

ACADEMIC ROADMAP

Earth Sciences, B.S.

Fall 2022

Freshman Year (30 credits)

FIRST SEMESTER

| Course Title | Catalog Number | Prerequisite(s) |
|-----------------------------|----------------|------------------|
| ES Major Gateway Course I | GES 20X | None |
| Lower-Division GES Elective | GES 1XX | None |
| Math I Option | MAT 1XX | Course Dependent |
| IF course | | None |
| College Writing I | CWP 101 | None |

SECOND SEMESTER

| Course Title | Catalog Number | Prerequisite(s) |
|----------------------------|----------------|------------------|
| ES Major Gateway Course II | GES 20X | None |
| Recommend: Math II Option | MAT 1XX | Course Dependent |
| IF course | | None |
| IF course | | None |
| College Writing II | CWP 102 | CWP 101 |

Notes and recommendations:

- Earth Sciences majors take two out of the three 'gateway' courses: GES 200, GES 201, and GES 202 that are offered on a rotating schedule.
- Math I Option: MAT 124, MAT 126, or MAT 161/163. Student might need to take MAT 114 here instead, depending on H.S. math completed.
- Math II Option: MAT 126, MAT 127, MAT 162/164, MAT 311, or ECO 305 by advisement.
- Join the Astronomy and Geology Club; Attend at least one faculty office hour; visit Academic Commons (Math & Writing Centers, tutoring); view your degree audit sheet in Degree Works.

Sophomore Year (60 credits)

THIRD SEMESTER

| Course Title | Catalog Number | Prerequisite(s) |
|--------------------------------|-----------------|---------------------|
| Sedimentology and Stratigraphy | GES 306 | GES Gateway courses |
| Fund. of Chemistry I and Lab | CHE 111 and 113 | See catalog |
| Lower-Division GES Elective | GES 1XX | None |
| Introductory Astronomy | GES 131 | None |
| If course | | None |

FOURTH SEMESTER

| Course Title | Catalog Number | Prerequisite(s) |
|----------------------------|-----------------|---------------------|
| Geomorphology | GES 307 | GES Gateway courses |
| Recommend: Chem II and Lab | CHE 113 and 114 | See catalog |
| Meteorology | GES 241 | None |
| IF course | | None |
| IF course | | None |

Notes and recommendations:

- GES electives should be chosen by advisement.
- Form a study group; consider enrolling in a minor or certificate program (by advisement).

Junior Year (90 credits)

FIFTH SEMESTER

| Course Title | Catalog Number | Prerequisite(s) |
|------------------------------|----------------|---------------------|
| Mineralogy | GES 303 | GES Gateway courses |
| Maps and Mapmaking Using GIS | GEG 325 | None |
| Physics I | PHY 1XX | Course Dependent |
| IF course | | None |
| | | |

SIXTH SEMESTER

| Course Title | Catalog Number | Prerequisite(s) |
|---------------------------------|----------------|-----------------|
| Structural Geology | GES 408 | GES 303 |
| Structural Geology Field Exp. | GES 418 | GES 303 |
| Elective (Recommend Physics II) | | |
| IF course | | None |
| | | |

Notes and recommendations:

- Physics I: Student will take PHY 107 or PHY 111 by advisement.
- Physics II: Student will take second PHY course, PHY 108 or PHY 112, depending on first course.
- Upper-Division GES Elective may be GES 323 (3rd Year Research and Field Methods Experience), GES 452 (Hydrogeology), or an upper-division Astronomy Elective course.
- Visit the Career Development Center; talk to your faculty advisor about graduate school and undergraduate research options.

Senior Year (120 credits)

SEVENTH SEMESTER

| Course Title | Catalog Number | Prerequisite(s) |
|-----------------------------|--------------------|-------------------|
| Geological Hazards | GES 428 | GES 306, 307, 408 |
| Upper-Division GES Elective | GES 3XX or GES 4XX | |
| Upper-Division Elective | | |
| Elective | | |
| | | |

EIGHTH SEMESTER

| Course Title | Catalog Number | Prerequisite(s) |
|-------------------------|----------------|--------------------|
| Geology Senior Seminar | GES 472 | ES Senior standing |
| Upper-Division Elective | | |
| Elective | | |
| Elective | | |
| | | |

Notes and recommendations:

- GES 472 may be replaced by GES 431 (Planetarium Seminar).
- For Electives, students planning on becoming science teachers should take EXE 100, SPF 303, and GES 431.
- Students planning to become science teachers should also consider taking 9 credits of graduate courses during their senior year (SED courses – See the Science Education program coordinator).
- Apply for graduation; apply to graduate school, if applicable; visit the Career Development Center to have your resume reviewed