

# GEOSPATIAL INFORMATION SCIENCE, EMPHASIS

The Core Curriculum is designed to foster critical thinking skills and introduce students to basic domains of thinking that transcend disciplines. The Core applies to all majors. Information on specific classes in the Core can be found at <https://www.marshall.edu/gened/>.

Code	Title	Credit Hours
<b>Core Curriculum</b>		
<i>Core 1: Critical Thinking</i>		
FYS 100	First Yr Sem Critical Thinking	3
GEO 100	Intro to Human Geography (CT)	3
STA 150	Foundations of Statistics	3
STA 150L	Foundations of Statistics Lab	1
<i>Core 2</i>		
ENG 101	Beginning Composition	3
ENG 201	Advanced Composition	3
CMM 103	Fund Speech-Communication	3
Core II Natural/Physical Science		4
Core II Humanities		3
GEO 100	Intro to Human Geography (CT) (Core II Social Science)	3
Core II Fine Arts		3
<i>Additional University Requirements</i>		
Writing Intensive (300/400)		3
GEO 100	Intro to Human Geography (CT) (Multicultural or International)	3
Capstone		4
<b>College-Specific</b>		
COLA Humanities		3
COLA Humanities		3
COLA Humanities		3
COLA Social Science		3
COLA Social Science		3
COLA Social Science		3
GEO 101	Physical Geography (CT) (COLA Natural/Physical Science)	4
<b>Major-Specific</b>		
GEO 100	Intro to Human Geography (CT)	3
GEO 101	Physical Geography (CT)	4
GEO 300	Methods in Geography	3
GEO 423	Cartography & GIS	3
GEO 426	Principles of GIS	4
GEO 498	Senior Capstone	2
GEO 499	Senior Capstone II (WI)	3
Regional Geography		3
GEO 431	Remote Sensing & Photogram	4
<i>GIS Technologies</i>		

Select at least six credits of the following:		6
GEO 110	Basic GIS	
GEO 111	Air Photos & Satellite Imagery	
GEO 112	Smartphone GPS	
GEO 113	Web GIS	
GEO 433	GPS & Mobile Geospatial Tech	
GEO 434	Floods Hazards and GIS	
GEO 454	Drones: Remote Sensing & GIS	
<i>GIS Analysis and Application</i>		
Select a minimum of six credits of the following:		6
GEO 429	Location Analysis and GIS	
GEO 430	GIS-Raster Analysis	
GEO 432	Enterprise GIS	
GEO 440	Spatial Statistics and GIS	
GEO 490	Internship	
<i>GIS Electives</i>		
Select additional GIScience (GEO) courses to reach a maximum of 21 credit hours beyond the Geography Core Requirements		6
Free Elective		3
Free Elective		3
Free Elective		3
Free Elective		3
Free Elective		3
Free Elective		3
Free Elective		1

## Major Information

- The total number of free electives will depend on the amount of double and triple counting of requirements.
- See course attributes each semester for courses that meet multiple requirements.
- Questions about requirements should be directed to the College of Liberal Arts (304-696-2350). Core II and COLA requirements may not be double counted.
- Forty-eight credit hours (sixteen 3-hour courses) must be at the 300/400 level.
- Students must earn a C or better in ENG 201 Advanced Composition and all foreign language courses.
- Minimum of 120 hours to graduate.
- The B.S. in Geography requires a minimum total of 45 credit hours of Geography coursework. Beyond the Geography Core Requirements, students choose a minimum of 15 credits from Physical Geography or GIScience. Remaining electives may be chosen from any GEO courses. To compensate for the increased number of hours for the B.S. in Geography (including the Meteorology and Weather Broadcasting areas of emphasis), students are exempted from the College of Liberal Arts foreign language requirement.






- General Education Course

- Milestone course: a key success marker for your major. See your advisor to discuss the importance of this course in your plan of study.





Geography is the systematic study of the spatial aspects of human activity, the natural world, and human-environment interaction. The discipline of Geography occupies a unique position as a bridge

between the social sciences (Human Geography), natural sciences (Physical Geography), and STEM fields (GIScience). As a result, the Geography Department offers both a Bachelor of Arts (B.A.) and Bachelor of Science (B.S.) degree. Both degrees offer students broad exposure to the various subfields of Geography and provide specialized career training and preparation. Geography is a rapidly expanding discipline with diverse career opportunities across the environmental sciences, social sciences, and technological fields in both the public and private sectors.

### First Year

First Semester		Credit Hours
CMM 103 	Fund Speech-Communication	3
ENG 101 	Beginning Composition	3
FYS 100	First Yr Sem Critical Thinking	3
GEO 100 	Intro to Human Geography (CT) (MC/I)	3
STA 225  	Introductory Statistics (CT)	3
UNI 100	Freshman First Class	1
<b>Credit Hours</b>		<b>16</b>

### Second Semester

ENG 201  	Advanced Composition	3
GEO 101  	Physical Geography (CT) (Core II Nat/Phys. Science)	4
Writing Intensive		3
Core II Humanities		3
Fine Arts		3
<b>Credit Hours</b>		<b>16</b>

### Second Year

First Semester		Credit Hours
COLA Humanities		3
Regional Geography		3
Core II Physical and Natural Science		4
COLA Humanities		3
COLA Social Science		3
<b>Credit Hours</b>		<b>16</b>

### Second Semester


GIScience Technologies		3
GEO 431	Remote Sensing & Photogram	4
COLA Humanities		3
GEO 300	Methods in Geography	3
COLA Social Science		3
<b>Credit Hours</b>		<b>16</b>

### Third Year


First Semester		Credit Hours
COLA Social Science		3
GIScience Technologies		3
GEO 423	Cartography & GIS	3
COLA Humanities		3
Free Elective		3
<b>Credit Hours</b>		<b>15</b>

### Second Semester

GIS Analysis and Applications		3
300/400 Writing Intensive		3


GEO 426 	Principles of GIS	4
300/400 Free Elective		3
Free Elective		3
<b>Credit Hours</b>		<b>16</b>

### Fourth Year

First Semester		Credit Hours
GEO 498 	Senior Capstone	2
GIScience Analysis and Applications		3
GIScience Elective		3
Free Elective		3
Free Elective		3

<b>Credit Hours</b>		<b>14</b>
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### Second Semester

GEO 499 	Senior Capstone II (WI)	2
GIScience Elective		3
Free Elective		3
Free Elective		3

<b>Credit Hours</b>		<b>11</b>
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<b>Total Credit Hours</b>		<b>120</b>
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