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What have you found to be most successful in broadening participation in the geosciences at your institution and what made it successful?

Community colleges are the location of choice for community education (post graduate), job certificates, and future graduates looking for the most affordable educational path. As such, we have the unique opportunity to become an integral part of a community and serve it at all levels. We are educators in a wide range of capacities – and our doors are open to all. We work with K-12 teachers and their classrooms; local science workshops; local news organizations; local parks; municipal services; politicians; and surrounding 4-year institutions to which our students transfer.

Most community colleges serve a large, diverse group of students – of all races, ages, and economic backgrounds. We are on the front lines with students who have lots of life experience and want to understand their planet better or who are lost and looking for something that interests them and that can guide them towards a successful, rewarding career and life path. As such, we have the opportunity to turn many students on to the Earth Sciences, and if not produce future majors, at least produce future voters, educators, and community contributors who are well versed in the scientific method and basic understandings about how their planet functions.

By making my department as open a resource as possible, by cooperating in outreach opportunities throughout the community, by helping all my current students see geoscience education as important and exciting, I am broadening participation in the most effective way possible.

So what are some of the specific ways that my particular department makes geoscience education exciting and open to all? First and foremost, we have great instructors teaching our courses – who get the highest evaluation marks and demonstrate their own passion and enthusiasm for what they teach. (A natural enthusiasm for one's subject matter – enthusiasm that bubbles over and infects a classroom – is one of the best ways to improve success and participation in a class!) We are committed to helping our students succeed in our courses and get hands-on experience with a wide range of skills. And we consider that part of our job at the community college – not just teaching geosciences, but providing as much guidance as possible to our students on how to be successful in our and future classes. More details:

- We have an active **Earth Sciences Club**, which hosts optional field trips, talks, and social events to both create a sense of camaraderie and community in a student's geoscience educational journey and give students an extra-curricular opportunity to explore geoscience (without grades or pressure).
- We have a robust **peer-mentoring and tutoring program**, with 10 hours per week of open study sessions in our main department lab rooms. Students can use these study sessions to work with other students from the class or seek help from previous students (study session leaders/tutors). Often students attend just to figure out how to study better – how to read the textbook better, take notes better, etc. And our peer-mentors (future majors) get to keep their hands in the science even as they take the Physics, Chemistry, and Calculus classes they require for their programs. Many of our peer mentors are paid. Some are volunteer. Some already have degrees.

- We are lucky to have many students who act as our **ambassadors** – many already with bachelor's, master's, and PhDs, but with the love for geoscience that comes from a life-long interest outside their main career. These students are incredible resources for us as teachers and for our students. They provide the patience that we sometimes don't have. And they demonstrate and encourage when things get tough, because they've been there themselves. These students are from the community and choose to volunteer as a way of staying in touch and active with the science and work they love.
- Our website and instructors offer students information and advice on **transferring** and being successful in a completion of bachelor's and master's degrees. We give information on local college departments (transfer requirements, website links, etc.). We have relationships with folks at most of these colleges, so we can help direct students to the best place to get their questions answered.
- We develop policies for our classes that are **flexible yet rigorous**, to allow for students to juggle the many responsibilities of their lives, but also understand the expectations that will come in the workforce and their future education (of course many of our students have come from the workforce, and they already have many of these skills).
- We have a **diversity of students**. And since our students learn from watching and working with each other, they each share their unique set of skills; they each demonstrate their own strengths. Our younger students who might be lost get inspiration from the older students who are focused and hard working, with a purpose. Many of our students find themselves learning most through working with and helping other students (either during or after they've taken our classes).
- We advertise our efforts and resources through a variety of methods:
 - Campus events (our club's participation)
 - Open House workshops and events
 - Word of mouth from students who have already taken our classes
 - Good relationships with counselors/advisors throughout the college
 - Providing expertise/advice/quotes for articles in college and local newspapers and organizations.
 - Hosting campus-wide open lectures
 - Developing and maintaining large displays that engage students who pass in the hallways – and that extend well beyond our own classroom
- Our instructors have open office hours and build **connections** with our students. If a student wishes to, they can develop a relationship with an instructor that lasts forever, getting guidance, tutoring, recommendations, career and transfer advice, etc.

Our transferable, general science-credit classes (Physical Geology, Physical Geography, and Oceanography) are always waiting room only. We serve many hundreds of students a semester. Once they enter our classes, they enter our sphere of influence. We give them opportunities to engage in geoscience education in a multitude of ways. We show them our science from many sides. In the end, we pull them in through satisfying transfer requirements. We keep them by making our classes engaging, exciting, and rigorous (so they leave with a sense of accomplishment), and by helping them to succeed. And we help create a community that they can consider themselves a part of as they continue onward in their educational journeys.

Much of what I've described is applicable to all academic settings. What's unique about the community college setting is the sheer number of hours we put in with our students, the potential diversity of our student body (depends on institution), and the focus we have on education that allows us to reach a larger number of students. We are a good testing ground for new assessment techniques, interactive activities, and other innovative strategies for engaging students. And what will help us most is going back to the most important tool in our arsenal – helping to create and develop enthusiastic, expert, talented teachers.