**EARTH SCIENCES - MINOR**

The purpose of the Earth Sciences minor is to study the different physical earth processes and systems.

Students choosing to complete a minor in Earth Sciences must meet the following requirements:

- A minimum of 6 hours must be taken in residence at either Texas A&M University/College Station or Galveston.
- A minimum cumulative GPR of 2.0 must be achieved for all courses in the minor.
- Take a minimum of 15 hours of coursework in the College of Geosciences.
- The 15 hours must include at least 3 hours of 400-level coursework and another 3 hours of upper-level (300- or 400-level) coursework from the list.
- Students with majors in the College of Geosciences must select only courses outside of their home department.

**Program Requirements**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Semester Credit Hours</th>
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<td>Select courses from at least three of the following five groups: 15</td>
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**Group 1**

- ATMO 201 Weather and Climate
- ATMO 202 Weather and Climate Laboratory
- ATMO 324 Physical and Regional Climatology
- ATMO 441 Satellite Meteorology and Remote Sensing

**Group 2**

- GEOG 203 Planet Earth
- GEOG 309 Geography of Energy
- GEOG 324 Global Climatic Regions
- GEOG 331 Geomorphology
- GEOG 360 Natural Hazards
- GEOG 361 Remote Sensing in Geosciences
- GEOG 370/ Coastal Processes
- MARS 370
- GEOG 390 Principles of Geographic Information Systems
- GEOG 400 Aridlands Geomorphology
- GEOG 434 Hydrology and Environment
- GEOG 462/ Advanced GIS Analysis for Natural Resources Management
- ESSM 462 Resources Management
- GEOG 467 Dynamic Modeling of Earth and Environmental Systems

**Group 3**

- GEOL 101 Principles of Geology
- OR GEOL 104 Physical Geology
- GEOL 203 Mineralogy
- GEOL 301 Mineral Resources
- GEOL 302 Introduction to Petrology
- GEOL 306 Sedimentology and Stratigraphy
- GEOL 308 Integrated Earth Science
- GEOL 312 Structural Geology and Tectonics
- GEOL 410 Hydrogeology
- GEOP 341 Fundamentals of Geophysics
- GEOP 413 Near-surface Geophysics

**Group 4**

- GEOS 401 Polar Regions of the Earth: Science, Society and Discovery
- GEOS 442/ Past Climates
- GEOG 442

- GEOS 470 Data Analysis Methods in Geosciences

**Group 5**

- OCNG 251 Oceanography
- OR OCNG 401 Interdisciplinary Oceanography
- OCNG 252 Oceanography Laboratory
- OCNG 410 Physical Oceanography
- OCNG 425 Microbial Oceanography
- OCNG 430 Geological Oceanography
- OCNG 440 Chemical Oceanography

Total Semester Credit Hours 15

At least 6 hours must be upper level, 3 of which must be 400 level.

Students with majors in the College of Geosciences must select only courses outside of their home department.

Some of the courses have prerequisites, so make sure to check the catalog before enrolling in the course.

ENGS and ENST students may not select this minor.