

# ACADEMIC MAP

## Geographic Information Science Bachelor of Science



First Year		Hours	Third Year		Hours
<b>Fall</b>			<b>Fall</b>		
ENGL 1301	Writing and Rhetoric I	3	POLS 2305	U.S. Government and Politics	3
HIST 1301	U.S. History to 1865	3	GISC 3325	Geodetic Science	3
UNIV 1101	University Seminar I	1	GISC 3300	Geospatial Mathematical Techniques	3
MATH 2413	Calculus I	4	GISC 4318	Cadastral Systems	3
GISC 1470	Geospatial Systems I	4	PHYS 2426	University Physics II	4
		<b>Hours</b>			<b>Hours</b>
		<b>15</b>			<b>16</b>
<b>Spring</b>			<b>Spring</b>		
COMM 1311	Foundation of Communication	3	GISC 4350	Field Camp II	3
or ENGL 1302	or Writing and Rhetoric II		GISC 3420	Geospatial Software Systems II	4
HIST 1302	U.S. History Since 1865	3	GISC 3421	Visualization for GIS	4
UNIV 1102	University Seminar II	1	Math or Sciences Course		3
COSC 1435	Introduction to Problem Solving with	4	GISC Elective		3
or COSC 1330	Computers I				
	or Programming for Scientists, Engineers, and Mathematicians				
GISC 1336	Digital Drafting and Design	3			<b>Hours</b>
Math or Sciences Course		3			<b>17</b>
		<b>Hours</b>			
		<b>17</b>			
<b>Second Year</b>			<b>Fourth Year</b>		
<b>Fall</b>			<b>Fall</b>		
University Core Curriculum			POLS 2306	State and Local Government	3
University Core Curriculum			GISC 4335	Geospatial Systems III	3
GISC 2470	Geospatial Plane Measurement I	4	GISC 4431	Remote Sensing and Photogrammetry	4
GISC 2438	Geospatial Software Systems I	4	GISC 4315	Satellite Positioning	3
PHYS 2425	University Physics I	4	University Core Curriculum		3
		<b>Hours</b>			<b>Hours</b>
		<b>18</b>			<b>16</b>
<b>Spring</b>			<b>Spring</b>		
GISC 2250	Field Camp I	2	GISC 4351	Geospatial Systems Project	3
GISC 3412	Geospatial Plane Measurement II	4	GISC 4340	Geospatial Computations and Adjustment	3
GISC 2301	Geospatial Systems II	3	GISC 4305	Legal Aspects of Spatial Information	3
MATH 2414	Calculus II	4	GISC 4180	Geospatial Systems Internship	1
MATH 3342	Applied Probability and Statistics	3	GISC 4371	History of Land Ownership	3
		<b>Hours</b>			<b>Hours</b>
		<b>16</b>			<b>13</b>
					<b>Total Hours</b>
					<b>128</b>



# 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  
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### Internship Coordinator:

Hongzhi Song  
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### Department Contact:

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## ADDITIONAL SOURCES OF INFORMATION

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

## SKILLS/ATTRIBUTES

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

## CAREER OPTIONS

- GIS Analyst
- Surveyors
- Mapping Technician

## STUDENT ORGANIZATIONS

- Geospatial Information Science Student Organization
- Women in Geosciences
- Lambda Sigma
- SACNAS Chapter at Texas A&M University - Corpus Christi