CATALOG YEAR 2024-2025

ACADEMIC MAP

Geographic Information Science, Bachelor of Science

First Year

Fall		Hours
ENGL 1301	Writing and Rhetoric I	3
HIST 1301	U.S. History to 1865	3
UNIV 1101	University Seminar I	1
MATH 2413	Calculus I	4
GISC 1470	Geospatial Systems I	4
	Hours	**15**

Spring		
COMM 1311 or ENGL 1302	Foundation of Communication or Writing and Rhetoric II	3
HIST 1302	U.S. History Since 1865	3
UNIV 1102	University Seminar II	1
COSC 1435 or COSC 1330	Introduction to Problem Solving with Computers I or Programming for Scientists, Engineers, and Mathematicians	4
GISC 1336	Digital Drafting and Design	3
Math or Sciences Course		3
	Hours	**17**

Second Year

Fall		
University Core Curriculum		3
University Core Curriculum		3
GISC 2470	Geospatial Plane Measurement I	4
GISC 2438	Web Map Development	4
PHYS 2425	University Physics I	4
	Hours	**18**

Spring		
GISC 2250	Field Camp I	2
GISC 3412	Geospatial Plane Measurement II	4
GISC 2301	Geospatial Systems II	3
MATH 2414	Calculus II	4
MATH 3342	Applied Probability and Statistics	3
	Hours	**16**

Third Year

Fall		
POLS 2305	U.S. Government and Politics	3
GISC 3325	Geodetic Science	3
GISC 3300	Geospatial Mathematical Techniques	3
GISC 4318	Cadastral Systems	3
PHYS 2426 or PHYS 1402	University Physics II or General Physics II	4
	Hours	**16**

Spring		
GISC 4350	Field Camp II	3
GISC 3420	GIS Programming and Software Development	4
GISC 3421	Visualization for GIS	4
Math or Sciences Course		3
GISC Elective		3
	Hours	**17**

Fourth Year

Fall		
POLS 2306	State and Local Government	3
GISC 4335	Geospatial Systems III	3
GISC 4431	Remote Sensing and Photogrammetry	4
GISC 4315	Satellite Positioning	3
University Core Curriculum		3
	Hours	**16**

Spring		
GISC 4351	Geospatial Systems Project	3
GISC 4340	Geospatial Computations and Adjustment	3
GISC 4305	Legal Aspects of Spatial Information	3
GISC 4180	Geospatial Systems Internship	1
GISC 4371	History of Land Ownership	3
	Hours	**13**
	Total Hours	**128**

This is not an official degree plan. It is a guideline for planning your courses. To access a copy of this academic map please visit tamucc.edu/academics/planning/academic-advising/

CAREER MAP

GEOGRAPHIC INFORMATION SCIENCE

Bachelor of Science

The Geographic Information Science Program prepares graduates with knowledge and skills for a variety of career paths related to the acquisition, analysis, and management of geospatial data and information. Career paths include pursuing advanced degrees and employment in the fields of Geomatics and Geospatial Information Systems. The Geographic Information Science Program provides broad-based expertise and cutting-edge skills that span the growing geospatial field and helps to alleviate the shortage of well-educated geospatial professionals. The program is intended for those seeking to become surveyors, engineers and other geospatial professionals with knowledge and skills in using and managing rapidly developing geospatial technologies. The program prepares graduates for careers in industry and/or science. Students are required to complete a Capstone Project related to one of the above areas of interest. The Capstone Project will be evaluated under the Geospatial Systems Project GISC 4351 Geospatial Systems Project (3 sch) course. Students who complete the program have a comprehensive understanding of these disciplines that empowers them to advance their careers in geospatial technologies or to continue their studies to further advance the science. The Geographic Information Science degree programs enable students to apply computing, physical science, and mathematical principles (including multivariate calculus and differential equations) to design and build physical systems to model the Earth. Our students are educated to gather geospatial data via remote sensing and land surveying then convert this data, along with other geospatial data resources, into manageable digital maps and databases for display and analysis. A career in the geospatial industry is a student's opportunity to explore the world and utilize the latest computer technologies and sciences. In addition to many careers in the geospatial industry, all graduates are eligible to take the licensing examination for Surveyor in Training (SIT) and, ultimately, Registered Professional Land Surveyor (RPLS).

CONTACT INFORMATION

Career Counselor:
Career and Professional Development Center | UC 304 | 361.825.2628 | career.center@tamucc.edu

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Department Contact:
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CAREER OPTIONS

- GIS Analyst
- Surveyors
- Mapping Technician
- Cartographer/Map Designer
- Environmental Consultant
- Urban Planner
- Natural Resource Manager
- Disaster Management Specialist
- Transportation Planner

SKILLS/ATTRIBUTES

- Critical Thinking/Problem Solving
- Professionalism/Work Ethic
- Oral/Written Communications
- Teamwork/Collaboration
- Digital Technology

ADDITIONAL SOURCES OF INFORMATION

1.. Geospatial Information & Technology Association
2. Association for GIS Professionals

STUDENT ORGANIZATIONS

- Geospatial Information Science Student Organization
- Women in Geosciences
- Lambda Sigma
- SACNAS Chapter at TAMU-CC