

***Scientific writing and graphics***  
**Autumn 2013**  
**ESS/ATMS 519, Ocean 518**

Instructors:

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[/ARCHIVES/FALL\\_2009\\_SCIENTIFIC\\_WRITING/readings\\_fall\\_2009.shtml](http://ARCHIVES/FALL_2009_SCIENTIFIC_WRITING/readings_fall_2009.shtml)

***Suggested schedule:***

September 25 *Basic writing skills*

Gopen & Swan (1990); Orwell (1946); McPhee (2013)

October 2 (1) *What's wrong with how scientists write*

Maddox (1986, 1990); Gregory (1992); Avery (1996); Leather (1996); Camba (2000); Knight (2003).

(2) Strunk & White (1959): *The Elements of Style*

October 9 (1) *How the mind reads.* McIntyre (1997)

(2) Booth (1993): *Communicating in Science*

October 16 *Student critiques* of each others' AGU abstracts

October 23 *Principles of scientific writing*

Alley, Chapters 1-3

October 30 *Principles of scientific writing*

Alley, Chapters 4-9

November 6 *Graphs.* Cleveland, Chapters 1-2

November 13 *Graphs.* Cleveland, Chapter 3 (as much as you can)

November 20 *Student critiques* of each others' powerpoint slides

November 27 *Authorship and acknowledgement, and other ethical matters*

Several letters and editorials from *Nature*

December 4 Writing proposals for research funding. Chapin (2004)

***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.

Schultz, D.M., 2009: *Eloquent Science*. American Meteorological Society, 412 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***

Fowler, H.W., 1965: *Modern English Usage*. Oxford Univ. Press., 725 pp.

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

***Articles:***

***for Week 1, September 25***

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.

***for Week 2, October 1***

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.

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.

***for Week 3, October 8***

McIntyre, M.E., 1997: Lucidity and science, I: Writing skills and the pattern perception hypothesis. *Interdisciplinary Science Reviews*, 22, 199-216.

***for students whose first language is not English:***

Powell, K., 2012: Foreign tongues. *Nature*, 487, 129-131.

### ***Writing***

McPhee, J., 2013: Draft No. 4. *New Yorker*, 29 April 2013, 32-38.

Kearns, H, and M. Gardiner, 2011: Waiting for the motivation fairy. *Nature*, 472, 127.

Gardiner, M., and H. Kearns, 2011: Turbocharge your writing today. *Nature*, 475, 129-130.

Powell, K., 2010: Publish like a pro. *Nature*, 467, 873-875.

### ***Reviewing***

Gewin, V., 2011: Rookie review. *Nature*, 478, 275-277.

Nicholas, K.A., and W.S. Gordon, 2011: A quick guide to writing a solid peer review. *EOS*, 92, 233-234.

Marcus, A., and I. Oransky, 2011: The paper is not sacred. *Nature*, 480, 449-450.

### ***Proposal writing***

Kaplan, K., 2012: Got to get a grant. *Nature*, 482, 429-431.

### ***Job search***

Feibelman, P.J., 2011: Courting connections. *Nature*, 476, 479.

McCook, A., 2011: On the right path. *Nature*, 474, 667-669.

### ***Living***

Overbaugh, J., 2011: A healthy work-life balance can enhance research. *Nature*, 477, 27-28.