

GEOGRAPHIC INFORMATION SYSTEMS (GIS)

Certificate of Completion

50 credits

CERTIFICATE AS AWARDED ON TRANSCRIPT

Certificate of Completion, Geographic Information Systems

PROGRAM DESCRIPTION

The GIS certificate program is designed for students already possessing a two- or four-year college degree that seek to add specific GIS skills to their discipline.

GIS is an information system designed to work with data referenced by spatial or geographic coordinates. GIS is both a database system with specific capabilities for spatially referenced data, as well as a set of operations for working with (analyzing) the data. The program is built on a foundation of computer-aided mapping and surveying technology for collecting spatial data, database generation and manipulation for tabular data and GIS-specific courses for organization, analysis and reporting.

Graduates work in retail and commercial businesses, natural resources, education, federal/state/local governments, banking and insurance, internet, publishing and real estate. GIS careers typically include positions such as GIS technician, analyst, project manager, computer programmer, database administrator, system administrator, cartographic designer, developer and related managerial and administrative roles.

COST OF PROGRAM

In addition to standard tuition, student fees and textbooks, students should anticipate the following estimated program costs:

- Materials (usb/flash drive, maps, assorted office supplies) \$500.

Recommended, but not required:

- A home or laptop computer capable of running the GIS software, \$700. Contact program instructor for specifics.

PROGRAM PREPARATION AND PREREQUISITES

Recommended prior to entry in program (GIS) courses:

- Two year, four-year, or graduate degree from accredited institution
- Completion of computer competency (either IC3 exam or CIS 120)

MINIMUM GPA OR GRADE REQUIREMENTS

All required courses must be completed at a "C" grade or better and graduates must have an overall 2.0 GPA or higher.

REGISTRATION INFORMATION

Program (GIS) courses begin once per year, in Fall term. Students take non-program support and/or selected GIS courses if they begin in a term other than Fall or if they need to build skills related to prerequisites.

PROGRAM STANDARDS

GIS courses offered each term must be taken together and sequentially. Students are discouraged from working more than 10 hours per week during any term due to heavy course load.

NATIONAL/STATE LEGAL ELIGIBILITY OR UNIQUE REQUIREMENTS FOR LICENSURE AND/OR ENTRY INTO OCCUPATION, OR ADVANCEMENT IN THE OCCUPATION

While there are none currently required, various professional organizations offer certification that may enhance placement opportunities.

TRANSFER INFORMATION

This certificate is designed for students planning to enter their chosen career upon graduation. Often only selected credits are considered transferrable to public or private baccalaureate institutions.

PROGRAM COURSE REQUIREMENTS

Communication

WR 121	Academic Composition	4
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Mathematics

Imbedded in program courses

Human Relations

Human Relations approved course	3
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CORE REQUIREMENTS

GEOG 211	Computer Cartography	4
GEOG 265	Introduction to Geographic Information Systems	4
GEOG 266	ArcGIS	5
GEOG 267	Geodatabase Design	5
GEOG 273	Spatial Data Collection	5
GEOG 275	GIS Capstone	5
GEOG 285	Data Conversion and Documentation	5
GEOG 286	Remote Sensing	5
GEOG 287	Analysis of Spatial Data	5