

PROGRAM MODIFICATION FOR

**Master of Arts in Teaching
in
Secondary Education
Mathematics and Science**

Clemson University

August 1, 2008



James F. Barker FAIA, President, Clemson

Program Contact:

Bob Horton, Coordinator of Secondary Education
409B Tillman Hall, Clemson University
Clemson, SC 29634-0705
Phone: 864.656.5127. Fax: 864.656.1322
Email: bhorton@clemson.edu

Master of Arts in Teaching for Initial Certification in Secondary Education in Mathematics and Science

Classification

The proposed Master of Arts in Teaching (MAT) in Secondary Education is a modification to an existing MAT program.

Academic Unit:

Eugene T. Moore School of Education, Clemson University

Designation, type, and level of degree: Master of Education (M.Ed.)

Proposed Date of Implementation: June 2009

USOE Taxonomy of Instructional Programs in Higher Education: 13.1205 (Secondary Education and Teaching).

Students in this program are not eligible for the supplemental Palmetto Fellows and Life Scholarships.

Delivery Mode: The program will incorporate both online and face-to-face instruction in a blended technology format. Face-to-face instruction will be offered primarily in the Greenville area, especially at the University Center in Greenville.

Justification

The program was initially conceived through a consortium of four universities (The Citadel, Clemson University, South Carolina State University, and The University of South Carolina) as the South Carolina T3 (Transition to Teaching) Coalition. This modification will limit the offering to Clemson University. Furthermore, the initial program led to teacher certification in English, mathematics, and science; with this proposal, the program is limited to mathematics and science. The Citadel, South Carolina State, and the University of South Carolina all have operational MAT programs. However, the nature of this program is distinct and will draw candidates from a different pool as it will seek mature, career changing adults from not only South Carolina, but from throughout the region and even the nation. Even at full capacity, the demand for highly qualified secondary mathematics and science teachers will remain great.

The curriculum was developed over three years and was designed to meet the standards and requirements of a high-quality Master's- level initial teacher certification program.

The need for more teachers, particularly in secondary science and mathematics, is growing. Approximately 25% of new teachers leave the profession within five years, and experts predict that more than 2,000,000 new teachers will be needed in the next decade across the nation. Science and mathematics are especially critical areas, with the current demand outstripping the supply. Through this program, and by offering portions of it online and in the Greenville area, which has a considerably larger potential client base than the immediate Clemson area, we will help alleviate this shortage. The MAT Program will recruit, train, place and follow up with career-changing professionals who wish to become teachers. By also offering the initial portion of the program online, the program will seek to attract career changers, particularly those who have had successful careers in industry, medicine, engineering, and other science and mathematics related disciplines, throughout South Carolina and from other states. In addition to the initial online component, the program includes a rigorous internship supervised by Clemson University faculty.

Purposes and Objectives

The purpose of the MAT Program is to provide mature, well-trained professionals in areas of critical need (science and mathematics) throughout South Carolina. The program is open to qualified individuals worldwide. It has graduate-level courses delivered via distance and face-to-face instruction by qualified faculty and includes a rigorous in-state internship. The objectives of the MAT in secondary mathematics and science education are to: 1) promote the entrance of mature, content-ready individuals into the South Carolina classroom in a timely manner; 2) provide a source of secondary grades certified teachers in mathematics and science for South Carolina; and 3) provide a rigorous yet plausible route for individuals seeking to change careers and enter the teaching profession, as stressed by the US Department of Education in its Transition to Teaching program and the *No Child Left Behind* legislation. Teacher education has long been central to the mission of Clemson University, and outreach is vital to its position as the land-grant institution in the state. This program fits well within its mission and its stated emphasis on mathematics and science education. The distance-learning component of this program demonstrates Clemson's interest in and willingness to exploit the delivery efficiencies and outreach potential of distance-learning technology.

Relationship to Other Programs

The program will be housed within the Eugene T. Moore School of Education at Clemson University. While there are several graduate and undergraduate programs that prepare mathematics and science teachers at the graduate level in the State, (8 science, 5 math), the critical needs in these subject areas persist and have been annually validated by the State Board of Education and the Center for Educator Recruitment, Retention, and Advancement (CERRA). Additionally, there is no program similar to this in the State in terms of delivery. The uniqueness of this MAT program is evidenced by the following:

- Participants may begin process while still employed and located in another State.
- Curriculum was developed by university faculty based on what new, mature, second-career teachers need to know and to be able to do.
- Several courses will be offered via Internet delivery with synchronous and

asynchronous options.

