Master's of the Future

The bricks and mortar of college campuses are being exchanged for CD-ROMs and modems at home as agricultural professionals earn advanced degrees without leaving their fields of endeavor.

BY BRAD PARKER

Computer technology is changing the way people do business. It's even changing the way they learn about it.

For years correspondence courses have allowed people to further their educations without relocating. Particularly in the management field, "executive" programs are popular for those seeking an advanced degree while continuing to pursue their careers.

Two new programs are filling that need within agriculture. The Master in Agribusiness (MAB) program at Kansas State University (K-State) and the Executive Master's in Business Administration (EMBA) in food and agribusiness at Purdue University help students upgrade their skills without leaving their jobs. And both strive to create a "virtual classroom" using the Internet and CD-ROM technology.

K-State's program was launched in January 1998 with 12 students, and a second class started this year with 23. Around 30 students are expected in the third class. Purdue's inaugural class formed in August with 21 students, and their second class will begin next fall.

While Purdue's program is a combined effort from its schools of management and agriculture and K-State's is housed solely within its agricultural college, both are based on a traditional MBA curriculum, including management, marketing, finance, accounting, organizational behavior, human resources and business strategy.

"We include standard MBA courses in management but also focus on building an understanding of the broader marketplace," says Jay Akridge, director of Purdue's EMBA in agribusiness program. "That's where we get into things like the food and agriculture regulatory environment, and the economics of the food system."

Allen Featherstone, the coordinator of graduate programs in K-State's department of agricultural economics, explains his university's program in similar terms.

"We take the MBA core competencies and apply those specifically to the institutions of agriculture," he says, adding their program is more analytical than a typical MBA. He believes that focus is beneficial because students have to "think out of the box," not just apply rules.

While there are similarities, the two programs each have a few distinguishing features.

Purdue follows the cohort model, which means classmates start the program together, proceed through one set of courses together and finish the program together. This encourages networking among members of a class. Akridge says that's important because the support groups and personal relationships that develop promote success.

In K-State's program students don't necessarily take the same set of courses. The MAB curriculum allows for two business courses to be taken at another university, and students complete their programs with a project addressing an issue where they work.

Another difference lies in the fact that Purdue includes a structured international component, which was a priority identified in the market research that went into developing the program. Not only do many courses address international issues, part of the students' final module includes a two-week trip to Europe.

The on-campus sessions within each program present subtle differences, too.

Only one class of Purdue's EMBA students are on the West Lafayette campus at the same time. K-State's students expressed a desire to interact with the people in the classes ahead of and behind them in the MAB program, so both classes are in Manhattan at the same time.

Featherstone says having that many visitors to the department at once makes logistics difficult, but it allows resources to be shared. For example, guest lecturers representing agribusinesses can address both classes.

"From the educational and student-service perspectives, it makes more sense," he says.

The amount of time on campus also varies. Both K-State and Purdue learned through their preliminary market research that people involved in agriculture didn't want to take a lot of time away from their work. While some professional degree programs require as many as 13 weeks on campus over the course of two years, Purdue has limited that time to nine weeks. K-State has gone down to four.

Sandy Chapman, coordinator of the MAB program, explains the limited on-campus sessions at K-State seemed to be most practical for the students. Most people are allowed one week of professional-development time and at least one week of vacation by their companies, she says, so only requiring two weeks per year on campus seemed logical.

Those associated with the programs don't seem to mind the reduced face-to-face interaction. In fact, there may be more correspondence among students and instructors in today's version of "correspondence courses," thanks to the information technologies being employed.

Students in both programs receive course materials, including audio and video recordings, on CD-ROM. Other lessons and resources are posted on the Web. Most communication among the students and instructors occurs via e-mail.

Akridge says students enter the program with varying degrees of computer literacy, but most need help getting familiar with the distance-education technologies.

"We work very hard at creating this notion of a virtual classroom, and they seem to grab onto those ideas," he says. Week-long orientations at the beginning of both programs help the students understand how they'll communicate, learn and be evaluated while off campus.

According to one student in K-State's program, it doesn't take long to learn the system.

