Please complete this page for each Student Learning Outcome (minimum of 3) for each of your degree programs.

Degree Program Title: Department of Physics and Astronomy

Degree Type: ____________________

Banner/CIP Code: ____________________

STUDENT LEARNING OUTCOME #

1. STUDENT LEARNING OUTCOME (SLO): What will a student be able to do, what knowledge, skills, values will they have, etc., upon graduation from the program that will be assessed? A Student Learning Outcome is a clear concise statement that describes how students can demonstrate their mastery of some element of the academic program goals.

2. LINKS TO CURRICULUM & PROGRAM FACULTY. What courses support this SLO? How do all program faculty participate in setting the goals, content and learning outcomes of these courses? How do all program faculty participate in analyzing and making recommendations based on the results of student assessments?

3. ACTION PLAN: STRATEGIES/METHODS FOR OBSERVING STUDENT LEARNING. How will data be collected, analyzed, shared? How will faculty observe the accomplishment of this outcome? Please provide specific descriptions for how, when, how often, what course(s), what student performances will be observed, collected and analyzed. Please provide or attach any descriptions of your ACTION PLAN OR PROCESS addressing the who, what, when, where questions for the assessment program.

4. CRITERIA FOR SUCCESS: MEASURES & TARGETS. What are the standards of progress or criteria used for judging success for the student learning assessment observations? Please attach any assessment tools, standards (rubrics) or other documents used to judge success or achievement of the outcome.

These two additional reports for questions 5&6 below will be due in May 11, 2012

5. ACHIEVEMENT SUMMARY: FINDINGS & RESULTS. What are the results of the assessment of this learning objective thus far? Be sure to include the year of the assessment, attach any relevant reports, data tables, etc. Please be specific in your descriptions. Indicating that n% students took a test or passed an oral exam is not an example of assessment findings.

6. PROGRAM ENHANCEMENT. How has assessment data been used? Please give examples over the last 3 years. What are the specific mechanisms for communicating results and changing courses, curriculum, learning activities within a course, etc.

Review and Approval Signatures & Date:
Program Coordinator if applicable
Department Chair
Dean

[Signatures and dates]
Texas A&M University-Commerce

Detailed Assessment Report
2011-2012 Department of Physics & Astronomy

Goals without Outcome/Objective Relationships Specified

G 1: Quality Instruction
Provide quality undergraduate instruction to prepare students with broad physics knowledge for careers or higher level education.

G 2: Practical Skills
To give students adequate skills to effectively approach and solve physics questions and problems, and the abilities necessary to use common laboratory equipment for physics research and analysis.

G 3: Communicating Ideas
Students will be sufficiently prepared so they will be able to effectively communicate physics theories and ideas both orally and through written material.

Student Learning Outcomes/Objectives, without Goals, along with Any Associations and Related Measures, Targets, Findings, and Action Plans

SLO 1: Think critically
The student will demonstrate the ability to think critically and to use appropriate concepts to analyze qualitatively problems or situations involving physics

Related Measures

M 1: Exams
Assessment of student knowledge will be done through the administration of exams
Source of Evidence: Standardized test of subject matter knowledge

M 2: Written Material
Assessment of student knowledge and experimental techniques will be done by written laboratory assignments and homework
Source of Evidence: Written assignment(s), usually scored by a rubric

SLO 2: Mathematical techniques
The student will demonstrate the ability to use appropriate mathematical techniques and concepts to obtain quantitative solutions to problems in physics.

Related Measures

M 1: Exams
Assessment of student knowledge will be done through the administration of exams
Source of Evidence: Standardized test of subject matter knowledge

M 2: Written Material

Assessment of student knowledge and experimental techniques will be done by written laboratory assignments and homework
Source of Evidence: Written assignment(s), usually scored by a rubric

SLO 3: Collect and Analyze Data

1. In courses involving laboratory, the student will demonstrate the ability to collect and analyze data and to prepare coherent reports of his or her findings.

Related Measures

M 2: Written Material
Assessment of student knowledge and experimental techniques will be done by written laboratory assignments and homework
Source of Evidence: Written assignment(s), usually scored by a rubric

M 3: Practical Knowledge
Students will demonstrate their ability to perform and design projects/experiments through successfully completing two semesters of the advanced physics laboratory courses.
Source of Evidence: Project, either individual or group