# New Geoscience Curriculum

## Core (required of all)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOSCI 100 or 106: General or Environmental Geology</td>
<td>3</td>
</tr>
<tr>
<td>GEOSCI 202 Introduction to Geologic Structures</td>
<td>4</td>
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<tr>
<td>GEOSCI 204 Geologic Evolution of the Earth</td>
<td>4</td>
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<tr>
<td>GEOSCI 360 Principles of Mineralogy</td>
<td>3</td>
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<tr>
<td>GEOSCI 370 Introductory Petrology</td>
<td>3</td>
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<tr>
<td><strong>Total:</strong></td>
<td><strong>17</strong></td>
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</tbody>
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## Directed Electives: take one from each category

### Surface Environments
- GEOSCI 420 Glacial and Pleistocene Geology                          | 3       |
- GEOSCI 430 Sedimentology and Stratigraphy                           | 3       |
- GEOSCI 627 Hydrogeology                                             | 3-4     |
- GEOSCI 320 Geomorphology                                            | 3       |

### Geochemistry
- GEOSCI 375 Principles of Geochemistry                              | 3       |
- GEOSCI 610 Geochronology, Timescales, and Rates of Geologic Processes | 3       |
- GEOSCI 629 Contaminant Hydrogeology                                 | 3       |

### Geobiology
- GEOSCI 455 Structural Geology                                       | 4       |
- GEOSCI 304 Geobiology                                               | 3       |
- GEOSCI 540 Invertebrate Paleontology                               | 3       |
- GEOSCI 541 Paleobiology                                             | 3       |

### Earth Resources
- GEOSCI 410 Minerals as a Public Problem                            | 3       |
- GEOSCI 411 Energy Resources                                         | 3       |
- GEOSCI 455 Structural Geology                                       | 4       |
- GEOSCI 515 Principles of Economic Geology                           | 4       |
- GEOSCI 594 Introduction to Applied Geophysics                       | 3       |
- Geoscience electives numbered 300 and above (excluding GEOSCI 331) | 3-5     |
| **Total:**                                                           | **17**  |

## Geology track

### Required:
- GEOSCI 350 Introduction to Geophysics: The Dynamic Earth           | 3       |
- GEOSCI 375 Principles of Geochemistry                              | 3       |
- GEOSCI 430 Sedimentology and Stratigraphy                          | 3       |
- GEOSCI 455 Structural Geology                                       | 4       |
- Geoscience electives numbered 300 and above (excluding GEOSCI 331) | 4       |
| **Total:**                                                           | **17**  |

## Geophysics and Engineering Geology track

### Required:
- GEOSCI 431 Sedimentology and Stratigraphy Lab                      | 1       |
- GEOSCI 455 Structural Geology                                       | 4       |
- GEOSCI 474 Rock Mechanics                                           | 3       |
- GEOSCI 594 Introduction to Applied Geophysics                       | 3       |
- GEOSCI 595 Field Methods in Applied and Engineering Geophysics     | 1       |
- GEOSCI 627 Hydrogeology                                             | 4       |
| **Total:**                                                           | **16**  |

Students choosing this emphasis may not take Physics 103&104, but may replace Physics 201, 207, or 247 with EMA 201&202. They must also take two additional semesters of physics and math:
1. EMA 303 OR Physics 311 OR Physics 322

Students who are not GLE majors may substitute
GEOSCI 350 for either GEOSCI 474 or GEOSCI 627

## General Geoscience track

Choose 17 credit hours of geoscience electives numbered 300 and above (excluding GEOSCI 331)