"About two months into the program, you stop worrying about the computer part and learning-by-distance part," says Ray Hammarlund of Hammarlund Angus Farm near Saint Marys, Kan. "I rarely think about

	Master in Agribusiness Kansas State University, Manhattan	Executive Master's in Business Administration in food and agribusiness Purdue University, West Lafayette, Ind.
Admission requirements[1]	• Undergraduate GPA = 3.0/4.0 • Two years of professional experience • Previous course work in micro- and macroeconomics, statistics, accounting, and algebra	• Graduate Management Admission Test or previous master's degree • Undergraduate GPA = 3.0/4.0 • Five years of professional experience • Three letters of reference
Tuition[2]	$12,000	$37,500
Other costs	Housing and meals during on-campus sessions; local Internet access; cost of 6 business credits taken outside program	Travel to and some incidentals while in Europe; local Internet access
Computer requirements	200 MHz Pentium® computer (4-GB hard drive, 64-MB RAM, CD-ROM, 33.6-K modem) Professional version of Microsoft® Office	200 MHz Pentium computer (CD-ROM, 28.8-K modem, 64-MB RAM, sound card) Microsoft Office 2000 (provided)
Contact person	Sandy Chapman, Program Coordinator (785) 532-4495; schap@ksu.edu	Luanna DeMay, Program Manager (765) 494-4270; luanna@purdue.edu

[1]Faculty of both programs have indicated there is flexibility in some of the admission requirements. Contact the respective program with questions regarding admission.

[2]Private MBA loans are available for the EMBA program, but government loans are not. Most forms of financial assistance are available to MAB participants. Consult the respective university's financial aid office for more information. Employers often will help offset the costs of professional-development programs such as these.

the technology now; the technology is just a tool."

After the initial adjustment when he began the program in January, he says, his concerns became those of any graduate student — getting the projects done and meeting the instructors' expectations.

Featherstone believes the optional audio chat sessions on the Internet increase students' interaction and motivation. They allow instructors and students to exchange ideas more like they would in a traditional classroom.

Even if the students don't have questions, they can still participate by listening to the answers to other people's questions, Featherstone continues. "That's one of the ways the technology helps, is being able to make the students feel more like a class."

The chat sessions are usually conducted in the morning when Internet congestion is low. Featherstone adds that some students still experience slower connections due to the older telephone lines in some rural areas.

The Purdue faculty, meanwhile, is avoiding any activity that requires the whole class to be online at the same time. They're adhering to strict "asynchronous learning" — students work on their assignments whenever they want.

Instructors in the EMBA program do have "office hours" when they're online for real-time responses, but students can send them e-mail anytime and await their replies. Akridge says study teams are encouraged to organize online chat sessions or conference calls on their own.

The technology component has created additional benefits to distance education.

Hammarlund likes having the lectures on CD-ROM. "If you miss something or if you don't understand something, you can always hit 'Pause' and 'Rewind' and start over again," he says. "That's something you couldn't do with a lecture back in college."

Each lecture comes in the form of a slide presentation with a voice-over of the instructor explaining each slide. Since the slides can be printed, the notes are essentially taken for you, Hammarlund says.

"In the traditional campus lecture, most of the time, you're frantically writing down the notes while you're trying to listen to the professor," he says. With this form of learning, students can focus on what's being said and note just the key points or issues they want to question in the next chat session.

The electronic chats also are an advantage, Hammarlund says. K-State uses a system in which the professor's voice is broadcast over the Internet during the online recitations so the students can listen. The instructor can type examples for the students to see on their computer monitors. Students join the "discussion" by typing on their computers. The text and audio are archived, and students can review them anytime.

Hammarlund acknowledges that today's computing power means less time is spent crunching numbers so more time can be spent focusing on the concepts the numbers represent. That allows students to tackle tougher problems than would be possible otherwise.

"It makes the economic and statistical analysis of everyday problems that anybody would have in the workday world easier and a lot more intuitive," he explains.

Other aspects of the programs are those typically associated with distance education.

Hammarlund points to the financial advantages. "It certainly makes it more cost-effective because you don't lose the salary you get from your regular job," he says. "Particularly with a farming operation, where certain times of year are crunch time, I don't think [being on campus] would really work out that well."

Setting your own schedule means setting your own pace, too, Hammarlund adds. While that's a benefit, it's also a major challenge.

Both K-State and Purdue forewarn their students of the time commitment that must be made, telling them to expect to spend as many as 20 hours/week with their course work.

"It's still an advanced degree, where you still need to put the work in," reminds Featherstone.

Chapman says most of the students in the MAB program spend a couple of hours each night with their materials. "They have to view it as their new hobby for two years," she shares.

If students pace themselves and stay current, finishing the program is doable, Akridge says. It's playing catch-up that is almost impossible.

Courses in the Purdue program generally

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progress in two-week blocks with homework or case studies due that often to keep students on track. Students also are assigned to study teams, which provide support and help monitor each other's progress throughout the courses.

Akridge advises students to manage the time commitment by keeping the lines of communication open. "We want to know if they're struggling," he emphasizes. "Communication is critical."

