Evidence of Learning: General Education, Physical Science Courses

Course\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

| **Gen Ed Learning Goal**  Students will demonstrate understanding of: | **Measurable Learning Outcome**  Students will demonstrate their understanding by: | **Method of Measurement**  Direct and Indirect Measures\* | **Threshold** | **Findings Linked to Learning Outcomes** | **Interpretation of Findings** | **Action Plan/Use of Results/Closing-the-loop** |
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| **Nature of Science**.  Scientific knowledge is based on evidence that is repeatedly examined, and can change with new information. Scientific explanations differ fundamentally from those that are not scientific. | Learning Outcome 1. | Measure 1: |  | Measure 1: | Measure 1 | Measure 1: |
| Measure 2: |  | Measure 2: | Measure 2: | Measure 2: |

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| **GE Learning Goal** | **Measurable Learning Outcome** | **Method of Measure.** | **Threshold** | **Findings** | **Interpretation** | **Action Plan** |
| **Integration of Science**  All natural phenomena are interrelated and share basic organizational principles. Scientific explanations obtained from different disciplines should be cohesive and integrated. |  |  |  |  |  |  |

\*At least one measure per objective must be a direct measure.

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| **Science and Society**  The study of science provides explanations that have significant impact on society, including technological advancements, improvement of human life, and better understanding of human and other influences on the earth’s environment. |  |  |  |  |  |  |

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| **Problem Solving & Data Analysis**  Science relies on empirical data, and such data must be analyzed, interpreted, and generalized in a rigorous manner. |  |  |  |  |  |  |

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| **Organization of systems**  The universe is scientifically understandable in terms of interconnected systems. The systems evolve over time according to basic physical laws. |  |  |  |  |  |  |

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| **Matter**  Matter comprises an important component of the universe, and has physical properties that can be described over a range of scales. |  |  |  |  |  |  |

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| **Energy**  Interactions within the universe can be described in terms of energy exchange and conservation. |  |  |  |  |  |  |

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| **GE Learning Goal** | **Measurable Learning Outcome** | **Method of Measure.** | **Threshold** | **Findings** | **Interpretation** | **Action Plan** |
| **Forces**  Equilibrium and change are determined by forces acting at all organizational levels. |  |  |  |  |  |  |