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Subject: Glendale College--Mathematics and Learning Outcomes

The Center for Student Success recently posted a case study of how the mathematics department at Glendale College (California) is using data on student pass rates to improve the delivery of instruction and promote higher rates of student success in elementary and intermediate algebra.

Visit the Center's website at <http://css.rpgroup.org> and go to the Learning Assessment tab for the latest case studies.

Please send your case studies to me at [rgabrine@ccsf.edu](mailto:rgabrine@ccsf.edu)

Bob Gabriner, Learning Assessment Listserv Moderator

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Glendale Community College has a college-wide process for developing Student Learning Outcomes. Many departments have a good working knowledge of SLOs, and faculty who are developing SLOs meet twice a month. The math faculty began their discussing of learning assessment during an annual three-day retreat. They examined data on student passing rates in math courses, student success in transfer-level courses, and other issues related to improving program delivery and increasing student success. They looked at the value of the math diagnostic test, which has proven an effective way to find students at the beginning of the semester at-risk for failing a class. They also analyzed more than one hundred twenty transcripts of students who had taken Pre-Algebra to determine student course histories.

The faculty also studied the results from the Intermediate Algebra final exam that has been used by all faculty since Fall 2000. They looked at the course sections for a correlation between the mean grade on the final and the mean GPA for the course that might be due to differences in grading among the faculty. The greatest difference was found in the grading by adjunct faculty, who gave higher course grades compared to exam grades. They also had higher enrollment and course retention rates. Adjunct faculty are no longer letting as many marginal students who perform poorly on the final pass the course.

Faculty members compare the mean exam grade and GPA for their sections to the exam and GPA mean for the course. They can also compare the performance of their students to the course mean on each item of the exam. If their students under-perform as a group, an instructor can adjust the emphasis and pacing of the various topics in the course.

Finally, the math department is tracking the success of students who take the one semester Intermediate Algebra course versus the two semester course (Math 101 and Math 120). The department is also looking at the outcomes for students who pass Math 101 and 120 and subsequently take one or more of the transfer level math classes. A research paper on the math department's study on student outcomes is expected in Fall 2004.

Glendale College provides some faculty members with assigned time to develop SLOs.

For more information about the Glendale Mathematics Department contact Peter Strathis, Division Chair ([pstathis@glendale.cc.ca.us](mailto:pstathis@glendale.cc.ca.us)) or Sid Kolpas, Professor of Mathematics ([skolpas@glendale.cc.ca.us](mailto:skolpas@glendale.cc.ca.us))

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