**Distinction Through Discovery Student Achievement Rubric2**

The minimum number of Student Learning Outcomes (SLOs) assessed in a given course will vary with the level of research and inquiry assigned to it. **Exposure** courses must assess at least three SLOs; **Skill Building** courses must assess SLO 2 plus at least two more SLOs. **Intensive** courses must assess all six SLOs.

\* Instructors choose which SLO indicator(s) they wish to assess.

| *SLO* | *indicators* | *Developing* | *Competent* | *Exemplary* |
| --- | --- | --- | --- | --- |
| ***1. Knowledge*** | **Vocab./ Basic Skills** | Demonstrates limited and simplified vocabulary or basic skills of the discipline, or vocabulary is used inappropriately. | Demonstrates working vocabulary or set of basic skills of the discipline but it is not complex or nuanced and it is used appropriately. | Demonstrates a complex or nuanced vocabulary or set of skills of the discipline that is used appropriately in the inquiry. May be used in novel or creative ways. |
| **Theoretical Frameworks or Genres** | Does not recognize key theoretical frameworks or previous works within the discipline for the question or problem to be explored. Unable to differentiate, select, or adapt (to) them, nor associate them with other disciplines | Recognizes key theoretical frameworks, genres, or previous works within the discipline for the question or problem to be explored but cannot differentiate, select, or adapt (to) them, nor associate them with other disciplines | Recognizes and differentiates key theoretical frameworks, genres, or previous works within the discipline for the question or problem to be explored and is able to select, or adapt (to) them, or associate them with other disciplines |
| **Inform. Literacy/ Sources** | Neither distinguishes nor critically evaluates scholarly resources from popular works; or uses inappropriate sources for the inquiry | Differentiates the features of scholarly resources from those of popular works, but does not critically evaluate them nor consistently use discipline-appropriate sources in the inquiry | Differentiates scholarly resources from popular works and consistently uses them as appropriate for the discipline of inquiry. May also critically evaluate sources. |
| ***2.*** ***Formulate Questions*** | **Relevant Issues/ Content** | Cannot identify, distinguish, nor generate questions, problems, or principles that are within the scope of the discipline of inquiry;  | Identifies some questions, problems, or principles that are within the scope of the discipline of inquiry but does not generate new ones, nor distinguish these from those that are not within the scope of the discipline | Identifies and consistently distinguishes questions, problems, or principles that are within the scope of the discipline from those that are not. May also generate new questions, problems, or principles. |
| **Rationale** | The logic or rationale for exploring the question or problem is incomplete or inadequate, or relies solely on confirmatory evidence or frameworks. | The logic or rationale for exploring the question or problem is generally embedded within a scholarly context, and relies mostly on confirmatory evidence or frameworks. Contradictory evidence or frameworks are acknowledged but not integrated into the logic or rationale for the inquiry. | The logic or rationale for exploring the question or problem is embedded in a clear scholarly context and integrates seemingly contradictory frameworks and evidence, (e.g., confirmatory and contradictory evidence, canonical and unconventional theories, etc.) |
| ***3. Plan of Action*** | **Methods of Exploration** | Does not recognize, select, apply, nor critically evaluate the basic tools and methods of research and inquiry in the discipline | Recognizes the basic tools and methods of research and inquiry in the discipline but does not select, apply, or critically evaluate those tools consistently to appropriate contexts, nor in novel or complex ways | Consistently recognizes, selects, applies, and critically evaluates the research and inquiry tools of the discipline in appropriate contexts. May do so in novel or complex ways. |
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| *SLO* | *\** | *Developing* | *Competent* | *Exemplary* |
| ***3. Plan of Action cont’d*** | **Design** | Design is incomplete, illogical, irrelevant, or inappropriate for the question/ problem being explored. Does not acknowledge possible threats to the soundness of the work | Design is logical, relevant, comprehensive, and appropriate for the discipline. Potential threats to soundness have been identified, but efforts to control or minimize these influences or threats are not fully adequate. | Design is logical, relevant, comprehensive, and appropriate for discipline. Potential sources of influence or threats to soundness have been identified and effectively controlled |
| **Implemen-tation** | Implementation does not follow the planned design, or it is incomplete. No acknowledgement of unexpected issues or events that arose during implementation. | Implementation is attempted but minor aspects are incomplete or do not follow acceptable practices of the discipline; only significant problems or unexpected events during implementation are identified and corrected  | Implementation is complete and consistent with accepted practices of the discipline; most problems and unexpected events occurring during the implementation are identified and/or corrected |
| **Observa-tion/ Data Collection** | Data, observations, collected works are not relevant to—or insufficiently focused on—the question or problem; extensive extraneous information | Data, observations, collected works are mostly relevant to or sufficiently focused on the question or problem; some extraneous material present; information about data/observations procedures is missing | Data, observations, collected works are clearly relevant to—or sufficiently focused on—the question or problem without extraneous material; identifies and explains procedures to gather, store, use collected observations |
| **Technical Skills** | Technical skills are insufficient to utilize materials, instrumentation, devices, or props appropriately to effectively implement the project. | Technical skills are generally sufficient to appropriately utilize materials, instrumentation, devices, or props in the project design with only a few errors | Technical skills are applied appropriately and consistently throughout the project design with no errors following established convention |