Hammarlund says K-State's courses are broken into segments to make it easier for students to pace themselves. Being on the farm, though, he always fears something unexpected will happen, keeping him from his assignments. That's why he tries to start early on his projects and sets aside about 15 hours/week to do them.

What motivates people to commit that kind of time to programs like these? Akridge says it's either the desire to move up in the ranks of their company or an entrepreneurial spirit. Either way, they want to increase their knowledge base and skill levels.

Featherstone also sees desire to upgrade skills, usually in the areas of information management and computers.

The K-State professor adds there are two groups drawn to the MAB program. The first is the one for which the program was designed — those with strong agricultural backgrounds needing more business training.

The other group includes people with liberal-arts backgrounds who have found themselves working in agribusiness. Close to half of K-State's MAB students fit that category. Not only have they turned out to be an unexpected target market for the program, but they add new opportunities, Featherstone admits.

"They come at issues from a different background," he says, explaining it often creates an urban-rural dialogue. "The agricultural farm population is only 2% to 5% of the population, depending on how you count it, so being able to interact with some of the other 95% who happen to have an interest in the food sector is very useful for the students and faculty."

Half of the people in Purdue's first EMBA in agribusiness class are in sales or marketing; 14% are involved in banking or finance; and 18% work in operations or logistics. K-State's MAB students include on-farm producers, educators, input suppliers, output processors and marketers, and financial professionals.

Both programs boast an average student age of 34-35. Purdue's EMBA students have an average of 11 years of professional experience, while K-State's MAB students average seven years. One student in Purdue's program is participating from his location in Mexico, while K-State is educating three international students, who are located in China, Cambodia and Ecuador.

Hammarlund says the diversity has provided him with new perspectives.

"If you're sitting in an ag-econ class as an undergraduate, you're going to get ag-econ questions from a bunch of ag-econ majors who are thinking the way ag-econ majors think," he explains. "You don't get that in this class, because everybody thinks a little bit differently and you get a little different perspective every time."

Although it's a new concept for agriculture, Chapman says the response has been positive. Once the industry realizes full-time, recognized faculty are teaching the courses using the latest technologies, she thinks more people will become comfortable with the idea and put away the old stereotypes of correspondence courses.

"Once industry knows about it and they're hearing about it from somebody they know and trust, the program is really selling itself," she says.

Hammarlund believes the marketplace soon will demand other programs of the type now offered by K-State and Purdue. "Everybody is going to be doing this in five to 10 years," he believes of other universities and their distance-education methods.

He contends it won't be just the quantity of such programs that increases. It's his opinion the quality will improve, too.

"If they make as many advances in the next 10 years as they have in the last 10 years in computers, that idea of distance is going to collapse," he says. "You're not even going to realize that you are at a distance."

The other side: how universities view computer-based distance education

Not all the benefits associated with the newest wave in distance education are for the students. It's also having positive effects on the universities.

Allen Featherstone, professor of agricultural economics at Kansas State University (K-State), says it's impossible to be so involved with students from such diverse locations and backgrounds without gaining a broader understanding of the industry. This leads to increased relevance in the instructors' on-campus courses.

"There's been a number of faculty who have actually come up with examples, through this program, from industry that they've used in their other courses," he says.

Jay Akridge, professor of agricultural economics at Purdue University, agrees. "We're more in touch with what the industry is worried about, and we're being pushed to be very relevant to a group of people who are trying to make things happen," he says.

Another benefit for the faculty is that it's forcing them to get up-to-date with technology, according to Luanna DeMay, program manager for the Executive Master's in Business Administration in food and agribusiness at Purdue. "The professors have really jumped into the technology side and have joined in with some of our specialists here to create these virtual classrooms," she says.

Akridge adds the programs are causing new people to affiliate with the universities. Without the distance-education option, they wouldn't leave their careers to pursue advanced degrees.

The new push in distance education is a good fit for institutions like K-State and Purdue, says Sandy Chapman, who coordinates the Master in Agribusiness degree program at K-State. "It's furthering the entire land-grant mission of delivering education to those who need it," she says, adding it's an ideal way for agriculturists in remote rural areas to enhance their knowledge base.

While there are many positives, distance education presents challenges to the faculty, too. Akridge explains that it requires a different teaching style. "It's almost a coaching-facilitator role when you're helping these people go through this material, as opposed to being the entertainer in the front of the classroom," he says.

The technological component of the newer programs also requires more time from the instructors. Akridge says preparing the Web sites and CD-ROMs must be done far in advance of teaching the actual lessons. "You basically have to have the whole course designed before you start the semester," he explains. "On campus you can be much more flexible and go with the flow."