

Executive Summary

Institution: Florida Gateway College formerly Lake City Community College

Quality Enhancement Plan: A Plan for Student Success in Mathematics



The goal of the Quality Enhancement Plan (QEP) is to improve student success within a sequence of mathematics courses. The QEP topic was chosen following a broad-based participatory process of the campus community and an intensive review of institutional data by the QEP committee. The mathematics sequence involves four courses:

- Two college preparatory courses: Developmental Arithmetic with Algebra (MAT 0002) and Elementary Algebra (MAT 0024)
- One college-level bridge course: Intermediate Algebra (MAT 1033)
- One general education course: College Algebra (MAC 1105)

Students have modest to poor success rates in mathematics courses at all levels within this sequence. Students seeking degrees must complete all or at least three quarters of this sequence. A significant number of students are not retained and do not graduate because they cannot successfully complete the required math sequence.

For the purpose of the QEP, student learning is defined as the measurable improvement in skill level of students in targeted mathematics courses relevant to continued success within the mathematics sequence. To improve student learning, Florida Gateway College (FGC) plans to improve the instructional quality of these courses to promote student engagement in the classroom. The key framework for promoting student engagement is discourse theory with classroom connectivity. A coordinated effort between FGC mathematics faculty and a University of Florida educational researcher will provide extensive faculty development in discourse theory or effective questioning within the classroom. Ongoing faculty development will focus on linking discourse theory, including a newly created guided curriculum for each class in the sequence, to a wirelessly connected classroom providing an audio and visual context for student learning.

The QEP will involve evaluation of the effectiveness of instructional strategies; assessment of student learning outcomes, course success, and pass rates on a semester basis; and a longitudinal study of persistence throughout the mathematics sequence. If initial QEP strategies do not achieve the QEP goal within three years, additional faculty development and classroom instructional strategies will be introduced.

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