# MAJOR IN GEOLOGY, ENVIRONMENTAL GEOLOGY CONCENTRATION

## Major Completion Map

***Freshman***

| Semester 1 | | Critical | Recommended | AUCC | Credits |
|---|---|---|---|---|---|
| CO 150 | College Composition (GT-CO2) | | X | 1A | 3 |
| GEOL 150 | Physical Geology for Scientists and Engineers | X | | 3A | 4 |
| Select one course from following: | | | | | 3-4 |
| MATH 159 | One Year Calculus IB (GT-MA1) | | | 1B | |
| MATH 160 | Calculus for Physical Scientists I (GT-MA1) | | X | 1B | |
| Arts and Humanities (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities) | | | | 3B | 3 |
| | **Total Credits** | | | | **13-14** |

| Semester 2 | | Critical | Recommended | AUCC | Credits |
|---|---|---|---|---|---|
| CHEM 111 | General Chemistry I (GT-SC2) | X | | 3A | 4 |
| CHEM 112 | General Chemistry Lab I (GT-SC1) | X | | 3A | 1 |
| GEOL 154 | Historical and Analytical Geology | X | | | 4 |
| Diversity, Equity, and Inclusion (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#diversity-equity-inclusion) | | | | 1C | 3 |
| Historical Perspectives (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#historical-perspectives) | | | | 3D | 3 |
| CO 150 and MATH 159 or MATH 160 must be completed by the end of Semester 2. | | X | | | |
| | **Total Credits** | | | | **15** |

***Sophomore***

| Semester 3 | | Critical | Recommended | AUCC | Credits |
|---|---|---|---|---|---|
| CHEM 113 | General Chemistry II | | | | 3 |
| CHEM 114 | General Chemistry Lab II | | | | 1 |
| GEOL 232 | Mineralogy | X | | | 3 |
| GEOL 344 | Stratigraphy and Sedimentology | | | 4A | 4 |
| MATH 161 | Calculus for Physical Scientists II (GT-MA1) | | X | 1B | 4 |
| | **Total Credits** | | | | **15** |

| Semester 4 | | Critical | Recommended | AUCC | Credits |
|---|---|---|---|---|---|
| GEOL 364 | Igneous and Metamorphic Petrology | X | | 4B | 4 |
| Select one course from the following: | | | | | 3 |
| CO 300 | Writing Arguments (GT-CO3) | | | 2 | |
| CO 301B | Writing in the Disciplines: Sciences (GT-CO3) | | | 2 | |
| JTC 300 | Strategic Writing and Communication (GT-CO3) | | | 2 | |
| Select one course from the following: | | | | | 5 |
| PH 121 | General Physics I (GT-SC1) | | X | 3A | |
| PH 141 | Physics for Scientists and Engineers I (GT-SC1) | | X | 3A | |
| Social and Behavioral Sciences (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#social-behavioral-sciences) | | | | 3C | 3 |
| CHEM 113 must be completed by the end of Semester 4. | | X | | | |
| | **Total Credits** | | | | **15** |

***Junior***

| Semester 5 | | Critical | Recommended | AUCC | Credits |
|---|---|---|---|---|---|
| GEOL 366 | Sedimentary Petrology and Geochemistry | | | 4A,4B | 4 |
| SOCR 240 | Introductory Soil Science | | | | 4 |
| Select one course from the following: | | | | | 3-5 |
| PH 122 | General Physics II (GT-SC1) | | | 3A | |
| PH 142 | Physics for Scientists and Engineers II (GT-SC1) | | | 3A | |
| SOCR 470 | Soil Physics | | | | |
| Select one course from the following: | | | | | 3-4 |
| MATH 340 | Intro to Ordinary Differential Equations | | | | |
| STAT 301 | Introduction to Applied Statistical Methods | | | | |
| STAT 315 | Intro to Theory and Practice of Statistics | | | | |
| GEOL 344 and PH 121 or 141 must be completed by the end of Semester 5. | | X | | | |
| | **Total Credits** | | | | **14-17** |

| Semester 6 | | Critical | Recommended | AUCC | Credits |
|---|---|---|---|---|---|
| GEOL 372 | Structural Geology | X | | 4B | 4 |
| GEOL 376 | Geologic Field Methods | X | | 4A,4C | 3 |
| NR 319 or 322 | Introduction to Geospatial Science<br>Intro. to Geographic Information Systems | | | | 4 |
| Arts and Humanities (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities) | | | | 3B | 3 |
| MATH 161 and STAT 301 or MATH 340 or STAT 315 must be completed by the end of Semester 6. | | X | | | |
| | **Total Credits** | | | | **14** |

| Semester 7 | | Critical | Recommended | AUCC | Credits |
|---|---|---|---|---|---|
| GEOL 436 | Geology Summer Field Course | X | | 4C | 6 |
| | **Total Credits** | | | | **6** |

***Senior***

| Semester 8 | | Critical | Recommended | AUCC | Credits |
|---|---|---|---|---|---|
| GEOL 452 | Hydrogeology | X | | | 4 |
| WR 416 | Land Use Hydrology | X | | | 3 |
| Directed Technical Elective (See Department List on Concentration Requirements tab) | | | | | 3 |
| Elective | | | | | 2-4 |
| GEOL 366 must be completed by the end of Semester 8. | | X | | | |
| | **Total Credits** | | | | **12-14** |

| Semester 9 | | Critical | Recommended | AUCC | Credits |
|---|---|---|---|---|---|
| GEOL 446 | Environmental Geology | X | | | 3 |
| GEOL 454 | Geomorphology | X | | | 4 |
| Directed Technical Elective (See Department List on Concentration Requirements tab) | | X | | | 3 |
| Electives | | X | | | 2-4 |
| The benchmark courses for the 9th semester are the remaining courses in the entire program of study. | | X | | | |
| | **Total Credits** | | | | **12-14** |
| | **Program Total Credits:** | | | | **120** |