

End-of-Program Review 2011-12

Compelling Intellectual Experience(s) and Successful Pedagogical or Innovative Practice

Environmental Studies Programs

Program name	Faculty	For purposes of helping reflect on the range of teaching practices and experiences at the college, please identify the most compelling intellectual experience(s) in your program or the most successful or innovative pedagogical practice in your program.
Landforms and Lifeforms	Peter Impara	Field Trip to Death Valley, Practice Presentation [Start of Essay] The most compelling intellectual experience for our students and faculty was our 9-day field trip to the Death Valley. The trip brought together the geologic and biogeographic themes of the program, especially through Chris Coughenour's extensive knowledge of the geologic features in the area. The features themselves are not only quite remarkable and unique, but also extremely visible and available for study. In addition the life forms in the Death Valley were excellent examples of extreme biology, which was a theme of the quarter. Overall the trip reinforced my perception that field experiences are the best method to expose students to the potential for experimental design, critical thinking, and overall natural history and related knowledge. I feel the most successful (and innovative, I started doing this in 2001 and a few faculty have taken it up) pedagogical practice in our program was the practice of having students first present their final project to only the faculty as a way to practice it and get feedback before presenting to the entire class.
Disturbance Ecology	Peter Impara	Field trips were especially informative regarding the disturbance processes in the ecosystem. Students were able to visualize and review the disturbance process and connect that to the present status of the ecosystem being studied.
Nature's Prose	Heather Heying	Several activities centered around the theme of migration, specifically the annual shorebird migration that is reliably observable at Grays Harbor in late April or early May every year. This was perhaps the most integrated--and simultaneously dispersed--topic that we touched in this program, across many major modes of learning. The second of three overnight field trips was to the coast, where we observed the migration directly (and where Steve Herman, as well as several former students of his and mine, who are active birders, accompanied us, and provided inspiration). We read a scientific review paper on adaptive advantages of migration, and workshoped on it. Before we went on our trip, I lectured on the phylogeny and ecology of shorebirds. We did a quantitative workshop on relationships between body mass and wingspan across many species of birds, and how knowing the ecology of a bird can help predict when that mass:wingspan relationship will be unusual, and why. Students shared their most pointed observations, and questions, from the shorebird trip, and I summarized them and provided them as prompts for their second essay, which required them to search the scientific literature as well as write from what they knew directly. Later directed seminars again brought up some of the students' observations as questions, so that conversation was on-going on these topics.
Marine Life: Marine Organisms and Their Environments	Trisha Towanda	Learning to write a research proposal, go through the review process, conduct the research and finish with a scientific paper presenting the research.
The Fungal Kingdom	Noelle Machnicki	Students engaged in a quarter-long group research project focusing on the detailed analysis and synthesis of some aspect of an applied mycological or lichenological subject. This work culminated in writing a two-page "popular science" article summarizing their research and a "Fungal Kingdom Expo" where students created interactive booths and educational materials to share their research projects with the TESC community. Writing a popular science article forced students to synthesize many research materials (including peer-reviewed scientific articles) into a short and understandable piece of writing. It was challenging for the students (and it took several drafts) but ultimately rewarding. We gave students a lot of freedom in designing their Expo booths. The only guidelines were: no powerpoint presentations, create an engaging display that communicates what you learned, include some form of lichen or fungi at your table. The freedom was a risk that we took but it paid off; students created booths that were diverse in their strategies, (slide shows, videos, posters, art, zines, demos, audio) rich in content, and engaging to the community. The Expo took place during lunch (11-2) in the library lobby and was very well attended. Students spent the entire time talking to booth visitors, communicating their expertise, and reported that it was a rewarding and empowering experience. Also a great way to end the quarter!