- Extensive practicum and internship experiences are included throughout the program via multiple field experiences in diverse environments.
- Blended-learning opportunities are provided in many courses.
- The focus is on mature, career-changing professionals with at least a bachelor's in the content domain or closely related discipline.

Responsibilities of Clemson University

As was true with the original T3 MAT program upon which this proposal is based, Clemson University will assume all administrative and managerial operation of the MAT program. MAT students will be admitted to the graduate school of Clemson University, register for all courses at Clemson University, and receive their MAT degrees from Clemson University.

Enrollment

The MAT will enroll students based on a cohort design. For admission, individuals must have a baccalaureate degree from a regionally accredited university and have been granted admission to the Clemson Graduate School and the MAT program (see below).

| Projected Total Enrollment | | | | | | | | |
|-----------------------------------|---------------------------------|--------------|----------------------|--------------|---------------------------------|--------------|--------------------|--------------|
| YEAR | Summer Sessions I and II | | Fall Semester | | Spring Sessions I and II | | May Session | |
| | Head-count | Credit Hours | Head-count | Credit Hours | Head-count | Credit Hours | Head-count | Credit Hours |
| 2009 – 10 | 16 | 192 | 16 | 144 | 16 | 224 | 16 | 48 |
| 2010 – 11 | 24 | 288 | 24 | 216 | 24 | 336 | 24 | 72 |
| 2011 – 12 | 24 | 288 | 24 | 216 | 24 | 336 | 24 | 72 |
| 2012 – 13 | 24 | 288 | 24 | 216 | 24 | 336 | 24 | 72 |
| 2013 – 14 | 24 | 288 | 24 | 216 | 24 | 336 | 24 | 72 |

| Estimated New Enrollment | | | | | | | | |
|--------------------------|--------------------------|--------------|---------------|--------------|--------------------------|--------------|-------------|--------------|
| YEAR | Summer Sessions I and II | | Fall Semester | | Spring Sessions I and II | | May Session | |
| | Head-count | Credit Hours | Head-count | Credit Hours | Head-count | Credit Hours | Head-count | Credit Hours |
| 2009 – 10 | 16 | 192 | 16 | 144 | 16 | 224 | 16 | 48 |
| 2010 – 11 | 24 | 288 | 24 | 216 | 24 | 336 | 24 | 72 |
| 2011 – 12 | 24 | 288 | 24 | 216 | 24 | 336 | 24 | 72 |
| 2012 – 13 | 24 | 288 | 24 | 216 | 24 | 336 | 24 | 72 |
| 2013 – 14 | 24 | 288 | 24 | 216 | 24 | 336 | 24 | 72 |

Estimates are based on requests for the program and the success of Clemson’s MAT program for middle grades currently offered in Greenville. Because we do not currently have any students enrolled, all students would be considered new students.

Admissions Criteria

With one exception, no changes are proposed to the Admissions Criteria stated in the original, approved proposal. The only exception is that the minimum number of years of professional experience beyond the Bachelor’s degree will be reduced from five to three to increase the pool of potential candidates.

The program is designed for mid-career professionals seeking to change careers. To be considered for admission, candidates must submit an online application. The following must be in evidence:

- Bachelor’s or Master’s in certification area or degree in another area with “equivalent major” in certification area (minimum of 30 credits in the certification area with at least 21 of these at the junior or senior level)
- GPA expected 2.5 overall
- Passing scores on requisite PRAXIS II specialty tests
- Competitive GRE scores
- Minimum 3 years professional experience beyond the Bachelor’s degree
- An admissions essay
- Two recommendations
- A valid teaching certificate
- Acceptable professional work record with minimum of 3 years

Transcript evaluation will be an important factor in admissions. Following receipt of all application materials, a faculty advisor will determine which master’s level content courses the candidates should take in their programs.

Curriculum

The MAT program is composed of three elements:

1. Core pedagogical coursework (15 hours),
2. Content coursework (9 hours), and
3. Intensive practicum and internship components (14 hours).

