Biological Sciences 260 .................................................................4
Geographic Information Science 250 ........................................3
Geology 422 ..............................................................................3

Humanities (GER)
  English 303 ........................................................................3
  English 463 or Speech 110, 377 ............................................3
Statistics ..................................................................................3
Directed Electives* ..................................................................3

Total Semester Hours ................................................................123

(GER): General Education Requirements (pg. 14)
(IER): International Education Requirement (pg. 15). Effective with the
freshman class of 2005, each student must complete a minimum of one
3-hour course which has been identified as satisfying the international
education requirement. Course choices are on pg. 15 of this Catalog.
*Students are expected to obtain a minor in an area of their choice; if
students choose not to seek a minor, directed electives are selected from
the following: Animal Science, Biology, Chemical Engineering,
Chemistry, Environmental Science, Forestry, Geographic Information
Science, Geography, Geology, Physics, and Plant Science.

Requirements for a Minor in Environmental Science
Twenty-one hour course work to include Geology 111,
Environmental Science 211, 310, 313, 444, 458, and 3 hours of
Biological Sciences, Chemistry, Environmental Science, Forestry,
Geology, or Plant Science at the 300 level or above.

Requirements for a Minor in Geology
A minor in geology consists of Geology 111, 112, 121, 122, and 13
additional hours, at least 9 of which must be at the 300- or 400-level.

School of Forestry

Mission:
The mission of the School of Forestry is "To enhance the
social, ecological, and economic value of forest resources for the
citizens of Louisiana and the nation through professional
education, basic and applied research, and service to the public
and natural resource managers."

The specific goals are to:
1. maintain an accredited undergraduate forestry education
   program,
2. maintain an undergraduate wildlife conservation education
   program, that meets certification requirements of The
   Wildlife Society,
3. conduct research relevant to enhancing Louisiana’s
   forestlands and associated natural resources, and
4. conduct continuing education and service activities to meet
   the needs of Louisiana’s forest landowners.

Degree Programs
The School of Forestry offers three degree programs:
Bachelor of Science in Forestry (BSF), a Bachelor of Science in
Geographic Information Science (BS) with a concentration in
Natural Resources, and a Bachelor of Science in Wildlife
Conservation (BS). The Forestry curriculum is designed for students who desire scientific knowledge of conservation and
management of forestry resources, such as timber inventory, site
productivity, resource protection, and many other activities
carried out in the production of wood and wood fiber. The
Geographic Information Science (GISc) curriculum is designed for students interested in understanding, analyzing, and
applying the spatial relationship among human and physical features (e.g.,
social and economic impact of natural disasters). Students of
GISc learn how to use computer software programs that identify
the interactions that transpire between humans and the physical
environment based on location. They also learn how to analyze
those interactions, and to use that information to suggest
changes in policies and procedures. Jobs for graduates of this
curriculum are found in all sectors of the economy including
business, communication, defense, education, engineering,
Federal, state, and local government, health and human services,
natural resources, transportation, and many others. The Wildlife
Conservation curriculum is designed for students who desire
scientific knowledge of the conservation and management of
wildlife. This curriculum emphasizes the life history, habitat
relationships, and habitat management of wildlife species and
communities. Students are trained as managers, naturalists, and
researchers through course work and practical experience with
wildlife professionals.

Students are encouraged to complete at least 1 internship
(on-the-job experience) during their course of study. The
Forestry curriculum requires that students complete individual
professional courses (Forestry prefix) with a minimum grade of
C and maintain a minimum grade point average of 2.0 on all
courses taken. The Wildlife Conservation curriculum requires
that students complete individual professional courses (Forestry
and Biological Sciences prefixes) with a minimum grade of
C and maintain a minimum grade point average of 2.0 on all
courses taken.

The educational program in Forestry leading to the
professional degree of BSF is accredited by the Society of
American Foresters (SAF). SAF is recognized by the Council
for Higher Education Accreditation as the specialized
accrediting body for forestry in the United States. The Wildlife
Conservation degree program meets the certification
requirements of The Wildlife Society, and graduates may apply
for certification as an Associate Wildlife Biologist.

Field Session
Successful completion of the Forestry Summer Field
Session during the junior year is a prerequisite for senior
standing for Forestry and Wildlife Conservation majors, but not
for Geographic Information Science majors. Students who have
completed all prerequisites, including all 100 level courses, FOR
205, 206, 300, 301 (or BISC 313), 302, 306, MATH 212, and
have at least an overall C average are eligible to enroll. Field
Session students are also required to meet the conditions as
outlined in the Forestry Summer Field Session Academic and
Operating Policies document which is available from the School
of Forestry upon request.

Field Trips
During the junior and senior years, field trips are made to
forest production areas, wood-using plants, and wildlife
management areas. These enable students to observe forestry,
wildlife management, research, and wood-using activities of
private companies and government agencies. Many of the
important forest types and management activities, as well as a
wide variety of wood-using industries, are located near campus.
### Expenses
Field trips cannot always be arranged within the scheduled laboratory hours. In some cases, students must leave the campus earlier and return later than the published class schedule. The payment for meals and lodging when overnight trips are necessary are the responsibility of the individual student. This includes the field session. In addition to regular expenses, a special fee is charged each student who attends the field sessions.

