ASSESSMENT PLAN

Bachelor of Science in Mathematics

Department of Mathematics
College of Science and Mathematics
University of South Carolina
March, 2000

I. PROGRAM PURPOSES
The BS in mathematics is designed to prepare students for career opportunities in: business, government, and industry; teaching mathematics at the K-12 levels; and admission to advanced degree programs in science, mathematics, law, business, mathematical finance, and a host of other areas.

II. INTENDED LEARNING OBJECTIVES/OUTCOMES
The BS degree recipient should be able to...

1. Mathematical foundations: understand algebra, analysis, differential equations, discrete mathematics, geometry, set theory, and topology, number theory, numerical analysis, optimization theory, wavelet theory, and other areas of mathematics.

2. Written Communication: explain on paper mathematical results to a mathematically educated audience not expert in the particular specialization.

3. Oral Communication: orally present mathematical results to a mathematically educated audience not expert in the particular specialization.

4. Statistical knowledge: have a good foundation in statistics and probability.

5. Computational knowledge: have a basic mastery of a programming language.

6. Team work: be able to work well with others on mathematical problems.

III. PROCEDURES, MEASURES, AND CRITERIA

1. Theory: whether they choose a General Mathematics Major, Applied Mathematics Major, or Intensive Major, students obtaining the BS in mathematics degree are required to successfully complete MATH 520, 544 (or 526), 546, 554, 574 and other 500-level mathematics courses which provide them a solid foundation in algebra, analysis, discrete mathematics, differential equations, and other areas of mathematics.

2. Written Communication: students are given written hand-in assignments and tests.

3. Oral Communication: students are encouraged to make presentations in some of their mathematics courses.

4. Statistical knowledge: mathematics majors are required to successfully complete (a) STAT 511 and STAT 512 or (b) either STAT 509 or STAT 515 and either STAT 516 or CSCI 146.

5. Computational knowledge: mathematics majors are required to successfully complete CSCI 145.

IV. IMPLEMENTATION
The Department of Mathematics will conduct an Exit Survey with each graduating BS student, in which each student will be asked how well he/she is prepared for his/her prospective graduate study program or job, and to comment on the USC undergraduate mathematics program's strengths and weaknesses. The results are used to help make improvements in the program.
V. IMPLEMENTATION
Evaluation results from the Implementation Phase of this Assessment Plan will be featured in the Department's Annual report, the Strategic Plan (including any updates), and at other times deemed appropriate by the Department Chair or other University officials.

VI. FEEDBACK CHANNELS
Assessment results and summaries will be circulated to program faculty at a faculty meeting and at other times as deemed necessary by the Department Chair.

VII. USE OF RESULTS
Use of results for program modification and the subsequent impact of any changes made will be reviewed yearly by the relevant faculty, and included in the Department's annual Report and Strategic Plan (including any updates).