

**Program Planning Summary
Clemson University**

MAT Secondary Education Science and Mathematics

A handwritten signature in black ink, appearing to read "James F. Barker", is written over a horizontal line. The signature is cursive and includes a long horizontal stroke extending to the right.

James F. Barker
President
Clemson University

February 1, 2008

MAT Secondary Education Science and Mathematics Program Planning Summary

Designation: Program Modification

The MAT program in Secondary Education Mathematics and Science is a program modification to an MAT program previously approved by the CHE. The modification will adjust some of the courses in the program, limit the content areas to mathematics and science, and allow Clemson University to be the sole institution providing the program, a change from the original coalition approved to offer the MAT. The program will now require 42 semester hours. The program will be taught both at the University Center of Greenville and through a blended distribution of distance education methodologies as well as traditional courses at UCG.

Designation as qualified for supplemental awards: N/A

Proposed Date Of Implementation

January 2009, with the first cohort graduating in May, 2010.

Justification Of Need

The shortage of highly qualified secondary mathematics and science teachers is well documented. Due to the high percentage of teachers who will be eligible to retire in the next five years, the shortage of secondary mathematics and science teachers in the coming years is predicted to be even more severe than it currently is. Through this program, we will help mitigate this.

Anticipated Program Demand And Productivity

We anticipate that this program will attract 24 students, 12 in mathematics and 12 in science, each year. The intent is that these students will be mature, well-trained professionals with degrees in mathematics, science, or related fields, who wish to change careers in order to become secondary teachers. We expect some attrition, reducing the expected number of graduates to 10 mathematics teachers and 10 science teachers each year.

Assessment Of Extent To Which The Proposed Program Duplicates Existing Programs In The State

According to the Commission on Higher Education website, several colleges and universities in South Carolina (Bob Jones University, Charleston Southern, Coastal Carolina, Converse College, South Carolina State University,

the Citadel, the University of South Carolina at Columbia, and Winthrop University) offer MAT programs in mathematics and science for secondary education. However, even with these programs, the demand for additional secondary mathematics and science teachers continues to grow. Further, this program will be distinctive both because it will have a significant number of courses offered on-line and it will focus on contextually relevant, inquiry-based strategies that will make mathematics and science relevant to the future students of the program's graduates.

Relationship Of The Proposed Program To Existing Programs At The Proposing Institution

This MAT program will share facilities and some administrative support with Clemson's current MAT program for middle grades education housed at the University Center in Greenville. It will also employ current mathematics and science education faculty, but will draw students from an entirely different population.

Relationship Of The Proposed Program To Other Institutions Via Inter-Institutional Cooperation

The program will be run entirely by Clemson University. No other institutions will be involved.

Total New Costs Associated With Implementing The Proposed Program (General Estimates Only)

The start-up costs for the program are estimated to be approximately \$100,000 for the first year. After the first year, the program will be self sustaining through tuition dollars.