All core pedagogical courses, delivered via distance learning, include field-based experiences. The discipline-specific methods courses, taken in the Fall Semester, require students to complete a field experience in a local high school. Other core courses require a combination of conducting classroom observations, interviewing teachers and administrators, and assisting in local secondary school math or science classrooms.

The teaching practicum and internship occur in two consecutive calendar sessions within the Spring Semester. Students first complete a three-week teaching practicum in January. Practicum students spend a minimum of 20 hours per week in a secondary classroom in their certification area, observing, assisting, and tutoring students; MAT students must earn a grade of B or better in the practicum experience to continue in the program. During the second session of Spring Semester, from February through April or early May, MAT participants complete the 14-week directed internship and the Capstone Seminar. The seminar course is designed as a reflective component of the MAT program to promote discussion and problem solving of classroom concerns that arise throughout an internship; the seminar will include discussion of key issues and trends in education. All interns will complete a professional digital portfolio that will be evaluated by the university supervisor and others and shared with the cohort.

To complete the 14-week internship experience, interns are required to be in the assigned school environment for a minimum of sixty days. Interns are present for the regular school day Monday through Friday for a minimum of twelve (12) weeks. Attendance each day is mandatory. Interns are expected to do as much full-time teaching as time, energy, and skills permit. Team teaching is also a recommended strategy for much of this experience. During the latter part of the internship, the intern should do a minimum of two weeks (10 consecutive days), full-time independent teaching, in which he/she handles all the duties of a teacher.

Sample Course of Study

MAT Summer Session I: (6 credits)

Psychological Foundations of Adolescent Motivation and Learning
Content course

MAT Summer Session II: (6 credits)

Teaching Students with Individual Differences and Exceptionalities
Content course

MAT Fall Semester: (9 credits)

Methods and Strategies (content specific – Mathematics or Science)
Classroom Assessment Methods
Content Area Reading

MAT Spring Semester Session I (3 weeks - 2 credits)

Teaching Practicum

MAT Spring Semester Session II (13-14 weeks - 12 credits)

Directed Internship

Internship and Research Seminar

MAT May Session: (3 credits)

Content Course

Note: The content area courses are taken at the master's level in either mathematics or science, depending on certification area. MAT students schedule these courses based upon input from and approval of their advisers.

Total Hours: 38

Catalogue Course Descriptions

Note: These courses have been approved with the TTT prefix. We will submit a curriculum proposal to change the prefix for all courses to EDSEC.

TTT 711 Psychological Foundations of Adolescent Motivation and Learning 3 cr. (3 and 0)

The course addresses psychology of learning and developmental processes during the middle and secondary school years. Reviews teaching strategies, achievement motivation, helping relationships, and impact of peers, schooling, and parents. Includes an introduction to potential problems in adolescence and classroom management.

TTT 717 Individual Differences 3 cr. (3 and 0)

Basic concepts and issues that prepare the student to utilize effective strategies for teaching learners with exceptionalities and to meet the needs of a diverse student body through studies of intellectual, learning, behavioral, and cultural characteristics influencing student achievement.

TTT 721 Content Area Reading 3 cr. (3 and 0)

Prepares secondary pre-service content area teachers to teach the reading skills necessary for effective teaching and student learning of content area material. Students investigate strategies to relate subject matter to secondary students, facilitate student learning, and improve student comprehension of content area materials.

TTT 726 Classroom Assessment Methods 3 cr. (3 and 0)

Development and use of educational assessment tools to diagnose students' weaknesses and strengths, monitor students' progress, and determine instructional effectiveness.

Includes construction and evaluation of teacher-made assessments, interpretation of standardized test results, and assignment of grades.

Methods and Strategies (certification area-specific) 3 cr. (3 and 1)

TTT 761 Secondary Science - Development of instructional practices and materials appropriate for secondary science; familiarization with curriculum standards and materials; includes field experiences in local schools. Emphasis is on laboratory, inquiry and other student-centered teaching strategies, techniques in science curriculum development and science teaching leadership skills.

Methods and Strategies (certification area-specific) 3 cr. (3 and 1)

TTT 762 Secondary Mathematics - Development of instructional practices and materials appropriate for secondary mathematics, familiarization with curriculum standards and materials, and field experiences in local schools.

TTT 777 Teaching Practicum 2 cr. (0 and 4)

The application of effective teaching techniques and organization of instructional settings for high school students; course provides an opportunity for secondary pre-service professional educators to examine in-depth the role and responsibilities of the teacher in an educational setting.

