## CEE 275D Environmental Policy Analysis, 4 units
Civil & Environmental Engineering, Fall 2022

### Course Instructor
Prof. Meagan S. Mauter, Associate Professor, Civil & Environmental Engineering. 
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Office Hours: By appointment

### Teaching Assistants
Alison Fritz; Email: agfritz@stanford.edu

### Course Meeting Time/Location
*Class:* 3:00-4:20 PM Monday/Wednesday  
Y2E2 111  
*Recitation Sessions:* Some Fridays 3:00-4:20

### Course Homepage
https://canvas.stanford.edu/courses/121707  
The Canvas course homepage contains: syllabus, course schedule, announcements, links to assigned readings in Perusall, homework, and grades.

### Course Prerequisites
None. Course is designed for graduate students across the university with a general understanding of environmental modeling, comfort reading the primary literature, and an interest in exploring the effective role of science in setting public policy. Upper level undergraduates are welcome with instructor consent.

### Course Description
Environmental policy formation is a complex process involving a large number of actors making value laden interpretations of scientifically complex phenomena. This course explores the origins of this complexity and its implications for the future of environmental decision making and policy-directed environmental engineering. We will begin by asking what good environmental policy looks like, including how we set policy for groups of individuals with diverse preferences, how we value preferences across space and time, and how we account for the deep uncertainty that permeates environmental systems. We then turn to how environmental policies are actually developed, exploring the technical, cognitive, organizational, and systemic barriers to implementing “good” policy. Finally, we will explore the role of scientific evidence in shaping environmental policy and the mechanisms by which policy shapes engineering and science research. Students will gain familiarity with the existing theories, methods, and strategies used to set environmental policy; critically examine the embedded assumptions and inherent shortcomings of these approaches; and practice their thoughtful and ethical application to timely environmental challenges.

### Course Learning Objectives
At the conclusion of this course, students will be prepared to:
1) **Articulate** the theories, methods, and strategies relevant to policy analysis;  
2) **Assess** the impact of embedded assumptions and inherent shortcomings of policy analysis tools on policy analysis conclusions;  
3) **Apply** policy analysis tools to timely environmental challenges;  
4) **Continue** coursework in applied policy analysis.

### Course Structure
This course combines a lecture-based introduction to critical material with extensive in-class discussion of daily readings from the policy analysis canon. Assessment elements will include class participation, responses on three homework assignments, and a take-home, essay-based final. Friday recitation sessions will provide guidance on the application of policy analysis methods.

“Like good science, good policy analysis does not draw hard conclusions unless they are warranted by unambiguous data or well founded theoretical insight. Unlike good science, policy analysis must deal with opinions, preferences, and values...”