GLENDALE COMMUNITY COLLEGE

COURSE ASSESSMENT REPORT

SEMESTER/YEAR: Fall 2010

DEPARTMENT: Mathematics

COURSE TITLE: Mathematics 135 / Liberal Arts Mathematics

PARTICIPANTS (min. 2): Charlotte Schulten, only 1 section offered

COURSE-LEVEL SLO(s) ASSESSED THIS SEMESTER:

1. Students will be able to use various methods to apportion votes to unequal-sized constituencies and analyze their relative power in two-option elections, based on the weighted vote and vote quota set for passage.

METHODS OF ASSESSMENT: Students were given a cumulative final exam at the end of the course. One question was chosen for SLO analysis, and was graded with a total of 5 points, 2 for description and 3 for calculation.

ANALYSIS OF ASSESSMENT:

Question 10: For the voting system [4: 3,1,1,1], calculate the Banzhaf index. Are there any dummy voters? Does anyone have veto power?

Of the 29 students taking the final, the point breakdown was as follows:

6 students received a perfect on both the analysis and the calculation, showing true mastery of the material.

14 students received 4 out of the 5 points. They were evenly spilt between a mistake in the analysis and a small error in the calculation. These students had a solid understanding of the material, but not mastery.

5 students received 3 points. They made 2 small mistakes, one in the analysis and one in the calculation. They showed a shaky understanding of the SLO.

3 students received 2 points. They made larger mistakes in the calculation and missed an analysis question. They showed familiarity, but not comfort with the material.

1 student received 0 points.

Overall 20 out of the 29 students taking the final showed at least a strong understanding of the SLO.

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.

The results were discussed at the mathematics retreat in February 2011. It was noted that many students struggled with the quota of the votes, even when the weighting was done correctly. A few students seemed to struggle with the exact definitions of dummy and veto voters. Overall, we were pleased with the results of the SLO and it will be given again in following years. To encourage a more systematic approach, the problem will be split into 3 sections, one for the calculation and one each for the dummy and veto voters. We will also add an explanation to the analysis questions, to see where students might be making errors.