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

Degree Program Title: **MS Physics**  
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:  

[Signature] 2/22/2012  
[Signature] 2/23/2012
Please complete this page for each degree program, graduate and undergraduate.

Student Learning Outcomes Check Sheet

Due 24 Feb 2012

Degree Program Title: ____________________ Degree Type: ____________________

Banner/CIP Code: ________________

Responsible Program Coordinator/Chair completing this form: ____________________

A. Program MISSION Statement: What body of knowledge and/or what skills and qualities will graduates from this program possess upon completion of the degree?

B. Does this program have any culminating experience or capstone course that would capture the cumulative knowledge and accomplishments of graduates of your program? If so, please describe the process by which faculty participate in the design and evaluation of the course and its products/experiences.

In the attached pages, please provide the learning outcomes the faculty as a whole expects from graduates from the program. While you may choose as many outcomes as you wish, it is often a good strategy to focus on the most important goals for students in the first few years of your Student Assessment Program. For example, two or three of the most critical goals would be a good starting point. Please complete questions 1-6 for each Student Learning Outcome you are assessing or plan to evaluate in the next review period on the attached sheet.
Texas A&M University-Commerce

Detailed Assessment Report
2011-2012 MS, Physics

Goals without Outcome/Objective Relationships Specified

G 1: Increase the number and quality of students
   The physics department currently has 6 full-time and 3 part-time MS students. It is
   the departments desire to increase our full-time enrollment to about 15 by 2012.
   About half of them will be supported as graduate Teaching Assistants and the other
   half as Research Assistants.

G 2: Establish a national reputation for high quality
   Texas A&M Commerce physics MS program is the only graduate program in the
   physics discipline outside College Station within the Texas A&M University System.
   It is the departments desire to strive for developing the MS program as
   being nationally recognized for its high quality standards.

G 3: Enhance multi-disciplinary programs
   The physics department shall enhance existing multi-disciplinary programs as well
   as to develop new ones especially in the areas of computational and engineering
   physics. We will also participate actively in developing professional MS degrees in
   collaboration with other departments.

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

O/O 1: Building a stronger MS physics program
   To build a stronger MS program in physics, it is essential to sustain a stable
   enrollment of high quality students who have a solid physics background from
   their undergraduate studies, are motivated to learn and contribute to cutting-
   edge research. We shall increase the enrollment and enhance the quality of
   students by recruiting more aggressively both nationally and
   internationally, increasing the number of our own physics undergraduate
   students actively involved in research with our faculty members, and working
   closely with the university administration to increase quickly the pay for graduate
   assistants (currently the physics graduate students at TAMU-Commerce is paid
   less than 1/2 of what is being paid at the Department of Physics at TAMU-
   College Station) for us to be more attractive and close to be competitive in pay
   compared to other physics departments at near by institutions.

O/O 2: Mastering basic theories and experimental skills
   Graduates will demonstrate that they have a thorough understanding
   of fundamental theories and laws and mastered basic experimental skills in
   physics and related disciplines.

O/O 3: Demonstrate competency in problem solving skills

Graduates will demonstrate competency in applying physics theories and experimental skills in solving practical problems in industry, research and development as well as daily life

O/O 4: Demonstrate competency in communication skills
Graduates will gain and further develop communication skills necessary to effectively communicate technical information in both oral and written form.

O/O 5: Demonstrate competency in research methods
Graduates will become competent in physics research methods and demonstrate the ability to critically review research with the intent of publishing the findings or applying the results in appropriate areas.

O/O 6: Prepared to become lifetime self-learners
Graduates will be well prepared to pursue a lifetime of self-directed learning and professional development in physics and related fields.