

## **2007-2008 Annual Program Review Report Mathematics 7-12**

**Name of Program: Mathematics 7-12**

**List of Annual Program Reviewers: Dr. Mary Lou Witherspoon, Dr. Jackie Vogel, Dr. Ann Assad, and survey of recent completers**

### **I. Assessment of Candidate**

Portfolio Review: The Fall 2006 Milestone II review indicated that 3 of 4 candidates passed. The one student who did not was in the MAT program, not the undergraduate program. She was not required to take a pedagogy course specific to mathematics education. As an undergraduate, she achieved a mathematics major with a very low gpa in her major; thus, she did not qualify to enter the teaching program at that time. The MAT program has different standards which she met for admission. All students in the undergraduate 7-12 program passed the Milestone II review.

Praxis Pedagogy Test Results: There were 17 students in the undergraduate mathematics 7-12 licensure program who completed the program over the past five years. Of these seventeen, 13 (76%) passed the Praxis pedagogy test the first time they took it. Three of the four students who did not pass it the first time attempted the test either before or very early in the semester they took MATH 4400, the mathematics teaching methods course. All four passed the pedagogy test the next time they took it.

Praxis Content Test Results: There were 17 students in the undergraduate mathematics 7-12 licensure program who student taught. Of these seventeen, 15 (88%) passed the test the first time they took it. Both of the other students had to repeat the test twice before passing.

Other evidence of student success: At a recent Tennessee Mathematics Teachers' Association meeting, two recently-licensed APSU mathematics teachers presented sessions. Another who took a position in a middle school is fielding a team for the state-wide middle school mathematics contest this academic year.

Actions with respect to the Praxis tests: In the undergraduate mathematics 7-12 licensure program, candidates are advised to take the content test as soon as they have complete the calculus sequence, probability, and geometry coursework. They are further advised to take the pedagogy test AFTER taking MATH 4400. The two areas on the content test that appear to be most challenging are calculus and probability/statistics. Taking the test sooner should address the calculus issue. We have changed the major to address the probability/statistics issue. All students are required to take MATH 3250, which is a statistical modeling course.

### **II. Assessment of Program Operations**

Enrollment needs to be boosted. To this end, APSU has taken several steps:

- a successful application for the Robert Noyce grant that will fund mathematics and physics majors' tuition and other expenses;
- this grant also funds a recitation class for students who need extra help in the first-year calculus courses;
- institution of a section of the freshman experience course APSU 1000 specifically for mathematics majors.

Rossvie High School has provided field experiences for MATH 4400 for the past five years. Because of this close relationship, Rossvie is quick to hire our graduates. Currently, there are five recent graduates on faculty in their mathematics department.

### **III. Assessment System**

We need accurate Praxis and Milestone data that include the mathematics majors who complete the undergraduate mathematics education program but who do not student teach. (Current shortages in mathematics motivate schools to push for some of our strongest candidates to move into the classroom before student teaching.)

We need to have a follow-up survey specific to mathematics education that occurs at the end of student teaching.

We need to have a follow-up survey for our licensed program-completers at the end of their first year of teaching.