

# Scientific Ways of Knowing Component

## Unit Assessment Document

**Goal/Outcome:** *Students will meet the General Education Learning Outcomes for the Scientific Ways of Knowing Component*

### Objective A

Students will apply foundational knowledge and models of a natural or physical science to analyze and/or predict phenomena (GELO i).

- Assessment Method- Instructor-identified assignment, exam, or project
- Benchmark- 75% of students will meet or exceed end-of-course expectations
- Data Sources- Science Assessment Committee review of 25% of assignments/exams/papers from all courses
- Relevant Dates- Data collection FA15; review SP16

### Objective B

Students will demonstrate that they understand the scientific method and apply scientific reasoning to critically evaluate arguments (GELO ii).

- Assessment Method- Instructor-identified assignment, exam, or project
- Benchmark- 75% of students will meet or exceed end-of-course expectations
- Data Sources- Science Assessment Committee review of 25% of assignments/exams/papers from all courses
- Relevant Dates- Data collection FA16; review SP17

### Objective C

Students will interpret and communicate scientific information via written, spoken and/or visual representations (GELO iii).

- Assessment Method- Instructor-identified final assignment, exam, or project
- Benchmark- 75% of students will meet or exceed end-of-course expectations
- Data Sources- Science Assessment Committee review of 25% of assignments/exams/papers from all courses
- Relevant Dates- Data collection FA15; review SP16

### Objective D

Students will describe the relevance of specific scientific principles to the human experience (GELO iv).

- Assessment Method- Instructor-identified final assignment, exam, or project
- Benchmark- 75% of students will meet or exceed end-of-course expectations

- Data Sources- Science Assessment Committee review of 25% of assignments/exams/papers from all courses
- Relevant Dates- Data collection FA16; review SP17

### Objective E

Students will form and test a hypothesis in the laboratory or field using discipline-specific tools and techniques for data collection and/or analysis (GELO v).

- Assessment Method- Instructor-identified final assignment, exam, or project
- Benchmark- 75% of students will meet or exceed end-of-course expectations
- Data Sources- Science Assessment Committee review of 25% of assignments/exams/papers from all courses
- Relevant Dates- Data collection FA17; review SP18