Geographic Information Science and Technology

MAJOR MAP

How to use the map
This map is designed to give you information about your chosen major that will help keep you on track for graduation within 4 years. The introductory sections will help orient you to the “big picture” ideas like the topics and areas of interest inside your major, the kinds of courses you will take, university policies including admissions, and other general topics. The chart on the second page will help you to develop a productive plan to make the most of your 4 years at East Carolina University and prepare yourself for the job market after graduation. Remember, it is important that you diversify your experiences, both for success in your degree program and for success outside of school. While coursework is important, it should not be your only focus. The chart below will show you how to incorporate other kinds of experiences that will expand your knowledge of your chosen field and make you a more desirable job candidate. The map is only a guideline. Remember to speak with your advisor often to learn about new opportunities, clarify concerns, and develop a plan that is right for you.

Questions?
East Carolina University offers an array of support to help you grow and learn from your first day of orientation until your graduation. New Student Orientation, Pirate to Pirate Mentoring, the University Writing Center, and the Career Center are only a few of the services and centers available to assist you throughout your time on campus.

WHAT CAN I LEARN?
Knowledge of Geographic Information Systems (GIS) is an increasingly sought after skill in industry from agriculture to public health. The GIST degree will teach the skills you need to successfully use GIS software in a professional setting. You will learn how to analyze your spatial data, use cartography techniques to communicate your results in maps, and collaborate with peers in GIS and GIS-dependent fields. You will create a professional-quality GIS portfolio piece using a combination of data identification and collaboration, analytical map development and spatial analysis techniques.

WORKPLACE SUCCESS
What employers want
With your GIST major, you will pursue a career that requires specific skills and experiences. These include:

1. Apply remote sensing and GIS for planning, hazards and educational analysis;
2. Create, maintain and ensure accuracy of spatial data sets;
3. Use spatial analysis techniques and spatial statistics;
4. Design maps and other geospatial visualizations;
5. Collect GPS and spatial data in the field;
6. Apply computer programming skills;
7. Have good verbal and written communication skills;
8. Professional interaction and interpersonal skills;
9. Be self-motivated and independent

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ABOUT THE CONCENTRATION
Our modern civilization consumes ever-increasing amounts of geospatial data. Creating information out of this torrent of data requires broad education and technical skills. The B.S. degree program in Geographic Information Science and Technology (GIST) at ECU can provide you with the cutting-edge combination and open the doors to an exciting career in business, environmental conservation, public utilities, and local to national government.

You can also earn a certificate in Geographic Information Science (GIS) whatever major program you are in, to get the breadth and intensity to launch your career.

DEGREE OPTIONS
With a B.S. degree is Geographic Information Science and Technology, Electives, you can expect to complete:

- A total of 120 semester hours
- General education requirements: 40 semester hours
- Core degree requirements: 25 semester hours
- GIST electives: 12 semester hours
- Environmental and human geography: 9 semester hours
- Cognates: 9 semester hours
- Electives: 23 semester hours
**Geographic Information Science and Technology**

**DEGREE INFORMATION**

**FIRST YEAR >>>**

- Begin working on general education requirements, taking 3 each semester including ENGL 1100 in the fall and MATH 1065 in the spring. Register for GEOG 2410, 2400 and a GEOG elective. Also, take a cognate course.

**GAIN RELEVANT EXPERIENCE**

- Explore your major and career options in consultation with your advisor. Meet early with the GIST internship coordinator to discuss internship options in your junior year. Explore resources and sign up for newsletters at the GIS Lounge.

**COMMUNITY CONNECTION**

- Emails from the department will let you know about upcoming guest lectures, internship opportunities, and special events. Keep up with the department social calendar to attend events such as the Colloquium series that exposes students to different career options.

**THINK GLOBALLY**

- Being internationally aware and culturally competent is increasingly important. Think about ways you could build these skills, which may include foreign language or Global Understanding courses, study abroad, or internationally-focused courses or student organizations.

**APPLY FOR SCHOLARSHIPS EACH YEAR**

- Visit Career Services to learn about their resources. Check out the Bureau of Labor Statistics and Virtual Job Shadow to explore potential careers. Log in to Handshake to set up your profile, check out career events, and begin to explore potential employers and job opportunities.

**SECOND YEAR >>>**

- Continue with general education requirements, taking a total of 13 semester hours including ENGL 2201. Register for GEOG 3420, 3450, 3430, and a GEOG elective. Also register for 2 cognates courses.

**ELIGIBLE COURSES**

- The courses you need for your major include:
  - Social Sciences: Sociology, Anthropology, Political Science, and Economics.
  - Humanities: History, Philosophy, and English Literature.
  - Natural Sciences: Biology, Chemistry, and Environmental Science.
  - Geography: Geographic Information Science and Technology.

**CONSIDER AN INTERNSHIP**

- Meet with Career Services to work on your post-graduation plans. Investigate job-related skills and identify gaps in your résumé so you can address them early. Use the Occupational Outlook Handbook, USAJobs.gov, and/or other resources available through Career Services to identify common skills in your career field.

**FINISH IN FOUR**

- Visit Career Services to apply for scholarships each year. Log in to Handshake to set up your profile, check out career events, and begin to explore potential employers and job opportunities.

**THIRD YEAR >>>**

- Begin getting into a minor or continue taking electives. Continue with 1 general education requirement and GIS elective each semester. Register for GEOG 3460 in the fall and GEOG 4410 in the spring.

**SECOND YEAR>>>

- Meet with Career Services to attend upcoming guest lectures, internships, or second major in an international field or foreign language like Spanish or Chinese. Consider a Summer or semester-long study abroad program. Apply for study abroad scholarships in the early Fall.

**FOURTH YEAR >>>**

- Complete the general education requirements and take two more GIS electives. Complete minor or general electives. Register for GEOG 4430 in the fall and GEOG 4999 in the spring.

**POST-GRAD OPTIONS**

- Students who graduate with a degree in Geographic Information Science and Technology have a variety of career options. Some of these include:
  - Cartographer/CAD Analyst
  - Imagery Intelligence Analyst
  - Site Location Analyst
  - GIS Database Administrator
  - Internet Mapping
  - Specialist Photogrammetrist
  - Field Mapping Specialist
  - Urban and Regional Planning
  - Environmental Health
  - Map Library Services
  - Transportation and Logistics
  - Intelligence/National Security
  - Emergency Management
  - Environmental Management
  - Coastal Management

**VISIT US ONLINE**

- For more information and an interactive map PDF, visit: https://geography.ecu.