Please provide the mission statement for the School/Department.

The mission of the Department of Physics and Astronomy is to train students in the use of concepts of physics and astronomy and the associated technologies for educational, scientific, and industrial purposes.

Outcome 1

Students will demonstrate basic knowledge in all the major areas of physics, including mechanics and relativity, electromagnetism, statistical thermodynamics, optics and waves, quantum mechanics, and atomic physics.

This learning goal addresses critical thinking, information technology, competency in mathematics, and competency in the philosophy and methods of science.

Measure 1.1 (Direct)

The major field test will be used to assess student knowledge of physics content.

Performance Criterion 1.1

Students will take the major field test just in the student’s final semester and score above the 50 percentile level.

Measure 1.2 (Direct)

The departmental assessment committee will design a test for each of the four central core courses-PHYS 3311, PHYS 4321, PHYS 4310, & PHYS 4350 (Mechanics, Electromagnetism, Statistical Thermodynamics, and Quantum Mechanics) for our majors and that test will be administered at the end of the class, and during the student's final semester.
Performance Criterion 1.2

On 4 departmental core courses, students score at least a 50% on an internal-generated test both at the time of the course and at graduation.

Outcome 2

Students will demonstrate basic competency in independent research and effective communication skills. Students must be able to define a research question, to develop a research plan, to conduct the research and to present the research work effectively.

This learning goal addresses critical thinking, information technology, competency in mathematics, and competency in the philosophy and methods of science.

Measure 2.1 (Direct)

The majors must take PHYS 4111/4211 (Advanced Laboratory I) and PHYS 4190 (Seminar).

As part of this experience all students will be required to prepare a paper and make a presentation demonstrating the ability to define a valid research question, to design research methods, and to deliver the outcomes.

Performance Criterion 2.1 (Required, and a second one is recommended.)

The departmental assessment committee will devise a rubric for evaluating the written paper and the presentation of their research question and plan.

Students should get a grade of B or above.

Measure 2.2 (Direct)

The majors must take PHYS 4289/4389/4489 (Undergraduate research). Students are encouraged to give a talk to in-campus or out-of-campus conference.

Performance Criterion 2.1 (Required, and a second one is recommended.)

Individual faculty members evaluated students' performance based upon the submitted report in the class. They also had regular meetings with students to assess the progress throughout the semester. No measurable tool was applied for this objective.

Our assessment cycle tends to follow a three year cycle. We have previously submitted data for the 2010-2012 academic years. Due to the merger with Applied Sciences and the restructuring of the college into CALS, we are still in the middle of our current cycle and will not have our complete 2013-2015 data until the following academic year.