Each student registering for any forestry or biological sciences course involving field laboratory work should have, for self-protection, an accident insurance policy. Policies are available during registration to all students for a reasonable cost.

A number of student assistants are employed by the School each year. This enables the students to work part-time while attending school.

### Transfer Credit
Students may complete 62 semester hours of the forestry or wildlife conservation major at regionally accredited institutions. However, transfer credit will only be accepted for courses completed with a C or better grade and must be approved during the student’s first quarter at Tech.

The professional core courses in forestry and wildlife conservation must be completed at Louisiana Tech University.

Students who are considering transferring to the School of Forestry should contact the Director's Office, School of Forestry, prior to enrollment at other institutions.

### Forestry Curriculum (BSF)
**Freshman Year**
- Natural Sciences (GER)
  - Biological Sciences 134 .................................................. 3
- Social Sciences (GER)
  - Economics 201 or 202 or 215 ............................................. 3
- English (GER) ........................................................................ 6
- Arts (GER) ........................................................................... 3
- Forestry 101 ............................................................................ 1
- Mathematics (GER)
  - Mathematics 100 or 101, and 212 ......................... 6
- Elective .................................................................................. 3

**Sophomore Year**
- Natural Sciences (GER)
  - Chemistry 120, 121, 122 or Chemistry 100, 101, 102, 103 ........... 7
- Humanities (GER)
  - English 201 or 202 ............................................................ 3
  - History ................................................................................. 3
  - Forestry 205, 206, 312, 313 ........................................ 8
  - Geographic Information Science 250 ...................... 3
  - Social Science (GER) ......................................................... 3
  - Statistics Elective * ........................................................... 3

**Junior Year**
- Humanities (GER)
  - English 303 .................................................................... 3
  - Geographic Information Science 217, 224 .................. 4
  - Electives ............................................................................ 5

**Senior Year**
- Forestry 322, 401, 402, 404, 406, 410, 413, 425 .................... 22
- Humanities (GER)
  - Speech 110 or 377, or English 463 ......................... 3
  - Geographic Information Science 260 ...................... 2

Total Semester Hours ................................................................ 125

### Wildlife Conservation Curriculum (BS)
**Freshman Year**
- Natural Sciences (GER)
  - Biological Sciences 130, 131, 132, 133 ......................... 8
- Chemistry 120, 121, 122 or Chemistry 100, 101, 102, 103 ........... 7
- English (GER) ....................................................................... 6
- Forestry 101 .......................................................................... 1
- Mathematics (GER)
  - Mathematics 100 or 101, and 212 ......................... 6
- Social Sciences (GER) .......................................................... 3

**Sophomore Year**
- Arts (GER) ............................................................ 3
- Biological Sciences 200 or 310 ............................................ 3
- Forestry 205, 206 .............................................................. 3
- Geographic Information Science 250 ...................... 3
- Humanities (GER)
  - English 201 or 202 ......................................................... 3
  - History ............................................................................. 3
  - Speech 110 or 377 ............................................................. 3
  - Social Sciences (GER) ...................................................... 6
- Statistics Elective ................................................................. 3

**Junior Year**
- Biological Sciences 221, 313*, 317, 458 ......................... 12
- Forestry 300, 302, 306, 310, 314, 315, 320 .................... 19
- Geographic Information Science 217, 224 .................. 4

**Senior Year**
- Biological Sciences 413 or 428, and 432, 433 ................... 9
- Animal Science 309 ............................................................ 3
- Forestry 401, 410, 445 ......................................................... 9
- Geographic Information Science 260 ...................... 2
- Humanities (GER)
  - English 303 ................................................................... 3
  - Elective** ........................................................................ 3

Total Semester Hours ................................................................ 125

*Students are strongly encouraged to take Forestry 301; however, students may elect Biological Sciences 313 if their career goals dictate.

**Students are strongly encouraged to use elective credits to complete an experiential education opportunity or Geographic Information Science 350, Intermediate Geographic Information Systems.

***9 credit hours are taken during a required Summer Field Session between the Junior and Senior years.

### Requirements for a Minor in Forestry
- Twenty or 21 hours to include Forestry 202, 205; Forestry 301 or Biological Sciences 313; Forestry 302, 306, 312 or 313, 404 or Geographic Information Science 250, and Forestry 406.

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### Total Semester Hours
- 125

*Students are strongly encouraged to take Biological Sciences 313; however, students may elect Forestry 301 if their career goals dictate.

**Students are strongly encouraged to use elective credits to complete an experiential education opportunity or Geographic Information Science 350, Intermediate Geographic Information Systems.

***9 credit hours are taken during a required Summer Field Session between the Junior and Senior years.
### Program Information

The Geographic Information Science (GISc) program is both an interdisciplinary and interdepartmental degree program shared between the School of Forestry in the College of Applied and Natural Sciences and the Department of Social Sciences in the College of Liberal Arts. The 125 semester credit hour concentration in Natural Resources directed by the School of Forestry incorporates 33 hours of concentration electives that allow students to specialize in natural resources. Students are prepared for rewarding and high-paying careers in the field of spatial data technologies that more specifically engage environmental issues and issues that pertain to the natural sciences. Careful selection of concentration electives provides the opportunity to earn a minor in forestry, wildlife conservation, environmental science, or other fields. Specific requirements for minors are identified in the departmental sections of this Catalog.

