Core Curriculum Assessment Annual Report

General Information

1. Name / Number of Course / Sequence:
   MATH 1150

2. SLO(s) being assessed:

   Student will be able to apply simple methods to real-world problems and be able to select and use techniques and methods to solve open-ended, ill-defined or multi-step

3. Department:
   Mathematics and Statistics

4. Department Representative:
   Michel Smith

5. AGSC Content Alignment:
   AREA III: Science and Math

Assessment Information

6. Assessment Method: [Explain how assessment for the measures associated with this SLO – not grading for the course as a whole was conducted.]

   A Pre test/ Post test design was implemented. A sample of students was tested on mathematical problems that addressed the different subcategories of the relevant SLOs.

7. Findings: [What assessment data did each assessment method produce?]

   In the attached table the difference in the percentage between the posttest and pretest is listed. The calculation is obtained by subtracting the average pretest percentage grade for the questions relevant to the SLO from the average posttest percentage. The
data do not show any improvement in the student learning outcomes. In fact the change from Pretest to Posttest is consistently negative. Note that some of the questions used were linked to more than one SLO.

8. How did you or will you use the findings for improvement: [What questions / issues/ concerns did your data raise for the faculty teaching the course? What discussion did the faculty have about the findings? What future actions to improve student attainment of this outcome will the department / program take as a result of this analysis?]

The procedure used recorded the average difference for the sample of students used. But several problems in implementation likely significantly affected the results. 1.) The were significantly fewer students who took the post test than took the pretest; there were 31% fewer students taking the post test. 2.) There was no mechanism in place to encourage students to take the test seriously and to try to do their best. The tests did not count for a grade. 3.) There were (probably) students who took the posttest who did not take the pretest. We did not account for this.

In Fall 2011 the pretest/posttest model will be used. In order to address issues #1 and #3 mentioned above the students will be individually tracked and those students who do not take both tests will be removed from the final consideration as either the pretest or the posttest would not be present. We are uncertain on how to address item #2, but we hope that corrections for #1 and #3 will provide us with reliable results. The department questions the reliability of data that is obtained from tests when test performance has no influence on the grades. We may be able to test this hypothesis.

9. Additional comments: [What else would you like the Committee to know about your assessment of this course or plans for the future?]

We feel that the results were unreliable because of the design errors listed above. Furthermore, we are expanding our GTA supervision program and anticipate an impact on assessment data resulting from this.

10. Core Curriculum General Education Committee Comments:

They acknowledge the unreliability of the results and seem like they are taking steps toward improvement of methods. Because the data from this round is so problematic, it will be interesting to see the next round of data.