## Chemistry-Geology combined major

#### **Degree Type**

Bachelor of Arts

## Total credit requirements for a Chemistry-Geology Combined Major

- 51-55 total credits
  - 16-20 credits in chemistry
  - 25 credits in geology
- 10 credits from other departments
- Required chemistry courses
  - The full General Chemistry sequence by either
    - Chemistry 125, 126, 135, and 136, or
    - Chemistry 140
  - Chemistry 310
  - Two of the following, including at least one lab (indicated with asterisk \*)
    - Chemistry 320\*
    - Chemistry 346 (with or without 1 credit lab, Chemistry 352\*)
    - Chemistry 305 or 388\*
- · Required geology courses:
  - Introductory geology from Geology 110 and 111, or 120 and 121, or 125 and 126
  - Geology 227, 270, 350, 358, 405, 460, and 470

### **Required Chemistry Courses**

Item #	Title	Credits	
	Introductory General Chemistry 125, 126, 135, 136, or 140	4-8	
Chemistry 310	Quantitative Analysis and Chemical Equilibrium	4.0	
	Two of the following: Chemistry 320, 346, or 388	7-8	_

# Required Geology Courses: Introductory Geology

Item #	Title	Credits
	Introductory Geology	4
Geology 227	Sedimentology and Stratigraphy	4.0
Geology 270	Minerals, Society, and the Environment	4.0
Geology 350	Geomorphology	4.0
Geology 358	Field Geology of the Northwest	1.0
Geology 405	Volcanoes and the Solid Earth	4.0
Geology 460	Geochemistry	3.0
	During senior year: Geology 470	1

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## **Required Supporting Science Courses**

Item #	Title	Credits
	Mathematics 124 or 125	3-4
Mathematics and Statistics 126	Calculus II	3.0
	Physics 145 or 155	4

#### **Notes on Courses**

- · No courses for the major may be taken as PDF
- · One credit of Chemistry 401 or 402
- Majors are strongly encouraged to do a senior research project, enrolling in:
  - Either two credits in Chemistry 490 or 498 or three credits of Geology 490 or 498

## Senior Requirements

- Geology 470
- · Senior assessment
  - · Comprehensive written exams in both Geology and Chemistry
  - One-hour oral exam administered by Chemistry and Geology faculty

### **Honors**

- Students do not apply for admission to candidacy for honors
- · Accumulated at least 87 credits
- Completed two semesters of residency at Whitman.
- Cumulative GPA of at least 3.300 on all credits earned at Whitman College
- Major GPA of at least 3.500
- · Complete a written thesis or research project prepared exclusively for the satisfaction of this program
- Earn a grade of at least A- on the honors thesis or project and the honors thesis course
- · Pass the senior assessment with distinction
- Chair of the department will notify the Registrar of students attaining Honors no later than the beginning of week 12 of the semester.
- An acceptable digital copy of the Honors Thesis must be submitted to Penrose Library no later than Reading Day

Total Credits 51-55

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