GLENDALE COMMUNITY COLLEGE

COURSE ASSESSMENT REPORT

SEMESTER/YEAR: Fall 2010

DEPARTMENT: Mathematics

COURSE TITLE: Math 112/ Calculus for Business

PARTICIPANTS (min. 2): Steve Marsden (only 1 section offered), 33 students

COURSE-LEVEL SLO(s) ASSESSED THIS SEMESTER:

(1.) Students will differentiate various types of functions using product, quotient and chain rules.

METHODS OF ASSESSMENT: The SLO was assessed on the final exam with 4 questions. They were:

1. $y=(5-2x)^{4}(3x^{2}-7)^{5}$ Find dy/dx and factor completely.
2. Find the equation of the tangent line to $y=\sqrt[3]{3-2x^{2}}$ at (-1,1).
3. $y=ln⁡(\frac{1-t}{1+t})$ Find $D\_{t}y$ and simplify completely.
4. $f\left(x\right)=\frac{e^{2x}}{1-e^{2x}}$ Find f’(x) and simplify completely.

ANALYSIS OF ASSESSMENT: What do these results tell you about your students' achievements on the targeted SLO(s)?  The analysis has let us spot the problems that our students are weakest on, as well as insuring that grading is more or less even among sections.

1. The average score was 3.97 out of 5. Most students showed a strong understanding of the problem with only minor mistakes in the Algebra. The majority of the students showed mastery (4+ points)
2. The average score was 3.91 out of 5. Most students showed a strong understanding of the problem with only minor mistakes in the Algebra. The majority of the students showed mastery. (4+ points)
3. The average score was 3.61 out of 5. This problem showed more serious mistakes and one student left it blank as they did not understand the notation. Additionally, there were more algebra mistakes. The majority of the students showed mastery. (4+ points)
4. The average score was 3.24 out of 5. Although no one left this problem blank, the scores show a more serious deficit in the understanding of the Calculus rather than the Algebra. Problems seem to be difficulty with the quotient rule and transcendental functions. Less than half the students showed mastery.

PLAN: Indicate if your assessment results reveal a need for course improvement in order to improve student achievement, and what plans your department will make to do so.

This SLO was discussed at the Curriculum Group. Overall, results were very strong. Students showed mastery on 3 out of the 4 questions for this SLO. However, low scores on the last problem indicated difficulty with the quotient rule and transcendental functions. These are recommended for extra review before the final.

Additionally, many students performed the Calculus perfectly but made mistakes on the Algebra. Although this is not technically part of the SLO, it is recommended that separate review problems for Algebra simplification be given before the final.