The GISc curriculum is designed for students interested in understanding, analyzing, and applying the spatial relationship among human and physical features (e.g., social and economic impact of natural disasters). Students of GISc learn how to use computer software programs that identify the interactions that transpire between humans and the physical environment based on location. They also learn how to analyze those interactions, and to use that information to assist with public and private sector management, administration and planning.

Career opportunities for graduates with GISc training specifically mention a degree in GISc as a favored condition of employment. There is an enormous and growing need for graduates with GISc training. Ample job opportunities exist both in Louisiana and across the country and such opportunities are growing and diversifying as GISc technologies prove their value in even more areas. Excellent opportunities exist for GIS analysts, cartographers, database and system administrators, photogrammetrists, image analysts, GIS coordinators, and programmers. Employment can be found in U.S. Government agencies such as the U.S. Geological Survey (USGS), U.S. Forest Service (USFS), Environmental Protection Agency (EPA), and National Aeronautics and Space Administration (NASA), in city and state government for planning, environment, resources, and transportation, and in the private sector for a diverse set of disciplines including agriculture, archeology, architecture, business, communications, computer science, defense, ecology, economics, education, engineering, forestry, health and human services, natural resources, and many others.

### Geographic Information Science Curriculum (BS)

#### Freshman Year

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<tr>
<th>Course</th>
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<td>Natural Sciences (GER)</td>
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<tr>
<td>Biological Sciences</td>
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<tr>
<td>Social Sciences (GER)</td>
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<td>Economics</td>
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</tr>
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<td>English (GER)</td>
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<tr>
<td>Mathematics (GER)</td>
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<td>Concentration Courses*</td>
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#### Sophomore Year

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<td>Natural Sciences (GER)</td>
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<tr>
<td>English (GER)</td>
<td>3</td>
</tr>
<tr>
<td>History</td>
<td>3</td>
</tr>
<tr>
<td>Geographic Information Science 250, 260, 360</td>
<td>7</td>
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<td>Concentration Courses*</td>
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<tr>
<td>Social Sciences (GER)</td>
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#### Junior Year

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<th>Course</th>
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<td>Humanities (GER)</td>
<td>3</td>
</tr>
<tr>
<td>Speech 110 or 377</td>
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<td>Humanities (GER)</td>
<td>3</td>
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<tr>
<td>Geographic Information Science 217, 224, 340, 350, 370</td>
<td>13</td>
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<tr>
<td>Concentration Courses*</td>
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#### Senior Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Geographic Information Science 460, 461, 462, 463</td>
<td>16</td>
</tr>
<tr>
<td>Concentration Courses*</td>
<td>16</td>
</tr>
</tbody>
</table>

### Total Semester Hours: 125

**Note:** (GER) General Education Requirements (pg. 14) (IER): International Education Requirement (pg. 15). Effective with the freshman class of 2005, each student must complete a minimum of one 3-hour course which has been identified as satisfying the international education requirement. Course choices are on pg. 15 of this Catalog.

*Concentration Courses chosen by student, in consultation with advisor, from one of the following concentrations:

### Natural Resources Concentration Requirements

GER and other non-GISC requirements for this concentration include the following: Natural Sciences (9 hours)-Biological Sciences 212 plus 6 hours of Natural Sciences electives; Mathematics 100 or 101, and 112 or 212. Statistics (3 hours)-Agricultural Science 320, Psychology 300, Quantitative Analysis 233, or Statistics 200; English (12 hours)-English 101, 102, 201 or 202, and 303; Social Sciences (9 hours)-Economics 201 or 202 or 215, and 6 hours of Social Sciences electives; History 201 or 202; Speech (3 hours)-Speech 110 or 377 or English 463; Arts elective (3 hours); Forestry 201; Directed electives (36 hours) chosen in consultation with advisor including one International Education Requirement from History 102 or Geography 205 or Geography 210.

### Social Sciences Concentration Requirements

GER and other non-GISC requirements for this concentration include the following: Natural Sciences electives (9 hours); Mathematics 100 or 101, and Statistics 200; English (9 hours)-English 101, 102, 201 or 202; Foreign language (12 hours); Social Sciences (15 hours)-Geography 203, 205, Political Science 201, Sociology 201, and Economics 215; History 101 or 102 or 201 or 202; Speech 110; Arts elective (3 hours); Directed electives (27 hours) chosen by student in consultation with advisor.

### Requirements for a Minor in Geographic Information Science:

Twenty-two or 23 hours to include Geographic Information Science 200, 217, 224, 250, 260, 350; Geography 340 or Geographic Information Science 340, Geography 370 or Geographic Information Science 370; one quantitative methods course chosen from Agricultural Sciences 320, Geographic Information Science 360, Quantitative Analysis 233, or Statistics 200, 402, or 405.