

Sample Undergraduate Research Project Evaluation Rubric
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Criterion	Exemplary	Acceptable	Unacceptable
Research Question	The student has independently identified and developed a research question that provides a contribution to the scientific literature in the research area.	The student has made independent contributions and development to a general idea or project suggested by faculty advisor.	The question under study is poorly specified and/or is completely specified by the faculty advisor with no development or contribution by the student.
Role of Theory	<p>Either:</p> <ul style="list-style-type: none"> • The experiment is a novel/clever test of one or more current theories. Relevant theory is clearly and correctly explained. <p>or ...</p> <ul style="list-style-type: none"> • The experiment tests an important set of novel phenomena. The relevant background is clearly and correctly described so that the contribution of the experiment is clear. 	<p>Either:</p> <ul style="list-style-type: none"> • The experiment follows from or tests one or more current theories. Relevant theory is clearly and correctly explained. <p>or ...</p> <ul style="list-style-type: none"> • The experiment seeks to document previously unknown or little understood phenomena in the empirical literature. The relevant background is clearly and correctly described so that the contribution of the experiment is clear. 	<ul style="list-style-type: none"> • The experiment is unrelated to theory and is a poor extension of the empirical literature. <p>or ...</p> <ul style="list-style-type: none"> • The experiment is based on a misconstrual of current theory.
Logical Development of Idea or Sequence of Experiments	Logical, testable prediction(s) are identified and tested in the first experiment. One or more followon experiments are conducted to expand theoretical conclusions or rule out alternative explanations.	Logical, testable prediction(s) are identified and tested in a single experiment.	The logic underlying the experiment is incorrect, badly explained, or missing entirely.

<p>Experimental Design</p>	<ul style="list-style-type: none"> • Independent and dependent variable(s) have been identified and possible confounding factors are controlled. • The design of the experiment is novel/clever. 	<ul style="list-style-type: none"> • Appropriate independent variable(s) are used. • Adequate care has been taken to control possible confounding factors. • Appropriate dependent measure(s) are used. 	<ul style="list-style-type: none"> • Inappropriate independent and/or dependent variable(s) are used. • Adequate care has been taken to control possible confounding factors.
<p>Analysis and Presentation of Data</p>	<ul style="list-style-type: none"> • Data is appropriately reported and displayed so that relevant findings are obvious. • The data analysis technique(s) are appropriate for the type of data collected, informative with respect to the question being studied, and correctly computed. • Data analysis is sophisticated, novel, and/or difficult. 	<ul style="list-style-type: none"> • Data is appropriately reported and displayed so that relevant findings are obvious. • The data analysis technique(s) are appropriate for the type of data collected, informative with respect to the question being studied, and correctly computed. 	<ul style="list-style-type: none"> • Inappropriate and/or uninformative data are reported. • Data displays are incorrect, sloppy, or difficult to interpret. • The data analysis technique(s) are inappropriate for the type of data collected. • Data analysis is incorrectly computed.
<p>Interpretation of Results</p>	<p>The conclusions drawn are appropriate given the data and analyses conducted. Alternative interpretations are developed into follow-on experiments to further constrain conclusions.</p>	<p>The conclusions drawn are appropriate given the data and analyses conducted. Alternative interpretations are considered and either convincingly rejected or used as the basis for further research suggestions.</p>	<p>Conclusions are inappropriate given the data. Obvious alternative interpretations are omitted.</p>