TTT 791 Directed Internship 9 cr. (0 and 27)

Full-time supervised observation and teaching experiences in selected secondary schools.

TTT 792 Capstone Seminar 3 cr. (3 and 0)

Seminar course designed to synthesize skills and instructional techniques developed during coursework and classroom experiences. Completed during Practicum and Internship courses.

Content Courses (3 in certification area)

Content courses are taken at the master's level. MAT students schedule these courses based upon input and approval of their faculty advisers.

Experience to Produce Essential Outcomes

The MAT program integrates experiences that produce essential outcomes for teachers. These essential outcomes apply to both subject certification areas (mathematics, science). The narrative below discusses these experiences.

Diverse Learners

Throughout the program, students explore a wide variety of cultures and student learning styles. In Psychological Foundations of Adolescent Motivation and Learning, a key unit addresses diversity and learning styles. Teaching Students with Individual Differences and Exceptionalities addresses learners with a variety of exceptionalities, including disabilities, cultural and social distinctions, and special gifts and talents; students explore legal requirements, characteristics, assessment options, and effective instructional procedures for students of varying exceptionalities.

Whenever possible, MAT interns will be placed in critical need schools and schools with significant diversity in terms of race, ethnicity, and social economic status.

In Teaching Students with Individual Differences and Exceptionalities as well as the practicum field experience, students observe a secondary classroom and collect and analyze data related to class dynamics and multicultural interactions. In addition, students are required to reflect on their views and experiences with multiple cultures. They are encouraged to take a broad view, incorporating race and ethnic groups, socio-economic status, different religions, and different educational backgrounds.

Technology

Technology is a special strength of those completing the MAT program. Since several of the core courses are delivered via distance learning, all students must be adept at using computers, email, Microsoft Office applications, Internet search engines, and other appropriate instructional technology.

The distance-learning software used to deliver the courses is robust and effective. Faculty post their syllabi, communicate with students easily or in groups, host discussion boards, post and receive assignments and provide feedback to students, maintain student grades (which are available to students but only on an individual basis), and provide access to files and documents. Most courses include a number of discussion board assignments. Assignments are submitted electronically; instructors encourage the students to be creative in using technology in their assignments – not only for cosmetics, but also to enhance content.

In their methods courses, MAT students explore ways to use technology to help secondary students make connections in order to develop higher-order concepts. All unit plans must include technology tools and resources.

Finally, the digital portfolio required for program completion allows students to demonstrate their facility with technology.

Assessment

In Classroom Assessment Methods, special attention is paid to tests and measurements, interpretations of standardized test scores, and the strengths, weaknesses, and purposes of various tests. Students also develop their own rubrics to assess student learning.

In methods courses, students are required to develop assessments intended to determine the level of students' skills and conceptual understanding. A major assignment in the Methods courses is the development of a unit plan. Included in this assignment is the creation of the assessment tools that will be used during the unit. Forms of authentic assessments, including but not limited to projects, presentations, portfolios, and student creations of tests, are discussed and emphasized. Informal assessments (e.g., questioning techniques, classroom discussions, observations of group work on problem solving) are also emphasized. The goal espoused to the MAT students is that instruction and

assessment must be fully aligned, that it is patently unfair to assess in a manner significantly different from the manner in which instruction was provided, and that as teachers they should strive to make the distinctions between instruction and assessment transparent.

One of the ten ADEPT Performance Standards addresses assessment. Interns are expected to become proficient in a variety of both formal and informal assessments. Interns are expected to use assessment both as a means for determining how well their students understand the material and as a means for informing instruction to help them craft lessons that will meet the needs of all of their students. The Mentor Teacher and University Supervisor assist and evaluate each Intern in this area.

South Carolina Curriculum Standards

Development of a working knowledge of the discipline-specific South Carolina Curriculum Standards is a major objective for students in the MAT program. Students will explore the Standards in-depth in Methods courses, using them as the foundation for development of all lessons and unit plans. In addition, interns will develop and implement Standards-based instruction in their classrooms.

ADEPT and Assessment

South Carolina's ADEPT (Assistance, Development and Evaluation of Professional Teaching) Performance Standards will be introduced and infused into every MAT course. Relationships between relevant ADEPT Performance Standards and course content and assignments will be identified and discussed explicitly.

