

Revised April 7, 2009

Major Field Assessment Plan
B.S. Science Education (Chemistry and/or Physics)

The mission of Southeastern Louisiana University is to meet the education and cultural needs of Southeast Louisiana (primarily), 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 Science Education is to prepare students for a career in teaching high school physical science by means of preparing them with the appropriate content knowledge and pedagogical methods.

Goal 1

To provide students with knowledge in the field of chemistry and/or physics.

A. Expected Outcome

Students completing the undergraduate program in science education will compare very favorably on a national basis with other seniors graduating in science education.

Graduates in Science Education (Physics) will be able to demonstrate problem-solving and laboratory skills in the areas of classical mechanics, thermodynamics, electricity and magnetism, optics, special relativity, elementary quantum mechanics. Graduates in Science Education (Chemistry) will be able to demonstrate problem-solving and laboratory skills in the areas of general, inorganic, organic, analytical, physical, and biological chemistry.

Assessment

Seventy five percent of the graduates in Science Education (Chemistry and/or Physics) with a cumulative GPA greater than 3.0 in their major will pass the PRAXIS exam within one year of graduation. Seventy five percent of the graduates in Science Education (Chemistry and/or Physics) with a cumulative GPA less than 3.0 in their major will pass the PRAXIS exam within two years of graduation.

B. Expected Outcome

Graduates will respond very favorably to the Science Education curriculum and overall learning environment.

Assessment

- a. Ninety percent of the graduates in the science program will be satisfied with their chemistry and physics instruction, as indicated on the Southeastern Exit Survey.

Goal 2

To develop a comprehensive understanding of the professional aspects of teaching physics and/or chemistry.

Expected Outcome

Students completing the undergraduate program in science education will demonstrate awareness of the diverse nature teaching the physical sciences by means of exposure to innovative methods, as well as having the opportunity to implement their own pedagogical techniques.

Assessment

Eighty percent of the graduates from the science education program will feel they were given opportunities and support for learning and developing their own pedagogical methods while a student at Southeastern as evidenced by the Southeastern Exit Survey.

Goal 3

To prepare students for career-based employment and/or graduate study.

Expected Outcome

One year after graduation, the majority of graduates will have career-based employment or will be in graduate school.

Assessment

At least sixty percent of the graduates of the physics program will have career employment or will be enrolled in graduate school as evidenced by the Southeastern Chemistry and Physics Post Exit Survey.

Note

Science Education majors receive a multicultural global perspective through their participation in the seminar program, their involvement in undergraduate research, and by their attendance and presentations at professional meetings.

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GOAL ATTAINMENT FRAMEWORK

B.S. Science Education (Chemistry and/or Physics)
Department of Chemistry and Physics

Academic Years 2005-06, 2006-07

Fall 2007

| Expected Outcome | Much Less than Expected | Less than Expected | Expected | More than Expected | Much More than Expected |
|--|-------------------------|--------------------|----------|--------------------|-------------------------|
| % of graduates with a cumulative GPA > 3.0 passing the PRAXIS exam within one year | | | 75% | | |
| % of graduates with a cumulative GPA < 3.0 passing the PRAXIS exam within two year | | | 75% | | |
| % of graduates satisfied with their physics and chemistry instruction, as indicated on the Southeastern Exit Survey | | | 90% | | |
| % of graduates who feel they were given opportunities and support for learning and developing their own pedagogical methods while a student at Southeastern as evidenced by the Southeastern Exit Survey | | | 80% | | |
| % of graduates who have career employment or will be enrolled in graduate school as evidence by the Southeastern Chemistry and Physics Post Exit Survey | | | 60% | | |