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Office: Marksbury 321.
Office Hours: MW: 9:00am – 10:00am, and by appointment.

Objectives: Data collection and data analysis have become ubiquitous in modern world. Along with this trend, the need to protect private and sensitive information in data has become an important issue. This course will study a few state-of-the-art techniques in protecting data privacy and data security when the data is released to public or is subject to computer-based analysis, such as data mining.

Prerequisites: Two 500 level CS courses or permission from the instructor.

Suggested Optional Text Book: An Electronic Book on Privacy Preserving Data Mining.

Topical outline (tentative):

- Brief introduction to data mining;
- Privacy-preserving data mining;
- Tabular privacy-preserving publishing;
- Matrix decomposition in privacy-preserving data mining;
- Wavelet analysis in privacy-preserving data analysis;
- Privacy attacks;
- Privacy-preserving in social network analysis.

Grading: Reading assignments, homeworks, and projects (30%). One midterm (March 13, Friday, 35%) and one final project (35%). (This course is experimental in Spring 2015. The grading policy is flexible and may change during the semester. Students taking this course should understand this grading policy flexibility.)