

**MAJOR FIELD ASSESSMENT PLAN
B. S. PHYSICS**

The mission of Southeastern Louisiana University is to meet the education and cultural needs, primarily of Southeast Louisiana, to disseminate knowledge and to facilitate life-long learning through quality instruction, research and service in a safe, student-centered environment.

The purpose of the B.S. in physics is...

Goal 1

To provide student with strong knowledge of the field of chemistry.

Expected Outcome

Graduating seniors should have an adequate knowledge of the various subfields of classical and modern physics and should have some knowledge of the landmarks in the development of classical and modern physics.

Assessment

- a. The ETS's MFAT in physics will be given to all physics majors in the spring of the semester in which they complete their junior and senior level physics courses. This sequential testing is expected to show individual improvement. At least 75% of physics majors should improve by 25 percentile points between the first semester and the semester in which they complete their physics course work.
- b. Pre-test and post-test will be given to majors in the calculus based introductory physics course to measure their "gain" in learning and understanding of concepts in Mechanics. Results will be compared to the scores obtained at other schools.

Goal 2

To provide physics majors with the skills needed to conduct research

A. Expected Outcome

Graduating seniors should:

1. have problem solving skills
2. be competent in laboratory methods
3. be competent in mathematics and the use of computers
4. have an appreciation for the collaborative nature of scientific research and

learning

Assessment

- a. Students will maintain a 2.0 grade point average in their mathematics and computer science course work.
- b. Students will have satisfactory performance in an evaluation by a faculty committee.

Goal 3

To foster positive attitudes towards physics.

Expected Outcome

Majors should feel that they have been given every reasonable opportunity to learn and grow as a physicist and that the physics faculty were concerned about their progress and performance and made themselves available to offer assistance.

Assessment

A departmental instrument has been developed to assess the attitudes of physics majors toward the physics faculty and curriculum. At least 60% of the graduating seniors should respond favorably to 50% of the indicator questions.