

# New grants enhance learning

*By Rebekah Hagen, Andy Block & Heidi Thompson*

Three grants totaling nearly \$15,000 were awarded to faculty members by the "Learning That Lasts" grants program to improve active student learning on campus through enhanced teaching effectiveness.

"Learning That Lasts" grants are funded by Minnesota State Colleges and Universities (MnSCU) Center for Teaching and Learning (CTL) and the Bush Foundation. Their goal is to enhance student learning by giving them an opportunity to engage in hands-on learning where they can work side-by-side with other students and faculty on original projects.

"We have to give the students the best we can give them, and active learning will provide that," said Karen Thoms, director of Faculty Center for Teaching Excellence.

Active learning is important "to get students involved by doing instead of just hearing," Thoms said. Employers want students who are able to communicate and work together to solve problems.

"Hands-on learning is definitely important," said Nathan Meissner, a senior in Anthropology. "It gives us a chance to do real research on original topics."

He said that courses that provide the opportunity for students to engage in active learning tend to be his strong point.

"We need a holistic approach to work on projects."

Six faculty members received the grants for their proposals. The proposals were required to have some sort of matching funds available for the project. They also must work with other faculty members, departments, programs, campuses or institutions in order to be eligible for the grant.

Richard Rothaus, assistant vice president for academic affairs and associate professor of history, in collaboration with Matt Julius, assistant professor in biology, received a \$5,000 grant for their proposed project, "Cultural and Environmental Landscapes Laboratory: A Community of Active Learning."

The project will bring students and faculty from multiple disciplines together to provide active learning opportunities in Mille Lacs Kathio State Park.

"To understand a contemporary landscape, students must go outside, walk the land, touch the earth, examine the ecology and look for the hand of humans in shaping the world; this cannot be replicated in the traditional classroom," Rothaus said.

"It's the difference between trying to learn to juggle by reading a book, and trying to learn to juggle by having someone stand next to you and help you do it," he added. "Both sort of work; one is obviously much better."

Rothaus also said that it is important to create a strong base of knowledge that students can build on each year. This will benefit the students, faculty and the community as it increases our knowledge of how the land that we live on is changing over time.

They will be working with CELL, Cultural and Environmental Landscapes Laboratory, which is a convergence of individuals from Biology, Anthropology, and Geography. CELL was formerly Archeological Computing Lab.

Associate Professor Lakshmaiah Sreerama and Assistant Professor Mohammad Mahroof-Tahir, both from the chemistry department, received \$5,000 for their proposal to enable students to work alongside with chemistry and biology faculty on original research projects.

"Hands-on learning is absolutely critical in the sciences," Sreerama said. It brings students from many different areas of study together to work on one project. This will help build problem-solving skills.

"The key learning experience is communication," he said. "It gets the students out of the classroom and (and lecture), and gives them a chance to experience it for themselves."

Sreerama said there are two important benefits from the grants; they create legitimacy for hands-on learning at this university and show that there is a demand for this style of teaching and learning. It also helps with the cost of resources.

Sreerama and Mahroof-Tahir will work with students to design experiment plans, prepare formal research papers and present their research findings.

"Incorporating interdisciplinary research concepts into our curriculum will go a long way toward emphasizing its importance for our students," Sheerama said.

Another chemistry team, assistant professor Michael Dvorak and professor Jack McKenna, received \$4,831 to incorporate computer controlled data acquisition into freshman-level general chemistry courses. This will give the students greater control over experiment design, set-up and execution.

With hands on experience, students get the opportunity to use the theories that they learn in the classroom and see the process and outcome first-hand, Thoms said.

The students benefit, the university gets publicity, and faculty members are able to build a stronger curriculum for the future, she said. There are funds available for aid in active learning.

"This is a very exciting time for SCSU," Thoms said.