

For students who declare the major Fall 2022 or later

Earth Systems core courses (minimum 28 credits):

Course	Credits	Offered
Choose <u>one</u> of:		
GEOL 101 – The Earth	4	fall, spring
GEOL 103 – Intro Oceanography	4	fall, spring
GEOL 105 – Dynamic Earth	4	fall, spring
GEOG 110 – Global Environmental Change	4	fall, spring
GEOG 102 – Human Geography: Diversity, Globalization & Sustainability	4	fall, spring
GEOL 231 – Methods in Geosciences	3	spring
GEOL 351 - Skills and Methods in Earth History Studies	1	spring
GEOL 394LI – Earth History: Life, Climate, Environment*	3	spring
GEOG 354 – Climate Dynamics	3	fall
GEOSCI 558 – Paleoclimatology	3	fall
Choose <u>one</u> of:		
GEOL 415 – Intro to Geochemistry	3	spring
GEOSCI 519 – Environmental Geochemistry	4	fall
or other approved GEOSCI geochemistry courses	4	fall, spring
Choose <u>one</u> of:		
GEOG 426 – Remote Sensing	4	fall
GEOG 468 – GIS & Spatial Analysis	4	spring
GEOSCI 587 - Hydrogeology	4	spring

* fulfills Integrative Experience requirement

Supporting science courses (31 credits):

Course	Credits	Offered
CHEM 111 – General Chemistry I	4	
CHEM 112 – General Chemistry II	4	spring
MATH 131 – Calculus I**	4	fall
MATH 132 – Calculus II**	4	fall
PHYSICS 151 – Intro Physics I**	4	spring
PHYSICS 152 – Intro Physics II**	4	spring
NATSCI 387 – Junior Year Writing	3	fall, spring
Choose <u>one</u> of:		
ENVSCI 101 – Intro to Environmental Science	4	fall, spring
STOCKSCH 108 – Introductory Botany	4	fall, spring
BIOL 108 - Biodiversity	4	fall, spring
BIOL 110 – Intro Bio for Science Majors	4	fall, spring
BIOL 151 – Intro Bio I	4	fall, spring

** MATH 127/128 and PHYSICS 131/132 also accepted; consult with your advisor

Electives (12 credits):

Choose from 300- and 400-level GEOLOGY courses, 500- and 600-level GEOSCI courses, and 300- to 600-level GEOGRAPHY courses in physical geography and GIST, or approved courses from other programs in the College of Natural Science.

See next page for recommended semester-by-semester course plan

Recommended course sequence:

	Fall Semester	Spring Semester
First Year	GEOL 101, GEOL 103, GEOL 105 or GEOG 110 one or two of: CALC 127 or 131 CHEM 111 PHYSICS 131 or 151	GEOG 102 one or two of: CALC 128 or 132 CHEM 112 PHYSICS 132 or 152
Sophomore	ENVSCI 101, STOCKSCH 108, BIOL 108, BIOL 110 or BIOL 151 GEOG 102 remainder of: CALC 127 or 131 CHEM 111 PHYSICS 131 or 151	GEOL 231 remainder of: CALC 128 or 132 CHEM 112 PHYSICS 132 or 15
Junior	GEOG 354 NATSCI 387 GEOG 426 (if not GEOG 468 or GEOSCI 587 in Spring) Elective towards major	GEOL 351 lab GEOL 394LI GEOG 468 or GEOSCI 587 (if not GEOG 426 in Fall) Elective towards major
Senior	GEOSCI 558 GEOSCI 519 (if not GEOL 415 in Spring) Elective towards major	GEOL 415 (if not GEOSCI 519 in Fall) Elective towards major (remaining electives credits)

For more information visit <http://www.geo.umass.edu/programs/undergraduate/earth-systems>

Contact: Steven Petsch, Chief Undergraduate Advisor

Office: 265 Morrill IV South

Phone: (413) 545-4413

Website: <http://www.geo.umass.edu/programs/undergraduate/geology>