

# Geographic Information Systems Certificate

## Overview

Geographic Information Systems (GIS) is a powerful analytical software tool that combines data and maps to solve complex problems at different scales. GIS is a rapidly growing field with applications in a wide range of fields and in public, private and governmental sectors of the economy. Areas that use GIS include health, social and natural sciences, planning, government, engineering, design, communications and business, among others. GIS skills are increasingly in demand by employers and, according to the Department of Labor, the industry has a high annual growth rate of 35 percent.

The four-course **Certificate in Geographic Information Systems**, offered by the Department of Geography, Environment and Urban Studies (GUS), teaches advanced location science and technology that meet the increased demand for well-trained professional practitioners. Our courses introduce students to a variety of cutting-edge spatial analysis technology and mapping software to identify, analyze and visualize spatial data patterns. GUS faculty have expertise in a range of GIS applications, including urban analytics, health, environment, business, location analysis, geovisualization, and remote sensing.

This certificate is open to undergraduate students in all majors at Temple University. Students majoring in Geography and Urban Studies or Environmental Studies may also complete the GIS certificate.

Certificates are awarded only at the time of completion of the bachelor's degree and cannot be awarded either as a stand-alone program of study or after completion of the first bachelor's degree.

**Campus Location:** Main

**Program Code:** LA-GIS-CERT

## Contact Information

GIS Advisor  
215-204-3386  
guses@temple.edu

Learn more about the undergraduate certificate in Geographic Information Systems.

## Requirements

The curriculum consists of two required courses, GUS 3161/ENST 3161 and GUS 3062/ENST 3062, and two electives from the array below. GUS and Environmental Studies majors need only two electives from the approved list below that are unique to the certificate (they cannot double-count with the major requirements).

Code	Title	Credit Hours
<b>Required Courses</b>		
GUS/ENST 3161	Spatial Statistics	3
GUS/ENST 3062	Fundamentals of Geographic Information Systems	3
<b>Electives</b>		
Select two of the following: <sup>1</sup>		6
GUS/ENST 3061	Fundamentals of Cartography	
GUS/ENST 3063	Environmental Remote Sensing	
GUS 3067	GIS and Location Analysis	
GUS/ENST 3069	GIS for Health Data Analysis	
GUS/ENST 4061	Cartographic Production	
GUS/ENST 4065	Urban Geographic Information Systems	
ENST 4066	Environmental GIS	
<b>Total Credit Hours</b>		<b>12</b>

<sup>1</sup> Alternatives are acceptable with the approval of the GUS/ENST advisor.