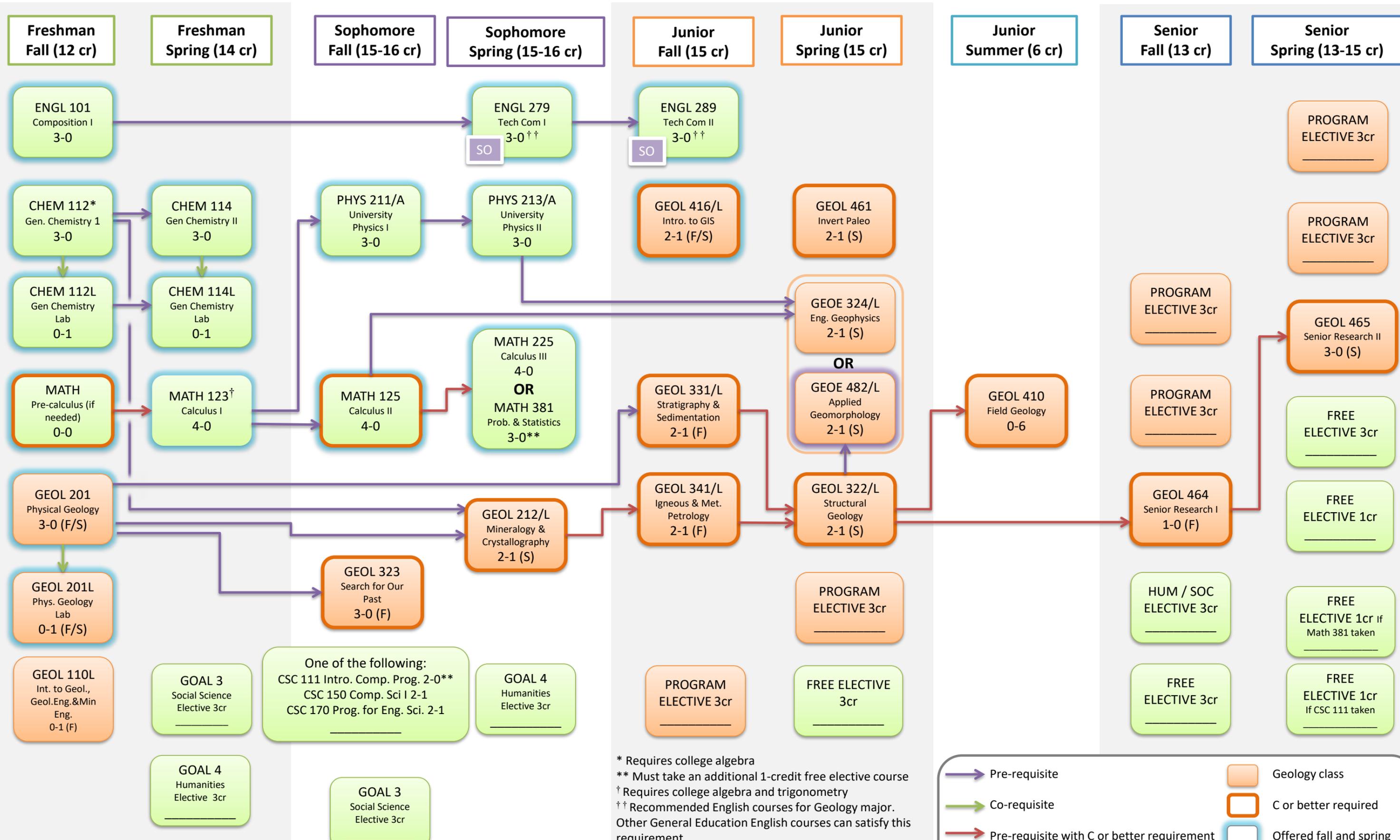


# BS in Geology Curriculum Flowchart

Effective Fall 2019



Courses that are offered in Fall ONLY or Spring ONLY are indicated by F or S respectively. Courses indicated F/S are offered Fall and Spring Semesters.

Courses shown in green boxes are often available during the summer session.

\* Requires college algebra  
 \*\* Must take an additional 1-credit free elective course  
 † Requires college algebra and trigonometry  
 †† Recommended English courses for Geology major. Other General Education English courses can satisfy this requirement.

