

NATURAL RESOURCES CONCENTRATION REQUIREMENTS

GER and other non-GIS requirements for this concentration include the following:

- Natural Sciences (9 hours) – Biological Science 212 (3), Natural Sciences Electives (6)
- Mathematics (6 hours) – Mathematics 101, 112 or 212 (6)
- Statistics (3 hours) – Agricultural Science 320, Psychology 300, Quantitative Analysis 233, or Stat 200 (3)
- English (12 hours) – English 101, 102, 201 or 202, 303 (12)
- Social Sciences (9 hours)– Economics 201 or 202 or 215 (3), Social Science Electives (6)
- History (3 hours) – History 201 or 202 (3)
- Speech (3 hours) – Speech 110, 377 or ENGL 463 (3)
- Arts (3 hours)
- Forestry (3 hours) – Forestry 201 (3)
- Directed Electives (36 hours) – Chosen by student, in consultation with advisor including one International Course from HIST 102 or GEOG 205 or GEOG 210 (3)

MINOR IN GEOGRAPHIC INFORMATION SCIENCE

Students attending Louisiana Tech University may pursue a minor in GIScience. Course requirements are listed below.

Course

Hours	
GISC 217.....	2
GISC 224.....	2
GISC 250.....	3
GISC 260.....	2
GISC 350.....	3
Geography 341 or GISC 341.....	3
Geography 371 or GISC 371.....	3

One quantitative methods course from the following:
Ag Science 320, Geographic Information Science 360, Quantitative Analysis 233, Statistics 200, 402 or 4052/3

Total Hours: 20/21

FOR FURTHER INFORMATION CONTACT:

Dr. David W. Long
School of Forestry

P. O. Box 10138
Ruston, LA 71272
(318) 257-3714

dlong@latech.edu

LOUISIANA TECH UNIVERSITY

SCHOOL OF FORESTRY SPATIAL DATA LAB



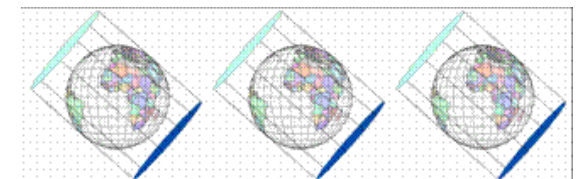
Bachelor of Science in Geographic Information Science (GISc)

Natural Resources Concentration

The degree program in geographic information science (GISc) prepares students for a variety of career fields that require a command of geographic information systems (GIS). GIS allows users to effectively and efficiently store, manage, display and analyzed vast data sets. GIS is rapidly becoming an essential tool of analysis at all levels of public and private sector management, administration and planning.

TWO AREAS OF CONCENTRATION ARE OFFERED:

- Natural Resources
- Social Sciences



WHAT IS GIS?

Geographic Information Systems is a software tool used for spatial data input, management, analysis, output and can be used for many different applications. Almost anything that can be mapped can be analyzed withing a GIS. It is also a science. GIS science studies the fundamental issues arising from the use of geograhic information. GIS analysis leads to answering geographic questions and developing new theories. It serves as a catalyst to bring scientists of diverse disciplines together when working on research that has a geographic component. In fact, GIS is revoloutionizing sceince by allowing researches from many different disciplines to communicate more effectively. GIS functions as a base for integration of science.

CAREERS IN GIS

GIS is rapidly expanding into all sectors of society: Governmental, academic, and private. With the increased use of GIS, the job market looks very good for graduates. Excellent opportunities exist for GIS analysts, cartographers, database and system administrators, phontogrammetrists, 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), Enviornmental Protection Agency (EPA), and National Aeronautics and Space Administration (NASA), in city and state government for planning, environment, resoruces, and transportation, and in the private sector for a diverse set of disciplines including engineering, architecture, agriculture, medicine, economics, forestry, ecology, computer science, and archeology.



ABOUT THE GIS LAB

The Louisiana Tech Spatial Data Lab (SDL) is located in Room 2 of Lomax Hall on South Campus. The professors are committed to providing a well-rounded education in GIS with a mixture of study in science and use of the tools of GIS. The SDL hosts a full range of GIS training options ranging from academic to continuing education courses offered in traditional and istance learning formats. The SDL has 30 computers with the lates versings of ARCGIS, ERDAS IMAGINE, Leica Photogrammetry Suite, and Trimble GPS Pathfinder Office. Equipment includes a large format plotter and scanner, digitizing talbe, desktop printers and scanner, and 12 Trimble GPS (Global Positioning) units.

GENERAL EDUCATION REQUIREMENTS

Louisiana Tech provides a well-rounded undergraduate education by requiring each curriculum to include a core of general education requirements. (GER). A baccalaureate degree in GISc requires 45 credit hours of GER encompassing course work in English, Mathematics, Natural and Social Sciences, Arts, and Humanities.

SAMPLE FOUR YEAR CURRICULUM

Freshman Year

Natural Sciences (GER)	Semester Credit Hrs.
Biological Sciences	3
Social Sciences (GER)	
Economics.....	3
Social Sciences.....	3
English (GER)	6
Arts (GER).....	3
Mathematics (GER)	6
Concentration Courses.....	5
Total	29

Sophomore Year

Natural Sciences (GER).....	6
Humanities (GER)	
English.....	3
History.....	3
Geographic Information Science	
250, 260, 360	7
Concentration Courses*	9
Social Sciences (GER).....	3
Total	31

Junior Year

Humanities (GER)	
Speech.....	3
Humanities (GER)	3
Geographic Information Science	
217, 224, 341, 350, 371	13
Concentration Courses*	14
Total	33

Senior Year

Geographic Information Science	
460, 461, 462, 463, 464	16
Concentration Courses*	16
Total	32

Total Degree Hours 125

* See required concentration courses on next page