

# Crime Analysis and Mapping, Graduate Certificate

The Graduate Certificate in Crime Analysis and Mapping is a response to calls to integrate data-driven policing into the organizational culture of public safety agencies. Crime analysis is a deep examination of the criminogenic factors that help us understand why crime occurs. Crime mapping is a key component of crime analysis that is used by law enforcement, city planners, urban planners, corporate risk and enterprise professionals, and public health specialists to map, visualize, and analyze crime incident patterns. Together, sound crime analysis and crime mapping diagnose problems to facilitate tailored responses to crime and to reduce the frequency and severity of crime problems. Sound crime analysis allows for granular assessments of crime problems, which can facilitate the development of public safety programs in a manner that minimizes the risk for unintended harmful effects in the community. Crime analysis and mapping are key components of evidence-based programs that simultaneously promote crime prevention and social justice. This certificate is designed to contribute to students' understanding of how to critically assess crime patterns and connect crime data to other geographic data in order to inform prevention activities and efforts to improve public safety and security and to present the ways in which data management, geospatial and temporal crime data, and map construction can be used to develop crime policy.

## Program Requirements

- Concentrations and course offerings may vary by campus and/or by program modality. Please consult with your advisor or admissions coach for the course availability each term at your campus or within your program modality.
- Certain options within the program may be *required* at certain campuses or for certain program modalities. Please consult with your advisor or admissions coach for requirements at your campus or for your program modality.

Complete all courses and requirements listed below unless otherwise indicated.

## Required Courses

Code	Title	Hours
CRIM 6801	Fundamentals of Crime Analysis and Mapping	4
CRIM 6802	Data Management for Social Scientists	4

## Electives

Code	Title	Hours
Complete 4 semester hours from the following:		4
INSH 5301	Introduction to Computational Statistics	
INSH 5302	Information Design and Visual Analytics	
INSH 5303	Machine Learning in the Social Sciences	
INSH 5304	Social Network Analysis	
INSH 6101	Agent-Based Modeling for Applied and Social Sciences	
INSH 6304	Modeling and Analyzing Social Networks	
INSH 6406	Analyzing Complex Digitized Data	
PPUA 5262	Big Data for Cities	
PPUA 6502	Economic Analysis for Policy and Planning	
PPUA 6509	Techniques of Program Evaluation	

## Program Credit/GPA Requirements

12 total semester hours required

Minimum 3.000 GPA required