

Natural Science Rubric

This rubric addresses the following **General Studies Program (GS)** learning outcomes: **GS 2** - apply principles of critical thinking to demonstrate integrative learning and **GS 4** – communicate effectively in written form; and the following **Natural Sciences Distribution (NS)** learning outcomes: **NS 1** – articulate the relevance of the Natural Science course to their general education; **NS 2** – explain how knowledge of natural science is applicable to their lives; **NS 3** – apply appropriate scientific methodology within one of the natural sciences; **NS 4** – evaluate the validity and limitations of scientific theories and claims; and **NS 5** – (lab courses only) analyze scientific data acquired through laboratory experiences in one of the natural sciences.

*Evaluators are encouraged to assign a **Does not meet criteria** to any work sample that does not meet Beginning-level performance.*

	Does not meet criteria for Beginning	Beginning	Developing	*Proficient	Advanced
Articulate relevance NS 1 GS 4	Cannot articulate why the natural science course is relevant.	<i>Limited</i> articulation of why the natural science course is relevant.	Articulates <i>in general</i> why the natural science course is relevant.	Articulates in <i>satisfactory detail</i> why the natural science course is relevant.	Demonstrates a <i>thorough</i> understanding of the natural science course and its relevance.
Explain how knowledge of natural science is applicable to their lives NS 2 GS 4	Cannot demonstrate how knowledge of natural science is applicable to their lives	Demonstrates a <i>limited</i> understanding of how natural science is applicable to their lives	Demonstrates a <i>basic</i> understanding of how natural science is applicable to their lives	Demonstrates a <i>satisfactory</i> understanding of how natural science is applicable to their lives	Demonstrates a <i>thorough</i> understanding of how natural science is applicable to their lives
Apply appropriate scientific methodology within one of the natural sciences NS 3 GS 2; GS 4	Cannot apply appropriate scientific methodology within one of the natural sciences	Provides a <i>limited</i> application of scientific methodology within one of the natural sciences	Provides a <i>basic</i> application of scientific methodology within one of the natural sciences	Provides a <i>satisfactory</i> application of scientific methodology within one of the natural sciences	Provides a <i>thorough</i> application of scientific methodology within one of the natural sciences
Evaluate the validity and limitations of scientific theories and claims. NS 4 GS 2; GS 4	Does not evaluate the validity and limitations of scientific theories and claims	Provides a <i>limited</i> evaluation of the validity and limitations of scientific theories and claims	Provides a <i>basic</i> evaluation of the validity and limitations of scientific theories and claims	Provides a <i>satisfactory</i> evaluation of the validity and limitations of scientific theories and claims	Provides a <i>thorough</i> evaluation of the validity and limitations of scientific theories and claims
<i>(Lab courses only)</i> Analyze scientific data acquired through laboratory experiences in one of the natural sciences NS 5 GS 2	Cannot analyze/interpret scientific data in the natural sciences	Demonstrates a <i>limited</i> ability to analyze/interpret scientific data in the natural sciences	Demonstrates a <i>basic</i> ability to analyze/interpret scientific data in the natural sciences	Demonstrates a <i>satisfactory</i> ability to analyze/interpret scientific data in the natural sciences	Demonstrates a <i>thorough</i> ability to analyze/interpret scientific data in the natural sciences

***NOTE: The category “Proficient” describes the skills of the typical student near the end of the course. Advanced is anything above proficient.**