EARTH AND ENVIRONMENTAL SCIENCE M.S.

Program Requirements

Required Core Courses
EAES 505 Environmental Geoscience 3
EAES 700 Earth Systems Science 3

Research in Geoscience Literature
EAES 594 Research in Geoscience Literature 1

Required Specialization Courses
Complete 9-12 semester hours from the following: 1 9-12
Earth Surface Processes and Hydrology
EAES 530 Numerical Modeling of Earth Systems
EAES 531 Hydroclimatology
EAES 532 Applied Groundwater Modeling
EAES 533 Water Resource Management
EAES 539 Principles of Soil Science
EAES 551 Coastal Geomorphology

Environmental Quality and Remediation
EAES 526 Geochemistry
EAES 527 Organic Geochemistry
EAES 528 Environmental Forensics
EAES 529 Instrumental Environmental Analysis
EAES 586 Urban Contamination
EAES 591 Methods in Environmental Research

Geology and Geophysics
EAES 507 Tectonics
EAES 508 Field Geology
EAES 524 Igneous and Metamorphic Geology
EAES 525 X-ray Microanalysis
EAES 535 Geophysics
EAES 544 Sedimentology
EAES 550 Advanced Marine Geology

GIS and Remote Sensing
EAES 510 Geographic Information Systems
EAES 511 Fundamentals of Remote Sensing of the Environment
EAES 610 Spatial Analysis
EAES 611 Advanced Environmental Remote Sensing and Image Processing
EAES 710 Advanced Geographic Information Systems

Free Elective Courses 0-10
Complete 0-10 semester hours from the following:
EAES 506 Introduction to Geographic Information Science and Remote Sensing
EAES 541 Stratigraphy
EAES 521 Optical Mineralogy
EAES 522 Igneous Metamorphic Petrology
EAES 592 Pro Seminar
EAES 509 Current Issues in Sustainability Science
EAES 562 Waste Management

EAES 563 Natural Resource Management
EAES 565 Environmental Change and Communication
EAES 566 Environmental Problem Solving
EAES 575 Environmental Economics
EAES 660 Seminar in Environmental Management
BIOL 550 Topics in Microbiology
BIOL 570 Ecology
HLTH 502 Determinants of Environmental Health
HLTH 528 Program Planning and Evaluation
HLTH 565 Foundations of Epidemiology
STAT 541 Applied Statistics
CHEM 510 Hazardous Materials Management
CHEM 534 Separation and Analysis
CHEM 570 Advanced Biochemistry

Culminating Experience
Select one of the following two options: 3-6
Thesis
EAES 698 Master’s Thesis
Submit the completed Thesis original and one copy to the Graduate Office. See Thesis Guidelines for details.
Research & Comprehensive Examination
EAES 593 Research Seminar
GRAD CMP Comprehensive Examination
In the semester you will sit for exam, register for the section which matches your major & advisor. Successfully pass exam.

Total Credits 32

1 With the Thesis option, complete a minimum of 9 semester hours from one area of specialization. With the Research Seminar and Comprehensive Exam option, complete a minimum of 12 semester hours, either from one area of specialization only or from multiple areas.