Twin Cities Campus

Geographic Information Science Minor

Geography, Environment, Society

College of Liberal Arts

Link to a list of faculty for this program.

Contact Information:
Department of Geography, 414 Social Sciences Building, 267 19th Avenue South, Minneapolis, MN 55455 (612-624-1498; fax: 612-624-1044).
Email: mgis@umn.edu
Website: http://cla.umn.edu/mgis

- Program Type: Graduate minor related to major
- Requirements for this program are current for Spring 2018
- Length of program in credits (Masters): 9
- Length of program in credits (Doctorate): 12
- This program does not require summer semesters for timely completion.

Along with the program-specific requirements listed below, please read the General Information section of the catalog website for requirements that apply to all major fields.

The professional master of geographic information science (MGIS), administered by the Department of Geography, offers a master's and doctoral minor.

Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

Prerequisites for Admission

For an online application or for more information about graduate education admissions, see the General Information section of the catalog website.

Program Requirements

Use of 4xxx courses towards program requirements is not permitted.

A graduate minor is developed in consultation with the M.G.I.S. director of graduate studies.

Program Sub-plans

Students are required to complete one of the following sub-plans.
Students may not complete the program with more than one sub-plan.

Masters

Required Course

GEOG 5561 - Principles of Geographic Information Science (4.0 cr)
or FNRM 5131 - Geographical Information Systems (GIS) for Natural Resources (4.0 cr)

Electives

Take 5 or more credit(s) from the following:

- CSCI 5715 - From GPS, Google Maps, and Uber to Spatial Data Science (3.0 cr)
- CSCI 8715 - Spatial Data Science Research (3.0 cr)
- ESPM 5031 - Applied Global Positioning Systems for Geographic Information Systems (3.0 cr)
- ESPM 5295 - GIS in Environmental Science and Management (4.0 cr)
- FNRM 5262 - Remote Sensing and Geospatial Analysis of Natural Resources and Environment (3.0 cr)
- FNRM 5462 - Advanced Remote Sensing and Geospatial Analysis (3.0 cr)
- FNRM 8205 - Research Problems: Spatial Data Analysis (1.0 - 5.0 cr)
- GEOG 5511 - Principles of Cartography (4.0 cr)
- GEOG 5562 - GIS Development Practicum (3.0 cr)
- GEOG 5563 - Advanced Geographic Information Science (3.0 cr)

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•GEOG 5564 - Urban Geographic Information Science and Analysis (3.0 cr)
•GEOG 5565 *{Inactive}*(3.0 cr)
•GEOG 8290 - Seminar in GIS and Cartography (3.0 cr)
•GEOG 8291 - Seminar in GIS, Technology, and Society (3.0 cr)
•GEOG 8292 - Seminar in GIS: Spatial Analysis and Modeling (3.0 cr)
•GIS 5555 - Basic Spatial Analysis (3.0 cr)
•GIS 5571 - ArcGIS I (3.0 cr)
•GIS 5572 - ArcGIS II (3.0 cr)
•GIS 5574 - Web GIS and Services (3.0 cr)
•GIS 5575 *{Inactive}*(2.0 cr)
•GIS 5577 - Spatial Database Design and Administration (3.0 cr)
•GIS 5578 - GIS Programming (3.0 cr)
•VMED 5181 - Spatial Analysis in Infectious Disease Epidemiology (3.0 cr)

Doctoral

Required Course

GEOG 5561 - Principles of Geographic Information Science (4.0 cr)
or FNRM 5131 - Geographical Information Systems (GIS) for Natural Resources (4.0 cr)

Electives

Take 8 or more credit(s) from the following:
•CSCI 5715 - From GPS, Google Maps, and Uber to Spatial Data Science (3.0 cr)
•CSCI 8715 - Spatial Data Science Research (3.0 cr)
•ESPM 5031 - Applied Global Positioning Systems for Geographic Information Systems (3.0 cr)
•ESPM 5295 - GIS in Environmental Science and Management (4.0 cr)
•FNRM 5262 - Remote Sensing and Geospatial Analysis of Natural Resources and Environment (3.0 cr)
•FNRM 5462 - Advanced Remote Sensing and Geospatial Analysis (3.0 cr)
•FNRM 8205 - Research Problems: Spatial Data Analysis (1.0 - 5.0 cr)
•GEOG 5511 - Principles of Cartography (4.0 cr)
•GEOG 5562 - GIS Development Practicum (3.0 cr)
•GEOG 5563 - Advanced Geographic Information Science (3.0 cr)
•GEOG 5564 - Urban Geographic Information Science and Analysis (3.0 cr)
•GEOG 5565 *{Inactive}*(3.0 cr)
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