

# CIVE 650. SPATIOTEMPORAL DATA MINING.

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Credits: 4

Offered by: Civil Engineering (Graduate Studies)

Terms offered: Fall 2025

[View offerings for Fall 2025 in Visual Schedule Builder.](#)

## Description

Introduction to spatiotemporal sensing data and general research questions (imputation, forecasting, kriging, classification, regression, anomaly detection). Overview of traditional models and techniques in modeling temporal processes, spatial processes, and spatiotemporal processes. Introduction of state-of-the-art methods for large-scale data sets, including low-rank tensor learning, spectral methods, Gaussian process regression, graph signal processing, and deep neural networks.

- Prerequisite: Permission of the instructor.

Most students use Visual Schedule Builder (VSB) to organize their schedules. VSB helps you plan class schedules, travel time, and more.

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