

Big Data and Public Policy

PUBP 8751 | ECON 8803

This course provides an introduction to big data analytical tools & methods for public policy applications. Students will learn to conduct original data science experiments and to identify causal mechanisms in large-scale social and administrative data. The course culminates in a policy datathon at the end of the semester. The course is targeted for Ph.D. or masters students in Public Policy, Economics, M.S. students in Sustainable Energy and Environmental Management (MSEEM), M.S. students in Cybersecurity. 3 credit hours.

HIGHLIGHTS

- » Learn Tools for Solving Social and Policy Problems Using Big Data
- » Conduct Real-World Experiments Using Data Science, Machine Learning Prediction
- » Applications in Economics, Energy Systems, Transportation, Cybersecurity, Information & Technology Management



About the Professor

Dr. Omar Isaac Asensio is an Assistant Professor in the School of Public Policy with a focus on big data in public policy applications. He conducts large-scale field experiments and uses statistical and computational tools in areas such as energy, transportation and urban sustainability. His research has been published in leading journals such as Nature Energy and the Proceedings of the National Academy of Sciences (PNAS), as featured in NBC News, CBS Radio, the Economic Times, Scientific American and the Washington Post. He is a faculty affiliate at the Institute for Data Engineering and Science (IDEaS), the Strategic Energy Institute, the Machine Learning Center, and the Climate and Energy Policy Laboratory (CEPL).

POLICY DATATHON

- » Enrolled students only

SUGGESTED PREREQUISITES

- » At least 1 statistics and probability course
- » Prior programming experience in R or Python is not required

