

GENERAL EDUCATION Category 2: Natural Science

The goal of this category is to provide students with an understanding of the process of scientific inquiry, some of the major scientific theories and their application to modern life. Students will practice the methods of science in a laboratory experience.

STUDENT LEARNING OUTCOMES

Students will demonstrate:

1. an understanding of the methods scientists use to explore natural phenomena, including observation, hypothesis development, measurement and data collection, experimentation, evaluation of evidence, and employment of mathematical analysis;
2. knowledge of the principles of one or more of the natural sciences;
3. the ability to apply scientific data, concepts and models in one or more of the natural sciences, and relate the relevant technology and principles they have studied to modern life.

GE 2 Natural Science Rubric

Elements	Target	Acceptable	Unacceptable
SLO 1: an understanding of the methods scientists use to explore natural phenomena, including observation, hypothesis development, measurement and data collection, experimentation, evaluation of evidence, and employment of mathematical analysis;	Student demonstrates a clear and thorough understanding of the research process scientists use to explore natural phenomena.	Student can connect experimental observations to valid and invalid models and draw conclusions from that data about how the natural world functions.	Student understanding of the methods scientists use to explore natural phenomena is incomplete or inaccurate due to major conceptual flaws.
SLO 2: knowledge of the principles of one or more of the natural sciences;	Student demonstrates thorough and detailed understanding of the principles of one or more of the natural sciences and cites evidence that supports those principles.	Student demonstrates a basic or general understanding of the principles of one or more of the natural sciences.	Student knowledge of the principles of the natural sciences is incomplete or inaccurate due to major conceptual flaws.
SLO 3: the ability to apply scientific data, concepts and models in one or more of the natural sciences, and relate the relevant technology and principles they have studied to modern life	Student demonstrates thorough and detailed ability to apply the methods of science to modern life.	Student demonstrates a basic ability to apply the methods of science to modern life.	Student demonstrates an incomplete or inaccurate ability to apply the methods of science to modern life.