



**THE OHIO STATE UNIVERSITY**  
COLLEGE OF ENGINEERING

# Introduction to Geographic Information Systems

## CIVILEN 5400

### Credit Hours:

4.00 - 4.00

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### Course Components:

Lecture

Lab

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### Course Description:

Introduction to the basic principles of geographic information systems and their use in spatial analysis and information management.

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### Prerequisites and Co-requisites:

Prereq: 2050, Stat 3450, 3460, or 3470, and Sr standing; or Grad standing in CivilEn or EnvEng; or permission of instructor.

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### Course Goals / Objectives:

- Develop an understanding of cutting-edge geospatial technologies, their capabilities, uses, and limitations
- Analyze geospatial data to characterize the landscape and environment
- Develop the ability to create an unbiased presentation of spatial patterns and their related causes using maps, charts, tables and other graphics entities
- Develop a knowledge of the availability and quality of geocoded data for engineering, planning and analysis
- Develop a knowledge of the applications of GIS in Civil, Environmental and Geodetic Engineering and other disciplines
- Get insights on research trend and new developments in GIS.