

## GEOSCIENCES B.S.

All students must meet the Degree and University Requirements.

All students must meet the Catamount Core Curriculum Requirements.

All students must meet the College Requirements.

### MAJOR REQUIREMENTS

At least 43 credits in major courses, plus at least 20 credits in ancillary courses, including:

<b>FOUNDATIONS. 10 credits.</b>		
GEOL 1400	Environmental Geology	4
or GEOL 1020	Topics In: LASP Writing	
or GEOL 1025	Topics In: LASP Seminar	
GEOG 1200	Weather, Climate & Landscapes	3
GEOL 1100	Earth Through Time	3
<b>CORE COURSES. At least 21 credits.</b>		
LEVEL REQUIREMENTS.		
At least 9 additional credits from the Core Courses Subfields lists at the 4000-level or higher in GEOL and/or the 3000-level or higher in GEOG, in any combination		9-21
Up to 11 additional credits from the Core Courses Subfields lists at the 2000-level or 3000-level in GEOL and/or the 2000-level in GEOG, in any combination		0-12
SUBFIELD REQUIREMENTS. Select at least 1 course/3 credits from each of the following subfields; a single course can be counted in more than one subfield.		
Earth and Planetary Materials. GEOL 2105, GEOL 2605, GEOL 3105, GEOL 3515, GEOL 4105, GEOL 4110, GEOL 4510		
Atmospheric and Climatological Processes. GEOG 2230, GEOG 2250, GEOG 2715, GEOG 3230, GEOG 3250, GEOG 3520, GEOL 2405, GEOL 3405		
Land-Surface Processes and Interactions. GEOG 2250, GEOG 2715, GEOG 3230, GEOG 3250, GEOL 2105, GEOL 2405, GEOL 2410, GEOL 3105, GEOL 3405, GEOL 3410, GEOL 4405		
Practice Requirement. GEOG 2510, GEOG 2520, GEOG 3520, GEOL 2525, GEOL 3105, GEOL 3405, GEOL 3515, GEOL 3993, GEOL 3995, GEOL 4105, GEOL 4405, GEOL 4510		
<b>ELECTIVES. At least 12 credits.</b>		
At least 12 additional credits from the following:		12
GEOL numbered 1040, or 2105 to 2990, or 3000 to 3990, or 4000 to 4990		
GEOG numbered 2205 to 2715, GEOG 3230, GEOG 3250, or GEOG 3520		

ASTR, BIOL, CHEM, CS, PHYS, or STAT numbered 2000 to 2989, or 3000 to 3989, or 4000 to 4989		
ENV5 numbered 2600 to 2699		
NR numbered 2000 or above		
ALE, CEE, or ENSC numbered 2000 to 2989, or 3000 to 3989, or 4000 to 4989		
<b>ANCILLARY REQUIREMENTS. At least 20 credits.</b>		
CALCULUS I. Choose 1 of the following:		3-4
MATH 1212	Fundamentals of Calculus I	
MATH 1234	Calculus I	
STATISTICS OR CALCULUS II. Choose 1 of the following:		3-4
STAT 1410	Basic Statistical Methods 1 (recommended)	
MATH 1224	Fundamentals of Calculus II	
MATH 1242	Transitional Calculus	
MATH 1248	Calculus II	
CHEMISTRY. Choose 1 of the following options:		3-8
Option A (strongly recommended):		
CHEM 1400 & CHEM 1450	General Chemistry 1 and General Chemistry 2	
Option B:		
CHEM 1100	Outline: General Chem w/lab	
Option C:		
CHEM 1102	Outline: General Chem	
PHYSICS. Choose 1 of the following options:		3-8
Option A:		
PHYS 1250	Conceptual Physics	
Option B:		
PHYS 1251	Conceptual Physics w/lab	
Option C (recommended for upper-level courses and graduate school with a focus on tectonics, structural geology, or physics):		
PHYS 1600 & PHYS 1650	Fundamentals of Physics I and Fundamentals of Physics II	
Option D:		
PHYS 1400 & PHYS 1450	Elementary Physics I and Elementary Physics II	

<p>ANCILLARY ELECTIVES. In consultation with an advisor in Geosciences, up to 8 additional credits in ASTR, BIOL, CS, and/or PHYS may be counted toward the major's ancillary requirements. BIOL 1400 and/or BIOL 1450 are strongly recommended for students focused on biology/ecology. Teaching assistantships cannot be counted toward this requirement.</p>	<p>0-8</p>
<p><b>RESTRICTIONS AND NOTES</b></p>	
<p>With department permission, students may apply up to 3 total credits of internship credits, independent studies, teaching assistantships, undergraduate research, or up to 6 total credits of honors (4996) to other, level-appropriate requirements in the major.</p>	
<p>Students planning to pursue a graduate degree in Geosciences are encouraged to take an appropriate mixture of methods and theory courses at the advanced level, as well as undertake research. Please consult your advisor for recommendations on ancillary, core, and elective courses tailored to your particular graduate school objectives.</p>	

**RESTRICTIONS:**

Students completing the B.S. in Geosciences may not also receive the B.A. in Geosciences.

**PRE/CO-REQUISITES**

Introductory and intermediate courses for various subject areas may be necessary to reach the courses at the 2000-level or above applicable to the major.

**OTHER INFORMATION**

In the College of Arts and Sciences (CAS), only one course may overlap between a major and a minor or between two CAS majors.

Courses for the major and/or its pre/co-requisites that are cross-listed in the catalog or schedule of courses under another course prefix may be taken under that other prefix and still count for these requirements.

With the approval of the chair/director, courses that applied to the major in previous years but have since been deactivated may be applied to this year's major requirements if they are reactivated.

For a Bachelor of Science degree, no more than 50 credits in courses with the same departmental prefix may be used toward completion of the 120 credits required for graduation.

At least half of the credits used to complete major requirements must be taken at the University of Vermont.