Student Education and Training

Through its projects, data resources and collaborative linkages, the Institute supports students interested in earth science and environmental research. Students gain valuable experience working as EESI Environmental Scholars, participating in the annual Environmental Chemistry Student Symposium, contributing to various laboratory experiments, taking EESI-funded field trips, and joining in other EESI activities.

Outreach

Institute faculty work actively to communicate research findings to both academic and practitioner audiences via publications, presentations, and the Web. EESI science also is communicated through novel formats such as the GeoWall 3-D projection system and Science on a Sphere. In addition, EESI supports and organizes the annual EarthTalks seminar series for the university and broader communities. The seminar series examines such timely and critical issues as water resources, climate change and landscape change. In 2010, the Marcellus Center for Outreach and Research was established to specifically target development of Marcellus Shale in Pennsylvania.

For more information on the Institute, contact:

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Earth and Environmental Systems Institute

Building an extraordinary community of people who cross boundaries to understand the earth system, how it affects people, and how people affect it.

COLLEGE OF

EARTH AND MINERAL SCIENCES

The Earth and Environmental Systems Institute (EESI) in the College of Earth and Mineral Sciences is one of the nation's leading institutes in earth and environmental sciences research. Its diverse and world-renowned associates and affiliates are engaged in interdisciplinary, innovative and collaborative research on some of the most compelling problems and issues of our time. EESI's expertise is broad and includes observational and modeling science, physical and social science, and manipulation and visualization of environmental data.

The Institute's goals are:

- To encourage interdisciplinary examination of the chemical, physical, biological, and anthropogenic processes from atomic to global scales by supporting faculty and student research;
- To understand environmental data in new and innovative ways;
- To disseminate research findings through publications, presentations, Web pages, workshops, seminars, testimony to public agencies, and advice to public and private organizations; and
- To develop innovative, interdisciplinary research and education programs.

EESI supports seven research centers and one research field site:

- Center for Climate Risk Management
- Center for Environmental Chemistry and Geochemistry
- Center for Environmental Informatics
- Earth Systems Science Center
- Marcellus Center for Outreach and Research
- Penn State Ice and Climate Research Center
- Riparia (Cooperative Wetlands Center)
- Susquehanna/Shale Hills Critical Zone Observatory

Support of Faculty and Student Research Endeavors

The Institute provides high-quality support services through its budget and grant management personnel, computing assistance through its Environmental Computing Facility, and outreach support through its outreach support teams. Proposal development, external funding searches, editorial assistance, and conference support are available to Institute faculty as well.



Graduate students Elizabeth Herndon (I) and Danielle Andrews use lysimeters to sample water in soil pores to identify its chemical constituents.

Innovative, Interdisciplinary Research and Education Programs

The Institute endeavors to develop initiatives or centers that focus on compelling scientific, social, and engineering issues and problems that require the expertise of more than a single researcher or even a single department. The expertise and strengths of academic departments in the College of Earth and Mineral Sciences often provide the foundation for these interdisciplinary initiatives and centers. The resources of the Earth and Environmental Systems Institute are designed to create added opportunities for faculty and students and to act as a catalyst for innovative, collaborative research.