Photo: Bob Elbert

Russ Mullen helps Meaghan Bryan, a senior in agronomy, prepare for a presentation during an entrepreneurship unit of his agronomy course. Mullen continues to innovate by using new classroom technology and adapting his curriculum.

PRACTICING THE CUTTING-EDGE IN CLASSROOM INNOVATION

By Susan Thompson

Russ Mullen has seen 14,000 students move through his classrooms since he joined the agronomy faculty in 1978. Of those, 10,000 were in the introductory agronomy course, which he has been teaching for more than 30 years.

"This is the course and students that continue to motivate me the most," says Mullen. "It has given me a creative opportunity to innovate in teaching methods and improve learning tools for students."

"Emphasis is placed on individualized learning rather than large group instruction with one-on-one instruction in a learning center," he says. "Students have flexibility in structuring their learning and quizzing schedule, using a variety of tools such as computer-based video, practice learning and hands-on demonstrations."

Students also apply their learning by discussing and troubleshooting agronomic problems in weekly small group sessions.

Mullen serves on the faculty advisory panel for the Agricultural Entrepreneurship Initiative. "Many of our past innovations in agriculture have come from independent entrepreneurs, and I worry about the loss of innovation, creativity and entrepreneurial spirit of our agricultural workforce," he says. "It was natural for me to incorporate a component that helps introduce and strengthen entrepreneurship skills."

The six-week unit covers basic principles in entrepreneurship and a team competition in which students develop an agricultural idea for a business and present their plans. The unit was patterned after "The Thinker" program Mullen added in 1998.

"Students are given technical problems with ethical and environmental ramifications and allowed to discuss them in small groups during the thinker exercise. Later, the questions and answers are discussed by the entire group," Mullen says. "The idea is to encourage students to develop and appreciate broader issues associated with technical solutions."

Mullen also teaches several other courses, and advises nearly 30 students each year. He was honored in 2010 as the College of Agriculture and Life Sciences Adviser of the Year, plus received the ISU Award for Academic Advising Impact. He received the college's Outstanding Teacher Award in 1998.

About 200 students have joined Mullen on 11 international trips. This year, he led 27 students on a two-week, winter break travel course through Panama to learn about tropical agriculture.

Mullen conducts research on the effects of environmental and biological stresses on seed quality, primarily soybean. And while he is proud of his research successes, it's clear his first love is students.

"I've always believed the greatest overall, long-term impact I could make as a faculty member would be to teach and advise well," Mullen says. "Education is the primary method of societal improvement. Teaching provides an exciting and challenging environment for growth of both the teacher and learner."