research log

Assignment meeting Outcome 3a: Assignment 1C: Annotated bibliography and refined research question

Assignment meeting Outcome 3b: Assignment 1C: Annotated bibliography and refined research question