Serving as a catalyst to promote collaborative interdisciplinary environmental and ecological research through graduate education

INITIATIVE

The ESE IGP was launched in fall 2005, facilitated by the Center for the Environment (C4E) in Discovery Park. The program’s academic success led to its move to the Office of the Provost in 2009 and finally into the Office of Interdisciplinary Graduate Programs (OIGP). In 2013, ESE IGP revitalized our partnership with C4E through collaborative projects/events. The ESE IGP provides students with educational and research experiences that integrate engineering, science, policy and life cycle thinking concepts used to address sustainable solutions for environmental grand challenges. The ESE IGP partners with 15 departments and 5 colleges that provide the disciplinary foundation under a set of complementary integrating themes, and also promotes interdisciplinary environmental research among faculty. ESE IGP was selected as part of the Peace Corps Masters International Program.

IMPACT

- The ESE IGP is transforming graduate education for many at Purdue. The ESE facilitates the development of students who think broadly in the context of sustainability and resilience across multiple disciplines.
- The ESE IGP enhances recruitment of top graduate students to all environment-related areas. Approximately 55-65 students apply each year. Beginning in fall 2014, there were 78 ESE Ph.D. and M.S. students on campus. Twelve Ph.D. and more than 50 M.S. students have graduated and are serving in federal agencies such as EPA, consulting firms, industry, Peace Corps and academia.
- Professional development continues to be an important part of ESE with our students growing through the ESE Colloquium, our campus-wide annual ESE Symposium, our Keystone Series, international projects/conferences and external fellowship proposals. The 2013 Summit “Capturing Resilience: The bridge from recovery to prosperity was attended by 200 faculty, students and citizens. The Summit included a workshop launching a Midwest Sustainability Cluster with the Office of Sustainability, which was attended by leaders from communities and commerce across Indiana. ESE students continue to be involved with these meetings.
- ESE students continue to be successful in receiving awards from EPA, NSF, Engineering without Borders, Boren and Knauss fellowships, Kaufman Scholar, mission-oriented grants in the COA, NCR-SARE and others. Students actively lead green community initiatives, serve in the PGSG and Purdue’s Sustainability Office, pursue teaching certificates through the Center of Excellence in Teaching, and travel to places such as Africa, the Middle East, and Europe. ESE students were also key to Purdue being selected by AAAS as one of five universities to participate in the Emerging Leaders in Science and Society (ELISS) program.
- The Colleges of Agriculture, Engineering, Liberal Arts, Science and Technology, as well as the OIGP, provide financial support to the ESE IGP. The Purdue Center for Climate Change Research, C4E and the Purdue Water Community have helped to support ESE student travel and conference efforts.

Representative quotes from Graduate Students in the ESE Program

“I’m in the second year of my master’s program in ecological sciences and engineering (ESE).... I’ve gained some crucial insight on my interests through working with ESE – what I love about ecology is studying interactions and, more broadly, systems. (ESE Knauss Fellowship recipient)

“Grand challenges can only be tackled through integration of multiple disciplines, and the ESE program not only provides a platform for this, but further tools and a framework for developing such solutions.”

“I came to Purdue to get a world-class graduate school education. I expected to find cutting-edge research, high- quality facilities, intelligent people, new ideas and direction for the future. I found all of those things, but what I did not expect to find was family that came as a result of the ESE program.”