| ***4. Critical Thinking*** | **Anal-ysis** | Analysis of information, data, observations, work is performed largely inaccurately or incompletely | Analysis of information, data, observations, work is mostly accurate (with some minor errors) and mostly complete (with only a few minor omissions) | Conducts accurate and complete assembly and analysis of information, data, observations, work follows canonical or standard approaches. |
| **Interpre-tation** | Interpretation is not based on the actual results of inquiry, or is inaccurate or inadequate with respect to the context of the inquiry.  | Interpretation is generally accurate with some errors. Results are only evaluated in the context of what was anticipated. | Interpretation is thorough and accurate without errors. Interpretation addresses what had been anticipated as well as any unexpected results that were obtained |
| **Sources of Error** | Interpretation is clearly influenced by one or more sources of systematic error. The interpretation is biased.  | There is some effort to identify sources of systematic error or bias in interpretation of the results of the current inquiry, but efforts are not undertaken to minimize/control those identified  | There is a clear effort to both identify and control bias or other sources of systematic error in interpretation of the current inquiry. |
| **Conclusions** | Conclusions merely restate the findings/results; no attempt is made to make generalizations, predictions, recommendations, or plans for future inquiry. Neither weaknesses in the design, nor problems in implementation are mentioned or explained. | Conclusions, predictions, generalizations, recommendations, or future plans are stated but are focused solely on the expected results or information that is consistent with the original hypotheses, questions, or problems. Some issues affecting how the design was implemented are included, but are ill-explained or not integrated into solutions for those issues. | Conclusions, predictions, generalizations, recommendations, or future plans are stated and focused on the expected results consistent with the original hypotheses, questions, or problems that motivated the inquiry. Information that is inconsistent with these is noted, though it may not be integrated. Some critique of the design or implementation of the inquiry is included but it may be limited.  |
| *SLO* | *\** | *Developing* | *Competent* | *Exemplary* |
| ***5. Ethical Conduct***  | **Academic Integrity** | Any aspect of the inquiry violates expectations of FAU's Code of Academic Integrity (e.g., citation of sources, completing own work, plagiarism, etc.).  | Student acknowledges and generally adheres to FAU's Code of Academic Integrity with reminders, feedback, and instructions to do so, but does not recognize not articulate the intellectual value of doing so | Student consistently and independently adheres to FAU's Code of Academic Integrity with little correction, reminding, or feedback; may recognize the intellectual value of doing so, but does not articulate it. Student may articulate the intellectual or social value of doing so. |
| **Safety** | Student cannot articulate the safety protocols for inquiry; if inquiry is conducted, it is done so in an unsafe manner  | The student articulates most appropriate safety protocols; if inquiry is conducted it is generally done so in a safe manner, but some safety practices are not addressed | Student articulates and/or practices all safety protocols fully in the work. Student may articulate the intellectual or social value of doing so. |
| **Ethical Treatm.** | Inquiry is conducted without consideration or practice of ethical treatment of animals and/or humans (as the objects of inquiry or the audience thereof) | Inquiry appears to generally consider and implement appropriate and ethical practices (humans and animals), but some guidelines are not followed or documentation is missing | Inquiry appears fully considers and implements appropriate and ethical practices with all necessary permissions and documentation. Student may articulate the intellectual or social value of doing so. |
| **Ethical Issues** | Student does not identify relevant ethical questions, problems, or issues within the scope of inquiry | Student identifies ethical questions, problems, or issues that are within the scope of inquiry and distinguishes them from those that are not relevant, but does not present ways to addressing them | Student identifies ethical questions, problems, or issues that are within the scope of inquiry, distinguishes them from those that are not relevant, and describes potential methodologies for ameliorating or addressing ethical issues. |
| ***6: Communication***.  | **Clarity, Organ-ization** | Communication is disorganized, incoherent, vague, or inappropriate | Communication is generally focused, organized, and clear with only a few errors that do not detract from comprehension | Communication is completely focused, organized, and clear with no errors affecting comprehension |
| **Quotation, Attribution, Citation** | Quotation, attribution, and/or citation fail to follow preferred methods or formats | Student articulates working knowledge of the preferred methods or formats for quotation, attribution, and/or citation, but does not consistently follow those practices in the inquiry | Quotation, attribution, and/or citation are handled fully, appropriately, and accurately according to the preferred methods or formats |
| **Format, Level** | Communication employs incorrect, irrelevant, or inappropriate formatting; it targets the wrong level(s) or audience; or it uses the wrong (scholarly) tone | Generally, the communication follows the correct formatting and is presented at an appropriate level, targets the appropriate audience, and uses an appropriate (scholarly) tone with only a few errors. | The communication fully follows the correct formatting and is presented at an appropriate level, targets the appropriate audience, and uses an appropriate (scholarly) tone without errors. |

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**2Portions of this rubric were adapted from** American Association of Colleges and Universities VALUE rubrics as well as well as on the undergraduate student learning outcomes rubrics from the University of Houston and the University of North Carolina Chapel Hill.