

# GEOGRAPHIC INFO SCIENCE (GISC)

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## **GISC 216 Geotech in a Global Community 3 Hours**

Introduces the purpose, operation and application of Geographic Information Science technologies in contemporary society. This course cannot be substituted for any other GIS course. **Colonnade/Statewide General Education Code K-LG | SB**

**Prerequisite(s):** 21 hours of Foundations and Explorations Courses, or junior status

**Course Fee:** \$50

*Recent Term(s) Offered: spring 2021; fall 2021; fall 2022; fall 2023*

## **GISC 316 Geographic Information Systems I 4 Hours**

Geographic Information Science I Introduces spatial thinking with a cross-disciplinary foundation in dealing with spatial/geographical data; their manipulation, analysis, interpretation and use in problem solving. Includes data creation, digitizing, database organization, queries and geoprocessing.

**Course Fee:** \$50

*Recent Term(s) Offered: spring 2021; summer 2021; fall 2021; spring 2022; summer 2022; fall 2022; spring 2023; summer 2023; fall 2023*

## **GISC 317 Geographic Information Systems II 4 Hours**

Geographic Information Systems II will further explore the principles, concepts, and applications of GIS. Through case studies, guest speakers, focused autonomous research investigations, students will apply this geospatial technology to solving real-world issues.

**Prerequisite(s):** GISC 316 with a minimum grade of C

**Course Fee:** \$50

*Recent Term(s) Offered: spring 2021; summer 2021; fall 2021; spring 2022; summer 2022; fall 2022; spring 2023; summer 2023; fall 2023*

## **GISC 414 Remote Sensing Fundamentals 3 Hours**

Fundamentals of remote sensing theory and application including the electromagnetic spectrum, history of remote sensing, sensing platforms, system limitations, and applications for vegetation studies, land-use change, and environmental management. Course includes a lab component. Note: Permission of instructor may be required.

**Prerequisite(s):** GISC 317

**Course Fee:** \$50

*Recent Term(s) Offered: spring 2022; summer 2023*

## **GISC 417 GIS Analysis & Modeling 3 Hours**

Develops expertise with a broad range of spatial analysis and modeling functions using GIS. A problem-oriented approach. Note: Permission of instructor may be required.

**Prerequisite(s):** GISC 317 with a minimum grade of C

**Course Fee:** \$50

*Recent Term(s) Offered: spring 2021; summer 2021; fall 2021; spring 2022; summer 2022; fall 2022; spring 2023; summer 2023; fall 2023*

## **GISC 418 Web Applications in GIS 3 Hours**

Understanding and utilizing different techniques for creating, analyzing, and disseminating GIS data and services via the Internet. Note: Permission of instructor may be required.

**Prerequisite(s):** GISC 317 with a minimum grade of C

**Course Fee:** \$50

*Recent Term(s) Offered: fall 2023*

## **GISC 419 GIS Programming 3 Hours**

Learning the process of expanding GIS functionalities. Customizing a GIS system via computer programming. Note: Permission of instructor may be required.

**Prerequisite(s):** GISC 317 with a minimum grade of C

**Course Fee:** \$50

*Recent Term(s) Offered: spring 2021; summer 2021; fall 2021; spring 2022; summer 2022; fall 2022; spring 2023; summer 2023; fall 2023*

## **GISC 423 GIS and Location Analytics 3 Hours**

Explores selected issues related to location analytics of GIS. Students will develop applied skills and knowledge in transportation, urban management, locational analysis and business geography.

**Prerequisite(s):** GISC 317 with a minimum grade of C

**Course Fee:** \$50

*Recent Term(s) Offered: fall 2022; spring 2023*

## **GISC 443 GIS Databases 3 Hours**

The concepts and principles of GIS database planning, design, implementation, and administration. Focuses on the development of state-of-the-art GIS databases. Note: Permission of instructor may be required.

**Prerequisite(s):** CS 170 with a minimum grade of C and GISC 317 with a minimum grade of C

**Course Fee:** \$50

*Recent Term(s) Offered: fall 2023*

## **GISC 477 Special Topics in GIS 3 Hours (repeatable max of 6 hrs)**

Applications of GIS technologies in selected technical areas such as 3D GIS and Enterprise GIS or directed research of a selected domain-specific problem. Repeatable once for credit. Note: Permission of instructor may be required.

**Prerequisite(s):** GISC 317 with a minimum grade of C

**Course Fee:** \$10

*Recent Term(s) Offered: spring 2022*