Edieal J. Pinker, associate professor of computers and information systems, adopted a novel approach—one entirely new to Simon and most business schools—for bringing real-world business challenges into his classroom.

Pinker teaches CIS 415 Business Process Analysis and Design, a course in which students learn how to analyze a business process, identify what’s wrong with it and come up with a new design. “A key element is the use of information technology,” he says.

Previously, the course had been built around field projects, with student teams working with employees at area companies to solve business problems. In planning for the current year, Pinker decided it was time “to do something different,” and over the summer worked closely with an outside consultant to develop a unique simulation project.
Total Immersion

When students entered his class in the fall, Pinker presented them with a scenario, a set of project rules, a series of challenges and partial data. He told them they were vice presidents of BCS, a technology supplier with a tremendous opportunity. A potential customer, described as one of the nation’s biggest retail supermarket chains, was embarking on a major upgrade of its bar-code technology. Because the potential customer wanted to transition from wired technology to a mixed model of wired, wireless and mobile technology, and also enable new online applications, it had expectations regarding customer support beyond what BCS had provided.

Pinker challenged students to assess the value of taking on the customer and to determine what would be required internally to satisfy customer requirements. He told them that they would receive detailed data for each of four phases; every phase would require different skills taught concurrently during class, but not all project data needed would be available. He also stipulated that students could make only three requests for additional data and that there might be delays in getting the information.

“I wanted them to think about what they really needed. In practice, when you ask for data, it often takes time to get, and you often lose goodwill when you keep coming back,” Pinker explains.

During the quarter, Pinker also devoted significant classroom time to student presentations on various project phases. “The experience to go up and face the heat is very valuable. No one ever gets enough of that,” notes Pinker, who met regularly with students outside of class to guide their progress.

The Payoff

Tina Power, a part-time M.B.A. student who is director of financial planning and analysis for PAETEC Communications Inc., a rapidly growing telecommunications provider (founded by Arunas Chesonis ’91), found the project extremely valuable.

Power describes the simulated project as both “tough” and “interesting” and says she quickly started thinking about processes in her own work environment. She proposed to her boss that their group re-engineer a key process, one where “paper flow is time consuming,” and use IT to improve the process. “We’ve actually started,” she says. “It’s on our 2004 strategic plan, and it came directly out of this [course].”

Sudhakar Das, another part-time Simon student, already has a doctoral degree in mechanical engineering, and designs some of the newest automotive parts for Delphi Corporation’s Rochester division. Das notes that because he is already working at a demanding job, he takes only courses that will benefit his work—and, he says, “This was a very valuable course.”

Steve Quataert ’04, a property tax analyst at Xerox Corporation, added that student collaboration was critical. The project, he says, “was structured in such a way that it required a lot of communication on our part to really work through the process.”

A Good Thing Gets Better

The traditional way to bring real-world complexity into business classrooms is to use Harvard Business School cases.

According to Pinker, however, these have significant limitations because they “are limited in scope to fit single standard class meetings, and there’s often not enough detail and quantitative information to do a thorough and realistic analysis.”

Pinker’s preferred approach had been to assign field projects. While students got a lot out of the course as a result of working with area businesses, he says, “It was hard to guarantee a high-quality learning experience for each student team. As an instructor you want to hold all students to the same high standards and make sure that the project content is strongly linked to the course material so that students have opportunities to fully exercise the tools they are taught in lectures.” With field projects, he notes, “It’s hard to know what’s going on with the customer side. You have little control over the data you get. It’s difficult to compare student groups’ performance. And it’s hard to ensure the project goals really fit the course.”

Setting It Up

Pinker approached Reuven Shapira, who heads Consolation Inc., a Rochester-based consulting firm specializing in supply-chain management, in early summer 2003 about jointly developing the simulation project. Shapira, who previously had worldwide responsibilities for leading multinational companies in the United States and abroad, was excited about the opportunity.

“I have an interest in both worlds, business and education,” explains Shapira, who has been an adjunct professor at several universities, and also holds an undergraduate degree in industrial engineering and an M.B.A. degree, and has completed coursework for a Ph.D. in operations management.

Shapira points out that when students are exposed to real scenarios at a university in what he terms a “safe environment,” where they can deal with projects without company politics and deadlines, they can delve into the business and bring their creativity to bear “without fear of what the bosses might say.”

Shapira has extensive experience working with companies in many industries (e.g., high technology, health care and consumer products) and, through his work, is familiar with the automatic data collection industry. He and Pinker decided to focus on the bar-code technology industry and zeroed in on a customer-support process. Then, Pinker says, “We created a simulated data set dealing with numerous aspects of the business.”

Keeping It Fresh

Although developing the project involved a significant investment in time, Pinker says it was time well spent. For example, he can use the same general setting but update the data set to change what’s expected of students in future classes. “I have flexibility on where I put my emphasis and where I cook the numbers. I can always move the problems to other parts of the process,” he explains. Pinker also plans to explore “writing this up in ways that we could make it available to other universities.”

In the meantime, he’s already met his primary goal. As he puts it, “When you teach people to become professional managers, you need to make them think how to pull all the data they have and the different skills they’ve been taught to solve a business problem. Then, you have to make them stand up and explain it. When I see a student sweating during his or her presentation and the others furiously taking notes, I know something good is happening.”

Vicki Brown is a Rochester, N.Y., freelance writer specializing in business, education and health care.