

## SACs FACTS August 2009

As freshmen enter UTC, preparedness for college-level math study is vital to success in their math courses. Unfortunately, for many years, many first-time students at UTC are required to enroll in developmental math courses – Elementary Algebra or Intermediate Algebra.

“Ongoing conversations between UTC staff and Hamilton County educators have brought to light several possible causes of this disappointing outcome,” said Dr. Jocelyn Sanders, Associate Provost for Academic Affairs. “For many first-year students, a fall math course will be the first math study they have undertaken in at least a year. For many, calculations without the aid of a calculator are a challenge. As compelling as this anecdotal information may be, it is the collection and analysis of data that has driven the development of the Step Ahead Math program.”

The Step Ahead Math program at UTC is an intensive, five-day program for entering freshmen who have placed in Math 106, Intermediate Algebra. It is designed to refresh students’ algebra skills to prepare them for college-level math study. Data guided the UTC faculty and administration to develop this math camp or bridge course that would enable the greatest number of students to begin their math study at UTC at the college level. In the University’s Southern Association of Colleges and Schools (SACS) accreditation process, data like this will be studied to determine whether UTC is meeting the terms of its mission, goals and if the University is dealing with critical institutional issues.

Sanders said in 2005, a study was completed of math placement results for freshmen who entered the University between 1998 and 2005. The study included data for first-time students who had attended a Hamilton County high school and enrolled at UTC. It revealed that over half (54%) of the students were required to complete at least one of the developmental math courses. Of those, 21% were placed in Math 106, Intermediate Algebra.

In addition to the 2005 study, UTC Mathematics faculty reviewed the results of math placement exams to determine the frequency of errors in the various skills assessed by the exam. These data indicate the concepts and skills with which new freshmen had the greatest difficulty.

“Students placed in Math level 15, or Math 106, may enroll in the program in mid-August. Students are tested at the end of the program, and successful students are enrolled in Math 123 or Math 131 for the fall term,” Sanders said.

In 2007, 45 of 59 students were successful; in 2008, 75 of 98; and in 2009, 180 students are registered to participate in the program, with 130 expected to move to college math.