

# GEOGRAPHIC INFORMATION SCIENCES (GRADUATE CERTIFICATE)

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The Graduate Certificate in Geographic Information Sciences (GIS) equips students for careers that require the creation, use, and analysis of spatial data. It is pertinent to a variety of fields, including urban planners, public health experts, landscape biologists, geologists, environmental scientists, transportation planners, criminologists, etc.

Applicants must meet the admission standards of the Graduate School (<http://bulletins.wayne.edu/graduate/general-information/admission/>). In addition, applicants must submit a completed application form, evidence of a completed baccalaureate degree from an accredited college or university with a g.p.a of 3.0 or more, two letters of recommendation, and a personal statement on why the student would like to pursue the Graduate Certificate in GIS.

The Graduate Certificate in GIS requires a minimum of 12 credits. The actual number of credits completed for the certificate will depend on the combination of 3- and 4-credit classes that students take.

Code	Title	Credits
<b>Core course</b>		
UP 6700	Geographic Information Systems	4
<b>Elective courses</b>		
UP 7130	Advanced GIS Applications	4
ESG 5650	Applied Geologic Mapping	4
ESG 6160	Applied Remote Sensing	3
ESG 6170	Spatial Statistics and Analyses for Environmental Applications	3
INF 6050	Computer Programming	3
ET 5600	Python: Industrial Applications	3