

## Course Outcomes Guide

**Directions:** Please complete this form to document your progress toward improving student learning. For each item, indicate your progress and your anticipated next steps. Thank you!

**Course/Program Title:** PHS111  
Earth and Space Science

**Date:** June 2016

**Course/Program Team:** Adjuncts: C. Crawford, D. Burr

### Expected Learning Outcomes

1. Know, understand, and relate terms and content of each course to real life situations, case studies, and science learned in a previous course.
2. Utilize technology appropriately to communicate course concepts and to analyze experimental data.
3. Design and conduct experiments based on the scientific method; analyze and interpret results of these experiments
4. Understand different methods of assessing student performance in science classes, for example, rubrics, laboratory reports, and exams.
5. Know and understand the relationship of science to other human values and endeavors
6. Access, process, analyze and synthesize scientific information

**Assessment** (How do or will students demonstrate achievement of each outcome? Please attach a copy of your assessment electronically.)

1. In-class exams and quizzes with combination of multiple-choice, short answer, and essay.
2. Written laboratory worksheets with a grading rubric.
3. Written laboratory mid-term and final exams.
4. Various homework assignments.
5. Comprehensive final exam.

**Validation** (What methods have you used or will you use to validate your assessment?)

In the past we offered only one section of this course once per year so we have only been using our standard exams. Spring 15 we taught two sections and used the same final exam for both sections.

**Results** (What do your assessment data show? If you have not yet assessed student achievement of your learning outcomes, when is assessment planned?)

This is the first time we are reporting any data for this course. We are still working on the process. Instructor has noted that students are weakest in understanding reactions and reaction mechanisms.

**Follow-up** (How have you used or how will you use the data to improve student learning?)

Instructors will use the detailed analysis of the exams to help improve their teaching styles and content delivery for the course.

**Budget Justification** (What resources are necessary to improve student learning?)  
We will need resources to purchase any standardized exams we decided to use.

**Course: PHS111**

**SLOA Data**

**Faculty Team: N. Thorpe, C. Crawford**

	SP 2015	SP 2016										
# Active students	29											
% W												
*% walk-away Fs No final exam/grade = F	0	0										
% Success (A,B,C)												
Mean Common Lab Practical Score	92.9	93.9										
Common Comprehensive Final Exam Score	80.5	70.1										
Gen Ed Assessment	86.3	85.9										
Mean course grade												
Item Analysis <b>Weakest Content Areas</b>												

\*% Walk-away Fs = Did not take the final exam and received a grade of F.

**Content Areas**