

Earth and Environmental Systems

Forestry is the study of forest ecosystems and the environmental components and processes (biological, physical, and chemical) that affect them.

Forestry majors at Sewanee are broadly trained to integrate traditional forestry coursework (dendrology, silviculture, forest ecology, and natural resource management) with courses outside the department in Biology, Chemistry, Economics, and Mathematics. Courses in soils, hydrology, natural resource policy, GIS (Geographic Information Systems), wildlife management, urban forest management, and tropical and boreal forestry are also either encouraged or required. Forestry majors participate in the department's junior presentations seminar and senior capstone interdisciplinary field course along with all students majoring in geology or natural resources and the environment.

Requirements for the Major in Forestry

The major requires successful completion of the following:

| Code | Title | Semester Hours |
|---|---|----------------|
| Course Requirements ¹ | | |
| CHEM 100 or CHEM 120 or CHEM 150 | Foundations of Chemistry General Chemistry (Lab) Advanced General Chemistry (Lab) | 4 |
| FORS 121 | Introduction to Forestry (Lab) | 4 |
| FORS 211 | Dendrology (Lab) | 4 |
| FORS 262 | Forest and Watershed Restoration (Lab) | 4 |
| FORS 303 or GEOL 314 | Soils (Lab) Hydrology (Lab) | 4 |
| FORS 305 | Forest Ecology (Lab) | 4 |
| FORS 312 | Silviculture | 4 |
| FORS 319 | Natural Resource Management and Decisions | 4 |
| FORS 332 | Oral Presentations | 2 |
| GEOL 121 | Physical Geology (Lab) | 4 |
| Select one of the following: | | 4 |
| An additional lab course in Biology (BIOL) | | |
| An additional lab course in Chemistry (CHEM) | | |
| BIOL 130 | Field Investigations in Biology | |
| BIOL 200 | Entomology | |
| ESCI 240 | Island Ecology (Lab) ((summer program)) | |
| PHYS 106 | Foundations of Global Warming | |
| Select one additional course in Forestry (FORS) | | 4 |
| Total Semester Hours | | 46 |

| Code | Title | Semester Hours |
|------|-------|----------------|
|------|-------|----------------|

Additional Requirements

A comprehensive examination

Department capstone requirement, which may be satisfied by:

- Receiving a grade of C or higher on the Elberton Project undertaken in GEOL 320 - Petrology;
- Completing no earlier than the second semester of their junior year an independent study project that culminates in a technical paper or a presentation at Scholarship Sewanee; or,
- Completing ESCI 450 during the spring semester of their senior year.

Footnotes

¹ The following courses are suggested but not required: an additional chemistry lab course, one GIS-based course, MATH 101 (<http://e-catalog.sewanee.edu/archives/2020-2021/search/?P=MATH%20101>), PHIL 230 (<http://e-catalog.sewanee.edu/archives/2020-2021/search/?P=PHIL%20230>) or RELG 341 (<http://e-catalog.sewanee.edu/archives/2020-2021/search/?P=RELG%20341>), and STAT 204 (<http://e-catalog.sewanee.edu/archives/2020-2021/search/?P=STAT%20204>) or FORS 307 (<http://e-catalog.sewanee.edu/archives/2020-2021/search/?P=FORS%20307>).

Writing-Intensive Course in the Major Requirement

Students majoring in Forestry, Geology, or Natural Resources and the Environment can satisfy their writing-in-the-major requirement by:

1. Successfully completing a designated writing-intensive course in the department, or
2. Successfully completing three Forestry and/or Geology designated “writing portfolio” courses. Written and edited scientific papers from each writing portfolio course are to be compiled into a scientific writing portfolio by each student, and maintained by the advisor.

The following courses are designated as writing portfolio or writing-intensive courses in the Department of Earth and Environmental Systems. Other courses may be approved as such during some years. In exceptional cases and by faculty permission, one of the three writing portfolio courses might be fulfilled by FORS 444 or GEOL 444.

Writing Portfolio Courses in the Department of Earth and Environmental Systems (three required):

| Code | Title | Semester Hours |
|--|--|----------------|
| Forestry Major | | |
| FORS 204 | Forest Wildlife Management (project report) | 4 |
| FORS 262 | Forest and Watershed Restoration (Lab) (class paper) | 4 |
| FORS 305 | Forest Ecology (Lab) (lab report or paper) | 4 |
| FORS 312 | Silviculture (lab report or paper) | 4 |
| FORS 319 | Natural Resource Management and Decisions (project report) | 4 |
| Geology Major | | |
| GEOL 222 | Historical Geology (Lab) (term paper) | 4 |
| GEOL 305 | Economic Geological Resources (Lab) (field trip report) | 4 |
| GEOL 314 | Hydrology (Lab) (lab report) | 4 |
| GEOL 320 | Igneous and Metamorphic Petrology (Lab) | 4 |
| Natural Resources and the Environment Major | | |
| FORS 204 | Forest Wildlife Management (project report) | 4 |
| FORS 262 | Forest and Watershed Restoration (Lab) (class paper) | 4 |
| FORS 305 | Forest Ecology (Lab) (lab report or paper) | 4 |
| FORS 312 | Silviculture (lab report or paper) | 4 |
| FORS 319 | Natural Resource Management and Decisions (project report) | 4 |
| GEOL 222 | Historical Geology (Lab) (term paper) | 4 |
| GEOL 305 | Economic Geological Resources (Lab) (field trip report) | 4 |
| GEOL 314 | Hydrology (Lab) (lab report) | 4 |
| GEOL 320 | Igneous and Metamorphic Petrology (Lab) | 4 |