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What strategies have you or your program used to meet one or two of the challenging aspects of teaching at a two-year college?

Being at a small community college, with only three geoscience instructors and very limited resources, I find the following to be among my biggest challenges:

1) providing challenging activities for the top students, interested in pursuing a career in geosciences, while still engaging the general education students, interested in receiving course credits and in moving on; and

2) lacking a community of geoscientists, with which to network and collaborate.

In a small department, we do not have the resources to offer separate courses or sections of courses for students intent on entering 4-year geosciences programs from those who are only enrolled in courses to satisfy their general education science requirements. In such a situation, the range of student interest, motivation, and background knowledge is vast and it is difficult to both engage the general education students, while at the same time providing a valuable learning experience for the more advanced students. At the same time, I have found it difficult to maintain my own energy and enthusiasm for my position without a network of colleagues with which to interact, discuss ideas, brainstorm, and collaborate. Through collaborations with 4-year University and research faculty, I have found a way to manage both of these challenges simultaneously.

As an example, I have been working on a collaborative project with, Dr. Julie Huber, a research Oceanographer from the Marine Biological Laboratory in Massachusetts. This project is a unique education and outreach effort that links my community college students to cutting edge oceanographic research and has been funded by the National Science Foundation. There are several components to this collaboration, including:

1) On-going communications during my *Introduction to Oceanography* course with Dr. Huber during the semester. These communications include:
    a. In class chat sessions via Skype from her laboratory/office in Massachusetts, as well as from the port of call as she was heading out for a research cruise, during which students could ask questions about what life on a research ship is like, how long does it take to load the equipment onto the boat, and how do you study deep ocean bacteria?.

b. Web blog where my students could post questions to Dr. Huber while she was actually on board a research cruise and she could post answers to their questions. Students asked questions about the progress of the research, the weather, the food, etc.

c. A shared experience between my students and Dr. Huber, during which students saw photographs of a new underwater research vessel that was being tested during Dr. Huber's research cruise and listened as she explained the instrument and how it was being used. To illustrate the immense pressure that the vehicle would encounter in the deep ocean, students decorated Styrofoam cups and sent them to meet Dr. Huber on her cruise. During the cruise, Huber's team of scientists attached the cups to the vehicle during one of its deployments. Because of the extremely high pressure experienced deep in the ocean, the cups shrunk down to about a third of their original size. After the cruise, Dr. Huber sent the research souvenirs back to the class.

2) A summer research internship for four exceptional community college students to work directly with Dr. Huber in her lab in Massachusetts conducting research on microbial life from the deep sea vents.
3) Development of deep sea vent curriculum geared specifically toward the community college setting that incorporates Dr. Huber's ongoing research and results for future dissemination.

This connection of community college students with world-class scientists in the field promotes better understanding of research and potentially may encourage more students to major in the sciences. It provides some exciting activities for the non-majors to stimulate interest in the topic of oceanography, but also provides valuable information on careers and cutting-edge research for the more advanced students. Additionally, the internship program provides a very unique experience for my students to gain some hands-on exposure to research that I cannot provide at my community college. And finally, this collaboration has allowed me to maintain a connection with current research in my field of oceanography.