

GE Area I: Mathematics and Statistics Assessment Report ( F '06, W '07 & S '07)

June 3, 2007

The overall mean of the students' quarter grades was 75.4% and the median was 76.3%. Student results from the common final exam marker questions were as follows:

For the finance problem: mean 72.7%; median 70%

For the statistics problem: mean 71.3%; median of 72%

These results didn't vary significantly from previous years' data., but still didn't meet our goal of student achievement of 75% or above on these questions. We noted, again, that student motivation seemed to be part of the problem since many students only want their "D" or better and be done with it. When the final rolls around, many skip the more challenging problems because they figure they can get the points they need elsewhere with less effort. Previous suggestions to help improve student learning of collecting more homework, giving more quizzes and doing more group work were implemented in some of the sections with mostly positive results.

To help build on these suggestions, we will meet with past and present MTH145 instructors during the first week of F '07 quarter to discuss best practices and to solicit and discuss suggestions to help improve student performance. Some ideas:

- give a pre-assessment test during the first week of the quarter to be able to better judge progress at the end of the quarter and see where weaknesses exist so we're not wasting time covering what they already know - a continual problem due to all the different math ability levels with our students

- set up special instruction (SI) time - although there is difficulty here due to the non-standard syllabi between the sections

- use more challenging in-class problems (and create a file of these types of problems) to increase exposure to problem-solving and leave more of the rote review to time outside of class

- make the marker questions carry more weight on the final (to increase the probability of student response)

Looking at the marker questions' means and medians, it doesn't look like we've gained any ground in student understanding since our previous assessment. We need to be able to encourage students to not be afraid of a problem and realize that just because they hadn't been able to do these types of critical-thinking problems before, the only way they'll get any better is through practice. We'll look at different ways to have students practice and to see problem-solving modeled. Previous student failures seem to hinder progress more than anything. We want to have success breed success.