Hydrologic technicians gather and investigate data concerning water depth, flow, and quality. They collect water data using accepted industry procedures and equipment. They are responsible for equipment maintenance, decontamination and calibration to ensure the highest quality data are collected. Hydrologic technicians collect groundwater, stream, and lake samples for chemical or biological analysis and conduct field tests on these waters. They keep notes, check computations, and gather information for computer software analysis, and they enter data and prepare data for publication. They provide concise and actionable observations in the field and communicate that information to their supervisory personnel. Much of the technician’s work is done outdoors in undeveloped and sometimes difficult terrain under all weather conditions.

This career compass provides options, tips, suggestions, and strategies for how a student can obtain critical skills, experiences, and competencies in order to launch their geoscience career based on their academic standing. The content herein is based on data from the U.S. Bureau of Labor Statistics, interviews with personnel in the occupation, and research on available student opportunities.

**Undergraduate**

- Geoscience professional society conference
- Clubs, student government, or geoscience professional societies
- Hone skills through public speaking or science communication courses, conference presentations
- Events, activities, and technical sessions at professional society conference
- Geoscience internship with a non-profit, for profit organization or company, research institution, or a state or federal agency.
- First Aid/ AED/CPR training
- OSHA HAZWOPER training
- Geologist in Training Certification or Professional Geologist license (ASBOG Fundamentals of Geology Exam and/or the Practice of Geology Exam)
- Associate’s or bachelor’s degree in Earth science, geosciences, or any natural science
- Writing course outside the discipline (business or environmental law) or technical writing course
- Basic understanding of GIS and GPS
- Course work in math, hydrogeology, chemistry, environmental compliance and regulations, environmental engineering, applied geology, or microbiology
- Develop excellent note-taking skills
- Field experiences
- Research experiences
- Instrument experiences with emphasis on data collection, data quality, and data reliability (mechanical aptitude is a plus)
- Write a senior thesis