Computational Social Science, Graduate Certificate

The certificate highlights how big data, computational analysis, and related techniques can be used to shed light on theoretical and policy questions in the fields of public policy, public health, sociology, criminal justice, political science, economics, computer science, and network science. The certificate will contribute to students' understanding of:

- How to collect, analyze, and interpret insights culled from applying computational analyses to big data in social science domains
- The ways in which computational analysis can be used to develop policy and evaluate policy outcomes and results

The field is new and developing rapidly, and employers are eager to hire students trained in this area—both because computational social science is at the cutting edge of interdisciplinary work and because it offers new opportunities for research and analysis. This certificate leverages the real-world relevance of big data, source data, machine learning, and predictive analytics, which are dominant aspects of the contemporary workplace landscape. The certificate is available on the Boston campus and online modalities.

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.

Core Requirements

Code	Title	Hours
INSH 5301	Introduction to Computational Statistics	4
or INSH 6406	Analyzing Complex Digitized Data	
INSH 5303	Machine Learning in the Social Sciences	4
or DA 5030	Introduction to Data Mining/Machine Learning	

Elective

Code	Title	Hours
Complete 4 SH from the following:		4
INSH 5302	Information Design and Visual Analytics	
POLS 7334	Social Networks	
PPUA 5263	Geographic Information Systems for Urban and Regional Policy	
PPUA 5262	Big Data for Cities	

Program Credit/GPA Requirements

12 total semester hours required
Minimum 3.000 GPA required