ASSESSMENT PLAN

Master of Science in Statistics
Department of Statistics
College of Science and Mathematics
University of South Carolina
February, 2000

I. PROGRAM PURPOSES
The Master of Science program in Statistics is designed to provide the student with the necessary background for employment as a professional statistician in business, industry, or government, and to build a solid foundation for continuing on for the Ph.D.

II. INTENDED LEARNING OBJECTIVES/OUTCOMES
The M.S. degree recipient should be able to...
1. Interpret theory: interpret intermediate results in mathematical statistics appearing in reputable journals in the field.
3. Standard consulting: act as an independent consultant using standard methods with researchers in science, industry, business or government.
4. Basic computation: use existing statistical software and programming languages to solve standard problems.
5. General written communication: explain on paper results of standard statistical analyses to audiences not expert in statistics.
6. General oral communication: orally present results of statistical analyses to audiences not expert in statistics.

III. PROCEDURES, MEASURES, AND CRITERIA
1. Theory: candidates are required to pass theory courses STAT 712, 713, and 714. In addition, the Masters thesis will often involve an original investigation into a topic which requires reading, and in some cases deriving, theoretical results.
2. Methods: candidates are required to pass applications courses STAT 704, 705, 790, and 791, as well as at least 12 semester hours of electives which will typically be methods-oriented. In addition, the Masters thesis will usually involve an investigation into a topic which requires application or derivation of advances statistical methods.
3. Consulting: candidates are required to pass consulting seminars STAT 790 and 791. Most candidates will spend at least one semester working as a Statistical Laboratory Assistant.
4. Computation: candidates are required to pass several courses which feature basic computing skills (e.g. STAT 704, 705 and methods-oriented electives). In addition, the statistical computing courses STAT 517 or STAT 740 are recommended and taken by most M.S. candidates.
5. Written Communication: candidates are required to write a thesis, which would require technical written communication skills. General written communication skills are topics in the consulting seminars STAT 790 and 791.
6. Oral Communication: candidates are required to present and defend their thesis research. General oral communication skills are topics in the consulting seminars STAT 790 and 791.

IV. IMPLEMENTATION
The Department of Statistics conducts an Exit Survey with each graduating M.S. student, in which the student is asked to assess his/her own abilities on each of the categories in section II above, as well as comment on the USC graduate program’s strengths and weaknesses in general. The results are used to help make improvements in the program. First positions of graduates are kept on file (including graduates who go on to pursue doctoral work), as well as reports of job changes, promotions, etc. Also, in January of each year, the Graduate Director prepares a summary report of assessment data, including
1. Scholastic information for all current candidates
2. Scholastic information for all graduates the previous year

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), the Department’s newsletters, 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 the annual Department retreat 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).