

# Susanna Honig

Director of the Academic Excellence Program  
at UC Santa Cruz



## **What is your current occupation?**

I am the Director of the Academic Excellence (ACE) Program at UC Santa Cruz, where I oversee ACE's mission to increase the diversity of students earning their bachelors' degrees in STEM. ACE increases educational equity by supplementing gateway STEM coursework with active learning problem solving sessions, peer mentoring, and community building. Through this multi-pronged approach, we engage students in the practices of science, math, and engineering and recognize them for doing so in order to build a sense of belonging and STEM identity. My job duties include overseeing our budget, hiring and training professional and student staff members, planning events, teaching courses and workshops, and engaging in program evaluations, research, and grant-writing.

## **What is your educational background?**

I have a Bachelor of Science degree in Aquatic Biology from UC Santa Barbara and a PhD in Ecology & Evolutionary Biology from UC Santa Cruz. I also completed an HHMI Postdoctoral Science Education Fellowship in the Molecular, Cell & Developmental Biology Department at UC Santa Cruz.

## **A key message for students is that the geoscience workforce is dynamic, and boundaries between sectors and occupations are fluid. How has this been true in your career?**

This has been true every step along the way in my career. I think any career in science is inherently interdisciplinary because generating new knowledge cuts across so many different

sectors. When I was a PhD student studying the influence of seabird feces on coral reef community ecology, I worked with terrestrial ecologists, marine biologists, federal agencies, and non-governmental conservation organizations. As I've specialized in STEM education, I have deepened collaborations among academics in science, engineering and the social sciences, administrators, philanthropic foundations, industry professionals, and college teaching centers across the country. I believe that meaningful collaboration and interdisciplinary knowledge is becoming more and more important because a rapidly changing environment, globalization, and technological innovation requires a dynamic workforce.

**Where do you see your sector moving in future years? How would you advise students to prepare to be competitive job applicants and successful employees?**

It is inspiring to see higher education institutions incorporating active, collaborative learning pedagogies that have been successful in K-12 institutions for many decades. I see this trend toward inclusive teaching continuing to expand across STEM disciplines, and I believe there is an ever-increasing demand for skills and practices to be explicitly included in STEM higher education to prepare students for the STEM workforce. I would advise current students to build up a repository of tools that can be applied across multiple STEM disciplines. For example, I would recommend learning how to program, exploring multivariate statistics, and gaining experience with project management software. In addition, I would urge students to practice articulating how their current experience includes transferable skills that will apply in future careers. For example, how might working in a geoscience research laboratory make you a good candidate for a position in biotechnology? Most importantly, I would focus on building relationships with mentors in order to cultivate a strong network and letters of recommendation for future opportunities.

**What is the role of networking in your sector? Do you have advice for a student who is just beginning to build their network? What is the best way for students to get their foot in the door?**

Networking is fundamental. I think building strong relationships and investing time into a professional community is the most important workforce skill a person can have. It takes a long time to build trust and deepen professional relationships, and it is never too early to begin this process. Networking before you might need something from somebody is an incredibly important way to prove that you are a team player, that you're invested in the relationship itself rather than the outcome you're seeking, and seeking diverse perspectives from your network can open the door to new knowledge and surprising opportunities. I think the best way to build your network is to make it a priority and to always balance politeness with persistence. For example, if you are looking to get involved in a research lab or collaborate with a colleague, I recommend doing your homework and taking some time to understand the mission of the lab or research before reaching out. Ideally, setting up an in-person or zoom meeting is always preferable to phone or email, and getting to know a colleague or mentor through an informational interview is a great way to show that you are authentically interested in the work they do or experience they

have. Here's where persistence comes in- if you don't hear back from someone right away, it's important to keep checking in. It's easy to miss an email especially if you're getting hundreds of emails a day, so I recommend waiting a week and following up with someone you haven't heard back from. The trick is to follow up in a polite and friendly manner and don't expect a response right away. Nine times out of ten I've seen students have success with this method. I would also recommend saying yes to any opportunities you get that are in some way related to your career interests. I was a dishwasher in a lab before I got the opportunity to do organismal research- sometimes your first opportunity will lead to the relationships that get you your second opportunity!

### **What does a “typical” day of work look like for you?**

My typical day usually includes a few meetings with collaborators and partners of the ACE Program to plan events, administer our active learning sessions, and/or manage the budget. I also teach a mentor training class weekly which is one of my favorite courses- we talk about how to use evidence-based teaching to increase student self-efficacy, sense of belonging, and STEM identity. I also work closely with other units on campus to co-facilitate trainings and workshops related to the teaching and learning community at UC Santa Cruz. Finally, I meet with STEM students who are part of the ACE program in one-on-one meetings, and we chat about their future career goals and academic plans. It's extremely rewarding to write letters of recommendation and advocate for UC Santa Cruz students who are at the beginning of their journey toward a STEM career.

### **What is the best part of your job?**

Working with students, hands down. Whether it's teaching my mentor training class, jumping in an ACE session, or having a one-on-one meeting with a student, I absolutely love getting to know students and helping engage them in the skills and practices that they will ultimately use in their future careers. It's extremely rewarding to provide advice and advocacy for students who are navigating the hidden curriculum of STEM at a research university. I know these same students who are in my courses now will be curing cancer, inventing new technology, and saving the planet someday- so making sure they receive an equitable, collaborative, and inclusive experience at UC Santa Cruz is paramount.

### **Do you have any other comments or advice for students looking to enter your sector of the geoscience workforce?**

I would advise students who are feeling intrinsically pulled into education and outreach to follow that calling. There are so many different applications of every scientific field, and finding the field that feels right to you is a decision only you can make. When I was in graduate school I realized that the moments I got to teach and focus on education were my happiest, so I kept doing that. If you feel that sense of purpose and just aren't sure about the opportunities available,

get out there and meet people! I bet you will learn that there are entire growth industries based around the aspects of the geosciences that you are most passionate about.

**Connect:**

<https://www.linkedin.com/in/susanna-honig-415a9669/>

**Learn more:**

Three Minute Thesis Video: <https://www.youtube.com/watch?v=K1923mPNGzE>

Podcast: <https://www.kyle.surf/podcast/4-bird-poop-amp-coral-reefs-dr-susy-honig>

Webinar: <https://www.youtube.com/watch?v=eb3vkJb7PCg>

Grant op-Ed: <https://news.ucsc.edu/2021/02/genentech-grants.html>

**Publications:**

- <https://onlinelibrary.wiley.com/doi/abs/10.1002/tea.21623>
- <https://link.springer.com/article/10.1007/s00227-015-2808-4>
- <https://www.sciencedirect.com/science/article/abs/pii/S0025326X16308360>
- <https://www.sciencedirect.com/science/article/pii/S0075951114000085>

**Research Features:**

- Wilcox, C. Study connects seabird guano to reef nutrients. *Frontiers in Ecology and the Environment* 2016, 14(2): 60-64. (<https://doi.org/10.1002/fee.1234>)
- Couto, N. Seabird poop and coral reefs. *Ocean Bites- The Latest Oceanography Literature, Explained* (<https://oceanbites.org/seabird-poop-and-coralreefs/>)