Outcomes Assessment, Math 381, Advanced Calculus I, Fall 2012

The outcomes were to
"Be able to use the basic proof techniques including direct proofs, indirect proofs, and mathematical induction, and

"Be able to construct counterexamples, in each of the following areas, to conjectures that are actually false even though they look plausible and resemble given results." [These two objectives are followed by a list of areas to which they apply.]

Eight Mathematics Option majors (among 21 students enrolled) took Advanced Calculus I, M 381, Fall 2012. The outcomes to be assessed all concerned proofs and counterexamples. Six problems on the final exam were used to assess proofs and seven were used to assess counterexamples. Using the Mathematics Option Assessment Plan rubric, among those eight students, six performed at an excellent or acceptable level at proofs, one was marginal, and one was unacceptable. Seven performed at an excellent or acceptable level at counterexamples and one (the same one) was unacceptable.

These results have been communicated to the faculty and, where necessary, will be discussed at a faculty meeting.