Practicum students and interns will evidence competency in terms of the ten ADEPT Performance Standards through classroom teaching and portfolio development. The interns will maintain records and reflections throughout the internship experience that provide snapshots of their growth toward the ADEPT Performance Standards. A synthesizing portfolio will evolve from these relevant records and reflections. These portfolios will be shared at the end of the internship with colleagues, site mentors, university supervisors, MAT faculty and other invited guests.

Education and Economic Development Act (EEDA)

EEDA performance standards will be addressed in Teaching Students with Individual Differences and Exceptionalities, the Methods courses, the Directed Internship, and the Capstone Seminar. MAT students will complete projects to familiarize themselves with school communities and community resources. In addition, students will explore ways to develop partnerships with local businesses and universities.

Faculty

Unit Administration/Faculty/Staff

| Staff by Rank | Highest Degree | Field of Study | Teaching in Field (Yes/No) |
|------------------------------|-----------------------|-------------------------|-----------------------------------|
| Professor #1 | Doctorate | Educational Psychology | Yes |
| Professor/Assoc Professor #2 | Doctorate | Special Education | Yes |
| Professor #3 | Doctorate | Reading Education | Yes |
| Professor #4 | Doctorate | Educational Foundations | Yes |
| Assoc/Asst Professor #1 | Doctorate | Educational Psychology | Yes |
| Assoc/Asst Professor #2 | Doctorate | Mathematics | Yes |
| Assoc/Asst Professor #3 | Doctorate | Science | Yes |
| Assoc/Asst Professor #4 | Doctorate | Secondary Education | Yes |
| Instructor #1 | Mast/Doc | Secondary Education | Yes |
| | | | |

| UNIT ADMINISTRATION/FACULTY/STAFF SUPPORT | | | | | | |
|--|------------|-----|-----------------|-------|--------------|------|
| YEAR | NEW | | EXISTING | | TOTAL | |
| | Headcount | FTE | Headcount | FTE | Headcount | FTE |
| ADMINISTRATION | | | | | | |
| 2009-2010 | 1 | 50% | 0 | 0% | 1 | 0.5 |
| 2010-2011 | 0 | 0 | 1 | 50% | 1 | 0.5 |
| 2011-2012 | 0 | 0 | 1 | 50% | 1 | 0.5 |
| 2012-2013 | 0 | 0 | 1 | 50% | 1 | 0.5 |
| 2013-2014 | 0 | 0 | 1 | 50% | 1 | 0.5 |
| TOTAL | | | 1 | 50% | 1 | 0.5 |
| FACULTY | | | | | | |
| 2009-2010 | 2 | 50% | 2 | 12.5% | 4 | 1.25 |
| 2010-2011 | 0 | 0 | 4 | 31.3% | 4 | 1.25 |
| 2011-2012 | 0 | 0 | 4 | 31.3% | 4 | 1.25 |
| 2012-2013 | 0 | 0 | 4 | 31.3% | 4 | 1.25 |
| 2013-2014 | 0 | 0 | 4 | 31.3% | 4 | 1.25 |
| TOTAL | | | 4 | 31.3% | 4 | 1.25 |
| STAFF | | | | | | |
| 2009-2010 | 0 | 0 | 1 | 50% | 1 | 0.5 |
| 2010-2011 | 0 | 0 | 1 | 50% | 1 | 0.5 |
| 2011-2012 | 0 | 0 | 1 | 50% | 1 | 0.5 |
| 2012-2013 | 0 | 0 | 1 | 50% | 1 | 0.5 |
| 2013-2014 | 0 | 0 | 1 | 50% | 1 | 0.5 |
| TOTAL | | | 1 | 50% | 1 | 0.5 |

Physical Plant

The physical plant and facilities for the MAT program are sufficient. A significant portion of the courses will be offered on-line, requiring only office space for faculty. The face-to-face courses will be offered at the University Center in Greenville, at which Clemson has sufficient facilities.

Equipment

We do not anticipate the need for the purchase of any major equipment items for the first five years of delivery of this program. We do anticipate maintaining and adding to our existing support materials for Curriculum and Instruction and for technology support through computers, Smart Boards, and other instructional pieces of equipment. However, Clemson University does a good job of maintaining and replacing these items as required, and the needs in this area will not exceed existing needs for current programs.

