

GEOGRAPHY, BS

Admission into the Major

Students are expected to formally declare a major no later than the fourth semester of full-time enrollment (or at 61 semester hours for transfer students). Students may declare a major by completing the Change of Major/Minor Application online under the Student tab of myBama.

Special Opportunities

The Department of Geography and the Environment offers internship opportunities with the Geological Survey of Alabama and local planning agencies. The department also offers certificate programs in Geographic Information Systems (GIS) and in regional and urban planning. Additional information is available in the Department of Geography and the Environment office.

Students earning the bachelor of science (BS) degree with a major in geography must complete all University, College and departmental degree requirements. These include the general education requirements, the following major requirements, all requirements for an approved minor and other sufficient credits to total a minimum of 120 applicable semester hours.

| Code and Title | Hours |
|---|-----------|
| Major Courses | |
| GY 101 Atmospheric Proc & Patterns | 4 |
| GY 102 Earth Surface Processes | 4 |
| GY 105 World Regional Geography | 3 |
| GY 110 People, Places, & Environment | 3 |
| GY 204 Maps and Spatial Reasoning | 4 |
| Credit Hours Subtotal: | 18 |
| Concentration | |
| Select a GY concentration | 12 |
| Credit Hours Subtotal: | 12 |
| Electives | |
| Select six hours of GY electives | 6 |
| Credit Hours Subtotal: | 6 |
| Ancillary Courses | |
| Grades in ancillary courses are not computed into the major GPA. The major in geography culminating in a bachelor of science (BS) degree requires the successful completion of the following courses outside the major: | |
| MATH 125 or Calculus I | 4 |
| MATH 145 Honors Calculus I | |
| Select a statistics course: | 3 |
| ST 260 Statistical Data Analysis | |
| PY 211 Elem Statistical Methods | |
| BER 345 Educational Statistics | |
| Credit Hours Subtotal: | 7 |
| Total Hours | 43 |

Grade Point Average

A 2.0 grade point average in the major is required for completion of the degree. Please see the Grades and Grade Points section of this catalog for an explanation on grade point average calculations.

Upper-level Residency

A minimum of 12 hours of 300- and 400-level courses in the major must be earned on this campus.

Required Minor

The geography major requires completion of a minor.

Additional Major Requirements

A maximum of three hours of internship or practicum credit can be applied to the major. Each geography course applied to the 36-hour requirement must be completed with a grade of C- or higher. Students are responsible for ensuring that they have met all University, College, major and minor requirements. However, each student must meet with an adviser in the major department for academic planning and to be approved for registration each semester. College advisers are also available for additional assistance with minor, College and University requirements.

Concentrations

Students must earn at least 12 hours from one of the following three concentrations. With approval, topic appropriate GY 470 Special Topics may be substituted in each concentration.

Concentration I: Earth System Science (minimum of 12 hours)

| Code and Title | Hours |
|---------------------------------------|-------|
| GY 202 The Water Planet | 4 |
| GY 302 Climatology | 3 |
| GY 363 Geomorphology | 3 |
| GY 404 Physical Geography SE US | 3 |
| GY 405 Dir Res Physical Geog | 1-3 |
| GY 409 Forest Ecosystem Restoration | 4 |
| GY 412 Hydroclimatology | 3 |
| GY 413 Applied Climatology | 3 |
| GY 414 Climate Change and Health | 3 |
| GY 416 Geostatistics Using R | 3 |
| GY 451 Global Environmental Change | 3 |
| GY 462 Land Use Science | 4 |
| GY 470 Special Topics | 3 |
| GY 472 Soil Science | 4 |
| GY 485 River Hydrology | 3 |
| GY 486 Watershed Science and Managmnt | 3 |
| GY 489 Forest Ecology Veg Analy | 4 |
| GY 491 Fluvial Geomorphology | 3 |
| GY 492 Eastern Forest Communities | 4 |
| GY 494 Forest Measurement & Methods | 4 |
| GY 496 Forest Ecosystems | 4 |

Concentration II: Regional, Urban and Environmental Planning (minimum of 12 hours)

| Code and Title | Hours |
|--|-------|
| GY 317 Natural Hazards | 3 |
| GY 339 Natural Resource Envirnmn Plang | 3 |

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|--------|--|-----|
| GY 341 | Geography Of Us And Canada | 3 |
| GY 344 | Geography Of Africa | 3 |
| GY 346 | Geography of Europe | 3 |
| GY 370 | Special Topics | 3 |
| GY 375 | Sports Geography | 3 |
| GY 377 | Cultural Geography | 3 |
| GY 385 | Watershed Management Plan Development (Watershed Management Plan) | 3 |
| GY 406 | Dir Res Human Geography | 1-3 |
| GY 410 | National Parks | 3 |
| GY 415 | The Geography of Extinctions and Endangered Species | 3 |
| GY 417 | Extreme Weather and Society | 3 |
| GY 418 | Spatial and Geostats | 3 |
| GY 440 | Commun Facil Planning | 3 |
| GY 441 | Land Use Regulations | 3 |
| GY 444 | Field Studies In Africa | 6 |
| GY 445 | Agriculture | 3 |
| GY 449 | Field Studies: Ireland | 6 |
| GY 450 | Field Studies in Belize | 6 |
| GY 452 | Environ Decision Making | 3 |
| GY 453 | Environment & Society | 3 |
| GY 454 | Field Studies in Costa Rica | 4 |
| GY 456 | Planning Internship | 3-9 |
| GY 457 | Environmental Entrepreneurship | 3 |
| GY 458 | Urban Planning And Analysis | 3 |
| GY 459 | Water Energy and Food | 3 |
| GY 461 | Political Ecology | 3 |
| GY 462 | Land Use Science | 4 |
| GY 464 | Conservation Politics | 3 |
| GY 468 | Grant Writing for Nonprofits | 3 |
| GY 466 | Geography of Automobility | 3 |
| GY 470 | Special Topics | 3 |

Our graduates accept positions such as environmental consultant; forest technician; geographic information systems analyst; land steward; park ranger; regional and urban or environmental planner; remote sensing analyst; scientist; software engineer; agent with the Central Intelligence Agency; U.S. Environmental Protection Agency staff person; U.S. Forest Service staff person; U.S. Geological Survey staff person; National Oceanic & Atmospheric Administration staff person; city, county and regional planning commissioner.

Learn more about opportunities in this field at the Career Center

Concentration III: Geographic Information Techniques (minimum of 12 hours)

| Code and Title | Hours | |
|----------------|-------------------------------|--------|
| GY 330 | Computr Mapping Graphics | 4 |
| GY 418 | Spatial and Geostats | 3 |
| GY 420 | Remote Sensing I | 4 |
| GY 424 | Cartography Practicum | 3-9 |
| GY 425 | Cartography Internship | 3-9 |
| GY 430 | Intro Geographic Info Systems | 1 or 3 |
| GY 433 | Gis Practicum | 3-9 |
| GY 434 | Gis Internship | 3-9 |
| GY 435 | Remote Sensing II | 4 |
| GY 436 | Adv Geographic Info Syst | 4 |
| GY 437 | GIS for Transportation | 4 |
| GY 439 | GIS Programming | 4 |
| GY 443 | Location Science | 3 |
| GY 488 | Digital Terrain and Watershed | 4 |

Types of Jobs Accepted