

**ASSESSMENT REPORT:
MATHEMATICS LEARNING OUTCOMES**

M 431, ABSTRACT ALGEBRA, SPRING 2014

According to the Assessment Plan for the Mathematics option, 12 students enrolled in M 431 (Abstract Algebra) were assessed on their “ability to prove basic mathematical propositions” and to “generate computations” related to abstract algebraic structures. The total number of students enrolled was 14, but one of the students almost never showed up and eventually dropped the class, and one was a Japanese exchange student. The results for the “ability to prove” were based on the students’ answers on final exam problems 4c, 5, 6, 7, and 8b, which involved simple proofs using the Euclidean algorithm, groups, and rings. The results for the “ability to generate computations” were based on the students’ answers on final exam problems 2, 4a, and 4b, which involved computing with permutation groups and using the Euclidean algorithm.

RESULTS

	Excellent	Acceptable	Marginal	Unacceptable
Prove	1	7	1	3
Compute	7	4	1	0

CONCLUSIONS

The overall outcome of the assessment was positive, in that a majority of the students scored “acceptable” or “excellent” on both parts, overwhelmingly so on the computational part. As is expected, the students are much more comfortable with the computational part than the proof part of Abstract Algebra.