

TEXTS

Callan, Scott J., and Janet M. Thomas, *Environmental Economics and Management: Theory, Policy, and Applications*, 2nd edition, 2000.

William Strunk, Jr., and E.B. White, *The Elements of Style*, 3rd edition, 1979.

William Zinsser, *On Writing Well*, 5th edition, 1996.

Notes:

Each student will be asked to present some of the syllabus readings, on a rotating basis.

Each student is expected to be able to discuss the readings during class, in lieu of an exam.

All deadlines are to be taken seriously.

Preparation for class sessions is important, especially the materials on writing.

There will be short writing exercises during some of the classes.

SYLLABUS

Week 1: Review of basic concepts
Writing: introduction

Review readings from U275 (Environmental Economics) to refresh your memory -- especially:

Callan & Thomas, ch. 5, 8, 10.

Bockstael, Nancy E., A. Myrick Freeman III, Raymond J. Kopp, Paul R. Portney, and V. Kerry Smith, "On Measuring Economic Values for Nature," *Environmental Science & Technology*, vol. 34 (2000), pp. 1384-1389.

Roughgarden, Joan, "Guide to Diplomatic Relations with Economists," draft, 1999.

Zinsser, ch. 1-3

Week 2: Global warming: the scientific basis and basic economic analysis

Callan & Thomas, ch. 13

Bolin, Bert, "The Kyoto Negotiations on Climate Change: A Science Perspective," *Science*, vol. 279 (16 Jan 1998), pp. 330-331.

"The Sceptics Blow Cold," *New Scientist*, reprinted in *South China Morning Post* (1 Dec 1997), p. 24

Cline, W.R. (1991): "Scientific basis for the greenhouse effect". *Economic Journal*, vol. 101, pp. 904-919.

Romm, Joseph, Mark Levine, Marilyn Brown, and Eric Petersen, "A Road Map for U.S. Carbon Reductions," *Science*, vol. 279 (30 Jan 1998), pp. 669-670.

Jorgenson, Dale W., "The Economics of Climate Change," *Jobs and Capital*, vol. 6, no. 4 (Fall 1997), pp. 3-5.

Poterba, James M., "Global Warming Policy: A Public Finance Perspective," *Journal of Economic Perspectives*, vol. 7, no. 4 (Fall 1993), pp. 47-63.

Nordhaus, William D., "Reflections on the Economics of Climate Change," *Journal of Economic Perspectives*, vol. 7, no. 4 (Fall 1993), pp. 11-25.

Week 3: Pollution of the lower atmosphere: basic economic analysis

Callan & Thomas, ch. 12 (review).

Joskow, Paul L., Richard Schmalensee, and Elizabeth M. Bailey, "The Market for Sulfur Dioxide Emissions," *American Economic Review*, vol. 88 (1998), pp. 669-685.

Portney, Paul R., "Air Pollution Policy," in Paul R. Portney and Robert N. Stavins, eds., *Public Policies for Environmental Protection*, 2nd ed. (Resources for the Future, 2000), ch. 4.

Week 4: Writing an abstract
Pollution from the transportation sector

****Statement of Problem due:** Tuesday in class

****Bring an article from last quarter's readings:** Tuesday class

Zinsser, ch. 4-7

Glazer, Amihai, Daniel Klein, and Charles Lave, "Clean on Paper, Dirty on the Road: Troubles with California's Smog Check", *Journal of Transport Economics and Policy*, vol. 29 (Jan. 1995), pp. 85-92.

Bishop, G. A., D. H. Stedman, J. E. Peterson, T. J. Hosick, and P. L. Guenther (1993): "A Cost-Effectiveness Study of Carbon Monoxide Emissions Reduction Utilizing Remote Sensing", *Journal of Air and Waste Management*, vol. 43, pp. 978-988.

Calvert, J.G., J.B. Heywood, R.F. Sawyer and J.H. Seinfeld (1993): "Achieving Acceptable Air Quality: Some Reflections on Controlling Vehicle Emissions", *Science*, vol. 261, 2 July, pp. 37-45.

Small, Kenneth A., and José A. Gómez-Ibáñez, "Urban Transportation," in Paul Cheshire and Edwin S. Mills, eds., *Handbook of Regional and Urban Economics, Volume 3: Applied Urban Economics*, 1999, section 3.

