# **GEOGRAPHIC INFO SYSTEMS** (GIS)

#### GIS 2013. Geospatial Tech & Society. 3 Credit Hours.

Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

#### GIS 2023. GIS Visualization. 3 Credit Hours.

#### Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

## GIS 2453. GIS Visualization. 3 Credit Hours.

#### Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

#### GIS 2970. Special Topics. 3 Credit Hours.

#### Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

## GIS 3440. Mentored Research Experience. 3 Credit Hours.

#### Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

## GIS 3923. Statistics for Geoinformatics. 3 Credit Hours.

#### Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

#### GIS 3960. Honors Reading (HONORS). 3 Credit Hours.

#### Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

# GIS 3980. Honors Research (HONORS). 3 Credit Hours.

## Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

#### GIS 3990. Independent Study. 3 Credit Hours.

#### Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

## GIS 4013. Fundamentals of GIS. 3 Credit Hours.

#### Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

#### GIS 4133. Fundamentals of Remote Sensing. 3 Credit Hours. Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

#### GIS 4200. Internship in Geoinformatics. 6 Credit Hours. Course Type: Internship

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

#### GIS 4233. Digital Image Processing. 3 Credit Hours.

#### Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

#### GIS 4253. GIS Applications. 3 Credit Hours.

#### Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

# GIS 4343. Earth System Dynamics. 3 Credit Hours.

## Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

# GIS 4353. Survey of Geospatial Information Technologies. 3 Credit Hours.

Prerequisites: junior standing or permission of instructor. Overview of theories, applications, and practices of modern geospatial information technologies, including global positioning systems (GPS), remote sensing (RS), and geographic information systems (GIS). Course includes lectures, discussions, interactive and hands-on computer exercises, field projects, field projects, and site visits to OU research centers, local governments, and priviate geospatial information technologies companies. **Course Type:** Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

#### GIS 4453. Adv GIS & Spatial Analysis. 3 Credit Hours.

#### Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

#### GIS 4653. Spatial Programming and GIS. 3 Credit Hours. Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

#### GIS 4733. Environmental Remote Sensing. 3 Credit Hours. Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

#### GIS 4833. Environmental Spatial Modeling. 3 Credit Hours. Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

#### GIS 4923. Spatial Statistics. 3 Credit Hours.

#### Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

#### GIS 4953. Geoinformatics Capstone Sem. 3 Credit Hours. Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

#### GIS 4960. Directed Readings. 4 Credit Hours.

#### Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

#### GIS 4970. Special Topics/Seminar. 1-3 Credit Hours.

Prerequisites: Senior standing or permission of instructor. 1 to 3 hours May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. **Course Type:** Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

#### GIS 4990. Independent Study. 3 Credit Hours.

#### Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

#### GIS 5003. Data Mgmt GIS Professionals. 3 Credit Hours. Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

# GIS 5013. Fundamentals of Geographic Information Systems. 3 Credit Hours.

Prerequisite: (Slashlisted with 4013) graduate stanRding. Designed to help students learn introductory to intermediate concepts of geographic information science (GIScience) and become proficient users of geographic information systems (GIS). The course covers a variety of topics but focuses on GIS data models, data structures, and spatial analysis. Teaching formats include lectures, in-class exercises and lab exercises. No student may earn credit for both 4013 and 5013. (F, Sp) 3.000 Credit hours 3.000 Lecture hours Levels: Graduate, Non-Degree, Undergraduate Schedule Types: Lecture, Lab with no credit Course Type Lecture

#### Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

#### GIS 5133. Fundamentals of Remote Sensing. 3 Credit Hours. Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

#### GIS 5233. Digital Image Processing. 3 Credit Hours. Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

## GIS 5253. GIS Applications. 3 Credit Hours.

#### Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

#### GIS 5343. Earth System Dynamics. 3 Credit Hours.

#### Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

#### GIS 5453. Advanced GIS and Spatial Analysis. 3 Credit Hours.

(Slashlisted with 4453) Prerequisites: GIS 5013 and GIS 5253, graduate standing. Expands and solidifies the GIS knowledge acquired in introductory and applied GIS classes. Focus on highly complex geographic questions which cannot be solved in simple steps but instead require advanced GIS analysis and sometimes automation. The course is intended to prepare the student for a professional GIS position in the government or business world, or a higher-level graduate position. No student may earn credit for both 4453 and 5453.

#### Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

#### GIS 5653. Spatial Programming and GIS. 3 Credit Hours. Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

#### GIS 5733. Environmental Remote Sensing. 3 Credit Hours. Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

#### GIS 5833. Environmental Spatial Modeling. 3 Credit Hours. Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

#### GIS 5903. Remote Sensing Hydrology. 3 Credit Hours. Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

#### GIS 5923. Spatial Statistics. 3 Credit Hours.

Prerequisites: Graduate standing, GEOG 3924 Explains and demonstrates methods and techniques in spatial sampling; spatial auto-correlation and spatial composition. It also delves into spatially adjusted regression, local statistics, and geo-statistics and related techniques. Theoretical explanations and derivations as well as practical applications, making use of both ArcGIS and R. No student may earn credit for both 4293 and 5923.

#### Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

#### GIS 5960. Directed Readings. 3 Credit Hours. Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

#### GIS 5970. Special Topics/Seminar. 1-3 Credit Hours.

1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg.) 1.000 TO 3.000 Credit hours 1.000 TO 3.000 Lecture hours Levels: Graduate Schedule Types: Lecture, Lecture, Lecture, Lecture, Lecture, Lecture, Lecture, Lecture, Lecture, Seminar Geography Department Course Attributes: Atmos Geo Course, Grad Atmos & Geo Crse, Graduate level Course, Norman Grad Div Crse, Variable Course Title **Course Type:** Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

#### GIS 5980. Research for Master's Thesis. 9 Credit Hours. Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

#### GIS 5990. Independent Study. 1-3 Credit Hours.

Prerequisite: graduate standing and permission of instructor. 1 to 3 hours. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

#### Course Type: Independent Study

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

#### GIS 6960. Directed Readings. 3 Credit Hours.

#### Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

#### GIS 6980. Research Doctoral Dissertation. 16 Credit Hours. Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).

#### GIS 6990. Independent Study. 3 Credit Hours. Course Type: Lecture

This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://oupublic.courseleaf.com/courses/).