

GEOGRAPHIC INFORMATION SYSTEMS, LESS THAN ONE YEAR CERTIFICATE OF COMPLETION

The Less Than One Year Certificate of Completion Geographic Information Systems (GIS) can be completed in less than one year and will give students the basic knowledge and skills to be employed in an entry-level position in the GIS field. GIS has an advantage in that it is applicable to an array of career paths, including forestry, natural resources, planning, or real estate, just to mention a few.

Graduation Requirements

Students must complete a minimum of 34 credit hours with a minimum Grade Point Average (GPA) of 2.0 or better. All courses in this program must be completed with a 'C' or better. One course must be completed at Southwestern before the Less Than One Year Certificate of Completion Geographical Information Systems is awarded.

Complete the graduation application process one term prior to the term of completion (e.g., spring term graduates must apply during winter term).

Pre-Program Courses

Students are required to take the following courses *prior to* the program courses, depending on students' college placement information. See advisor for details:

| Code | Title | Credits |
|----------|--|---------|
| CIS90 | Computer Basics (or demonstrate proficiency) | 2 |
| MTH20 | Basic Mathematics | 4 |
| WR90 | Paragraph Fundamentals (or placement in higher writing course) | 3-4 |
| or WR90R | Academic Literacy | |

Program Guide

| Course | Title | Credits |
|-------------------|------------------------------------|---------|
| First Year | | |
| Fall | | |
| CIS125S | Spreadsheet Applications | 3 |
| GEOG265 | Intro to Geographical Info Systems | 3 |
| MTH98 | Math Literacy (or higher) | 4 |
| Credits | | 10 |
| Winter | | |
| CIS125DB | Database Applications | 3 |
| F222A | Elementary Forest Surveying | 4 |
| FE209 | Forest Photogrammetry & Intro to | 4 |
| GEOG270 | Adv Topics in Geog Info Systems | 3 |
| Credits | | 14 |
| Spring | | |
| BA285 | Human Relations in Organizations | 3 |
| GEOG275 | Fundamentals of Cartography | 3 |
| GEOG277 | GIS Capstone | 1 |

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| WR115 | Introduction to Expository Writing (or higher) | 3 |
| Credits | | 10 |
| Total Credits | | 34 |

Program Student Learning Outcomes

Upon successful completion of this program the student will be able to:

- Discuss the benefits and applications of GIS and Cartographic technology
- Demonstrate skills in geographic information systems and cartographic design
- Plan and carry out GIS analyses independently
- Design, build, and use spatial databases