



South Central College
Program Design

CERT 3481 Geographic Information Systems

Program Information

Instructional Level Certificate

Career Cluster Engineering, Manufacturing & Technology

Description

The Geographic Information System certificate focuses on extended learning of GIS applications within the civil engineering environment. Students in this certificate program will acquire skills required by hiring agencies, including: collection, management, and analysis of spatial data; creation of maps; and GIS data development and management for web applications.

Program Admission Dates (Fall and/or Spring)

Fall

Program Location (North Mankato and/or Faribault)

North Mankato

Program Student Learning Outcomes

- 1 Collect, manage, and analyze spatial data
- 2 Create professional and informative maps
- 3 Develop and manage GIS data

Program Configurations

Fall Start

Credits

Technical Course	12
Elective	4
Liberal Arts & Sciences	
Total Credits	16

Semester 1- Fall

Course #	Course Title	Credits	Function
GIS 2840	Introduction to Geographic Information	4	Technical Course

	Systems (GIS)		
--	----------------------	--	--

Semester 2- Spring

Course #	Course Title	Credits	Function
GIS 2841	Intermediate GIS	4	Technical Course

Semester 3-Fall

Course #	Course Title	Credits	Function
GIS 2842	Field Mapping with GPS	4	Technical Course

Semester 4-Spring

Course #	Course Title	Credits	Function
	CHOOSE 4 CREDITS FROM THE FOLLOWING	4	Elective
GIS Elective	GIS 2843 (1-4 Cr.)		Technical Course
GIS Elective	GIS 2844 (1-4 Cr.)		Technical Course
LAS Elective	Geog 100 Intro. to Elements of Geog. (3 Cr.)		Liberal Arts & Sciences
LAS Elective	Geog 101 Intro. to Physical Geog. (3 Cr.)		Liberal Arts & Sciences

Program Course List

Number	Title	Credits	Pre/Corequisites
GEOG 100	Elements of Geography	3	Accuplacer Reading Comprehension Score of 78 or above or completion of READ 0090.
GEOG 101	Introduction to Physical Geography	3	Accuplacer Reading Comprehension Score of 78 or above or completion of READ0090
GIS 2840	Introduction to Geographic Information Systems (GIS)	4	None
GIS 2841	Intermediate GIS	4	GIS 2840 Introduction to GIS
GIS 2842	Field Mapping with GPS	4	GIS 2840 or consent of the Instructor
GIS 2843	GIS Practicum		GIS 2841 or consent of the instructor
GIS 2844	GIS Internship		GIS 2841 Intermediate GIS or Consent of the instructor