

Geology

Cornell Educational Objectives	Geology Department Goals	Intended Student Outcomes
<p>1) Be able to acquire, analyze, interpret, and communicate knowledge</p> <p>2) Possess skills including, but not limited to:</p> <ul style="list-style-type: none"> i) writing ii) reading comprehension iii) critical thinking iv) quantitative reasoning v) information literacy vi) oral communication 	<p>1) Every geology major will successfully complete a core of 8 courses spanning the fundamentals of geology.</p> <p>2) Every middle- and upper-level geology course will require some or all of the following assignments:</p> <ul style="list-style-type: none"> i) laboratory reports, reading of primary literature ii) research papers, individual and group research projects iii) multi-day problem sets and labs iv) middle and upper-level courses will include an exposure to the mathematical equations used in geological analysis. v) geology classes at all levels will require students to perform exercises involving computer applications including Excel, Word, Powerpoint, Rockworks, Callb, and Dreamweaver. vi) Geology classes at all levels will require students to deliver class presentations; research students will present the results at one or more public meetings such as the Cornell College Student Symposium, the Geological Society of America, and the Iowa Academy of Science. 	<p>By the end of their major in geology, students will:</p> <ul style="list-style-type: none"> identify the primary rock-forming minerals, be familiar with their physical and chemical composition, recognize the most common sedimentary, igneous, and metamorphic rocks, and the factors involved in their formation demonstrate an understanding of the role played by plate tectonics in mega- and meso-scale structures of Earth's surface understand the history of life enormity of geologic time interaction of lithosphere, cryosphere, hydrosphere, atmosphere, and biosphere
<p>Understand the methods and practices of the natural sciences, social sciences, arts, and humanities:</p> <p>(1) as a result of their experiences with various methods of inquiry, graduates will recognize and apply different disciplinary and interdisciplinary forms of thinking;</p>	<p>1) Since geology is rooted in observations made outside the classroom, every geology major will successfully complete a field course. Middle and upper-level geology classes will include extensive individual and/or group projects in the classroom and/or in the field.</p> <p>2) Every geology major will complete a research-intensive class and an advanced elective in their research area.</p>	<p>By the end of their major in geology, students will construct a research protocol, ranging from the identification of a research question, to the acquisition and analysis of data, and ending with the formal dissemination of their results.</p>

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<p>(2) as a result of their experiences with a major or concentration, graduates will possess depth of understanding and research skills in at least one method of inquiry</p>		<p>Students will be familiar with the cultures of the Bahamas or New Zealand through their participation in field courses there.</p>
<p>Possess intercultural knowledge and recognize global perspectives</p>		
<p>Integrate and transfer knowledge and skills from one setting to another</p>	<p>The Geology faculty will mentor and financially support Geoclub, an organization of students interested in geology.</p> <p>Geology faculty will host gatherings in their homes in which students and faculty discuss a paper in an area related to a student's research.</p>	
<p>Be cognizant of their responsibility for individual, civic, and social choices</p>	<p>Each of the Geology faculty will offer courses that play important roles in the Environmental Studies curriculum, including <i>The Geology of the National Parks</i>, <i>Marine Science</i>, <i>Environmental Geology</i>, <i>Climate Change</i>, and <i>Environmental Perspectives</i>, and will similarly incorporate environmental issues into all levels of the geology curriculum.</p>	<p>Students will be capable of linking the functioning of modern society to geological resources, primarily the burning of fossil fuels, and their environmental consequences</p>
	<p>Geology faculty will hold information sessions to help recruit perspective geology majors, recruit and retain women and minorities, and foster opportunities for community amongst undergraduate students</p>	<p>Geology majors will, in many cases, develop close personal bonds and enhance each other's education</p>