Progress Report: University of Pittsburgh Innovation in Education Awards July 2009 to April 2010: Developing a Multidisciplinary Student-Faculty Learning Community at UPJ

Project director: Karen T. Lee, Ph.D. Associate Professor Coordinator of Undergraduate Research, Department of Biology, University of Pittsburgh at Johnstown, 450 Schoolhouse Rd, Johnstown, PA 15904; voice: 814-269-2912; fax: 814-269-7126; email: ktle@pitt.edu

Co-directors: Frances Zauhar, Ph.D, Associate Professor, Humanities Division Chair, Univ. of Pittsburgh at Johnstown, Johnstown, PA 15904; voice: 814-269-7137; email: zauhar@pitt.edu

Bruce Robart, Ph.D, Associate Professor, Biology Department, Univ. of Pittsburgh at Johnstown, Johnstown, PA 15904; voice: 814-269-2911; email: robart@pitt.edu

The goals of our project were to design and teach a course 1) fosters a genuinely multidisciplinary learning community of students and faculty; 2) introduces 2nd and 3rd year students to an undergraduate research, scholarly or creative collaborative experience; and 3) serves as a pilot program that could be expanded to be used for other students. This is, to our knowledge, the first time a course like this has been offered at PITT Johnstown.

To this end, we assembled a team of professors who taught the course, offered as CAS 1917 Directed Focus: Study Groups: Investigating Nature, in spring term 2010. The course was offered H/S/U and was designated writing enhanced. The lecture portion of the course consisted of a series of “modules”, each of which highlighted a particular discipline’s contribution to the discussion of the course’s theme: the Natural World. Each module was taught by a faculty member or team of faculty members and had assigned readings and a writing or in class assignment associated with it. At the end of the module portion of the course, a take-home essay exam was administered to the students. Part way through the course a list of potential independent projects was provided to the students. Students were also encouraged to design their own project. Students chose another student as an assistant and a faculty member as a mentor. At the end of the term students gave oral presentations on their projects and handed in their presentations for evaluation. Some students presented their project at PITT Johnstown Symposium for the Promotion of Academic and Creative Enquiry (PITT Johnstown SPACE). In addition to the module assignments, mid-term exam, and presentations, students were also required to write a blog entree each week using the blog function on our blackboard page. Some weeks the blog topic was open ended, other weeks the topic was assigned or was started by a faculty post.

Faculty members who were part of the team included the project director and co-directors as well as Dr. Matt Burstein, Assistant Professor of Philosophy; Dr. Michael W. Cox, Assistant Professor of English Writing; Dr. Carrie Davis Todd, Assistant Professor of Geology;
Dr. Nina Girard, Associate Professor of Mathematics Education; Dr. Mary Lavine, Associate Professor of Geography and Director, Environmental Studies Program; Dr. Dan Santoro, Associate Professor of Sociology; Mr. Brian Houston, Associate Professor of Civil Engineering Technology; and Dr. Thomas Fuchs, Visiting Assistant Professor of Biology.

In our first run of the course, 8 students registered for and 6 successfully completed the course. The majors of the students enrolled in the class included History, Environmental Studies, Sociology, Secondary Education-Biology and Biology. Student projects included a cover board study to sample amphibians in the nature area, the history of the Hetch Hetchy dam, water privatization, invasive plant species in the nature area, a philosophical inquiry into humanity’s metaphysical and ethical relationship to nature, and a survey of animal tracks in the nature area. As hoped, some students did projects outside their majors.

As to our specific goals, only the first (the formation of a community) and second (exposure to undergraduate projects) can be assessed at this time. Whether students do full undergraduate projects in the future, or whether the course will be used as a model for other courses can only be assessed by follow up over the next several years. However, we do plan to teach the course again this coming academic year, and we are offering a shorter version of the course for teachers as part of our ACT 48 program in summer 2011.

In order to assess the course outcomes, students were asked to complete entrance and exit surveys (see attached). The contents of the weekly blog will also be used to assess student perceptions during the course (analysis not yet complete).

Analysis of entrance and exit surveys indicated that students found the course challenging, that it met their expectations in enhancing independent thinking, creative expression, and freedom to express opinion, though the course did not seem to meet their expectations in terms of learning to work on a team or better understanding the principles of research. In addition, students found that their opinions on some aspects of the natural world had changed as a result of the course and that they had improved speaking, writing, and critical thinking skills as a result of participation in the course. Open ended comments were largely positive about the course and its outcomes.