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## **Geographic Information Science Certificate**

Applications of Geographic Information Systems and Science (GIS) range from business planning and public health to ecosystem management. GIS is a tool for studying spatial problems. It links a database with map features in such a way that users can input, store, retrieve, and analyze geographic data. Students choosing this program acquire the skills and knowledge necessary to apply GIS in their chosen field of study. Students should discuss the elective courses with the program advisor to better align them with their interest.

Upon completion of the program, students need to have a cumulative GPA of at least 2.5 and students need to submit a professional portfolio to the program advisor.

(All colleges, open only to degree-seeking UWL students)

## 12 credits

Code	Title	Credits
Core		
GEO/ESC 305	Geographic Information Systems and Science	1 3
GEO/ESC 405	Geographic Information System and Science II	3
Electives		
Select six credits	from the following:	6
GEO/ESC 410	Geospatial Field Methods	
GEO/ESC 412	Geospatial Applications of Unmanned Aerial Systems	
GEO/ESC 415	Remote Sensing of the Environment I	
GEO/ESC 418	Map Design and Geovisualization	
GEO/ESC 440	Geographic Interpretation of Aerial Photograph	S
GEO/ESC 445	Remote Sensing of the Environment II	
GEO/ESC 455	Web Mapping	
GEO/ESC 465	Scripting in GIS	
GEO/ESC 485	Geographic Information System and Science II	I
GEO/ESC 488	Spatial Data Analysis	
Total Credits		12

Not open to geography majors and GIS minors.