Course Design

Seeking to increase student success in her developmental math courses, Janice Hubbard did some research: she attended Pearson Course Redesign workshops, watched Pearson’s free redesign webinars, and visited community colleges implementing redesigns. Her result is a modular, self-paced, College Prep sequence that remediates weaker students while more quickly moving stronger students into college-credit courses.

Hubbard’s redesigned sequence includes eight modules over two semesters, plus two additional modules for students going into College Algebra or STEM courses. Classes meet for two hours in a computer lab, during which time Hubbard gives minilectures and students work on MyMathLab. Hubbard and peer tutors are available for assistance during lab time.

After a MyMathLab orientation at the onset of module 1, each module begins with a MyMathLab pretest. Students who score 80 percent or more may skip the corresponding MyMathLab homework, but must complete paper-and-pencil notebook homework. These students may exit the module using their pretest score as their module score or may elect to take the posttest for a higher one. Students who score less than 80 percent on the pretest must complete MyMathLab homework with a score of at least 75 percent and complete notebook homework in order to take the posttest; they must score at least 75 percent on the posttest to proceed to the next module. Students who score less than 75 percent on the MyMathLab homework, as well as those who want more practice, are encouraged to take no-credit MyMathLab quizzes.

Assessments
70 percent  MyMathLab pre- and posttests
15 percent  MyMathLab homework
15 percent  Paper-and-pencil homework in notebook

A custom notebook including modular-specific key concepts and written exercises

Use of MyMathLab

MyMathLab is used for pretest and posttests, and for homework (both including and excluding learning aids). Use of the eText and the quizzes is optional. Finally, the coordinator functionality supports the department’s adjunct instructors and enables course sharing with its sister campuses.
After 25 years of teaching, my success rates started lagging—the traditional format wasn’t getting through to 21st century students,” says Hubbard. “Pearson workshops helped me develop the content I needed in the modular format I wanted. In my pilot semester I nearly doubled my success rates.”

The self-paced, modular redesign fits Marshalltown’s wide range of mostly nontraditional students. “Those who need a slower pace don’t get left behind, while accelerated students can forge ahead. Both eventually realize that the responsibility for their success lies mainly with them,” says Hubbard.

Future plans include adding a basic arithmetic module to College Prep 1, incorporating challenge assessments to both courses to help students progress faster, and offering pacing guidelines such as past-due dates to help students stay on track.

Meanwhile, two other Iowa Valley Community College system campuses are currently implementing Hubbard’s redesign.

Submitted by Janice Hubbard, Math Faculty
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