

**General Education COURSE ASSESSMENT RUBRIC
Element 4: Natural Sciences (Reviewed Summer 2015)**

COMPETENCY	4-Accomplished <i>Exceeds Course Expectations</i>	3-Competent <i>Meets Course Expectations</i>	2-Developing <i>Incomplete in Meeting Course Expectations</i>	1-Beginning <i>Inadequate in Meeting Course Expectations</i>
Demonstrate an understanding of the methods used to carry out scientific inquiry <i>(GE Goal 7)</i>	Demonstrates <i>accurate & precise</i> understanding of the methods used in science.	Demonstrates an <i>accurate</i> understanding of the methods used in science	Demonstrates incomplete understanding of the methods used in science. Some errors in <i>accuracy</i> .	Demonstrates inadequate understanding of the methods used in science
Explaining the major concepts of the natural sciences <i>(GE Goal 5)</i>	Demonstrates <i>depth & breadth</i> of understanding the <i>significant & relevant</i> concepts and meaningful relationships of science	<i>Accurately</i> comprehends the <i>significant & relevant</i> concepts of science.	Incomplete or partially <i>inaccurate</i> comprehension of the <i>significant</i> concepts of science	Inadequate comprehension of the <i>significant</i> concepts of science
Applying scientific principles to make reasonable and valid conclusions <i>(GE Goal 2 & 5)</i>	Applies <i>relevant</i> scientific principles to make reasonable and valid conclusions; demonstrates <i>depth & breadth</i> of understanding	Most of the time applies <i>relevant</i> scientific principles to make reasonable and valid conclusions	Sometimes applies <i>relevant</i> scientific principles to make reasonable and valid conclusions	Does not apply <i>relevant</i> scientific principles to make reasonable and valid conclusions
Applying scientific knowledge to address issues of personal and public importance <i>(GE Goal 2,5,8)</i>	Consistently applies <i>relevant</i> scientific knowledge to address issues of personal and public importance; demonstrates <i>depth & breadth</i> of understanding	Most of the time applies <i>relevant</i> scientific knowledge to address issues of personal and public importance	Sometimes applies <i>relevant</i> scientific knowledge to address issues of personal and public importance	Does not apply <i>relevant</i> scientific knowledge to address issues of personal and public importance
Integration across course <i>(GE Goal 2,5,8)</i>	Fully integrates <i>relevant</i> information, meaningful concepts, and important principles; demonstrates <i>depth & breadth</i> of understanding	Integrates most <i>relevant</i> information, meaningful concepts, and important principles	Integrates some <i>relevant</i> information, meaningful concepts, and important principles	Fails to integrate <i>relevant</i> information, meaningful concepts, and important principles

Intellectual standards italicized in Table (Paul & Elder: Elements of Thought)

Applying the Intellectual Standards

Clarity: Understandable; the meaning can be grasped

Feedback: Could you elaborate further? Could you give an example? Could you illustrate what you mean?

Accuracy: Free from errors or distortions; true

Feedback: How could we check on that? How could we find out if that is true? How could we verify or test that?

Precision: Exact to the necessary level of detail

Feedback: Could you be more specific? Could you give more details? Could you be more exact?

Relevance: Relating to the matter at hand

Feedback: How does that relate to the problem? How does that bear on the question?
How does that help us with the issue?

Depth: Containing complexities and multiple interrelationships

Feedback: What factors make this a difficult problem? What are some of the complexities of this question?
What are some of the difficulties we need to deal with?

Breadth: Encompassing multiple viewpoints

Feedback: Do we need to look at this from another perspective? Do we need to consider another point of view?
Does we need to look at this in other ways?

Logic: The parts make sense together; no contradictions

Feedback: Does this all make sense together? Does your first paragraph fit in with your last?
Does what you say follow from the evidence?

Significance: Focusing on the important; not trivial

Feedback: Is this the most important problem to consider? Is this the central idea to focus on?
Which of these facts are most important?

Fairness: Justifiable; not self-serving or one-sided

Feedback: Do you have any vested interest in this issue?
Are you sympathetically representing the viewpoints of others?