

Google Earth

There's no substitute for studying geology in the field, but when it takes 80 million years for mountains to form and when it's not possible to travel halfway around the world to see something firsthand, then a



Steven Whitmeyer teams with Google Earth to create computer simulations for students.

good computer simulation can be the next best thing.

That's the idea behind a new set of Google Earth tools being developed by Steven Whitmeyer, professor of geology and environmental science, and colleagues at Old Dominion University and Northern Virginia Community College. Whitmeyer received a \$700,000 grant from the National Science Foundation for his part of the project. The professor has

worked on educational models using Google Earth for the past five years. This project, Google Earth for Onsite and Distance Education, or GEODE for short, is the next step in the development process. "Each project has been a little different. It has to be original, but it can build off earlier work," says Whitmeyer, who presented the GEODE concept with his collaborators at the 2013 Geological Society of America conference in Denver last fall.

Another important aspect of the project is to create a virtual fieldwork environment where students can "visit" areas around the globe to do research. For example, students can pick out specimens native to a region and get information and 3-D images. "You can go to South Africa and have a specimen of the rock that you would see there, and if you click on it, you get information about it, geochemistry and [more]," explains Whitmeyer.



This Earth animation by Steven Whitmeyer depicts the 80-million-year path the India subcontinent took to reach its current location, creating the Himalayas in the process. Whitmeyer is professor of geology and environmental science.

The virtual fieldwork environment also benefits people who have disabilities that prevent them from working in the field. "It doesn't replace fieldwork, but you also have to recognize that there are some things that you can illustrate with visualizations in something like Google Earth pretty well and you don't want to disenfranchise that part of the community who are not able to do these outside field trips." **M**

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Excellence and Innovation in Teaching Award winner Cynthia Rubenstein instructs JMU nursing students.

Nursing professor earns nod for innovative teaching

For 15 years, Cynthia Rubenstein worked as a pediatric nurse practitioner in various primary care settings, and she continued to practice well after earning her doctorate. Now a professor and director of undergraduate nursing at JMU, she brings clinical experience into the classroom. "My philosophy of teaching is student-centered and focuses on real-life application," Rubenstein says. "When you've been on the front lines, you know what the issues are. So I like to pull in case studies

and adapt them as needed. Health care is always evolving. You have to stay current to prepare your students." Her approach recently caught the attention of the American Association of Colleges of Nursing, which presented Rubenstein with its prestigious Excellence and Innovation in Teaching Award. It marks the first time that a JMU faculty member has won the award. **M**

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