Library Resources

Quantitative Comparison of Institution's Current Holdings

The Clemson University Libraries are composed of R.M. Cooper Library, Special Collections, Gunnin Architectural Library, and the F.W. Symmes Library (located at the University Center). The general collection at R.M. Cooper Library consists of approximately 1.5 million books, 6,000+ current periodicals, and 11,000+ electronic journals. The F.W. Symmes Library at the University Center is open to all students, faculty, and staff, offering electronic databases and access to all participating university libraries. The Libraries are a U.S. Federal Document Depository and receive federal government publications, extension publications, technical reports, and maps. South Carolina government publications are also collected. The Libraries are fully networked and provide access to an online catalog, a variety of databases, regional and worldwide library catalogs, and the Internet. Fourteen professional librarians and five library technical assistants provide reference service in the main library. One reference librarian serves as a liaison and research specialist for faculty, staff, and students in the Eugene T. Moore School of Education.

The Libraries' broad education collection includes more than 44,000 monographs, 200 current print journals, and access to more than 600 electronic journals.

Qualitative Assessment of Current Holdings in View of New Program

In addition to the high quality of the existing library resources, many services are provided that also extend and enrich the capacity of the library system. Some of these services include the following:

Interlibrary Loan: the Libraries provide interlibrary loan for all types of material not held in the collection. This service is provided free of charge to faculty, staff, and students.

Document Delivery: faculty, staff, and distance-education students may request library services using online forms. Services include book checkout and delivery, photocopying of library materials, and materials pickup.

Research Support: the education librarian specializes in education information resources and is available for faculty/student research support and consultation. Recent requests from faculty include comprehensive literature reviews on specific topics, citation verification, quotes and source verification, report of high-impact education journals, and in-office training of library databases.

Library Instruction: the education librarian teaches subject-specific library instruction classes upon faculty request. Instruction takes place in the library's instructional lab, equipped with twenty-five computers for teaching online database searching techniques. Basic library instruction is provided for all first year students during English courses.

Reciprocal Borrowing: the Libraries have reciprocal borrowing agreements with all public institutions of higher education in South Carolina, independent colleges affiliated with the South Carolina Independent Colleges & Universities, OCLC Reciprocal Borrowing Program Participants (faculty only), and the main library at the University of Georgia in Athens (faculty and graduate students). Faculty, staff, and students who plan to visit a participating library must stop by the Circulation Desk in Cooper Library to request a borrower's card.

Accreditation, Approval, Licensure, or Certification

The MAT in Secondary Education is subject to specialized or professional accreditation by the National Council for Accreditation of Teacher Education (NCATE) and review by the appropriate Specialized Professional Association (SPA) including National Council of Teachers of Mathematics (NCTM) and the National Science Teachers Association (NSTA). Several assessments will be conducted to evaluate the effectiveness and quality of the program and the extent to which students are prepared for teaching. Among these are Praxis scores, teaching philosophies, student teaching evaluations, and a student teaching portfolio. In addition, follow-ups will be conducted to monitor the success of the graduates for a minimum of three years upon graduation.

Upon successful completion of the program and all licensing examinations, candidates will be eligible for a professional certificate in grades 9-12 in mathematics or science, as appropriate.

Description of How the Proposed Program Addresses Core Propositions of the National Board for Professional Teaching Standards

The MAT in Secondary Education addresses the core propositions set forth by the National Board for Professional Teaching Standards (NBPTS). Each educational course in the program will address these five propositions. The figure below describes how each of the core propositions will be monitored.

| NBPTS Core Proposition | Elements in M.A.T. Program |
|--|---|
| 1. Teachers are Committed to Students and Learning | This is a key component of the philosophy of teaching that each student is required to prepare. The commitment to every student will be assessed as a separate component. Further, this will be monitored through the student teaching evaluations. |
| 2. Teachers Know the Subjects They Teach and How to Teach Those Subjects to Students | The results of the Praxis II examinations will provide evidence of teachers' content knowledge. Further, students' grades in their content courses will be monitored, and students will have to display their pedagogical and content knowledge in their methods courses. This will also be addressed through student teaching evaluations. |
| 3. Teachers are Responsible for Managing and Monitoring Student Learning | Addressed in the methods course, this will be a significant part of the assessment in student teaching and in the reflective component of the student teaching portfolio. This is also a key area in the Motivation and Learning course and course on Individual Differences and Exceptionalities. |
| 4. Teachers Think Systematically about Their Practice and Learn from Experience | Reflection is fundamental to effective practice. Teachers will be required to keep journals during the seminar held in conjunction with student teaching. This is an essential component of the course and must demonstrate that all candidates monitor their teaching practice, make adjustments, and learn from their experiences. This is also evaluated in the portfolio completed in conjunction with the Directed Internship. |
| 5. Teachers are Members of Learning Communities | In addition to becoming a member of the school community at which they student teach, the cohort nature of the program will build a learning community. It is one of our goals to emphasize the power of a cohort group to strengthen and support each other's practice, not only during the program, but afterwards. |

