Vanderbilt

# engineering

Fall 2011

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## Impact

ISIS' pioneering model-integrated computing is at the epicenter of a transformation in engineering

# Computing ... It's Not Just for Computer Scientists and Engineers Anymore

No matter what their field of scholarly pursuit, engineers and researchers need a common tool: scientific computing. To assist psychologists, sociologists, economists, biologists and others in the social, life and natural sciences develop the computer skills they need, the School of Engineering and College of Arts and Science has launched a new minor in scientific computing.

The minor was created by faculty from both schools and will be available to students in all colleges. It is co-directed by **Robert Bodenheimer**, associate professor of computer science, **Thomas Palmeri**, associate professor of psychology, and **David Weintraub**, professor of astronomy.

"The computer science major and minor do a great job preparing engineers to understand the theoretical and practical foundations of computation, but they are not designed for people who want to use computers to solve computationally demanding scientific or engineering problems," Bodenheimer says. "That's where the scientific computing minor comes in."

Bodenheimer says he and the other professors involved believe the minor will have broad appeal. "It will make computational methods and thinking more accessible to students interested in understanding its impact in modern science and engineering," he says, adding that while faculty from computer science, psychology and physics led the way in the design of the minor, there was also input from mathematics, mechanical engineering, biomedical engineering, chemistry, biological sciences and other disciplines.

The new minor is offered for the first time this fall and was created with support from a National Science Foundation grant. The program also serves a bigger need, Bodenheimer adds. "By improving the computational skills of scientists and engineers, we can achieve the broader impact of improving science education in the United States."