

Preparing Geology Students at the College of William & Mary for Careers

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The College of William & Mary is a public university with a strong undergraduate liberal arts tradition. Geology majors select one of two tracks: general geology or environmental geology. Some geology students are double majors (e.g, Environmental Science, Anthropology, Education, English, Government, Public Policy); some graduate with a minor in marine science.

William & Mary geology graduates go on to a diverse array of careers that range from the earth and environmental sciences to law, teaching, medicine, and even the clergy. Many recent graduates are pursuing advanced degrees at universities across the country while others are working as environmental geologists, petroleum geologists, GIS analysts, science writers, and teachers; still others are with the Peace Corps and the National Park Service. Many of our graduates go to graduate school in the earth sciences (45-50%) or obtain another professional degree (15-20%). Long term, approximately two-thirds of our geology graduates are employed in the earth sciences.

Our program prepares students for the workforce in the following ways.

1. Provide information about jobs and careers.

We introduce career options to majors and potential majors in a variety of ways: in our courses, through seminar speakers (face-to-face and virtual), career panels, our annual departmental newsletter, advising, alumni connections, and collaborations with the Career Center on campus. Selected examples follow. In a general education geology course, the faculty member talks about jobs and careers in the geosciences and provides small-group opportunities to learn more about connections between geology and various career options (e.g., meeting with a faculty member from the School of Education, with an environmental consultant). We have collaborated with Cohen Career Center, which organizes career panels with alumni and others on careers in marine sciences, careers in STEM education, and careers in science writing, similar to panels of recent geology graduates who talk about their jobs and provide advice about the job search process (which also supports point 4 below).

2. Provide experiences that develop knowledge, skills, and attitudes important in the workforce.

The geology curriculum is designed to provide majors with a strong broad-based education in the modern earth sciences while being sufficiently flexible to allow students to explore their own interests. Geology courses stress the process of learning about the workings of the Earth. Emphasis is placed on both modern and ancient earth systems as well as the environment and change through time. Quantitative thinking, communication, and problem-solving skills are addressed throughout the curriculum in both individual and collaborative projects. Some courses include assignments in which the students do work similar to work they might do in a job after they graduate. Fieldwork forms a key component of many courses and provides realistic preparation for further graduate studies and the workplace. Some students participate in EdMap projects, further developing their field skills. All geology majors pursue an original senior research project and this yearlong endeavor forms an important capstone

experience. Co-curricular experiences also provide experiences that develop knowledge, skills, and attitudes that will be useful for a range of jobs.

3. Encourage exploration of options

Exploration of options includes course experiences, informational interviews, internships, research experiences (e.g., REUs as well as the required senior research) and teaching experiences (volunteer TA in introductory geology labs, Geology on Wheels local outreach program), and programs offered by the Cohen Career Center.

4. Support students in the job search

We support the job search by providing informational sessions on graduate school, career panels (mentioned above), facilitating networking opportunities for students and alumni, advising students and supporting them in the job search process, distributing job announcements, reviewing resumes and job applications (and getting students to see how the work they've done in classes can be included in their resume), and encouraging students to participate in activities and programs sponsored by the Cohen Career Center.