

Faculty/Student Team Introduces Visualization and Modeling into Introductory Science Course

NSF Highlights— Track 2: Workforce Development



Lewis Clark State College students engaged in peer review of individual poster

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Outcome: A team from Lewis Clark State College (LCSC) in Idaho are incorporating visualization and modeling exercises via Google Earth into LCSC's Geology 120: Introduction to Earth Systems course. This course will be focused on the Snake River Watershed in Idaho and the earth systems that contribute to its maintenance and formation. Students discuss the hydrology, geology, and relevant mapping and visualization tools associated with understanding the Snake River Watershed helping them to become informed citizens and build skills to scientifically analyze information.

Impact/Benefits: The Geology 120 course is now being offered in Fall and Spring providing students more access and experience with using the visualization and modeling exercises. Other impacts include significant modification of lecture activities and course materials including incorporation of new digital resources into weekly lecture (i.e. Digital Atlas of Idaho, Google Earth, Earthlabs, and Visionlearning).

Explanation: The Western Consortium Watershed Analysis, Visualization and Exploration (WC-WAVE) project is a collaborative effort of the Idaho, New Mexico and Nevada NSF EPSCoR Programs. Its overarching goal is to advance watershed science, workforce development, and education with cyberinfrastructure (CI)-enabled discovery and innovation. The Undergraduate Visualization and Modeling Network (UVMN) provides professional development for instructors (faculty) and students from Primarily Undergraduate Institutions (PUI) in the three consortium states by providing an opportunity to engage diverse students in undergraduate research and CI-enabled education. Faculty and student teams from each state participate in workshops focusing on modeling and visualization and work collaboratively to develop and implement educational models at their home institutions.

Highlight provided by Sarah Penney, University of Idaho, sarahp@uidaho.edu / Photo provided by Jeanette Gara-Betzold, Lewis Clark State College, jegara@lcsc.edu