

# BS MAJOR IN GEOGRAPHIC INFORMATION SCIENCE

## Requirements for a Bachelor of Science Degree with a Major in Geographic Information Science

Additional Graduation Requirements (<https://catalog.una.edu/undergraduate/academic-procedures-requirements/graduation-requirements/>)

Code	Title	Hours
General Education Component ( <a href="https://catalog.una.edu/undergraduate/academic-procedures-requirements/general-education-component/">https://catalog.una.edu/undergraduate/academic-procedures-requirements/general-education-component/</a> )		
Area I (Written Composition)		6
Area II (Humanities and Fine Arts) <sup>1</sup>		12
Area III (Natural Sciences and Mathematics)		11
Area IV (History, Social and Behavioral Sciences)		12
Area V ( <a href="https://www.una.edu/areav/">https://www.una.edu/areav/</a> )		
<b>Major Core Requirements in Geographic Information Science</b>		
GE 102	Global Environments and Societies <sup>2</sup>	3
GE 111	Physical Geography: Weather and Climate <sup>2</sup>	4
or GE 111H	Honors Physical Geography: Weather and Climate	
GE 112	Physical Geography-Landforms <sup>2</sup>	4
or GE 112H	Honors Physical Geography: Landforms	
GE 184	Digital Earth	3
GE 260	People, Place, and Culture <sup>2</sup>	3
GE 300W	Geographic Exploration	3
GE 325	Cartography and Visualization	3
GE 384	Geographic Information Systems	4
GE 415	Quantitative Methods in Geography	3
Select one course from the following Regional Geography courses:		3
GE 301	Geography of Europe	
GE 302	Geography of Russia and Associated States	
GE 303	Geography of the South	
GE 304	Geography of the United States and Canada	
GE 305	Geography of Latin America	
GE 312	Geography of the Middle East	
GE 313	Geography of Asia	
GE 350	Geography of Africa	
GE 472	Historical Geography of the United States	
GE 497	Special Topics (if approved by Department Chair as a regional course)	
Complete three credit hours from any of the following Experiential Learning options:		3
Field Courses <sup>4</sup>		
Education Abroad Courses <sup>4</sup>		
Internships		
GE 494	Geography Internship	
GE 495	Geography Internship	
GE 496	Geography Internship	

GE 487	Geography Capstone Project	
<b>Required Techniques Courses</b>		
GE 224	Field Methods and Technology in Geography	3
or GE 225	Maps and Map Interpretation	
GE 354	Remote Sensing	4
GE 454	Advanced Remote Sensing	3
GE 464	GIS Programming	3
GE 484	Advanced GIS	3
CIS 366	Database Development and Management	3
Select two Techniques Electives from below:		6
GE 474	Web GIS	
GE 485	GIS Applications	
GE 487	Geography Capstone Project (Cannot be used if used as the Experiential Learning requirement)	
Select 6 credit hours of additional course work in upper-level geography.		6
<b>Prescribed Supporting Courses</b>		
Select one Microcomputer Course <sup>3</sup>		3
Select one Statistics Course		3
<b>Minor</b>		
A minor or second major is not required for the Geographic Information Science major.		
<b>General Elective hours to bring total to 120</b>		
<b>Total Hours</b>		<b>120</b>

<sup>1</sup> For the BA degree, 6 hours of a required foreign language at the introductory level.

<sup>2</sup> These courses are required in the major if no completed as part of the General Education component.

<sup>3</sup> Fulfills computer literacy requirement.

<sup>4</sup> Courses that count as field courses or study away courses will be determined by the Department Chair.