

Geology Programs – Effective Fall 2018

B.S. Geology Professional Program [Extended Major #577] (52 hours)

Core Requirements	(43-44 hours):
GEOL/G 103 OR GEOL 111 The Earth	3 hours
GEOL 113 The Earth Laboratory	1 hour
GEOL 112 Earth History	3 hours
GEOL 114 Earth History Laboratory	1 hour
GEOL 270 Analytical Techniques OR GEOL 465 Geophysics	3 hours (Prereqs GEOL 111 + 112)
GISC 316 Fundamentals of GIS	4 hours
GISC 317 GIS	4 hours (Prerequisite GISC 316 “C” or better)
GEOL 330 Mineralogy	4 hours (Prerequisites GEOL 111 + 113)
GEOL 350 Petrology	4 hours (Prerequisite GEOL 330)
GEOL 360 Sedimentology and Strat	4 hours (Prerequisite GEOL 380 or equivalent)
EITHER:	
GEOL 380 Field Techniques	3 hours (Prerequisite GEOL 111/113)
And GEOG 452 Field Experiences***	3 hours (Prerequisite GEOL 111/113)
OR:	
GEOG 452 Field Experiences (Study Away, Study Abroad, etc.)	6 hours (Junior or Senior Standing)
OR:	
GISC 417 and GISC 419 GIS	6 hours (Prerequisite GISC 317 “C” or >)
GEOL 408 Structural Geology	4 hours (Prereqs GEOL 111/113 + => MATH 116)
GEOL 499 Professional Development	2 hours (Senior Standing)

*** NOTE: GEOG 452 CANNOT BE TAKEN IF CREDIT FOR GEOL 380 HAS ALREADY BEEN EARNED AND THE CONTENT OF GEOG 452 IS THE SAME (CO-TAUGHT).

Approved Electives (8-9 hours):

Any 8-9 hours of approved geology courses or appropriate substitutes chosen with your advisor.

Additional Program Requirements (not included in the 52-hour program) (16 hours):

- MATH 136 Calculus I 4 hours
- CHEM 120 Chemistry I 3 hours
- CHEM 121 Chemistry I Lab 2 hours
- PHYS 180 Modern Physics 3 hours
- PHYS 181 Modern Physics Lab 1 Hour
- OR PHYS 201 (4 hours)
- GEOG 300 Writing in the Geosciences 3 hours

B.A. Earth Science [# 678 - Minor Required] (33 hours)

Core Requirements (27 hours):

GEOL/G 103 OR GEOL 111 The Earth	3 hours
GEOL 113 The Earth Laboratory	1 hour
GEOL 112 Earth History	3 hours
GEOL 114 Earth History Laboratory	1 hour
GEOL/G 310 Global Hydrology	3 hours
GEOL 408 Structural Geology	4 hours
GEOL 311 Oceanography	3 hours
GEOL 325 Rocks and Minerals	3 hours
GEOL 360 Sedimentology and Strat	4 hours
GEOL 499 Professional Development	2 hours

Approved Electives (6 hours):

Any 6 hours of approved geology courses or appropriate substitutes.

Additional Program Requirements (not included in the 33-hour program) (18 hours):

- **MATH 117 Trigonometry** 3 hours
- **GEOG 300 Writing in the Geosciences** 3 hours
- **GISC 316 Fundamentals of GIS** 4 hours
- **CHEM 105 Chemistry Fundamentals** 3 hours
- **CHEM 106 Chem. Fundamentals Lab** 1 hour
- **PHYS 201 College Physics** 4 hours
- OR **PHYS 180/181**
- OR **BIOL 122/123**

Minor in Geology [# 377 - Major Required] (21 hours)

GEOL 111 The Earth	3 hours
GEOL 113 The Earth Laboratory	1 hour
GEOL 112 Earth History	3 hours
GEOL 114 Earth History Laboratory	1 hour

Two courses selected from (6-8 hours):

GEOL 408 Structural Geology	4 hours
GEOL 330 Mineralogy	4 hours
GEOL 350 Petrology	4 hours
GEOL 380 Field Techniques	3 hours
GEOL 405 Paleontology	4 hours
GEOL 360 Sedimentology and Strat	4 hours

Elective courses 5-7 hours

Additional geology courses selected in consultation with a geology program advisor.

**Minor in Earth Science [# 353 – Science Major Required]
(21 hours)**

GEOL 111 The Earth	3 hours
GEOL 113 The Earth Laboratory	1 hour
GEOL 112 Earth History	3 hours
GEOL 114 Earth History Laboratory	1 hour
METR 121 Intro to Meteorology	3 hours
ASTR 214 General Astronomy	3 hours

Elective courses	(7 hours):
GEOL 408 Structural Geology	4 hours
GEOL 330 Mineralogy	4 hours
GEOL 405 Paleontology	4 hours
GEOL or GEOG 420 Geomorphology	4 hours
GEOL 360 Sedimentology and Strat	4 hours
GEOG 328 Biogeography	3 hours

**Minor in Water Resources [# 491 – Major Required]
(22 hours)**

Required Courses	(16 hours):
GEOL 111 The Earth	3 hours
GEOL 113 The Earth Laboratory	1 hour
METR 121 Intro to Meteorology	3 hours
GEOL or GEOG 310 Global Hydrology	3 hours
GEOG 427 Water Resources	3 hours
GEOG 474 Environmental Planning	3 hours

Elective courses	(6 hours):
GEOL 415 Environment Geology	3 hours
GEOL 440 Hydrogeology	3 hours
GEOL 445 Aqueous Geochemistry	3 hours
METR 422 Climatology	4 hours
METR 426 Applied Meteorology	3 hours
GEOG 428 Applied Groundwater	3 hours
GEOG 487 Environmental Management & Law	3 hours

Effective for Geology students beginning the program in Fall 2018.
Last updated: October 1, 2018