Program Goals and Student Learning Outcomes
B.S. in Statistics
Department of Mathematics and Statistics
University of New Mexico

1 Broad Program Goals

Upon graduation the students of the Statistics concentration will have the following competencies:

A. Proficiency in probability and statistical theory and methods.
B. Ability to manipulate and visualize data and to compute standard statistical summaries.
C. Skill in applying fundamental mathematical techniques.

2 List of Student Learning Outcomes (SLOs) for this Degree

A.1 Correctly analyze and interpret the results from standard designed experiments, sample surveys, and observational studies, understand the limitations of the procedures and the appropriate scope of conclusions.
B.1 Implement basic computer science skills needed for statistics, including a) data management tools, and b) use of a statistical software package for standard analyses.
B.2 Demonstrate competence in data management, summarizing, and plotting using a high-level statistical programming language (such as R, SAS, or Stata).
C.1 Demonstrate knowledge of basic mathematical skills needed for statistics, including a) probability and statistical theory, b) calculus foundations, c) symbolic and abstract thinking, and d) linear algebra.
C.2 Solve probability problems, with discrete and continuous univariate random variables, and apply the Central Limit Theorem.