

**Department of Mathematics**  
Assessment Update 2009

The Department of Mathematics recognizes that assessment of student learning is integral to improving student learning. Several assessment exercises are used to reach the range of students who take courses for University General Education, for other majors, and for the Math major.

- (1) The Department has designed a procedure for assessment of the “Math in the Dorms” project. It has not yet been executed, but the TA’s have worked to refine the questionnaire that will be administered. Although the program may not continue in its current form due to budgetary constraints, a scaled-down version will continue next Fall.
- (2) In an effort to validate the existing Math Placement Test, a 20-question algebra skills test was administered to a selection of (small) sections of Math 112, 171, and 211 on the first day of the Fall semester. Roughly speaking, the test showed that the 171 students did better than the 112 students and the 211 students did better than the 171 students. This shows the placement test does distinguish between these students’ skill levels. Unfortunately, the test also demonstrated that the students’ algebra skills are weak: all the students should get a perfect score on a test like this and many did poorly. The undergraduate program director hopes to administer this test more widely in future terms.
- (3) Changes introduced into Math 112 have produced a positive result. This semester, students were required to complete online computer-graded homework assignments. (These assignments are essentially the same assignments that have been required for many years; however, the online-grading allows students to obtain immediate feedback on their work.) A comparison of mid-term test scores demonstrates that the proportion of students earning a B or better grade has increased from 35% to 52%, and the proportion earning a D or lower grade has decreased from 30% to 19%.
- (4) Each member of the department assessment committee was asked to interview a colleague on the effectiveness Math 521, the most difficult required course for math majors. (One aspect of these discussions will be to gauge student preparedness to undertake work in the several courses students may take next.) The results of these interviews will be shared in a future assessment report.