

Department: Geology

Degree: BA in Geology, BS in Geology

College: College of Arts and Sciences

Program Outcomes:

Upon graduation with a BA or BS degree in Geology, a student will be able to:

- Master field skills (measurement, observation, sketching) to collect data/constrain samples
- Use a variety of instruments to collect data that address a wide variety of geologic problems
- Collect, manipulate and analyze data in 3D
- Demonstrate an understanding of spatial and temporal rates and scales of processes,
- Apply quantitative approaches to the analysis of data sets and problem solving
- Apply the principles of chemistry, physics, and biology to the solution of geologic problems
- Predict the Earth system response to specific changes using models of varying complexity
- Apply concepts learned from specific examples to more broadly-based problems, such as:
 - o Extrapolate from what they have seen in VT to other areas on Earth, or
 - o Extrapolate processes on the surface to those in the Earth's interior, or,
 - o Extrapolate what they know about Earth materials to other problems in fields such as petroleum, mining, environmental problems, and water resource issues.
- Demonstrate an ability to communicate orally and in writing, specifically:

- o Communicate observations and measurements utilizing sophisticated disciplinary vocabulary.
- o Create new information as well as archive and share data at class, departmental, or collaborative level.
- o Craft a central thesis in reports and presentations, including its significance and context, and evaluate empirical data and observations that support or challenge the thesis.
- o Evaluate sources of information for validity and/or bias and create properly formatted reference lists.
- o Communicate new concepts and information in non-technical language.