

Department of Mathematical Sciences

Degree Program Assessment Plan

1. Goals

The major goal of our program is to give students seeking degrees in mathematics a broad understanding of the field of mathematics.

- Students should have the ability to read and understand technical mathematical writing, including proofs, in such areas as algebra and analysis.
- Students should have the ability to communicate mathematical ideas, both in written and verbal form, to others.
- Students should be able to model complex problem situations in equivalent mathematical form and, once a solution is found, be able to translate the solution into the original problem context.
- Students should be able to use appropriate technology to explore and solve mathematical problems.
- Students should be able to apply mathematical knowledge in non-academic contexts.

2. Procedure

The Department of Mathematical Sciences uses several methods to assess students of mathematics. A major instrument of assessment is the use of student portfolios, containing representative work from all 400 level Mathematics courses taken by a student. Depending on the desires of the instructor, the representative work may include such items as final examinations, homework assignments, projects, papers, etc. Student research projects are also included in their portfolios.

Two surveys are also chief instruments of assessment. Every third year, a survey is taken of current students majoring in mathematics or secondary mathematics education; the last such survey was done in Fall 2001. A survey of alumni is also taken every third year; the last such survey was done in Fall 2002.

Other components of our assessment plan include records of student applications to graduate schools, and student performances on the Putnam and other competitive examinations.