

## **Program Planning Summary for the Proposal to Add a Bachelor of Arts in Physical Science Education at The Citadel**

**Proposed Date of Implementation: Spring 2009**

### **Introduction**

The Citadel's Departments of Chemistry and Physics in collaboration with School of Education are pleased to submit a Program Planning summary for a new program: A Bachelor of Arts in Physical Science Education. We submit this planning summary following a very successful state and NCATE focus visit and review (September 30-October 2, 2007), and with the understanding that consideration of this proposed program is contingent upon a full accreditation ruling by NCATE's Unit Accreditation Board in April 2008.

### **Justification of Need for the Proposed Program**

The Schools of Education and of Science and Mathematics at The Citadel recognize that a critical need exists in South Carolina and the tri-county (Berkeley, Charleston and Dorchester) area for middle and secondary teachers of physical science. On January 9, 2007 the Transition Leadership Team's Committee on the Teaching Profession issued a report addressing "teacher preparation, recruitment and retention, professional development, and leadership" in contributing to the development of a qualified teaching workforce. The committee added, "South Carolina and the nation as a whole are facing a critical shortage of qualified teachers. The shortage is especially acute in math, physical sciences, foreign languages, and special education ..." In the Lowcountry, no undergraduate program currently exists to prepare physical science teachers.

The South Carolina Department of Education chose Physical Science as the foundational science course at the secondary level. This was approved by the South Carolina Legislature in 2004. All students enrolled in South Carolina High Schools must complete one unit of Physical Science prior to taking the 10<sup>th</sup> grade exit examination. In 2005 the United States Department of Education approved South Carolina's use of Physical Science as the assessment instrument under the No Child Left Behind Act.

The Chemistry and Physics Departments at The Citadel are partnering with the School of Education and area schools in the development of this physical science teacher preparation program. The Schools of Science and Mathematics, Engineering, and Education have joined through the Science, Technology, Engineering and

Mathematics (STEM) initiative to enhance the learning experiences for Lowcountry students and to increase the content competencies of teachers.

To support this initiative and address the documented need for teacher preparation programs in this area, The Citadel proposes to add a Bachelor of Arts Program in Physical Science Education.

### **Anticipated Demand**

Based upon past expressed student interest and current enrollments in science, mathematics and engineering, we anticipate a steady state enrollment of 8 -12 in the Physical Science Education Program.

### **Duplication**

As previously mentioned, a program for the preparation of physical science teachers does not exist in the Lowcountry. The College of Charleston offers a M. Ed. in Science and Math Teaching, but no undergraduate program.

### **Costs**

We foresee limited additional costs. All of the science content courses for this program are already offered in the Chemistry, Biology and Physics departments for their majors. We would need to add a course in laboratory design and one in Earth Sciences. The laboratory design course will also satisfy requirements for the proposed Biology Education Major. Several years ago when the Chemistry Department offered a Geology course, it was well-attended. Faculty support for the Earth Science course may come from the Civil Engineering Department. Both of these courses will also be open to other students.

### **Summary**

The Citadel proposes to establish a Bachelor of Arts in Physical Science Education based upon the documented critical need of physical science teachers in South Carolina and the lack of programs in the Lowcountry to address these needs. Currently, The Citadel has existing programs in English, History, Biology, and Mathematics which have provided distinguished graduates for the state and the region over the years. We believe The Citadel is uniquely situated to provide the program and resources to produce successful teacher/leaders in physical science education.

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Date

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Tony W. Johnson , Ph.D.  
Dean of the School of Education at The Citadel

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Date

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Lieutenant General John W. Rosa (USAF, ret.)  
President, The Citadel