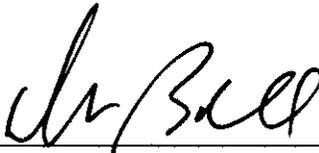


# **Program Planning Summary**

## **Lander University**

**Proposes to Offer a Teacher Certification  
Concentration to its Existing B.S. Degree in Chemistry**

**Submitted to:  
South Carolina Commission on Higher Education**



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Daniel W. Ball, President

Date of Submission 1 Nov 06

## **Proposal: Secondary Teacher Certification Concentration: Chemistry**

### **Total Credit Hours in the Proposed Concentration**

Currently, a Lander student may obtain the BS in Chemistry by successfully completing 125 Credit Hours of course work, as outlined in Lander's current catalog. Addition of the proposed *Teacher Certification Concentration* to Lander's existing Chemistry degree program, including requirements to meet EEDA legislation requirements, is expected to raise the total number of hours required to obtain the BS in Chemistry with secondary teacher certification to 130 credit hours of course work.

Information on Current BS degree program in Chemistry:

- General education core courses (42 – 48 credit hours)
- Chemistry Core courses (35 credit hours)
- Chemistry and Cognate Electives (15 to 16 Credit Hours)
- General Electives (15-24 Credit Hours)

Proposed Secondary Teacher Education Certification:

- All developed or modified existing courses will
  - meet NSTA, NCATE and South Carolina Department of Teacher Education standards for secondary teacher preparation programs
  - include recently passed EEDA legislation requirements
  - and provide 100 hours of clinical (practicum) experience prior to 60 full days of student teaching (25-31 credit hours)
- A number of NSTA required competencies are expected to be met by a number of courses within the university's current required general education coursework.
- Courses in the current degree program, which meet Lander University, Chemistry Core Competencies, and Advanced Competencies, also meet NSTA Unifying Concepts;
- The addition of a secondary science methodology (3 credit hours) is expected to be added.

**Proposed date of implementation:** Fall, 2007.

### **Justification of need for the proposed program;**

Currently, there is a critical need for secondary chemistry teachers in South Carolina, as recently documented by the US Department of Education (<http://www.ed.gov/about/offices/list/ope/pol/tsa.doc>). The demand for chemistry teachers has been on the increase in recent years and can be documented within a number of South Carolina agencies that include PACE (current web listing 2002 to 2006), CERRA, SREB, and the SC Student Loan Association. On a national level South Carolina is listed within the "Teacher Shortage Areas Nationwide Listing" distributed by the U.S. Dept. of Education and having a specific entry for chemistry covering the years, 2004 – 2006.

To recruit students to teach in a critical needs area such as chemistry, the State of South Carolina has established a number of initiative and incentive programs. For example, the South Carolina Teacher Loan Program offers financial incentives in the manner of loan cancellations for those who choose to teach in high-need schools and critical subject areas. In addition, the Federal Government recently funded a new grant program (SMART grants), which target science disciplines, including chemistry.

Graduates from the proposed program will help fill the demand, including positions opening from the increasing number of retiring teachers. As was recently reported in the October, 2006 edition of Center Point (CERRA), the proposed program will support the effort proposed by the National Board of Certified Teachers for a “growing our own” teacher community.

### **Anticipated program demand and productivity;**

The existing chemistry program has had an average of over 44 majors for the last five years. Our projections, based on demand and interest we have seen, are that we will add at least 6 majors per year to the program that will pursue the secondary certification option, and the number of majors will average 68 in four years time.

The following U. S. Dept. of Education projection reports support an increase in the demand for the program, which should also meet CHE productivity standards for enrollments and graduates:

#### Projections of Education Statistics to 2008:

“Between 1996 and 2008, public high school enrollment in the South is projected to increase by 16 percent. Over the projection period, increases are expected in Delaware (20 percent), Florida (21 percent), Georgia (23 percent), Maryland (16 percent), North Carolina (27 percent), South Carolina (13 percent),”

#### Projections of Education Statistics to 2012. Thirty-first Edition:

“Between 1999–2000 and 2011–12, the number of public high school graduates in the South is projected to increase by 11 percent. The largest increases are expected in Florida (27 percent), North Carolina (22 percent), and Virginia (24 percent).”

These statistics indicate growth not only for South Carolina high school enrollments but also in neighboring states. Higher enrollments in South Carolina high schools are projected to increase the demand in critical needs areas such as chemistry.

### **Assessment of extent to which the proposed program duplicates existing programs in the state;**

As is listed in the South Carolina Dept. of Education Approved Educator Preparation Programs web pages, the following institutions have undergraduate secondary chemistry teacher preparation programs: Clemson University, USC-Aiken, and USC-Columbia. In addition, Converse College “offers the Bachelor of Arts degree in the following teacher education programs: art (PK-12), science (biology, chemistry, and physics) (9-12), ... Those who wish to teach on the secondary level complete a 30-hour minor (32 for science teachers) in secondary education (Converse College catalog).

The design of Lander’s proposed program will incorporate a research directed framework to complement the existing chemistry curriculum. The objective of the proposed program is to produce graduates who will be able to effectively teach content, engage their high school students in science related activities such as science fairs, and collaborate with their colleagues in writing grants.

Providing a research directed framework for the secondary chemistry teacher certification program will address the issue of high quality teachers at the high school level. In the August 2006, SDE Revised State Plan for Meeting the Highly Qualified Teacher Goal, 22.74% of courses in chemistry for the technologies had non-HQ Teachers. Lander’s proposed programmatic framework coupled with

incentives put forth by the State of South Carolina will be used to recruit, retain and graduate highly qualified secondary chemistry teachers.

**Relationship of the proposed program to existing programs at the proposing institution;**

Currently Lander University offers secondary teacher certification in Spanish, Social Studies, Physical Education, Art, English, Music, and Mathematics. The secondary chemistry certification program will provide a science dimension to these secondary certification programs at Lander University.

Assessments proposed for the secondary chemistry teacher certification will complement the existing assessments within the Lander University chemistry major curriculum.

The SDE ADEPT system and the Lander University Department of Education Learner Outcomes will be addressed primarily through secondary certification course work.

**Relationship of the proposed program to other institutions via inter-institutional cooperation;**

Although the secondary chemistry teacher certification program will be offered to students enrolled at Lander University campus, in Greenwood, SC, the University will work with four-year public and private colleges and universities, as well as all two-year technical colleges within the state to ensure students will be able to transfer appropriate coursework from their current institution to Lander.

**Total new costs associated with implementing the proposed program (general estimates only);**

All courses for the proposed program will supplant existing certification coursework, except for the secondary science methods course, which is now being designed. In 2005, the University restructured the administrative organization for its secondary certification programs and hired a coordinator for all of its secondary certification programs. The salary for this position is covered for four years through a grant the university has received from a private foundation interested in strengthening science and mathematics education in the state. Within four years, the productivity of the University's secondary certification programs is expected to provide tuition revenue to cover the cost of the position. The University, therefore, will not seek additional funding from the State for this position. No new funding will be requested for this program.