

Bachelor of Science (BS)

Geographic Information Science

The Geographic Information Science major is an opportunity to prepare students for a career in a computer-based geospatial technology profession. This is an exciting field that integrates computer skills, modelling skills and a desire to work outside into a high demand career choice. Geographic information is an important and valuable decision support asset that can be applied to all sectors of our world, such as economics, business, health, environment, and emergency response through a variety of platform for private, public, not-for-profit or academic organizations. Join this major and be ready to map out present and future sustainability challenges!

Geographic Information Science students will...

- Have close interaction with dedicated faculty who have used GIS technology in the work environment and believe in the importance of the field of GIS.
- Learn in a class environment that stimulates learning, idea sharing and problem-solving through individual and team activities.
- Complete 120 hours of practical field education under the guidance of professional GIS practitioners.

Career Planning

Career preparation is part of the mission of Southeast. 100% of programs offer our students an internship, study-abroad program, clinical opportunity, student teaching or research internship.

The Office of Career Services in Academic Hall 057 can provide students with professional career counseling and coaching, resume critiques, practice interviews, job search strategies, career events, networking opportunities, and more.

Demonstrated Career Proficiency is a Requirement of all Southeast Students		
CL001	First Semester	Students connect academic career planning by completing an online career assessment
CL002	Second Semester	Students learn more about resources available to enhance academic and career planning
CL003	Junior Year	Students learn about continued career planning, job search strategies, and networking
CL004	Senior Year	Students learn about resume development, professional communication, interviewing, and transitioning to the first job from college

Career Opportunities

The Geographic Information Sciences is a new program at Southeast, the field is expected to experience rapid and continued growth throughout the next decade. The U.S. Department of Labor expects the national market to increase by 29% in the public and private sectors. Science, technology, engineering, and math (STEM) jobs, is expected to grow twice as quickly as jobs in other fields and 80% of these jobs will require the technical skills found in this major.

Graduates would be able to pursue career opportunities as:

- Designing desktop system
- Implementing web and mobile applications
- Developing workflow systems
- Customizing spatial models and systems

Potential employers in this field include:

- Environmental consulting firms
- Google, ESRI or GPS Navigation software companies
- Law enforcement and Homeland Security
- Agriculture, forestry and conservation agencies
- U.S. Military
- Engineering and surveying companies

To learn more
Office of Admissions
(573) 651-2590
admissions@semo.edu
www.semo.edu

To explore
the College
Science, Technology and
Agriculture online, visit
www.semo.edu/costa

For advising
Center for Academic Advising - North
(573) 651-5090
www.semo.edu/advising
advisingnorth@semo.edu

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This is a guide based on the 2017-2018 Undergraduate Bulletin and is subject to change. The time it takes to earn a degree will vary based on several factors such as dual enrollment, remediation, and summer enrollment. Students will meet with an academic advisor each semester and use DegreeWorks to monitor their individual progress.

CURRICULUM CHECKLIST**Geographic Information Science- 64 Hour****Major – No minor required**

- ___ AG440 Precision Agriculture (3)
- ___ AG444 Spatial Analysis (3)
- ___ CS177 Programming for Scientists & Engineers (3)
- ___ EV425 GIS Planning for Emergency Response (3)
- ___ EV483 Internship (3)
- ___ GG150 Cultural Geography (3)
- ___ GG445 Intro to Computer Cartography (3)
- ___ GO110 Physical Geology (3)
- ___ GO340 Remote Sensing (3)
- ___ GO445 Geographic Information Systems (3)
- ___ GO520 GIS Application (3)
- ___ IS130 Application Development I (3)
- ___ IS175 Computer Information Systems I (3)
- ___ IS275 Computer Information Systems II (3)
- ___ IS330 Application Development II (3)
- ___ IU314 GeolInfo Science Today (3)
- ___ MA137 Precalculus (5)
- ___ MA138 Discrete Math I (3)
- ___ MA140 Analytical Geometry & Calculus I (5)
- ___ MA223 Elementary Probability & Statistics (3)

University Studies Requirements (not already listed above):

UI100 First Year Seminar, EN100 English Composition, Artistic Expression, Written Expression, Oral Expression, Literary Expression, Behavioral Systems, Living Systems, Physical Systems, Development of a Major Civilization, Economic Systems, Political Systems

SAMPLE FOUR-YEAR PLAN

	Fall Semester		Spring Semester	
	Course #	Hrs	Course #	Hrs
FIRST YEAR	UI 100	3	GG 150	3
	EN 100	3	GO 110	3
	MA 137	5	IS 130	3
	Living Systems#	3	MA 140	5
	Total	14	Total	14
Milestone: maintain 2.0 cumulative GPA				
SECOND YEAR	GO 340	3	CS 177	3
	IS 175	3	IS 275	3
	MA 138	3	MA 223	3
	Political Systems	3	Behavioral Systems	3
	Written Expression	3	Literary Expression	3
	Total	15	Total	15
Milestone: maintain 2.0 cumulative GPA				
THIRD YEAR	AG 440	3	AG 444	3
	GO 445	3	EV 425	3
	IU 314	3	IS 330	3
	Artistic Expression	3	Develop of a Major Civ	3
	Oral Expression	3	Physical Systems	3
Total	15	Total	15	
Milestone: maintain 2.0 cumulative GPA				
FOURTH YEAR	GG 445	3	EV 483	3
	GO 520	3	Elective	3
	Economic Systems	3	Elective	3
	Elective	3	Elective	3
	Elective	3	Elective	3
	Total	15	Total	17
Milestone: maintain 2.0 cumulative GPA				

AO120 may be taken as a Living Systems course to fulfill the prerequisite for AG440.

Degree requirements for all students: a minimum of 120 credit hours, completion of University Studies program, career proficiencies (CL001-004), Writing Proficiency Exam (WP003), and completion of the Measure of Academic Proficiency and Progress (MAPP) at the senior level.

A minimum 2.0 GPA in the major and overall are required to graduate with a BS in GIS degree.

Refer to the Undergraduate Bulletin or DegreeWorks for additional graduation requirements (i.e. minimum GPA and coursework) for your program of study.

Revised
3/31/2017