Articulation

As discussed, the MAT program is geared toward career changers. As such, there is no natural path from an undergraduate program to this program. Although candidates would be eligible to pursue doctoral studies after a few years of teaching, the program should be viewed as a terminal degree. Content courses

may be completed at other state institutions, depending on availability and appropriateness for the individual students. Because of the strong emphasis on cohorts, we do not anticipate offering other courses at other institutions.

Estimated New Costs and Sources of Financing

These are expressed in the following table.

Estimates for faculty salaries are based on salaries of \$44,000 for an instructor, \$56,000 for an assistant professor, \$68,000 for an associate professor, and \$80,000 for a full professor, with 3% increases each year. The \$70,000 figure for year 1 is based on an approximate average of the salary for the courses offered. Tuition is based on in-state tuition for masters in education degree, with three full-time semesters (summer, fall, spring). As stated earlier, projected enrollment is 16 students in year 1 and 24 students in each subsequent year. The year is May 1 through April 30. The MRR formula for use was calculated by the Business Office as \$11,130/FTE. An FTE is calculated as 12 credit hours=1 FTE.

ESTIMATED NEW COSTS BY YEAR

| CATEGORY | 1st | 2nd | 3rd | 4th | 5th | TOTALS |
|-----------------------------|------------|-----------|-----------|-----------|-----------|------------|
| Program Administration | \$40,000 | \$41,200 | \$42,436 | \$43,709 | \$45,020 | \$212,365 |
| Faculty Salaries | \$70,000 | \$72,100 | \$74,263 | \$76,492 | \$78,786 | \$371,641 |
| Graduate Assistants | | | | | | |
| Clerical/Support Personnel | \$25,000 | \$25,750 | \$26,523 | \$27,318 | \$28,138 | \$132,729 |
| Supplies and Materials | \$1,000 | \$1,030 | \$1,061 | \$1,093 | \$1,126 | \$5,310 |
| Library Resources | | | | | | |
| Equipment | | | | | | |
| Facilities | | | | | | |
| Other (Travel/Training Need | \$3,000 | \$3,090 | \$3,183 | \$3,278 | \$3,377 | \$15,928 |
| TOTALS | \$ 139,000 | \$143,170 | \$147,466 | \$151,890 | \$156,447 | \$ 737,973 |

SOURCES OF FINANCING BY YEAR

| | | | | | | |
|---|------------|------------|------------|------------|------------|-------------|
| Estimated FTE Revenue | | | | | | |
| Generated from the State | \$ 178,080 | \$ 267,120 | \$ 267,120 | \$ 267,120 | \$ 267,120 | \$1,246,560 |
| Tuition Funding (New Students Only) | \$185,712 | \$ 278,568 | \$ 278,568 | \$ 278,568 | \$ 278,568 | \$1,299,984 |
| Other State Funding (Legislative Approp.) | | | | | | |
| Funds | | | | | | |
| Federal Funding | | | | | | |
| Other Funding (Endowment,Auxiliary, etc.) | | | | | | |
| TOTALS | \$363,792 | \$545,688 | \$545,688 | \$545,688 | \$545,688 | \$2,546,544 |

Institutional Approval

The curriculum plan for the MAT program has already been approved by the Clemson University Board of Trustees, the department, college, and university curriculum committees in the 2004-2005 academic year. The program modifications were approved as follows:

The faculty of Teacher Education, September 2007

Teacher Education Faculty Chair, September 5, 2007

Dean of the College of Health, Education, and Human Development, September 5, 2007

Provost and Vice President for Academic Affairs, February 1, 2008

President, February 1, 2008

Board of Trustee Approval, February 7, 2008