



# GEOG 477/577 Spatial Databases

Department of Geography & Geospatial Sciences  
South Dakota State University

Spring 2020 (3 Credit Hours), Course Capacity: 16

**Instructor:** Dapeng Li, Ph.D.  
**Location:** Wecota Hall 0014  
**Lecture Time:** Tuesday 2:00 – 3:50 PM  
**Lab Time:** Thursday 2:00 – 3:50 PM

## Prerequisites

GEOG 372: Introduction to GIS (or equivalent course/experience)

## Course Description

This course covers the principles, design, and implementation of spatial database systems. The students in this course will learn the theoretical underpinnings of spatial databases and develop spatial database skills (e.g., SQL, spatial query, spatial data processing, and spatial analysis) through hands-on lab exercises and a final project. We will use a popular open source spatial database software PostgreSQL/PostGIS in this course.

## Who should take this course?

This course is for undergraduate and graduate students in GIS or related disciplines who want to use spatial databases in a research or professional setting. In the big data era, this course is a must for future geospatial data scientists in various academic fields (e.g., GIS, geography, ecology, urban and landscape planning, and precision agriculture) and GIS professionals (e.g., GIS developers, GIS analysts, GIS specialists, and GIS managers) in the industry.

# PostgreSQL + PostGIS



Please feel free to contact me if you have any questions. Email: [dapeng.li@sdstate.edu](mailto:dapeng.li@sdstate.edu)