CLASS SUMMARY:

Hands on analysis of the real time challenges facing a range of policy areas and industries across federal and state governments and the private sector. Learn the applied analytical methods used by policy makers and decision leaders to tackle challenges surrounding economic empowerment, energy and climate, finance and regulation, transportation and mobility, and other issues. Coursework includes qualitative critical analysis and quantitative statistical analysis as well as insights from practitioners in the field.

OVERVIEW:

What does the world look like? How do factors interact? How are policy levers pulled? How do different coalitions compete for influence and decision-making power? ... Why does any of it matter? More importantly: how do we put all these questions into a single framework of looking at the world while bridging the gap between academic understanding and the realities of practical governance?

This class blends learning about a range of quantitative tools, largely borrowed from statistics and econometrics, that will teach you how to think about unresolved problems in conjunction with the practical realities of juggling stakeholder input and consent-based governance.

Each week we’ll examine a couple of the contemporary policy debates surrounding a new industry, we’ll review a new empirical method that helps us understand the dynamics of that industry, and we’ll review both academic papers and applied policy papers surrounding each topic.

Since this is a course on applications and practical realities of governance and decision making, most of your grade will be in the form of a final analysis project that has you examine a subject and an available dataset, while also presenting your findings to the class in a succinct and compelling way.
GRADING

- 7 Weekly Applied Exercises, 5% each | 35% total
- 1 midterm exam, 15%
- Final project and presentation, 50%

** a note on math: If your math training is rusty (or non-existent), do not despair! This is not a math class, and will not require advanced knowledge of calculus, statistics, or matrix algebra. This is a class about thinking and framing questions, and the challenging realities of getting groups of people to work together.

CLASS OUTLINE AND READING LIST

Each class will include at least one academic paper, one applied policy document, a motivation and framing of the major issues and stakeholder groups in an issue area, and an introduction to a statistical technique with an accompanying exercise.

** Monday April 1st – Introduction to Data and Coalition Concepts **


** Monday April 8th – Energy and Environment – Linear Regression and Multiple Regression **

- ** Special Report: Global Warming of 1.5 Degrees Celsius - Summary for Policymakers. ** Intergovernmental Panel on Climate Change, 2018.
Monday April 15th – Taxes – Logistic Regression

- **Distributional Impact of Tax Cuts and Jobs Act over the Next Decade.** Li, Pomerleau. *Tax Foundation, 2018.*

Monday April 22nd – Finance – Time Series


Monday April 29th – Healthcare – Duration/Survival Analysis

- **Medicare Extra for All.** The Center for American Progress, 2018.

Monday May 6th – Labor Markets – Differences in Differences

Monday May 13th – Transportation – Bayesian Approaches


Monday May 20th – Science & Technology – Simulation

- **A Space Exploration Roadmap for the Next Administration.** Coalition for Deep Space Exploration.
- **Commercial Spaceflight Federation Annual Report.** Commercial Spaceflight Federation.

Monday May 27th – MEMORIAL DAY, NO CLASSES

Monday June 3rd – Presentations