

EXECUTIVE SUMMARY

Online M.A.T. in Secondary Mathematics and Science Education

Major Findings of the Program's Quality and Productivity

Program Quality: *Very Strong*

In February 2013, a continuing approval review of the Educator Preparation Unit at CSU was conducted by a Board of Examiners (BOE) consisting of representatives from the National Council for Accreditation of Teacher Education (NCATE) and the Georgia Professional Standards Commission (PSC). The 2008 NCATE Standards and the Georgia 2008 Standards were used to assess the unit and its programs. The BOE judged all standards to be met for the unit and for all initial and advanced programs. There were no areas for improvement cited, and the team noted multiple areas of strength.

Overall, the M.A.T. Secondary Mathematics and Science program is very strong and prepares highly qualified mathematics and science teachers who have the knowledge, skills, and dispositions to help all students learn. This is demonstrated by GACE pass rates of 100%, consistent ratings of meets or exceeds expectations on performance evaluations, and overall GPAs of 3.0 or better.

Program Productivity: *Above Average*

The first cohort of students in the M.A.T. Math and Science program matriculated in Spring 2009. The number of declared majors increased during the first year of the program but then decreased as students began graduating from the program. Enrollment seems to have stabilized at about 24 students, but additional years of data are needed to see if this pattern continues. The average three-year enrollment in the M.A.T. in Math and Science program is 25, which is higher than the average enrollment in any other M.A.T. secondary education program. Yearly enrollment is also higher than enrollment numbers in M.A.T. Secondary Mathematics and Secondary Science programs combined.

The number of M.A.T. degrees conferred each year in the online Math and Science program is small. However, the number of degrees conferred is comparable to other M.A.T. secondary education programs, and the M.A.T. Math and Science program has the largest three-year average, along with Secondary English. Of the five M.A.T. secondary education programs offered at CSU, the M.A.T. Math and Science program had the second highest graduation rate for the Fall 2009 cohort.

List of Recommendations for Improving Program Quality

The Online M.A.T. Consortium oversees the M.A.T. in Secondary Math and Science. This consortium consists of representatives from each of the institutions involved in the collaborative program. The group works to improve the curriculum, courses, and resources offered to students in the online M.A.T. program. Though the program quality is very strong, we continue to look for ways to make improvements. Current initiatives include:

- aligning the curriculum with the new Common Core Georgia Performance Standards for Mathematics and Next Generation Science Standards in an effort to help prepare teachers to teach with the new standards,
- integrating the edTPA as a requirement during student teaching or internship, and
- revising coursework prior to student teaching or internship to incorporate elements of edTPA.

List of Recommendations for Improving Program Productivity

Recommendations to improve program productivity are as follows.

- Seek grant funding to support graduate students in mathematics and science education.
- Explore the possibility of admitting students from outside of Georgia into the online M.A.T. program.
- Work with the COEHP Recruitment Committee and Director of Graduate Studies to enhance recruitment efforts.

Conclusion about the Program's Viability at CSU

The M.A.T. Secondary Mathematics and Science Education program at CSU is viable. As indicated by the evaluation of the NCATE/PSC Board of Examiners in February 2013, the quality of the programs is very strong. All NCATE/PSC standards were judged to be met for all initial and advanced programs with no areas for improvement and multiple areas of strength cited.

The viability of the program is also ensured by the sharing of resources among the secondary mathematics and science programs at CSU and among the four institutions involved in this collaborative program. The College of Education and Health Professions works with the other three institutions on the design and implementation of the online M.A.T. program. Representatives from each institution meet annually to review data and discuss areas for improvement. The online M.A.T. program is a valuable resource for individuals who want to obtain a teaching certificate but are unable, for a variety of reasons, to enroll in an on-campus program.

Enrollment in the online M.A.T. program is comparable to enrollment in other graduate secondary education programs. The average three-year enrollment is 25, which is higher than the average enrollment in any other M.A.T. secondary education programs. Yearly enrollment is also higher than enrollment numbers in M.A.T. Secondary Mathematics and Secondary Science programs combined.

Though small, the number of degrees conferred is comparable to other M.A.T. secondary education programs and has the largest three-year average, along with Secondary English. As the only USG institution offering this online M.A.T. degree in Math and Science, CSU provides an opportunity for career-changers to enroll in a high quality program that prepares them to teach math or science in grades 6-12. There is a critical need for math and science teachers, and the online M.A.T. program is helping to meet that need.

Program Improvement Plan

In response to the findings of the Comprehensive Program Review, program faculty propose the strategies outlined below to improve the quality, productivity and viability of the online M.A.T. program. These strategies will be facilitated by the Online M.A.T. Consortium.

| Goals | Projected Timeline | Resource Allocations |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------------------|
| Align the curriculum with the new Common Core Georgia Performance Standards for Mathematics and Next Generation Science Standards. | 2013-2014 | Personnel resources |
| Implement the edTPA during student teaching/ internship. | 2013-2014 | Personnel resources |
| Revise coursework prior to student teaching or internship to incorporate elements of edTPA. | 2013-2014 | Personnel resources |
| Seek grant funding to support graduate students in mathematics education. | Ongoing | Financial and personnel resources |
| Explore possibility of admitting students from outside of Georgia into the online M.A.T. program. | 2013-2014 | Personnel resources |
| Work with the COEHP Recruitment Committee and Director of Graduate Studies to enhance recruitment efforts. | Ongoing | Financial and personnel resources |
| Create and follow a retention and graduation plan for your program. | Spring 2014 / Ongoing | Personnel resources |
| Develop critical, common assignments and assessment that are aligned with the program and course student learning outcomes as well as state and national standards. The critical assessment supported by its rationale statement will provide a thread of consistency for our accrediting agencies with the same course over the years regardless of who teaches the course and what venue is used. | 2013-2014 | Personnel Resources |

Summary Recommendation and Supporting Rationale

Recommendation for future of program: *Maintain the Program at the Current Level.*

The program quality is very strong. Though the number of degrees conferred each year is small, it is comparable to other M.A.T. secondary education programs. The online M.A.T. program in Math and Science provides a valuable opportunity for career-changers to pursue certification in the critical need fields of secondary math or science. Many of the students enrolled in the program are working adults, stay-at-home parents, or provisional teachers whose schedules do not allow them to travel to a university campus to take courses. Without the online M.A.T.

program, these individuals would probably not have the opportunity to participate in a teacher certification program that helps them to develop the knowledge, skills, and dispositions needed to work effectively with middle and high school students in diverse math and science classrooms.