BACHELOR OF ARTS WITH A MAJOR IN GEOLOGICAL SCIENCES (STEM)

The Geological Sciences Program takes advantage of GW's rich geological setting, located near the Appalachian Mountains and within one of the major concentrations of geologists and geologically-related professionals in the country. Students are equipped with knowledge on a broad range of geological topics —including mineralogy, petrology, geochemistry, paleontology, sedimentology, stratigraphy, and applied environmental applications—all with an emphasis on field-based studies. Departmental faculty members are engaged in research on geology and paleontology, with many of them practicing research scientists from the U.S. Geological Survey, environmental firms, the Smithsonian Institution, and other agencies in Washington, DC. Working alongside the full-time faculty, students are provided with an education that goes beyond the classroom. Program graduates are prepared for a wide range of career opportunities in fields such as environmental science, geology, science education, and more.

This is a STEM designated program.

Visit the program website (https://geology.columbian.gwu.edu/) for additional information.

ADMISSIONS

For information about the admission process, including deadlines, visit the Office of Undergraduate Admissions website (https://undergraduate.admissions.gwu.edu/). Applications can be submitted via the Common Application (https://go.gwu.edu/commonapp/).

Supporting documents not submitted online should be mailed to:

Office of Undergraduate Admissions
The George Washington University
800 21st St NW Suite 100
Washington, DC 20052

For questions visit undergraduate.admissions.gwu.edu/contact-us (http://undergraduate.admissions.gwu.edu/contact-us/).

REQUIREMENTS

Code	Title	Credits
Prerequisite courses		
Two courses selected from the following:		
GEOL 1002	Historical Geology	
GEOL 1001	Physical Geology	
GEOL 1005	Environmental Geology	
Required courses in related areas		
CHEM 1111	General Chemistry I	
CHEM 1112	General Chemistry II	
Required courses for the major		
GEOL 2111	Mineralogy	
GEOL 2112	Igneous and Metamorphic Petrology	
GEOL 2122	Structural Geology	
GEOL 3128	Sedimentology and Stratigraphy	
GEOL 3129	Sedimentology and Stratigraphy Lab	
GEOL 4195	Geological Field Methods	
Three upper-level elective courses selected from the following:		
GEOL 2106	Oceanography	
GEOL 2151	Introduction to Paleontology	
GEOL 2190	Special Topics in Geology (3 credits only)	
GEOL 2333	Evolution and Extinction of Dinosaurs	
GEOL 3118	Volcanology	
GEOL 3123		
GEOL 3131	Global Climate Change	
GEOL 3138	Hydrogeology	
GEOL 3140		
GEOL 3191	Geology of Energy Resources	
GEOL 4199	Undergraduate Research or Reading (3 credits only)	

GENERAL EDUCATION

In addition to the University General Education Requirement (https://bulletin.gwu.edu/university-regulations/general-education/), undergraduate students in Columbian College must complete a further, College-specific general education curriculum —Perspective, Analysis, Communication (G-PAC) (https://advising.columbian.gwu.edu/general-education-curriculum-gpac/) as well as the course CCAS 1001 First-Year Experience. Together with the University General Education Requirement, G-PAC engages students in active intellectual inquiry across the liberal arts. Students achieve a set of learning outcomes that enhance their analytical skills, develop their communication competencies, and invite them

to participate as responsible citizens who are attentive to issues of culture, diversity, and privilege.

Coursework (https://bulletin.gwu.edu/university-regulations/general-education/#generaleducationtext) for the University General Education Requirement is distributed as follows:

- One course in critical thinking in the humanities.
- Two courses in critical thinking, quantitative reasoning, or scientific reasoning in the social sciences.
- One course that has an approved oral communication component.
- One course in quantitative reasoning (must be in mathematics or statistics).
- One course in scientific reasoning (must be in natural and/or physical laboratory sciences).
- UW 1020 University Writing
- After successful completion of UW 1020**,** 6 credits distributed over at least two writing in the discipline (WID) courses taken in separate semesters. WID courses are designated by a "W" appended to the course number.

Coursework for the CCAS G-PAC requirement is distributed as follows:

- Arts—one approved arts course that involves the study or creation of artwork based on an understanding or interpretation of artistic traditions or knowledge of art in a contemporary context.
- Global or cross-cultural perspective—one approved course that analyzes the ways in which institutions, practices, and problems transcend national and regional boundaries.
- Local or civic engagement—one approved course that develops the values, ethics, disciplines, and commitment to pursue responsible public action.
- Natural or physical science—one additional approved laboratory course that employs the process of scientific inquiry (in addition to the one course in this category required by the University General Education Requirement).
- Humanities—one additional approved humanities course that involves critical thinking skills (in addition to the one course in this category required by the University General Education Requirement).
- CCAS 1001 First-Year Experience

Certain courses are approved to fulfill GPAC requirements in more than one category.

Courses taken in fulfillment of G-PAC requirements can also be counted toward majors or minors. Transfer courses taken prior to, but not after, admission to George Washington University can count toward the University General Education Requirement and G-PAC, if those transfer courses are equivalent to GW courses that have been approved by the University and the College.

Lists of approved courses in the above categories are included on each undergraduate major's (https://bulletin.gwu.edu/arts-sciences/#majorstext) page in this Bulletin.

SPECIAL HONORS

In addition to the general requirements stated under University Regulations, in order to be considered for graduation with Special Honors, candidates must maintain a cumulative grade-point average of 3.3 both overall and for courses in the major, and must submit an approved Honors thesis.