

GEOSCIENCES MAJOR, BACHELOR OF SCIENCE (BS)

Required Science Core—choose any two of the following (may be prerequisites for upper division courses) 10

BIOL 171	BIOLOGY I
BIOL 172	BIOLOGY II
CHEM 171 & 171L	GENERAL CHEMISTRY I and GENERAL CHEMISTRY LABORATORY I
CHEM 172 & 172L	GENERAL CHEMISTRY II and GENERAL CHEMISTRY LABORATORY II
CSCD 210	PROGRAMMING PRINCIPLES I
MATH 141	PRECALCULUS I
MATH 161	CALCULUS I
	or HONS 161 CALCULUS I
PHYS 131	INTRODUCTORY PHYSICS I
PHYS 151	GENERAL PHYSICS I
PHYS 161	MECHANICS LABORATORY

Required Core

GEOG 321	GEOGRAPHIC INFORMATION SYSTEMS I: SPATIAL ANALYSIS FOR SOCIAL SCIENCES	5
	or GEOG 323 GEOGRAPHIC INFORMATION SYSTEMS I: SPATIAL ANALYSIS FOR ENVIRONMENTAL SCIENCES	
GEOS 111	THE EARTH'S INTERIOR	5
GEOS 112	THE EARTH'S SURFACE	5
GEOS 113	THE EARTH'S CLIMATE AND WEATHER	5
GEOS 200	GLOBALIZATION AND THE ENVIRONMENT	5
GEOS 460	GEOSTATISTICS	4
GEOS 497	WORKSHOP, SHORT COURSE, CONFERENCE, SEMINAR (variable title and credits)	1

Choose one of the following Concentrations and Capstone 41-47

Please note that 60 credits of 300- or 400 level courses are required for graduation.

Geosciences—45 credits

In consultation of faculty advisor, take at least 45 credits (at least 35 must be taken at the 300 or 400 level, including capstone) of GEOG, GEOL, or GEOS credits of electives.

All GEOG/GEOL/GEOS courses are possible electives to satisfy this concentration

Professional Geology—41–47 credits

GEOL 222	THE EARTH THROUGH TIME
GEOL 311	EARTH MATERIALS
GEOL 313	IGNEOUS AND METAMORPHIC PETROLOGY
GEOL 411	SEDIMENTOLOGY AND STRATIGRAPHY
GEOL 430	STRUCTURAL GEOLOGY
GEOL 431	FIELD METHODS AND REGIONAL GEOLOGY

Electives—choose at least three of the following courses

GEOL 408	INVERTEBRATE PALEONTOLOGY
GEOL 412	ADVANCED OPTICAL MICROSCOPY
GEOL 462	PRINCIPLES OF GEOCHEMISTRY
GEOL 470	GROUNDWATER HYDROLOGY
GEOL 470	GROUNDWATER HYDROLOGY

GEOL 475	ENGINEERING GEOLOGY OF SOILS: INTRODUCTION TO GEOTECHNICAL ENGINEERING
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Capstone

GEOL 490A	SENIOR CAPSTONE: WATER AND THE WEST, WATER RESOURCE ENGINEERING IN ARID LANDS
	or GEOL 490 CAPSTONE: ENVIRONMENTAL GEOCHEMISTRY

Climate Change and Environmental Justice—45 credits

GEOG 201	RESEARCH METHODS
GEOG 204	HOT EARTH: PEOPLE AND CLIMATE CHANGE
GEOG 230	WORLD GEOGRAPHY
GEOG 317	RESOURCES AND CONSERVATION
GEOG 352	ENVIRONMENTAL JUSTICE
GEOG 450	RESOURCES AND MANAGEMENT

Electives—choose at least 10 additional approved GEOG, GEOL, or GEOS credits at 300–level or above, or PLAN 376, PLAN 430, or PLAN 442

All GEOG/GEOL/GEOS courses are possible electives to satisfy this concentration—check with your advisor.

Capstone

GEOL 490	THE GEOGRAPHER'S CAPSTONE
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Total Credits 81-87