## EARTH AND ENVIRONMENTAL SCIENCE (M.S.)

### Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EAES 505</td>
<td>Environmental Geoscience</td>
<td>3</td>
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<tr>
<td>EAES 700</td>
<td>Earth Systems Science</td>
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**Research in Geoscience Literature**

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<tbody>
<tr>
<td>EAES 594</td>
<td>Research in Geoscience Literature</td>
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**Required Specialization Courses**

Complete 9-12 semester hours from the following:

- **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**

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

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**Culminating Experience**

Select one of the following two options:

**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.