Program and Free electives may have one or more pre-requisites. Check the catalog.

Legend:

- Blue arrow: Pre-requisite
- Green arrow: Co-requisite
- Red arrow: Pre-requisite with C or better requirement
- SO box: Sophomore standing required
- Orange box: Geology class
- Orange border: C or better required
- Light blue border: Offered fall and spring
- Light purple border: Offered every other year

<b>RECOMMENDED ELECTIVES BY SEMESTER &amp; FOCUS AREA</b>			
<b>Focus Area(s)</b>	<b>FREE ELECTIVES BY SEMESTER</b>	<b>Focus Area(s)</b>	<b>PROGRAM ELECTIVES BY SEMESTER</b>
	<b>Every Fall and Spring</b>		<b>Every Fall and Spring</b>
4	CSC 150 Computer Science I	1,4	GEOE 201L Surveying for Mining and Geol. Eng.
4,6	CSC 170/L Programming for Eng. & Scientists	3,4,5	GEOE 475/L Groundwater
4,6	CSC 215 Programming Techniques		<b>Every Fall</b>
5	MATH 315 Linear Algebra	1,3	GEOE 466/L Engineering/Environmental Geology
5	MATH 321 Differential Equations (+every summer)	4,6	GEOL 419 Advanced Geospatial Analysis
	<b>Every Fall</b>	1,3,4,6	GEOL 420 Introduction to Remote Sensing
2	BIOL 151 General Biology I		<b>Every Spring</b>
2	BIOL 121/L Basic Anatomy	1,3,5,6	GEOE 324/L Engineering Geophysics I
2,3	BIOL 311/L Principles of Ecology	1	GEOE 461 Petroleum Drilling and Production Eng.
3	BIOL 331 Microbiology	2	GEOL 372 Dinosaurs
4	CEE 437 Watershed and Floodplain Modeling	4,6	GEOL 417 Geospatial Databases
4,6	CSC 111/L Introduction to Computer Programming	2	GEOL 475/L Vertebrate Fossil Prep./Conservation
1,4	MEM 301/L Computer Applications in Mining	1	GEOL 476 Petroleum Geology
1	POLS 407 Environmental Law & Policy		<b>Fall- Even Years Only</b>
	<b>Every Spring</b>	1	GEOE 462/L Well Log Analysis
2,3	AES/BIOL 406 Global Environmental Change	1,6	GEOL 422/L Tectonics and Sed. Basin Analysis
2	BIOL 153 General Biology II	2	GEOL 474 Paleontological Res. Management
2	BIOL 326 Biomedical Physiology		<b>Spring- Even Years Only</b>
5,6	MATH 382 Probability Theory and Statistics II	1,3,5	GEOE 467 Introduction to Geomechanics
1	MEM 120 Introduction to Mining	2,3	GEOL 435 Geomicrobiology
1	MEM 204 Surface Mining Methods and Unit Op.	1	GEOL 451/L Economic Geology
1	MET 220/L Mineral Processing and Res. Recovery	2	GEOL 473/L Museum Exhibit Design
1	MEM 307 Mineral Exploration and Geostatistics		<b>Spring- Odd Years Only</b>
	<b>Fall- Even Years Only</b>	2,3,4,6	GEOE 482/L Applied Geomorphology
3	AES 201 Introduction to Atmospheric Sciences	1,3	GEOL 351 Earth Resources and the Environment
2,3	AES 403 Biogeochemistry	1,5,6	GEOL 444 Orogenic Systems (new course 2020-21)
	<b>Spring- Even Years Only</b>		<b>Fall- Odd Years Only</b>
5	MATH 451 Math Modeling	3,6	GEOL 421 Aqueous Geochemistry
	<b>Key for Focus Area(s)</b>	1,5,6	GEOL 456 Global Geophysics
	1 Energy and Mineral Resources	2	GEOL 472/L Museum Collections Management
	2 Paleontology		
	3 Environmental Geology		<b>Every Summer</b>
	4 Geospatial Technology		
	5 Geomathematics	1,3,6	GEOL/GEOE 412 Science and Eng. Field App.
	6 Solid Earth and Tectonics	2	GEOL 471 Field Paleontology

Electives may be spread across several focus areas or concentrated in one area. Free electives may include additional geology courses if desired.