Week 5: Cost-benefit analysis of pollution control
Writing: some basic rules

Kenneth A. Small and Camilla Kazimi, "On the Costs of Air Pollution from Motor Vehicles," *Journal of Transport Economics and Policy*, Vol. 29 (Jan. 1995), pp. 7-32.

Viscusi, V.K. (1993): "The Value of Risks to Life and Health". *Journal of Economic Literature*, vol. 31, no. 4, pp. 1912-1946.

Carson, Richard T., "Contingent Valuation: A User's Guide," *Environmental Science & Technology*, vol. 34 (2000), pp. 1413-1418.

Strunk & White, ch. I-II

Donald McCloskey, "Economical Writing," *Economic Inquiry*, Vol. 24, no. 2 (April 1985), pp. 187-222.

Week 6: Global warming: international issues
Writing: more rules, basic style

****Outline & References due: Tuesday in class**

Schelling, Thomas C., "Some Economics of Global Warming," *American Economic Review*, 82(1), March 1992, pp. 1-14.

Carraro, Carlo, "International Environmental Agreements on Climate Change," *FEEM Newsletter*, published by Fondazione Eni Enrico Mattei, Milan, (Sept 1997), pp. 9-13.

Koopman, Gert Jan, "Policies to Reduce CO2 Emissions from Cars in Europe: A Partial Equilibrium Analysis," *Journal of Transport Economics and Policy*, 29 (1995), pp. 53-70.

****Essay on Writing due: Thursday in class**

Strunk and White, ch. III-V

Zinsser, ch. 11

Week 7: Writing: more on style
General Equilibrium Issues

Zinsser, ch. 8, 9, and pp. 80-81, 84-88 (skim rest of ch. 10)

Parry, Ian W.H., and Wallace E. Oates, "Policy Analysis in the Presence of Distorting Taxes," *Journal of Policy Analysis and Management*, 19 (2000), pp. 603-613.

Parry, Ian W.H., Roberton C. Williams III, and Lawrence H. Goulder, "When Can Carbon Abatement Policies Increase Welfare? The Fundamental Role of Distorted Factor Markets," *Journal of Environmental Economics and Management*, 37 (1999), pp. 52-84.

Week 8: Student presentations
Writing: Specialized subjects (science, technical, business)

Zinsser, ch. 15-16

****First draft due: Thursday in class**

Week 9: Student presentations
Writing: some overall approaches

****Opinion column due: Tuesday in class**

Zinsser, ch. 21-22

Week 10: Summary

Zinsser, ch. 2 (re-read)

Exam Week:

****Final paper due Wednesday 4 p.m., K. Small's mailbox, room SSPA 3151**

TERMPAPER

The primary assignment is a paper of 3000-4500 words (approx. 10-15 pages double-spaced, including tables and references). This paper should be on a topic in the economics of global warming ("greenhouse effect") or of air pollution in the lower atmosphere (e.g. ozone, particulates, nitrogen oxides, sulfur oxides). It should contain both factual information about the problem and an analysis of the economic forces at work. Where possible, it should draw upon the readings and concepts developed in this course and in the previous course (U275). *The final draft should include an abstract (150-250 words).*

OTHER WRITTEN ASSIGNMENTS

Statement of Problem: Prepare an essay, neatly typed and carefully edited, of 600-900 words (2-3 pages double-spaced) on the problem, question, issue, or policy question that you wish to make the main focus of your research project. You need not solve the problem or answer the question at this point; but try to point out the kinds of information or analysis that are needed to do so.

Outline & References: Detailed sketch of how you plan to address your topic.

First draft: A draft of the complete paper; not just an outline or notes. However, there may be "holes", i.e. parts awaiting specific information still being gathered. This will be the primary vehicle for receiving feedback on improvements to the economic analysis and overall organization of the paper. *It is very important to the success of the final paper that you give this draft a serious effort.*

Essay on Writing: Compare McCloskey's and Zinsser's approaches to writing. Length: 750-1000 words.

Opinion Column: By this point in the course, you should have developed some opinions about your topic. Share them with the world at large in the form of a non-technical short article suitable for the "op-ed" page in a good newspaper. That is, it should be written for the educated lay person but not for professionals and certainly not for economists! Maximum 500 words. Check any major newspaper for examples.

GRADING

In addition to the three "polished" assignments, your grade will be based on the class presentation (weeks 8-9) and on "effort" which includes class attendance, participation in discussions, presentations of readings in class, and timely completion of abstract and drafts.

25% Effort throughout course
10% Statement of Problem
10% Opinion column
20% Class presentations
35% Final paper