Assessment Plan
Academic Unit
Academic Year 04-05

Department: Mathematics
Program: Master's (MATHMS)
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Submitted by: Wallace Pye
Revised: April 15, 2005

Mission of University
A Carnegie Doctoral/Research Extensive and SREB Category 1 institution, The University of Southern Mississippi's principal service area is South Mississippi. Southern Miss provides leadership for the entire state, region, and nation through: • teacher preparation, economic development, polymer science, international programs, health services, and the arts; • faculty innovation and research achievements; • academic programs focused on wellness, societal needs, and quality of life; • a strong, varied general education curriculum; • undergraduate, masters and doctoral programs in the sciences, technology, education, psychology, criminal justice, economic development, the humanities, business, health, and the arts; • cultural opportunities and holistic arts education; and • students engaged in learning outside the classroom. Southern Miss commits to sustaining these strengths while nurturing opportunities that create a vigorous region, engage students, and promote discourse, and enhance quality of life. The University of Southern Mississippi ascribes to the principles of constant quality improvement and pledges effectiveness and productivity in the achievement of its mission.

Mission of College
The role of the college is to implement the university's mission in science and technology through education, research, economic development, and service.

Mission of Department

The primary mission of the Department of Mathematics is the transmission, discovery, creation, and expansion of mathematical knowledge. Its curriculum is designed to encourage: learning based upon rational inquiry, problem solving, creativity, and intellectual initiative. Its instructional thrusts run the gamut from basic skill development designed to create a mathematically literate undergraduate populace, to meeting specific educational needs of students outside the science and technology establishment, to the creation and delivery of innovative and effective teacher-training programs, to the engendering of a strong mathematics knowledge base among those who will be charged with contributing to both the regional and national scientific enterprises. In addition, the members of our graduate faculty are also charged with the development of new and innovative curricula, with the expansion of the frontiers of mathematical knowledge, and with sharing their results with the community at large via publication and presentation.The undergraduate program serves students primarily from the southern region of the state. The students are predominantly the first members of their family to attend college. The graduate programs serve a constituency that is broadly-based. Students are drawn both regionally and internationally.

Purpose of MATHMS Program

The primary mission of the graduate mathematics program is to

- Develop mathematical thinking and communication skills
- Communicate the breadth and interconnections of the mathematical sciences
- Require study in depth
- Prepare students for teaching careers in the secondary school and community college setting, for employment outside academia, or for further graduate study.
- Provide students with the necessary background in applied and computational mathematics for the department's computational sciences doctoral program.

Student Learning Outcomes	Assessment Criteria & Evaluation Methods	Assessment Results	Use of Results
1. Develop mathematical thinking and communication skills.	1a. 90% of the students who take the comprehensive exams will score satisfactory or better on those parts of the comprehensive exam that covers mathematical thinking and communication skills. 1b. 20% of the students will elect the thesis option.		
2. Communicate the breath and interconnections of mathematics.	2a. 90% of the students who take the comprehensive exams, which covers the 27-hour core, will score satisfactory or better. 2b. 20% of the students will elect the thesis option.		
3. Require study in depth.	3a. 90% of the students who take the comprehensive exams, which covers the 27-hour core, will score satisfactory or better. 3b. 20% of the students will elect the thesis option.		
4. Prepare students for teaching careers in the secondary school and community college setting, for employment outside academia, or for further graduate study.	4a. 90% of students will respond positively about the program in the exit interview just prior to their graduation. 4b. 90 % of alumni will respond favorably about the program on the survey sent annually to those who graduated three-years, seven-years, fifteen-years or twenty-one-years ago.		

5. Provide students with the necessary background in applied and computational mathematics for the department's computational science doctoral program.	5a. 20% of students in the master's program will elect to enter the department's computational science doctoral program. 5b. 90% of the students in the computational science doctoral program will earn the Ph.D.		

Reviewed by Dean
___ (initials) Date _____

Reviewed by Provost
___ (initials) Date _____