

Master of Science in Geographic Information Science (code GEOGMS01)

This new self-support program was recommended by the Academic Senate on February 9, 2012, concurred by the President on February 15, 2012, and approved by the Chancellor on September 6, 2012.

The Master of Science in Geographic Information Science (MSGISci) is designed to address the needs of individuals across the geospatial workforce who require focused and specialized training to become competitive and contribute to the range of positions in this diverse industry. This one-year 30-unit applied training program combines advanced technical and analytic training in the geospatial sciences with training in interpersonal and business skills. The program's coursework is designed as a professional science masters (PSM) to develop competencies essential for successful entry into the geospatial workforce.

Prerequisites

Prerequisites include an undergraduate GPA of 3.0 and experience comparable to the following:

- a bachelor's degree in geography with a minimum of one upper division course in geospatial techniques (geographic information science, cartography, and/or remote sensing); or
- a bachelor's degree in a related discipline with a minimum of one upper division course in geospatial techniques (geographic information science, cartography, and/or remote sensing); or
- a bachelor's degree in a related discipline with a minimum of one year of demonstrated work experience in a field with direct application of geospatial technologies.

University Requirements

- Completion of courses required to remove prerequisite deficiencies (see prerequisites above);
- Fulfillment of the Graduation Writing Assessment Requirement (GWAR);
- Completion of 30 units of approved MSGISci graduate courses.

Program Requirements

GISC 601 Introduction to Spatial Concepts (1)

Prerequisites: None

GISC 602 GIS Applications (3)

Prerequisites: GISC 601 or advisor consent

GISC 603 Cartographic Visualization (3)

Prerequisites: GISC 601 or advisor consent

GISC 604 GIS Data and Databases (3)

Prerequisites: GISC 601 or advisor consent

GISC 605 GIS Programming (3)

Prerequisites: GISC 601 or Advisor consent

GISC 606 Applied Remote Sensing (3)

Prerequisites: GISC 601 or advisor consent

GISC 607 Project Orientation and Support (1)

Prerequisites: GISC 601, 602, 603, 604, 605, 606; three (3) NSCI courses, or advisor Consent

GISC 608 Applied Project (4)

Prerequisites: GISC 601, 602, 603, 604, 605, 606, 607 and three (3) NSCI courses, or advisor Consent

NSCI 501 Project Management for Scientists (3)

Prerequisites: None

NSCI 504 Professional Ethics (3)

Prerequisites: None

NSCI 507 Accounting and Fiscal Management (3)

Prerequisites: None

Culminating Experience

The program culminates with a team-based research experience. The team-based research design allows students to actively apply and demonstrate the knowledge and skills that they have both brought to and acquired through the curriculum. Applied research topics will have relevant practical applications and will be informed by our network of GIScience Professionals in the local workforce community. Topics may address spatial problems currently faced by members of our advisory board, our network of GISci professionals, or existing faculty research. Students will participate in the equivalent of 5-units of work on an applied research project to engage them in a relevant hands-on research activity (1-unit project orientation course and a 4-unit summer project course). Project reports will integrate the core competencies developed through the curriculum and reflect students' integration of instruction. The project deliverable will include a written project report and oral presentation. Results will be presented at a culminating research presentation.

EFFECTIVE: Fall 2013

Campus Code: GEOGMS01
College: 15
Career: GR
CSU Code: 17203
CIP Code: 45.0702