

Lane College

Quality Enhancement Plan GEMS: General Education Math Scholars

Executive Summary

The Lane College Quality Enhancement Plan, *GEMS: General Education Math Scholars* offers a unique opportunity to provide an enhanced academic component to the freshman experience while simultaneously addressing student performance in General Education Mathematics (GEM) courses. The current general education mathematics sequence includes two courses: College Algebra I (MAT 125) and College Algebra II (MAT 126). According to institutional data on first-time freshmen, less than 10% of students who enter Lane are adequately prepared for college-level mathematics. Internal data also confirm that high-risk courses (those with the highest failure and withdrawal rates) were concentrated in the core Algebra courses. These courses pose major obstacles and significantly affect persistence and program completion, particularly during the first two years of matriculation.

Recent literature reviews on the performance of minority college students in mathematics confirm the importance of the College's decision to focus on math attainment skills. Data also show that the top three "killer courses" preventing students from advancing in college are mathematics courses, with failure rates ranging from 35 to 42 percent. Over the past ten years, the College has experienced similar poor performance in mathematics courses.

The Lane College QEP Planning Team identified the need to improve student success in General Education Math (GEM) courses as the QEP topic. The overall goal of Lane's QEP is to improve student-performance and learning in general education math (GEM) courses. This will be accomplished through the implementation of five components: 1) course enhancement; 2) computer-aided instruction; 3) student support services; 4) academic advisement; and 5) faculty and staff professional development.

The initial course enhancement component incorporates mandatory laboratory hours for all Algebra I and II sections. The implementation of computer-aided instruction serves as a resource and interactive tutorial aid for students to review key concepts from daily lectures in Algebra I and II. Student support services utilize peer tutors in specialized mathematics labs; and the academic advisement component structures enrollment in core courses that is specific to the individual needs and aptitudes of each student. Finally, the professional development component provides ongoing mini-workshops and additional training for all faculty and staff working with GEMS.

Lane College is committed to the success of all its students. In this regard, the Quality Enhancement Plan summarized above is pivotal to our institutional transformation that is designed to improve freshman academic performance in mathematics. Our success will foster greater appreciation and mastery of higher level mathematics and broader analytical concepts; and open more opportunities for students to pursue careers and graduate studies in STEM and STEM-related disciplines.

Contact Person:

Juanita M. Morris, Ph.D.
Associate Vice President for Academic Affairs
GEMS Director
jmorris@lanecollege.edu