

# Data Science for Public Policy

## PUBP 3042

This project-based course introduces data science tools and quantitative methods for public policy and social science applications. Students will learn foundations of big data analytics, randomized social experiments, and tools for inference and prediction problems in the social sciences. Course culminates in a Datathon competition at the end of the semester. 3 credit hours. **Fulfills social science/general education, Area E.**

### HIGHLIGHTS

- » Engage Hands on in Data Analytics for Business and Government Policy
- » Learn Data-Driven Tools and Methods that Emphasize Community, Data Privacy and Sustainability
- » Conduct Real-World Experiments Using Cloud Computing Platforms, Artificial Intelligence & Applied Machine Learning

- » Spring 2018 student feedback about the Ph.D. version of the course

“Literally opened my eyes”

“Exposed me to a variety of research and tools that I can use in the future”

“I think I can be a better social scientist now”



### POLICY DATATHON

- » Enrolled students only

### SUGGESTED PREREQUISITES

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

### About the Professor

**Dr. Omar Isaac Asensio** is an Assistant Professor in the School of Public Policy with a big data and public policy focus. He conducts field experiments and uses evidence from big data to study the effects of policies and incentives in areas such as energy, transportation and urban sustainability. His research has been published in general interest journals such as Nature Energy and the Proceedings of the National Academy of Sciences (PNAS), as featured in NBC News, CBS Radio, the Washington Post, the Economic Times, Scientific American and Yahoo! News. He is a faculty affiliate at the Institute for Data Engineering and Science (IDEaS) and the Climate and Energy Policy Laboratory (CEPL).