

Highline Community College Professors Gain Added Flexibility in Delivering Math Curricula



Overview—Highline Community College, Des Moines, Washington

- From 7 a.m. until the evening, nearly every seat in the 45-station math lab is filled with self-paced students.
- Instructors report they have more time for one-on-one instruction.
- Distance learning courses now provide students with even more learning options.

Computer-based math instruction gets high marks with instructors and students. Overlooking Puget Sound in Washington State, Highline Community College instructs more than 9,000 students each semester. Nearly 400 students are successfully bringing their math skills up to the college level using PLATO Learning's Interactive Mathematics software program (formerly delivered by Academic Systems) in the math lab.

Running nonstop from 7:00 a.m. through the evening, almost every computer seat in Highline's 45-computer math lab is filled with self-paced Algebra students. Helen Burn, lead mathematics coordinator, believes that the computer-based math instruction program enables today's self-motivated, computer-familiar students to gain fundamental math skills by delivering individualized learning sequences.

The instructor-led, computer-based math classes offered at Highline benefit both students and professors. Entry-level and math review students with multiple learning styles welcome the multimedia presentations in the software. Instructors notice that they have more impact on their students' success. With the primary math instruction being provided by the computer, Burn has more time for one-on-one instruction.

Bridging the Gap Between Instructor and Student

"The Interactive Mathematics system gives me more flexibility in teaching," says Burn. "It bridges the gap between instructor and student. I now have the means to see where students are on an individual basis and to respond immediately with assistance. Learning is more effective when the language of delivery is appropriate to the individual learner."

The Interactive Mathematics program provides unparalleled support for learners. In addition to the benefits of one-on-one interaction with the math instructor, students receive an array of learning resources from the software. Each math lesson is presented in six modules and includes narration, video, and animation to support different learning styles. Math problems model

INSTITUTION: Highline Community College is one of 32 community and technical colleges in Washington State's higher education system. The main campus includes a computerized information commons and a multimedia listening/learning center.

SIZE: Highline Community College enrolls about 10,000 students and serves as a major center for higher education in the area south of Seattle by providing programs to a diverse campus population and a wide array of community residents.

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LEAD MATHEMATICS
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relevant work situations and may engage students in collaborative learning projects.

Burn sees students brighten when they understand math that they had either been previously unexposed to or had difficulty understanding in high school. “The movies and graphics appeal to certain students as opposed to a lecture format class,” notes Burn. “I was surprised by a student who was real quiet, but doing real well. I thought he was bored.”

As we got to know each other, he told me how happy he was to not have to listen to an instructor and to not have to wait for slower students to get it. He succeeded with Intermediate Algebra and moved on to the science track and right into college calculus.”

As the students’ academic achievement improved with the help of Interactive Mathematics, Highline Community College broadened the scope of delivery to include distance learning. Beginning with the 1998 summer semester, Highline offered Intermediate Algebra Online, a course for

students unable to attend classes or labs on campus. After a successful math summer, almost a hundred students enrolled for the fall distance learning course, which according to Burn, is rigorously facilitated by a math instructor.

As instructors and students at Highline discover flexibility and individual successes using Interactive Mathematics, administrators are looking for ways to offer even more math curricula to students using computer-based programs in tandem with professorial instruction. Burn explains, “With Interactive Mathematics, students gain another option. The program was implemented in the fall of 1996, and since then it’s like having this wonderful cutting-edge tool that you want to share with everyone.”

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