

Natural Science
Core Assessment Summary Report Form

Name of Faculty Member Submitting Data: _____

Course Title, Course Number, and Section of Course where the core rubrics shown below were applied: _____

Natural Science Core Student Learning Objectives and Rubrics

Please use the following objectives and rubrics to assess student learning in your core course.

Objective 1: Students will summarize at least two laws, theories, or concepts fundamental to the discipline under study.

Rubric for Objective 1: It is expected that 75% of the students will achieve Level 1 or higher and 40% will achieve Level 2 or higher.
<i>Level 3: Exceptional understanding</i> <ul style="list-style-type: none">• The student accomplishes both additional tasks under Level 2.
<i>Level 2: Effective understanding</i> <p>The student completes all the task under Level 1 and either</p> <ul style="list-style-type: none">• shows how the law, principle or concept can be applied to a specific case or generalized to a broader range of phenomena, or• notes the problematic areas or the limitations of the theory or concept.
<i>Level 1: Adequate understanding</i> <ul style="list-style-type: none">• The student correctly states the law, theory or concept being described using appropriate terminology.• The student identifies the phenomena or general situation to which the law, theory, or concept can be applied.• The student cites two lines of evidence supporting the law, theory, or concept.
<i>Level 0: Unsatisfactory</i> <ul style="list-style-type: none">• The student fails to accomplish the tasks described under Level 1.

Objective 2: Students will apply fundamental concepts of the science being studied to explain a natural phenomenon. (Given an observation, explain it.)

Rubric for Objective 2: It is expected that 75% of the students will achieve Level 1 or higher and 40% will achieve Level 2 or higher.
<i>Level 3: Exceptional understanding</i> <ul style="list-style-type: none">• The student accomplishes both additional items listed under Level 2.
<i>Level 2: Effective understanding</i> <ul style="list-style-type: none">• The student accomplishes all of the tasks under Level 1, and either• Identifies the reasons for variation in the data set, or• Notes problematic areas or limitations in the explanation of the phenomenon.

<p><i>Level 1: Adequate understanding</i></p> <ul style="list-style-type: none"> • The student correctly identifies which principles are appropriate for the explanation. (Or is it acceptable to have the question specify this?) • The student identifies the aspects of the phenomenon that can be explained by the principle or theory. • The student correctly identifies the causal connections that allow the data to be explained by the concepts.
<p><i>Level 0: Unsatisfactory</i></p> <ul style="list-style-type: none"> • The student fails to accomplish the tasks described under Level 1.

Objective 3: Students will demonstrate through laboratory activities the ability to make measurements and interpret the results.

<p>Rubric for Objective 3: It is expected that 75% of the students will achieve Level 1.</p>
<p><i>Level 1: Adequate understanding</i></p> <p>The student correctly measures two different features in a material test or experiment and correctly relates the measurements graphically or descriptively.</p> <p>The student correctly interprets relationships between the observed features.</p>
<p><i>Level 0: Unsatisfactory</i></p> <p>The student fails to accomplish the tasks described under Level 1.</p>

Please provide a summary description of the activity or assignment to which the faculty approved Natural Science Core rubrics were applied. In the summary, please clearly and specifically identify the course activity or assignment component that addresses each objective (1-3).