

FIRST CALL
Special Issue of the Journal of Geoscience Education

“The Symphony of the Spheres: Recent Advances in Earth System Science Education”

Earth system science education engages scientists and educators in the collaborative interdisciplinary development and offering of courses and learning resources focused on understanding and application of Earth system and global change science in the classroom and laboratory. Due to the complexity and diversity of Earth system processes, geoscientists commonly are required to comprehend and apply knowledge of the atmosphere, biosphere, geosphere, hydrosphere, and anthroposphere. Understanding these spheres and their linkages is a central focus of Earth system science. This special issue of JGE will focus on exploring exemplary courses, curricula, degree programs, learning resources and programs centered on Earth system science education. Papers demonstrating effective technological tools, techniques facilitating systems thinking, or pedagogical approaches would be welcome contributions. At least one of the articles should provide a general discussion of the implications of the recent advances in the field, and should attempt to identify the directions and challenges of future research. Appropriate topics could include, but are not limited to: How is Earth system science defined and what are appropriate strategies for conveying this concept to students? What are the most productive instructional technologies, and how and when are they best applied? What are effective means to teach students of connectivity among spatial and temporal scales and on linkages among spheres? Of special interest are papers describing lessons learned in: developing and sharing content; utilizing Earth system science topics to engage students in science, technology, engineering and mathematics (STEM) learning; and in building working interdisciplinary partnerships. Also encouraged are papers that pursue formal evaluation of Earth system science learning materials and programs overall, as well as papers that address the institutional sustainability of Earth system science courses and programs.

Special Associate Editors:

- Gene Rankey, Rosenstiel School of Marine and Atmospheric Sciences, University of Miami, grankey@rsmas.miami.edu
- Martin Ruzek, Science Program Manager, Universities Space Research Association, ruzek@usra.edu

Refer to <http://www.nagt.org/Instructions.htm> for submission and manuscript guidelines.

Deadline: Manuscripts should be submitted by Sept. 15, 2005.

We strongly encourage contacting the associate editors by April 15, 2005 if interested in submitting a manuscript to this special issue.

Submissions should be sent to:

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Department of Geosciences

Indiana University Purdue University Fort Wayne

Fort Wayne, IN 46805-1499