

Earth and Environmental Sciences Major

Geoscience Concentration

(73 semester hours including extra-departmental requirements)

Common Core for all Departmental Concentrations (14 semester hours)

ENVI 110: Intro to Environmental Sciences—3hrs; ENVI 110L: Intro to Environmental Sciences Lab—1hr; ENVI 170: Earth Science—3hrs; ENVI 170L: Earth Science Lab—1 hr; ENVI 130: World Cultures and Environments—3hrs; ENVI 460: Conservation and Sustainability of Natural Resources—3hrs

Concentration Core (44 semester hours)

Required Courses: ENVI 270: Earth History—3 hrs; ENVI 380: Mineralogy—3 hrs; ENVI 382: Petrology—3 hrs; ENVI 385: Structural Geology—3 hrs; ENVI 389: Intro Field Geology—1 hr; ENVI 389L: Intro Field Geology Lab—1 hr; ENVI 457: Environmental Geology—3 hrs; ENVI 475: Stratigraphy and Sedimentation—3 hrs

Required Chemistry courses: CHEM 105: General Chemistry I—3 hrs; CHEM 105L: General Chemistry I Lab—1 hr; CHEM 106: General Chemistry II—3 hrs; CHEM 106L: General Chemistry II Lab—1 hr

Required Math courses: MATH131: Calculus I—4 hrs; MATH 132: Calculus II—4 hrs

Required Physics courses: PHYS 105: General Physics—3hrs or PHYS 205: University Physics I—3 hrs.; PHYS 105L: General Physics Lab—1hr or PHYS 205L: University Physics I Lab—1 hr; PHYS 106: General Physics II—3 hrs or PHYS 206: University Physics II—3 hrs.; PHYS 106L: General Physics II Lab—1hr or PHYS 206L: University Physics II Lab—1 hr.

Directed Electives (15 hours—select no more than 6 hours from each category)

Environmental Processes: ENVI 350: Geomorphic Processes—3hrs or ENVI 351: Regional Geomorphology—3 hrs; ENVI 450: Environmental Modeling and Mapping—3 hrs; ENVI 452: Quaternary Environments—3 hrs; ENVI 463: Soil Genesis and Classification—3hrs; ENVI 471: Quaternary Paleoecology—3hrs; or up to 3 hrs of other related science courses in consultation with the major advisor

Water and Geochemistry: ENVI 356: Water and Environmental Health—3 hrs; ENVI 361: Oceanography—3 hrs; ENVI 454: Intro to Hydrology—3 hrs; ENVI 455: Groundwater Hydrology—3 hrs; ENVI 456: Lakes and Wetlands—3 hrs; ENVI 481: Geochemistry—3 hrs; or up to 3 hrs of other related science courses in consultation with the major advisor

Geobiology: ENVI 308: Human Evolution—3 hrs; ENVI 440: Human Ecology—3 hrs; ENVI 458: Medical Geology—3 hrs; ENVI 465: Fundamentals of Tree—Ring Research—3 hrs; ENVI 470:

Paleontology and Geobiology—3 hrs; ENVI 479: Global Biogeochemical Cycles—3 hrs; or up to 3 hrs of other related science courses in consultation with the major advisor

Geoarchaeology: ENVI 201: Prehistory and Climate Change—3 hrs; ENVI 260: Archaeology Lab Practicum—1 hr; ENVI 310: Indians of North America—3 hrs; ENVI 436: Environmental Archaeology—3 hrs; ENVI 445: Archaeological Methods—3 hrs; ENVI 446: Midwest Archaeology—3 hrs; ENVI 447: Current Issues in Archaeology—3 hrs; ENVI 491: Archaeological Field School—6 hrs; or up to 3 hrs. of other related archaeology courses in consultation with the major advisor

Physical Geosciences: ENVI 276: Dinosaurs, Volcanoes, and Earthquakes—3hrs; 276L: Dinosaurs, Volcanoes, and Earthquakes Lab—1 hrs; ENVI 360: General Astronomy—3 hrs; ENVI 482: Volcanic Processes and Hazards—3 hrs; ENVI 483: Mineral Resources—3 hrs; ENVI 484: Energy Resources—3 hrs; ENVI 486: Geophysics—3 hrs; ENVI 489: Field Geology—3 hrs; or up to 3 hrs. of other related science courses in consultation with the advisor

Research: ENVI 488: Geoscience Research Methods—3 hrs; ENVI 492: Internship—3 or 6 hrs; ENVI 496: Advanced Research—1 to 6 hrs; ENVI 497: Seminar in Advanced Topics 1 to 9 hrs; ENVI 499: Senior Thesis and Research—3 hrs