

**ESS 595B Autumn 2009. Scientific writing and graphics.**

Wednesdays, 4:00-5:30.

Instructors:

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***Suggested schedule:***

- October 7      *Basic writing skills*  
Gopen & Swan (1990); Orwell (1946)
- October 14    *What's wrong with how scientists write*  
Maddox (1986, 1990); Gregory (1992); Hayes (1992); Avery (1996);  
Leather (1996); Camba (2000); Knight (2003). Optional: Hayes (1988)
- October 21    *How the mind reads*  
McIntyre (1997)
- October 28    *Student critiques* of each others' AGU abstracts
- November 4    *Principles of scientific writing*  
Alley, Chapters 1-3
- November 11 (a holiday, but will anyone really be gone?)  
*Principles of scientific writing*  
Alley, Chapters 4-9
- November 18 *Graphs*  
Cleveland, Chapters 1-2
- November 25 *Graphs*  
Cleveland, Chapter 3 (as much as you can)
- December 2    *Student critiques* of each others' powerpoint slides
- December 9    *Authorship and acknowledgement, and other ethical matters*  
Several letters and editorials from *Nature*

**Books:**

**General writing**

Strunk, W., Jr., and E.B. White, 1959: *The Elements of Style*. Macmillan, 92 pp.

**Scientific writing**

Booth, V., 1993: *Communicating in Science*. Second Edition, Cambridge Univ. Press, 78 pp.

Alley, M., 1996: *The Craft of Scientific Writing*. Third Edition, Springer, 292 pp.

**Graphs**

Cleveland, W.S., 1994: *The Elements of Graphing Data*. Revised Edition, AT&T, 297 pp.

Tufte, E.R., 1983: *The Visual Display of Quantitative Information*. Graphics Press, 197 pp.

**Proposals**

Chapin, P.G., 2004: *Research Projects and Research Proposals*. Cambridge Univ. Press.

**Grammar and usage**

Cochrane, J., 2004: *Between You and I: A little book of bad English*. Sourcebooks Pub.

**Articles:**

- Gopen, G.D., and J.A. Swan, 1990: The science of scientific writing. *American Scientist*, 78, 550-558.
- Orwell, G., 1946: Politics and the English language. *Horizon*, April 1946.
- Maddox, J., 1986: What is the scientific literature? *Nature*, 322, 681.
- Maddox, J., 1990: Does the literature deserve the name? *Nature*, 348, 191.
- Gregory, M.W., 1992: The infectiousness of pompous prose. *Nature*, 360, 11-12.
- Hayes, D.P., 1988: Speaking and writing: Distinct patterns of word choice. *Memory and Language*, 27, 572-585.
- Hayes, D.P., 1992: The growing inaccessibility of science. *Nature*, 356, 739-740.
- Avery, L., 1996: Write to reply. *Nature*, 379, 293.
- Leather, S.R., 1996: The case for the passive voice. *Nature*, 381, 467.
- Camba, R., 2000: Start making sense. *Nature*, 406, 461
- Knight, 2003: Clear as mud. *Nature*, 423, 376-378.
- McIntyre, M.E., 1997: Lucidity and science, I: Writing skills and the pattern perception hypothesis. *Interdisciplinary Science Reviews*, 22, 199-216.
- etc.*