STATEMENT OF TEACHING

Elliot Cohen | elliot.cohen@columbia.edu | github | Earth Institute | SEL | QMSS

Teaching Interests

In addition to building an active research program, I believe I am qualified to teach a wide range of undergraduate and graduate courses:

- Fundamentals of Environmental Engineering
- Environmental Life Cycle Assessment
- Environmental Footprints
- Industrial Ecology & Urban Metabolism
- Energy Sources and Conversion
- Energy Infrastructure Planning
- Greenhouse Gas Accounting, Mitigation and Adaptation
- Energy & Development
- Data Analysis
- Data Visualization

Classroom Experience

I currently teach data visualization for the graduate program in Quantitative Methods in the Social Sciences (QMSS) at the Institute for Social and Economic Research and Policy (ISERP) at Columbia University. My academic appointment is in the Statistics Department. I co-taught this course in Fall 2014 and am the primary instructor for Spring 2015.

This course offers a rigorous introduction to data visualization from theory to implementation. Drawing on a combination of lectures, readings, discussions and coding, we translate the timeless concepts of Minard, Playfair, Tufte and Wilkinson to new and diverse fields of study. Students receive a coding crash-course in R, JavaScript, CSS, HTML and D3. The goal is not to become computer scientists, but to build the requisite foundation for modern implementation of exploratory and explanatory data visualizations.

In addition to data visualization, I guest-lecture in Prof. Vijay Modi's mechanical engineering courses on **energy infrastructure planning** and **energy sources and conversion** at Columbia University. I also help develop curriculum and assignments for these courses.

In August 2014, I co-taught a workshop on data analysis for energy professionals in West Africa. The workshop was jointly funded by the ECOWAS Center for Energy Efficiency and Renewable Energy (ECREEE) and the United Nations Industrial Development Organization (UNIDO).

Beyond science and engineering, I have unique training in pedagogy as a wilderness educator--teaching leadership, environmental conservation, technical outdoors skills, regional flora/fauna and natural history in rugged wilderness classrooms.