Environmental economics studies the market failure known as externalities—when consumers or producers don’t account for the full social costs of their actions. Examples: when a commuter drives to work in a car that emits carbon monoxide, or when a coal-fired power plant emits sulfur dioxide that causes downwind lakes to become acidic. The field has two parts: (1) placing a monetary value on those intangible, non-traded, environmental amenities like clean air and water, and (2) designing efficient and cost-effective public policies to correct those market failures.

This is designed to be a serious economics course, for Georgetown economics majors familiar with calculus, intermediate microeconomics, and econometrics. Requirements include a master's-level textbook (Kolstad), articles published in top academic economics journals, and policy-school-style case studies.

Resources:

2. Various academic articles and case studies, distributed via Canvas.

Requirements:

1. **Prerequisites.** ECON-101 and ECON-122.
2. **Occasional problem sets.** Students are encouraged to work together on problem sets but must submit them individually.
3. **Case studies.** On the day that each is to be discussed in class, students are to prepare a 1 or 2-page “talking point” memo summarizing key features of the cases under analysis, and answering the decision question posed by the professor. These will be group projects, where group membership is assigned by the instructor.
4. **Midterm exam.**
5. **Final exam.**

Important dates:

- 2/13 Case #1 “Arsenic in Drinking Water”
- 3/1 Midterm Exam
- 3/27 Case #2 “Seattle’s Cash for Trash”
- 4/12 Case #3 “Automotive Fuel Economy Standards”
- 4/26 Case #4 “Mercury and Air Toxics Standards (MATS)”
- 5/7 Final Exam 4-6 pm, location TBA
Grading: There will be two grading schemes. I will use whichever yields the highest score.

(a) Problem sets 10%; case studies 30%; midterm 25%; final 35%.
(b) Problem sets 10%; case studies 40%; final 50%. (Midterm dropped.)

Other class policies:

1. No electronics during class. Take notes on paper, not a computer. You’ll learn more, distract others less, and can catch up on social media later.
2. Successful completion of the course requires adherence to the standards of conduct outlined by the Georgetown Honor Code (https://honorcouncil.georgetown.edu).
3. No late assignments will be accepted, and there will be no makeup midterms. If the midterm exam is missed, grading scheme (b) will be invoked.

Brief outline:

1. Review and introduction.
   - Scan Kolstad chapters 1-4. Read chapter 5.
   - Hedonics
     - Kolstad ch. 7-8
     - Chay and Greenstone “Does Air Quality Matter” 2005
   - Travel cost
     - Kolstad ch. 9
   - Contingent Valuation
     - Kolstad ch. 10
     - Carson et al., “Contingent Valuation and Lost Passive Use” EER 2003
     - Read at least one of the following:
       - Kling et al “From Exxon to BP” JEP 2012
       - Carson “Contingent Valuation” JEP 2012
       - Hausman “Contingent Valuation” JEP 2012
   - Happiness
3. Regulating Pollution. Kolstad ch. 11-17.
   - Pollution taxes and tradable permits. Kolstad ch. 11-13.
   - Prices vs Quantities. Kolstad ch 15.
   - Fullerton and Kinnaman “Household Responses to Pricing Garbage” AER 1996.
   - Voluntary environmental policy. Kolstad ch. 17.
4. Topics. Energy efficiency, voluntary regulations, regulating automobiles, economic growth and the environment, environmental justice, others as interest dictates.